Final Report

Process Evaluation of the 2013 Statewide Flex Alert Program

May 2, 2014

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May 2, 2014

Sponsored by:
The Demand Response Measurement & Evaluation Committee (DRMEC)

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Executive Summary

The Flex Alert® program is a voluntary demand response campaign based on the expectation that consumer conservation can be activated when needed through public appeals disseminated via paid and earned media. The program has operated in California under various names since the West Coast Energy Crisis in early 2000s. Originally launched under the Flex Your Power brand, the campaign has included educational efforts initiated by the State of California for over 10 years. By 2004, the Flex Your Power messaging began to focus on alerting consumers about the need for peak load reduction. These requests were marketed under several names (Flex Your Power NOW, Power Watch, and Power Down). Today, Flex Alert supports California's and the California Independent System Operator's (CAISO) emergency efforts for preparedness in the event of system emergencies or power shortages.[1]

The program includes two primary activities:

- issuing public notifications, or "Flex Alerts" when demand for electricity is high or supplies are low, and
- conducting an ongoing public awareness campaign to prepare Californians for eventual Flex Alert events.

These two activities are expected to converge after an event is called and previously scheduled public awareness paid advertising is switched out for alert-specific messages on broadcast and online media. The effectiveness of the "switch out" task depends on having previously scheduled advertising for the dates and media markets needed.

In 2013, concerns about grid capacity in Southern California resulted in approximately 90% of the $9.4 million paid media budget being allocated to media markets in Southern California. However, all three of the 2013 Flex Alert events were called for Northern California only, creating differences in exposure and experience between residents of Northern and Southern California in 2013.[2]

In September 2013, Research Into Action, Inc. began a process evaluation of 2013 Flex Alert program. Oversight for this process evaluation was provided by the Demand Response Measurement and Evaluation Committee (DRMEC); a statewide committee with representatives from San Diego Gas & Electric (SDG&E), Southern California Edison (SCE), Pacific Gas & Electric (PG&E); and staff members of the California Energy Commission (CEC), and the California Public Utilities Commission (CPUC).

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1 California Public Utilities Commission, *Decision on Phase I Issues: Utility Budgets for the Flex Alert Program for 2013 and 2014,* April 26, 2013: 4

2 On February 6, 2014 a statewide Flex Alert was issued as cold weather throughout the United States reduced the supply of natural gas, creating potential shortages for natural gas-fired electricity generation

This project included a list of specific research objectives outlined in the request for proposals. The evaluation team grouped these research objectives into four key research areas, outlined below:

General program management and communication

- Roles that the investor-owned utilities (IOUs), CAISO, and the marketing agency each play in the program, as well as the effectiveness and coordination of the various stakeholders
- If the weekly CAISO calls with IOU marketing teams are beneficial and whether they can be improved

Event day processes and coordination

- Whether the IOUs' program staff receive ample notice from CAISO that a Flex Alert will be triggered so they can effectively coordinate demand response (DR) programs, if necessary; whether this communication can be improved
- What time of day the Independent System Operator (ISO) issues Flex Alerts (the goal is to issue an alert by 3:00 p.m. a day ahead); if multiple alerts are called during the summer, compare the effects to media, IOUs, and state agencies of the alert being issued at different times
- The length of time between the request by marketing agency to have ads swapped and when media outlets actually swap the ads; whether CAISO or the marketing agency can do anything to make this process more efficient
- Whether the Flex Alert program has adequately addressed the past problem concerning how to swap out ads if/when a Flex Alert event is called on a Monday; if not, how the ad purchasing can be restructured in order to ensure that Monday events are properly advertised and/or whether there exist other solutions to the problem
- Whether the end time for a Flex Alert is synchronized across all media (i.e., when the Flex Alert has expired, do all TV, radio, and digital media appropriately and promptly stop indicating there is a Flex Alert?)
- If state government websites are accurately and promptly adjusted to indicate that a Flex Alert is in effect
- Whether online messages are consistent across media stations – CAISO, IOUs, Flex Alert websites, and other sites; make recommendations to improve consistency, if necessary

Messaging strategy and effectiveness

- How community groups were used to expand the efficiency of the Flex Alert program and if community groups increased targeted populations' understanding of the Program
- How effective the Flex Alert program has been in reaching non-English language populations (e.g., Spanish, Vietnamese, Korean, Chinese); if community outreach is more effective than television and radio advertising; how the outreach to these communities can be improved
- If the revised campaign is better at explaining to people that action is needed only on the day that the Flex Alert is called and only during afternoon hours; if not, how the marketing agency can better get this message across
- Effectiveness of each method of reaching consumers: radio ads, television ads, social media, earned media, email/text notifications

Program comparison

- What alternatives there are to the Flex Alert program design; what are the Best Practices across states with similar programs; are there less costly options that might reasonably be expected to produce comparable or superior outcomes

To evaluate these research issues, this project included the following evaluation methods:

- **General awareness survey** conducted post-program season to assess overall understanding and awareness of Flex Alert concepts and events among English speakers and those who speak a language other than English at home
- **In-depth process interviews** with the program implementer and representatives from each of the IOUs, the CPUC Staff, the CAISO, and the Governor's office
- **Investigation of 2013 media coverage** including interviews with media representatives and analyses of website traffic, earned media, and social media
- **Brief survey of the Flex Alert Network organizations** to better understand the activities triggered at these organizations upon receipt of a Flex Alert event notice
- **Document and website review** to understand the expectations for Flex Alert, the information provided to the public, and to understand the points of inter-organizational collaboration *http://www.flexalert.org/*
- **Comparative research** to identify and understand comparable programs operating elsewhere

This Process Evaluation Report presents findings for the research completed to date. The lack of a Flex Alert event during the evaluation period (September 2013 to January 2014) and the absence of Flex Alert events in Southern California for all of 2013 limited the extent to which the research team could investigate specific research questions around inter-organizational coordination, activation of CBOs, and the importance of the paid media campaign relative to earned media[3] during an event supported by the paid media campaign.[4]

Findings

This evaluation found evidence that as Flex Alert has evolved from a conservation brand to a public alert process developing appropriate messaging has become less predictable. Between April 1, 2013 and April 1, 2014 four Flex Alert Events occurred. Two of these events (April 16, 2013 and February 6, 2014) occurred during mild weather and reflected concerns about energy supply with origins outside extreme heat. The two events called in anticipation of extreme heat (July 1 and 2, 2013) focused on constraints in Northern California. While Flex Alerts continue to provide an opportunity to alert the public about potential electricity shortages, the unpredictable nature of these events could reduce the effectiveness of pre-planned marketing campaigns. During 2013, earned media provided responsive and credible coverage of Flex Alerts. Pre-scheduling media purchasing reflects a level of predictability that may not reflect grid conditions.

Over the summer as a whole, the Flex Alert program's paid media generated a much larger number of impressions than the program gained from earned media (Table 1). This is particularly true in Southern California, where the program focused the bulk of its advertising activities and where no Flex Alert events took place. However, during the days surrounding events, earned media generated far more impressions than paid broadcast media. Although the program did not have paid broadcast media in place when the April 2013 and February 2014 events occurred, earned media provided numbers of impressions comparable to the program's summer paid media campaign. During the July event period, earned media provided nearly eight times as many impressions as paid media in Northern California, where the Flex Alert took place.

3 "Earned media" refers to publicity gained through promotional efforts other than advertising, as opposed to paid media, which refers to publicity gained through paid advertising

4 The program's paid media ran from June 10 to September 22, 2013. No paid media was in effect for the April 2013 or February 2014 events, and paid media had recently launched and had not reached its full intensity in Northern California at the time of the July 2013 events.

Table 1: Impressions per Day from Earned Media and Paid Media

Outreach Type	2013 Demand Response Season (Jun 10-Sep 22)	April 2013 Event Period (Apr 16-Apr 17)	July 2013 Event Period (Jun 30-Jul 3)	February 2014 Event Period (Feb 6-Feb 7)
NORTHERN CALIFORNIA				
Paid Media*	1,465,529	-	832,593	-
Earned Media	269,938	1,525,768	6,772,823	5,482,235
SOUTHERN CALIFORNIA				
Paid Media*	5,947,297	-	4,195,933	-
Earned Media	21,150	217,345	358,081	4,041,004

* Includes only TV and radio advertising, excludes online advertising.

General Awareness Survey

The general awareness survey found substantial reported awareness of Flex Alert, as well as evidence of confusion about aspects of the program. Notable findings include:

There are relatively high levels of familiarity with the term Flex Alert. Nearly 50% of respondents reported being familiar with the term Flex Alert unprompted when read a list of public alerts, and when prompted, an additional 14% said they were familiar with the name. Awareness was significantly higher among Southern California respondents. Statewide, 86% of respondents with unprompted awareness of the term Flex Alert correctly identified Flex Alerts as relating to reducing electricity usage.

A substantial portion of the current level of awareness is likely attributable to the campaign efforts of prior years. Overall, 63% of English-speaking respondents had heard of Flex Alert, but only 25% specifically recalled hearing about Flex Alert in 2013. Paid media may have played a role in this recall of 2013 Flex Alert messaging: 17% of Northern California respondents reported hearing about Flex Alert in the summer of 2013, while 31% of Southern California respondents said they had.

The source of information affects level of understanding. The most common source of awareness was television, offered by nearly 60% of respondents who were aware of Flex Alerts. Respondents who reported hearing about Flex Alerts by radio or television were more likely to correctly identify the actions requested in television and radio ads, while those who reported hearing of Flex Alert through social media were less likely to identify these actions.

There is likely confusion between Flex Alert messaging and the requests of utility-run behavior-based curtailment programs. Two-thirds of respondents rated earning bill credits as an important reason for responding to requests, nearly 15% of the sample reported they had opted into a notification process, and 26% reported hearing of Flex Alert through the mail. None of these components were likely due to communication from Flex Alert.

Results for Non-English Language Survey

Although there were few clear patterns in responses across the four non-English-speaking groups, overall, non-English-speakers were somewhat less aware of Flex Alert than English speakers and had somewhat more limited understanding of Flex Alert requests. The same confusion about IOU-managed DR programs and Flex Alerts exists in both English-speaking and non-English-speaking groups.

Survey findings do not indicate that non-English-speaking respondents' understanding of Flex Alert varied based on their source of information about Flex Alert. Small sample sizes precluded detailed analyses, however.

Although neither the non-English-speakers nor English speakers said that community groups were a major source of their awareness of Flex Alert, a relatively larger percentage of non-English-speakers identified such community groups as a source of their information.

Among language-specific Flex Alert-aware respondents, the reported rate of response to Flex Alert requests did not vary significantly across the language groups, and non-English-speakers generally provided similar ratings as English-speaking respondents of their motivations for responding to Flex Alert requests. Non-English-speakers were more likely than English speakers to rate "earning credits on utility bills" as "highly" motivating, which indicates that they were likely confusing Flex Alert, which could not result in bill credits, with the utility curtailment requests that could.

Media Analyses

Interviews with media professionals confirmed that the reporters and editors responsible for covering Flex Alerts view the events as newsworthy, primarily due to the implied linkages between energy shortages and power outages. Media respondents also said CAISO is a credible source of information.

Purchased advertising: Flex Alert's media outreach efforts primarily focused on paid broadcast (radio and TV) advertising that ran from June through September 2013 and peaked after mid-July 2013. Radio and TV advertisements in Southern California accounted for the majority of the program's spending on media and provided the largest number of impressions.

Earned media: The program benefited from earned media, especially in Northern California. Because paid media was only scheduled for the summer DR season and mainly targeted Southern California, earned media played an important role in providing information about the Flex Alert events on called for Northern California on April 16 and July 1 and 2, 2013. Earned media was also important in notifying the public of the February 6, 2014 Flex Alert event, called because of extreme winter weather outside of California.

Earned media coverage of Flex Alert events ranged from brief announcements that a Flex Alert had been called to detailed news stories about energy supply and demand. While most news items (82%) included a request that viewers take action, only 35% suggested specific actions viewers could take. Media coverage reflected confusion about when events were expected to

end. For example, 72% of the stories with verified coverage of the July 1 and July 2, 2013 events reported that curtailment would end at 7:00 p.m., while 28% of the stories reported that curtailment was needed until 6:00 p.m.

Electronic media: The program operates a relatively simple website to provide additional information about Flex Alerts and advice about actions visitors can take to reduce their energy use during an event. Website analytics data suggest that the program's broadcast advertising was a primary driver of traffic to the website; website traffic paralleled the ramp-up of broadcast advertising and the majority of website visits came through direct traffic – visitors entering the web address in their browser directly. The program also used online advertising efforts, including advertisements on search engines, media outlet websites, and entertainment websites, to drive traffic to the website.

Flex Alert Network

The communication activities for Flex Alert included information distributed through the Flex Alert Network, a group of governmental and other nonresidential organizations. This Network has its roots in the early 2000s, when Flex Your Power was in full force and concern about the supply of electricity in California was high. Today the Network is a potentially valuable list of contacts who have agreed to receive and disseminate information about Flex Alerts when asked. However, Flex Alert is currently designed to be a consumer-focused campaign and the specific contact names on the list are unavailable. Because of these factors, the future role of the Flex Alert Network is unclear.

The web survey of contacts on the Flex Alert Network achieved a relatively low response rate, making it difficult to assess the level of engagement among this population. Because the survey occurred in the winter and straddled holiday weeks, those that track Flex Alert as a summer campaign may have ignored communication from the program.

Even the limited responses revealed somewhat encouraging findings. Most respondents reported that they represented local government and trade associations and nearly all of them said that receipt of a Flex Alert notice triggers some action at their organization, most commonly, the forwarding of a Flex Alert notice to constituents or employees. Nearly half of the Flex Alert Network respondents reported that their organization participates in another DR program, either through their utility or through an agreement with an aggregator.

Staff and Stakeholders

Program stakeholders expressed support for a statewide public notification system to alert Californians of potential power shortages, and many interviewees noted that Flex Alerts garner significant media attention. Respondents expressed varying views about the value of the paid media campaign; while some were convinced it was necessary to keep the public aware of the brand and informed about what to do during an event, others believed the earned media might be sufficient. Interviews also revealed that stakeholders generally were satisfied with coordination and communication between the groups responsible for delivering the program, including the

weekly briefing calls held by the CAISO during peak demand season, and increased communication and collaboration regarding the end time of Flex Alert events.

Despite increasing coordination and communication efforts in recent years, responsibility for and commitment to the program differ greatly across stakeholders. The CAISO and the marketing implementer are responsible for much of the program's delivery and appear highly invested in Flex Alert. The IOUs, on the other hand, pay for the program but have comparatively little responsibility for its delivery. Differing levels of investment in Flex Alert contribute to a lack of clarity regarding program leadership and the perception that Flex Alert may be redundant to the IOUs' DR programs.

Conclusions

General program management and communication

Organizational roles reflect a web of communication activities associated with alerts. The IOUs have limited responsibility for and engagement with Flex Alert. The CAISO is responsible for triggering the events and works directly with marketing subcontractor McGuire and Company to execute key alert tasks.

There are multiple email distribution lists, notification systems, and communication avenues. McGuire and Company manages the paid media effort, and relies on Revolution Media, a media buying service, to coordinate messaging and switch-outs. McGuire and Company change website alerts messages on state government websites. Text, email, application, and social media communication occur independently at McGuire and Company, the CAISO, and the affected IOUs. The diffusion of responsibility among these organizations made it challenging for the evaluation team to obtain detailed plans and records.

Weekly coordination calls improved inter-organizational communication. CAISO led weekly calls with stakeholders, including the IOU marketing teams. There was consensus among stakeholders that these calls were beneficial and that inter-organizational coordination was sufficient in 2013. IOU staff reported being notified of the Flex Alert event as part of the automatic notification process. However, all of the stakeholder respondents agreed that the potential for coordination increased with the level of advance notice.

Event day processes and coordination

Coordination with utility DR programs is limited. IOU respondents reported that their local DR programs are triggered in response to local conditions and that staff monitor the need for those programs throughout the summer. Flex Alerts, on the other hand, may not reflect local conditions and have triggers outside of utility control. In addition, because local utility DR programs typically involve a payment or bill credit for curtailment, the utility has more visibility and confidence around customer performance during events.

Documentation of event end times remains unclear. Confirming that the end of the Flex Alert is synchronized across media modes and messages will require more detailed media monitoring

during an event in which paid media switch outs would be expected. A review of the earned media and program materials for 2013 found that the end times in press releases did not match the previously-developed Flex Alert creative material or standard website messaging on the Flex Alert website.

Monday events likely will remain challenging to implement effectively, although no issues emerged in 2013. Those involved in dissemination of Flex Alert information acknowledged that events that start on a Monday are challenging because of the lack of weekend staffing at newsrooms and among those that control ad placement for media outlets. The challenges associated with Monday events appear to be a bigger issue for the paid media switch outs than for earned media, particularly for smaller media outlets and/or ethnic stations that may not have staff on-call to replace an educational spot with alert messaging. July 1, 2013 was a Monday and the first day of a two-day Flex Alert called for Northern California. The lack of reported issues with media messaging switch outs reflected the lack of previously scheduled paid media for Northern California markets. Encouragingly, media respondents all said they would figure out how to distribute information on urgent Flex Alert events, even if the notice arrived late in the day or on a weekend. They also noted that different staff might be in charge on the weekend or late at night.

Messaging strategy and effectiveness

Higher level of awareness among Southern Californians provides evidence of the effect of paid media. While the lack of opportunity to conduct a post-event survey limited the extent to which the research team was able to assess the effectiveness of different methods of reaching consumers during a Flex Alert, the general awareness survey results indicate a higher level of awareness of Flex Alert among respondents in Southern California, where most of the paid media budget was allocated.

About half of those aware of Flex Alert understand the key components of the request. Findings from the general awareness survey indicate that just over half of those aware of Flex Alerts accurately recalled that Flex Alerts are called for a single day or several days, and a similar proportion accurately reported that Flex Alerts asked them to use less electricity in the afternoons. General awareness survey findings also indicated that a greater proportion of those reporting they heard about Flex Alert from social media, as opposed to those who learned of the alerts through TV and radio broadcasts, did not know what to do during a Flex Alert and were more likely to confuse it with general efficiency messages.

Reaching non-English-speaking and non-Spanish-speaking populations remains challenging. The results of the general awareness survey indicate that awareness differed significantly across language groups. About two-thirds of both English-speaking and Spanish-speaking respondents were aware of Flex Alert, compared with 39% of Vietnamese speakers, 45% of Korean speakers, and 41% of Chinese speakers. All non-English-speaking groups more frequently reported learning about Flex Alert from family, friends, acquaintances or a nonprofit or community group than did the English-speaking respondents.

Community-based organizations (CBOs) may have access to hard-to-reach populations but will likely need coaching to prepare them to disseminate alerts. While 75% of CBO respondents reported awareness of Flex Alert, about half of those were ready and willing to disseminate Flex Alerts through social media or email distribution lists. Several specifically requested preformatted email content that could be easily forwarded on event days. Enrolling these organizations in the statewide alert system may be needed to ensure that they have event day information.

Program Comparison

There are few sources of information on alternative program designs and best practices. The research team found few truly comparable programs that could inform Flex Alert improvements. The team reviewed standard protocols for public notification of potential supply disruptions or grid constraints, and learned that these efforts rarely use paid media to disseminate alerts.

Recommendations

- Continue weekly coordination calls, as they helped the organizations involved stay apprised of Flex Alert developments.
- Ensure that alert start and end times are communicated in each program-supplied message and that the messages match the educational material. Because event times reflect specific circumstances of each Flex Alert, the creative material for the paid media campaign should be adjusted to be less specific about end-times.
- Identify the key contacts in media outlets' weekend newsrooms and maintain current contact information for them to ensure that events called for a Monday receive maximum coverage.
- Improve the consistency and accuracy of Flex Alert information and curtailment messages distributed via social media by ensuring that each tweet and post includes critical pieces of information, including start and end times. Creating and disseminating text appropriate for tweets and posts will encourage re-tweeting and re-posting.
- Clarify the role of and expectations for the organizations in the Flex Alert Network.
- Community outreach efforts are tied to summer readiness campaigns operated by the Southern California utilities. Enroll these organizations in the statewide alert system to ensure they receive Flex Alert notifications in time to inform their constituents.

1. Introduction and Program Description

The Flex Alert® program is a voluntary demand response (DR) campaign based on the expectation that consumer conservation can be activated when needed through public appeals disseminated via paid and earned media. The program has operated in California under various names since the West Coast Energy Crisis. Originally launched under the Flex Your Power brand, the campaign has included educational efforts initiated by the State of California for over 10 years. By 2004, the Flex Your Power messaging began to focus on alerting consumers about the need for peak load reduction. These requests were marketed under several names (Flex Your Power NOW, Power Watch, and Power Down). Today, Flex Alert supports California's and the California Independent System Operator's (CAISO) emergency efforts for summer preparedness in the event of system emergencies or power shortages.[5]

The program includes two primary activities:

- issuing public notifications, or "Flex Alerts" when demand for electricity is high or supplies are low, and
- conducting an ongoing public awareness campaign to prepare Californians for eventual Flex Alert events.

Dissemination of an alert through a broad media effort is critical to achieve high levels of conservation during heat waves and other challenging grid conditions such as wildfires or the unavailability of a major power plant or power lines. The public awareness campaign includes television and radio advertisements, outreach to ethnic media outlets and, in 2013, outreach to community-and faith-based organizations in Southern California.[6]

Flex Alert is part of statewide educational public alert efforts to inform consumers about how and when to conserve electricity.[7] Flex Alerts are initiated by the CAISO based on grid conditions and are used to prevent a Stage 1 Electrical Emergency when the demand for electricity is at its peak, typically during very hot weather.[8]

The CAISO initiates an alert through the release of a news bulletin. Social and online media channels, television, and radio are engaged to notify the public about the need to conserve. During an event, news outlets replace previously purchased educational media with more urgent Flex Alert messaging provided to them at the beginning of the DR season. This is referred to as a

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5 California Public Utilities Commission, *Decision on Phase I Issues: Utility Budgets for the Flex Alert Program for 2013 and 2014,* April 26, 2013: 4

6 Flex Alert distributes media spots in Spanish, Vietnamese, Korean, and Chinese as well as English. Southern California Edison, *Flex Alert Optimization Report,* May 17, 2013: 3

7 CAISO website, *http://www.caiso.com/informed/Pages/Notifications/Flex-Alerts.aspx*

8 Demand Response 2013 Flex Alert Campaign Statement of Work, May 1, 2013: 3

"switch out." Email notifications are sent through the Flex Alert Network to commercial and government facilities. This Network is a list of contacts who have agreed to receive and disseminate information about Flex Alerts when asked. According to the CAISO, these messages result in substantial grid relief by decreasing demand or shifting it to off-peak hours (after 6:00 p.m.).[9]

The Flex Alert campaign is authorized by the California Public Utilities Commission (CPUC) and currently funded by San Diego Gas & Electric (SDG&E), Southern California Edison (SCE), and Pacific Gas & Electric (PG&E).[10] The annual statewide Flex Alert budget is $10 million for both 2013 and 2014. Individual utility costs are based on population and media purchasing expectations that reflect known potential supply issues, including the recent closure of the San Onofre Nuclear Generating Station (SONGS), which supplied power to both SCE and SDG&E. Table 2 presents the annual Flex Alert budget for 2013 and 2014.

Table 2: Flex Alert Budget for 2013 and 2014

Utility	Annual Flex Alert Budget
Southern California Edison	$6,000,000
Pacific Gas and Electric	$2,500,000
San Diego Gas and Electric	$1,500,000
Total	**$10,000,000**

Flex Alert is administered by a third-party consultant, McGuire and Company. Program administration involves two main phases: preparation and activation.[11]

Preparation includes:

- developing a media strategy and plan,
- maintaining the Flex Alert website,
- updating and maintaining the Flex Alert communications network, including procurement and/or renewal of advertising licenses,
- revising existing education and emergency notification media spots and/or creating and producing new media spots,
- buying and scheduling the Flex Alert media spots, and
- designing and implementing a system to enable the switch out of Flex Alert educational spots for emergency Flex Alert notifications initiated by the CAISO.

9 CAISO Flex Alert FAQs, *http://www.caiso.com/Documents/FlexAlertFAQs.pdf*

10 CAISO website, *http://www.caiso.com/informed/Pages/Notifications/Flex-Alerts.aspx*

11 Southern California Edison, *Implementer Statement of Work*, May 1, 2013: 2

Activation occurs when the CASIO initiates emergency Flex Alert notifications. For the program implementer, event responsibilities include activating the Flex Alert communications network and switching media advertising from educational spots to emergency notifications.

While the third-party consultant is primarily responsible for ensuring that specific activities occur, the somewhat complex and amorphous nature of the alert process can result in numerous parties having potential roles in the program. This is discussed in depth in Section 3.

1.1. Flex Alert in 2013

CPUC Decision 13-04-021 established the budget and expectations for the 2013 Flex Alert program year. In planning for 2013, the CAISO and the utilities in Southern California (SCE and SDG&E) paid particular attention to the potential effects of long-term closure of the SONGS facility and the potential for voltage and supply disruptions in the surrounding area.

Flex Alert is one of several behavior-based DR programs operating in California in 2013. Voluntary 2013 residential DR programs include SDG&E's Reduce Your Use days, SCE's Save Power Days, and PG&E's Smart Rate. These local behavior-based programs typically include bill credits or other financial incentives for reducing electricity consumption during specific hours of event days.

In 2013, due to concerns about grid capacity in Southern California, Flex Alert allocated approximately 90% of its $9.4 million paid media budget to media markets in Southern California. However, all three of the 2013 Flex Alert event days were called for Northern California only. This resulted in different exposures to and experiences with Flex Alert between residents of Northern and Southern California in 2013.

1.2. Project Scope

This research study began in mid-September 2013 with an immediate focus on preparing and finalizing an acceptable post-event survey in order to be prepared for a Flex Alert, were one to be called in September or October 2013. Because of the unpredictable nature of Flex Alert events, launching a timely post-event survey requires developing and programming a survey before an event occurs, so that survey fielding can occur within 24 hours after an event. A post-event survey is the best strategy for immediately assessing the effectiveness of different methods of reaching consumers (radio ads, television ads, social media, earned media, and email or text notifications) and consumer understanding of the event.

No Flex Alert events were called in September or October of 2013, and none of the three 2013 event days was activated for Southern California. Because almost all of the purchased media was earmarked for the Southern California media markets, the lack of events in 2013 in Southern California limited the information available regarding how media switch outs occurred, the extent to which information was transferred between the organizations involved, and feedback about specific coordination experiences.

Oversight for this evaluation of the 2013 Flex Alert program was provided by the Demand Response Measurement and Evaluation Committee (DRMEC), a statewide committee with Measurement and Evaluation staff representatives from SDG&E, SCE, PG&E, the California Energy Commission (CEC), and the CPUC Energy Division.

This project included a list of specific research objectives outlined in the request for proposals. The evaluation team grouped these research objectives into four key research areas, outlined below:

General program management and communication

- Roles that the investor-owned utilities (IOUs), CAISO, and the marketing agency each play in the program, as well as the effectiveness and coordination of the various stakeholders
- If the weekly CAISO calls with IOU marketing teams are beneficial and whether they can be improved

Event day processes and coordination

- Whether the IOUs' program staff receive ample notice from CAISO that a Flex Alert will be triggered so they can effectively coordinate DR programs, if necessary; whether this communication can be improved
- What time of day the Independent System Operator (ISO) issues Flex Alerts (the goal is to issue an alert by 3:00 p.m. a day ahead); if multiple alerts are called during the summer, compare the effects to media, IOUs, and state agencies of the alert being issued at different times
- The length of time between the request by marketing agency to have ads swapped and when media outlets actually swap the ads; whether CAISO or the marketing agency can do anything to make this process more efficient
- Whether the Flex Alert program has adequately addressed the past problem concerning how to swap out ads if/when a Flex Alert event is called on a Monday; if not, how the ad purchasing can be restructured in order to ensure that Monday events are properly advertised and/or whether there exist other solutions to the problem
- Whether the end time for a Flex Alert is synchronized across all media (i.e., when the Flex Alert has expired, do all TV, radio, and digital media appropriately and promptly stop indicating there is a Flex Alert?)
- If state government websites are accurately and promptly adjusted to indicate that a Flex Alert is in effect
- Whether online messages are consistent across media stations – CAISO, IOUs, Flex Alert websites, and other sites; make recommendations to improve consistency, if necessary

Messaging strategy and effectiveness

- How community groups were used to expand the efficiency of the Flex Alert program and if community groups increased targeted populations' understanding of the Program
- How effective the Flex Alert program has been in reaching non-English language populations (e.g., Spanish, Vietnamese, Korean, Chinese); if community outreach is more effective than television and radio advertising; how the outreach to these communities can be improved
- If the revised campaign is better at explaining to people that action is needed only on the day that the Flex Alert is called and only during afternoon hours; if not, how the marketing agency can better get this message across
- Effectiveness of each method of reaching consumers: radio ads, television ads, social media, earned media, email/text notifications

Program comparison

- What alternatives there are to the Flex Alert program design; what are the Best Practices across states with similar programs; are there less costly options that might reasonably be expected to produce comparable or superior outcomes

To evaluate these research areas, this project included the following evaluation methods:

- **General awareness survey** conducted post-program season to assess overall understanding and awareness of Flex Alert concepts and events among English speakers and those who speak a language other than English at home
- **In-depth process interviews** with the program implementer and representatives from each of the electric IOUs, the CPUC, the CAISO, and the Governor's office
- **Investigation of 2013 media coverage,** including interviews with media representatives; and analysis of website traffic, earned media, and social media
- **Brief survey of organizations in the Flex Alert Network** to better understand the activities triggered at these organizations upon receipt of a Flex Alert event notice
- **Document and website review** to understand the expectations for Flex Alert, the information provided to the public, and to understand the points of inter-organizational communication
- **Comparative research** to identify and understand comparable programs operating elsewhere

On February 6, 2014, CAISO called a Flex Alert citing the effects of cold weather throughout the United States and the resulting potential for natural gas shortages. This event differed substantially from the expected environment for Flex Alert events: it occurred without the paid media campaign, did not reflect a need for air conditioning, and asked for conservation until

10:00 pm. For these reasons, and because the previously designed post-event survey sought to identify exposure to paid media and campaign messages centered on response to hot weather grid conditions, a post event survey was not launched. If a Flex Alert event occurs with corresponding paid media within the current research contract period, additional evaluation activities are expected to include:

- **Post-event survey** conducted immediately after a Flex Alert event to assess more specific sources of event awareness and understanding
- **In-depth monitoring of media and website traffic** during event days, including an analysis of social media volume and content

The scheduling and scope of these tasks will depend on grid conditions in California and the need for Flex Alert in 2014.

1.3. Methods Overview

The following provides a brief overview of the methodology employed for the general program awareness survey, the media analysis and review tasks, and the Flex Alert Network survey. For a full description of the methodology used in each of these tasks, see Appendix A.

1.3.1. Surveys

As part of this process evaluation, the team conducted three surveys with consumers and Flex Alert-affiliated organizations. The administration method, strata, and number of completes for each survey appears in Table 3.

- *General Awareness Survey.* In December 2013 and January 2014, Survey Sampling International (SSI) deployed a general program awareness survey using a combination of web-based surveys (with online consumer panels and other web communities) and computer-aided telephone interviews (CATI). Research Into Action, Inc. set quotas by language[12] and electric utility to ensure a minimum number of completed surveys would support analyses of specific sub-groups.
- *Flex Alert Network Survey.* McGuire and Company declined to provide a detailed contact list for the Flex Alert Network, but offered to send the survey link directly to the members of the network and to help legitimize the request by using their letterhead. The survey invitation email was sent to 225 email addresses, followed by two reminder emails. A total of 38 respondents completed the survey between December 12, 2013 and January 10, 2014. The total response rate was 17%, relatively low for an email survey of engaged respondents.

[12] Interviews counted toward non-English languages if the respondent took the survey in that language and/or spoke that language regularly at home, even if the survey was completed in English.

› *Community-based Organization Survey.* Staff at SCE provided the evaluation team with a list of 107 organizations known to have received information about Flex Alert in 2013. SDG&E provided a list of 31 organizations, a sample of the CBOs engaged in 2013. Forty respondents completed the survey by web or phone: 28 served by SCE and 12 by SDG&E.

Table 3: Completed Surveys

Survey	Administration	Strata	Regional Subtotals		Total Completes
			North (PG&E)	South (SCE/SDG&E)	
General Awareness	Web	English	400	400	800
	Web + Phone	Spanish	60	60	120
		Vietnamese	38	49	87
		Korean	39	41	80
		Chinese	55	40	95
		Total	**592**	**590**	**1,182**
Flex Alert Network	**Web**	**N/A**	**N/A**		**38**
Community-based Organization	**Web+Phone**	**N/A**	**N/A**		**40**

1.3.2. Media Analysis

The evaluation team conducted five activities to evaluate the processes and effectiveness of paid and earned media for the 2013 Flex Alert program.

› *Interviews with Media Professionals.* CAISO staff provided the evaluation team with a list of 28 media contacts, representing large English language media outlets including TV stations, radio stations, newspapers, and wire services. Research Into Action staff interviewed reporters or editors involved in covering energy issues at 11 media outlets, including eight TV stations.

› *Analysis of Media Monitoring Data.* Research Into Action enlisted Metro Monitor, a media monitoring service to provide the evaluation team with data on media coverage during the Flex Alert season. Metro Monitor provided a list of 531 news items that appeared between April 16, and September 27, 2013, and contained the term "Flex Alert." From these items, the evaluation team identified 297 earned media items. Research Into Action staff conducted two analyses on these media items:

- Characterized the earned media that the Flex Alert program received.
- Conducted a content analysis of those items to determine how they addressed key aspects of the Flex Alert program.

- *Audience Estimation for 2013 Earned Media.* The research team drew on five sources of data to estimate the size of the audience that the items identified in the Metro Monitor report reached: Nielsen TV Audience estimates, Nielson and Arbitron radio ratings, SCE media monitoring reports, Quantcast website audience data, and Alliance for Audited Media audience estimates.
- *Analysis of Flexalert.org Website Analytics.* Program staff provided the evaluation team with reports on the Flex Alert website traffic for the summer of 2013 as a whole and the two week period surrounding Flex Alert events.
- *Review of Documents Related to Paid Media.* Research Into Action staff reviewed three key program documents related to the program's paid media efforts, all of which were provided by program staff.

1.4. This Report

This introductory section is followed by seven sections. Section 2 describes findings from in-depth interviews with staff and stakeholders and provides illustrations of web content and communication responsibilities. Section 3 presents the findings from a general awareness survey conducted with English and non-English language speakers. Section 4 presents the results of a brief web survey distributed to organizations on the Flex Alert Network list and a sample of community-based organizations (CBOs) with connection to Flex Alert in Southern California. Section 5 presents the results of a comparative research effort. Section 6 presents the results from the paid and earned media analyses and interviews with media representatives. Finally, Section 7 provides conclusions and recommendations.

2. Stakeholder Perspectives

2.1. Introduction

In fall 2013, the research team conducted in-depth interviews with key contacts at the CAISO; the CPUC; the California Governor's office; the IOUs; and the marketing implementation firm, McGuire and Company. Interviews explored each respondent's experience with, responsibilities for, and perspectives on Flex Alert. This section discusses the perspectives of program staff and stakeholders involved in the delivery of Flex Alert in 2013.

2.2. General Program Perceptions

Respondents offered a wide range of opinions about the value and effectiveness of Flex Alert. Stakeholders had few complaints about specific procedures associated with operating the program. However, in some cases this reflected respondents' limited experience with alert activities and the lack of events in Southern California during 2013. Stakeholders' comments about the program fell into two broad categories: those that emphasized the value of an ongoing statewide public awareness program, and those that were less certain of the value relative to local programs.

2.2.1. Value of Flex Alert

Stakeholders closest to the implementation of Flex Alert reported that the program had raised public awareness of summer peak demand and the concept of Flex Alerts in particular. In discussing the role of Flex Alert, several respondents described the origin of the campaign and the extensive educational efforts initiated by the State of California in 2001 as the state struggled with the blackouts, rising prices, and other effects of the West Coast Energy Crisis.

Respondents with a statewide perspective report that Flex Alert events garner substantial load reduction, while those with responsibility for local DR efforts are less certain. Respondents also noted that the involvement of the CAISO increased the credibility of the request and the attention it received and acknowledged that press releases and other communication from the CAISO about potential electricity shortages tended to get media attention. As one respondent said:

- *"Flex Alerts get a high response because they are only called when really needed. There is a lot of trust built up over the years, particularly with the media. We're preventing blackouts. It's an opportunity for [the media] to step up and show that they have the good of consumers in mind."*

According to another respondent:

- *"It helps to know that they are calling the days, but they should just manage it. It doesn't seem like we are adding value."*

Utility respondents described their utility's Flex Alert-related tasks. These tasks are triggered when the contacts on the notification list learn that a Flex Alert has been called. Because the utilities have limited control over event triggers or timing, their primary role is to help align messaging across the state. In 2013, this included posting the Flex Alert press release to their web pages, changing website banners to indicate a Flex Alert is active, and preparing to respond to requests for comment from local media.

Despite the potential benefits, stakeholders did not necessarily agree on the need for the Flex Alert program. Many of these arguments were well-documented in Decision 13-14-021, and several respondents recommended that the research team review that decision for information regarding their organization's position on the current programmatic approach.[13] Some stakeholders stated that Flex Alert was the only program capable of reducing energy use enough to avoid blackouts, while others said that local DR programs were better able to meet California's complex energy management needs.

Stakeholders also had differing levels of commitment to the program, which related directly to their roles and responsibilities. For instance, staff members at the CAISO, McGuire and Company, and the Governor's office were strongly invested in and supportive of the Flex Alert program, while IOU staff said Flex Alert was a contract they managed, rather than a program that they controlled. This diffuse model led one utility stakeholder to ask, *"Who's steering the ship?"*

2.3. Inter-organizational Coordination

The research team interviewed representatives of each of the organizations involved in delivering the program (the CAISO, McGuire and Company, and each of the three electric IOUs) regarding coordination and communication between them. This section documents each group's responsibilities and provides detail on inter-organizational coordination during the demand response season in general and during events.

2.3.1. Pre-season Responsibilities

Respondents with the CAISO, McGuire and Company, and the IOUs shared similar perspectives about their pre-season responsibilities, which focused on development and implementation of the paid media plan. They were generally satisfied with pre-season coordination efforts.

Prior to the peak demand season, SCE scheduled coordination meetings with McGuire and Company and representatives from the CAISO, IOUs, CPUC, CEC, and Governor's office. At these meetings, stakeholders discussed the allocation of the year's budget and the paid media strategy. Based on these discussions, McGuire and Company staff proposed a media campaign,

[13] This decision, issued 4/26/2013, established funding for Flex Alert for 2013 and 2014 and recommended that management of the program be transitioned to the CAISO in 2015.

which, when approved by the stakeholder groups, was sent to a media buyer, who purchases the requested ad time.

In 2013, the CAISO also held a media kick-off event in Southern California before the peak demand season begins. At this event, the CAISO rolled out the year's Flex Alert ads and informed media contacts about the program. SCE and SDG&E staff also participated in the media kickoff event to promote Flex Alert, as well as their own DR programs.

2.3.2. Peak Demand Season Responsibilities

During the peak demand season, responsibilities shift from strategy and planning to monitoring and event-day preparation.

During the 2013 Flex Alert season, the CAISO led weekly coordination and status calls with McGuire and Company and utility staff about grid forecasts and the likelihood of events. Stakeholders expressed satisfaction with these weekly coordination calls and reported using them to share relevant information and discuss coordination issues. IOU representatives appreciated being able to prepare their companies' other staff for an upcoming Flex Alert, and one IOU staff member noted that the meetings were well-organized and efficient.

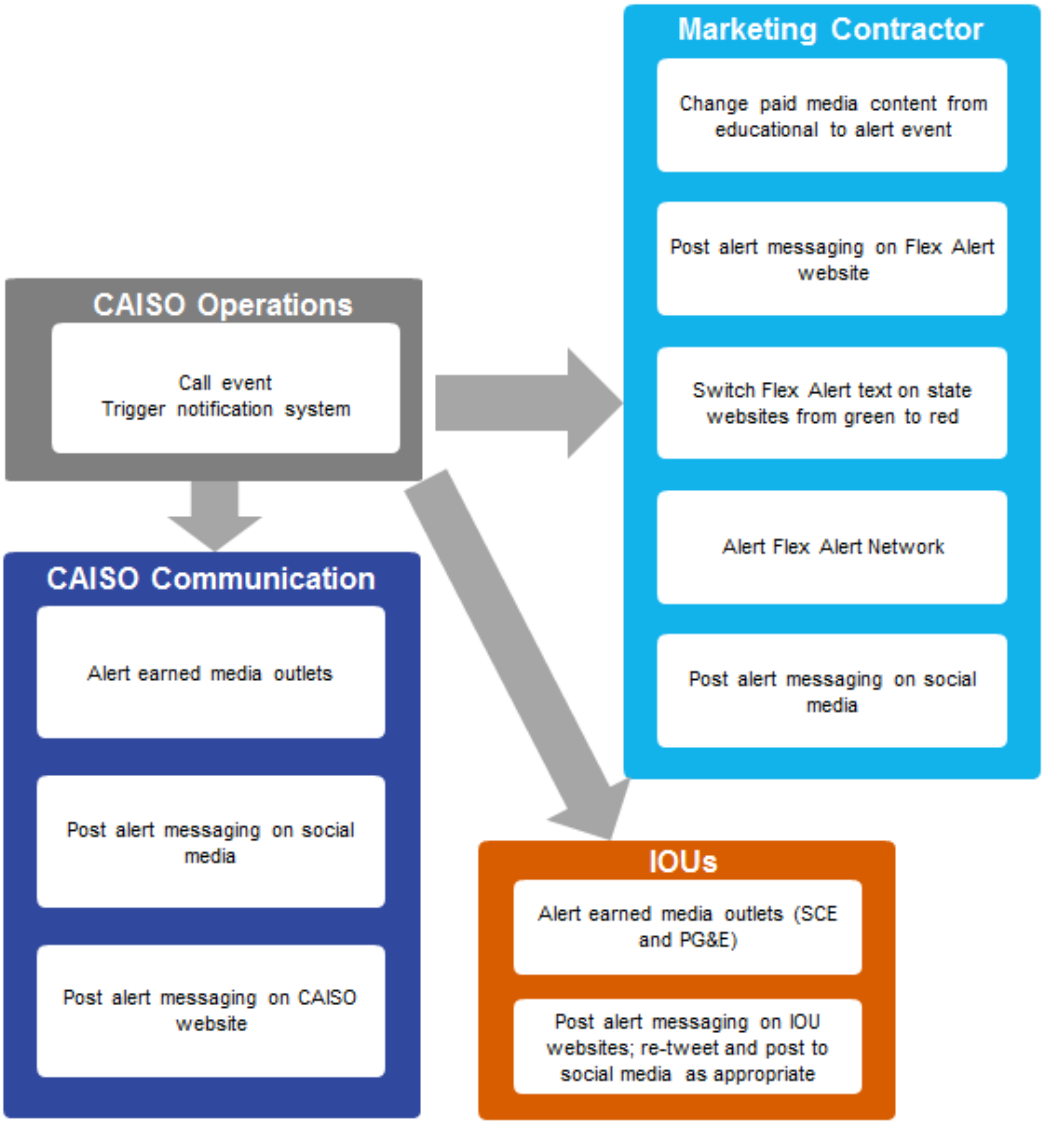
Statewide concerns about the closure of SONGS and corresponding reduction in the expected supply of electricity in San Diego County resulted in extra activities for SCE and SDG&E. These activities included outreach designed to engage community-based organizations in targeted areas to provide low-income and non-English-language customers with information about Flex Alert.

As the marketing implementation contractor, McGuire and Company monitors and tracks purchased media to verify that all purchased spots are run and to ensure that they receive a credit for any that were not aired. McGuire and Company also optimizes digital buying during peak demand season by buying search terms that generate more traffic to program-related websites.

2.3.3. Responsibilities during Flex Alert Events

Responsibility for alerting Californians about Flex Alerts falls primarily on the CAISO and McGuire and Company. (Figure 1) According to stakeholders, efforts to alert the media about Flex Alert events were well coordinated and, in some cases, automated.

Figure 1: Distribution of Alert Responsibilities



2.3.3.1. CAISO Alert Responsibilities

The CAISO is responsible for determining the need for a Flex Alert. When an alert is needed the organization will:

- **Trigger automatic notification systems.** The CAISO triggers an automatic mass notification system from the control room floor when they issue a Flex Alert, and sends alert messages to contacts at McGuire and Company and the IOUs. The notification system also reaches media contacts; city, county, and state government contacts; and any other energy industry contacts or consumers who have signed up to receive alerts. Alert messages take the form of text messages, emails, and pre-recorded "robocalls." The automatic notification system also posts information about the alert on the CAISO's website (*http://www.caiso.com/*). These alerts announce that an event has been called, the date(s), duration, and typically include a link to a press release.

- **Alert earned media outlets.** The CAISO sends press releases to media in the affected area(s) and conducts interviews with the media when requested. The press releases include the date(s), duration, and location(s) of the alert, links to the CAISO and Flex Alert (*http://www.flexalert.org/*) websites, and tips for conserving energy. Earned media coverage of Flex Alert events can take many forms, including segments in television and radio news programs and scrolling alert messages that appear at the bottom of television screens. (Section 7 presents a discussion of the role of earned media.) Figure 2 displays a press release distributed for the 2013 events. The added comments identify "Conservation Tips" that differed from those promoted by the Flex Alert collateral and inconsistent information about the hours for the alert.

- **Post alert messaging on social media.** The CAISO posts information about the alert on multiple social media outlets, including:

  - Twitter (*https://twitter.com/California_ISO*)
  - Facebook (*https://www.facebook.com/pages/California-ISO/164212943604621*)
  - Smartphone app called "ISO Today" (*http://appshopper.com/business/iso-today*)

  Social media alert messaging typically include a statement that a Flex Alert is in effect and a link to the press release posted on the CAISO's website.

Figure 2: CAISO Flex Alert Press Release, June 30, 2013

FLEX ALERT
FLEXALERT.ORG

California ISO
Shaping a Renewed Future

Contact: Stephanie McCorkle or Steven Greenlee at (888) 516-NEWS

FOR IMMEDIATE RELEASE
June 30, 2013

Northern California-ONLY *Flex Alert* issued by California ISO as heat wave intensifies

STAGE 1 EMERGENCY
Operating reserves forecast to fall to between 7% - 6%

STAGE 2 EMERGENCY
Operating reserves forecast to fall below 5%

STAGE 3 EMERGENCY
Operating reserves forecast to fall below 3%

TRANSMISSION EMERGENCIES

Declared when local voltage levels are at risk due to sudden power line outages or when fires threaten the grid.

All-time peak (7/24/06): 50,270 MW

CONSERVATION TIPS

- Turn off unneeded lights
- Use appliances after 6 p.m.
- Adjust A/C to 78 degrees or higher; turn off if away
- Pull drapes and turn on fans
- Set pool pumps for overnight
- Saving water saves energy. Avoid using water between 4-6 p.m. on Flex Alert days

SAVE WATER & ENERGY This Summer

With hot temperatures bearing down on Northern California and with a major generation unit off line, the California Independent System Operator Corporation (ISO) is issuing a ***Flex Alert*** for Northern California Only on **July 1, 2013**, through **July 2, 2013**. No *Flex Alert* is issued for Southern California at this time but watch for updates on www.caiso.com. Consumers are encouraged to reduce their energy use during the late afternoon when air conditioners drive consumption to the highest point of the day. Go to www.flexalert.org or www.caiso.com for conservation tips.

24-hours ahead: Northern California ONLY *Flex Alert* Day! on July 1, 2013. Energy demand is expected to be high and Northern Californians are asked to avoid using heavy electrical appliances noon to 7 p.m. tonight.
Monday's forecast peak demand: 48,300 MW around 4:30 p.m.

48-hours ahead: Northern California ONLY *Flex Alert* Day! on July 2, 2013 from noon to 7 p.m.
Tuesday's forecast peak demand: 47,808 MW around 4:30 p.m.

72-hours ahead: July 3, 2013 No *Flex Alert* Day

Please monitor the California ISO website at www.caiso.com for updated information about the electricity supply. Track grid conditions in real time via *Today's Outlook* also available on smart phones. Go to your app store for a free download.

This advisory is based on the best data available at the time of its release. Grid conditions can change rapidly and are subject to change without warning. This forecast is accepted by the recipient on the condition that errors, omissions and/or changes to the contents shall not be made the basis for any claim, demand or cause of action against the California ISO.

Funded by the investor-owned utilities and authorized by the CA Public Utilities Commission, Flex Alerts are part of an educational and emergency alert program that informs consumers about how and when to conserve electricity.

Please re-tweet and re-post this Flex Alert!

Current stage not provided in text

Noon to 7 p.m.

Until after 6 p.m. Consistent with F.A. messages.

Introduces water conservation. Time requested is from 4-6 p.m.

Text for abbreviated tweets and posts not provided

2.3.3.2. Marketing Contractor Responsibilities

McGuire and Company is primarily responsible for ensuring that paid media alerts are distributed on time. During a Flex Alert, staff at McGuire and Company:

- **Change paid media educational spots to event spots.** McGuire and Company staff contact their media buying group, which switches out paid radio and television ads, as well as digital ads, from educational messages to alert messages. These previously developed alert messages inform the audience that a Flex Alert has been called and reminds consumers of the three "simple actions" promoted in the educational material. (Figure 4 displays the standard message content on FlexAlert.org homepage. Appendix E presents other examples of Flex Alert communication collateral.)
- **Post alert messaging on Flex Alert website.** McGuire and Company staff also post alert messaging (Figure 3 and Figure 4) on the Flex Alert website.
- **Flex Alert Network.** The Flex Alert Network is currently used to notify commercial, industrial, and government contacts throughout the state about Flex Alerts with the expectation that some of these organizations will be able to take action or at least inform their employees or constituents. (Appendix D presents a list of organizations in the Network. Section 6 contains the results of a brief web survey administered at the end of 2013.)
- **Post alert messaging on state websites.** The State requires that every state government page display event messaging when a Flex Alert occurs. McGuire and Company posts alert messaging on many state websites remotely, in less than 10 minutes. The Flex Alert logo posted on many state websites is switched from green to red to indicate an event has been called.
- **Post alert messaging on social media.** McGuire and Company also posts information about the alert in multiple social media outlets, including on their Twitter (*https://twitter.com/flexalert*) and Facebook (*https://www.facebook.com/FlexAlert*) feeds. McGuire and Company's alert messages typically include information about the alert (such as date and duration), tips for conserving energy, and a link to the Flex Alert website. The link sent out via Twitter from Flex Alert about the July 1 and 2, 2013 event in Northern California directed recipients to the information in Figure 3.

Figure 3: July 1-2 Alert Information from FlexAlert.org

FLEX ALERT HOME | WHAT IS A FLEX ALERT? | WHY THIS SUMMER? | WAYS TO SAVE ENERGY

2013 FLEX ALERT ISSUED JULY 1 TO JULY 2

JULY 1, 2013

California ISO
Shaping a Renewed Future

Northern California - ONLY
Flex Alert issued by California ISO as heat wave intensifies

With hot temperatures bearing down on Northern California and with a major generation unit off line, the California Independent System Operator Corporation (ISO) is issuing a Flex Alert for Northern California Only on July 1, 2013, through July 2, 2013. No Flex Alert is issued for Southern California as temperatures moderate but watch for updates on www.caiso.com. Consumers are encouraged to reduce their energy use during the late afternoon when air conditioners drive consumption to the highest point of the day. Go to www.flexalert.org or www.caiso.com for conservation tips.

24-hours ahead: Northern California ONLY Flex Alert Day! on July 1, 2013. High temperatures are forecast throughout the state and region. Energy demand is expected to be high and Californians are asked to avoid using heavy electrical appliances until after 6 p.m. tonight.
Monday's forecast peak demand: 48,300 MW around 4:30 p.m.

48-hours ahead: Northern California ONLY Flex Alert Day! on July 2, 2013
Tuesday's forecast peak demand: 47,808 MW around 4:30 p.m.

72-hours ahead: July 3, 2013 No Flex Alert Day

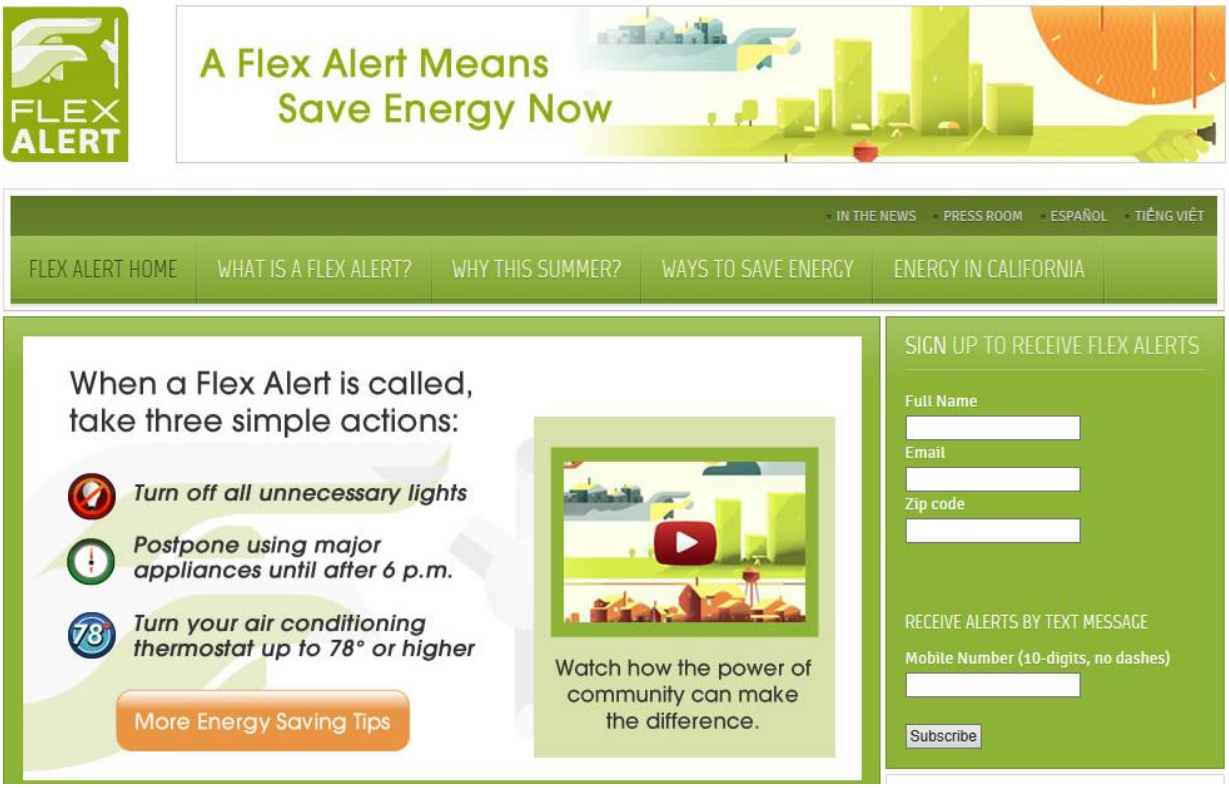
Please monitor the California ISO website at www.caiso.com for updated information about the electricity supply. Track grid conditions in real time via Today's Outlook also available on smart phones. Go to your app store for a free download.

This advisory is based on the best data available at the time of its release. Grid conditions can change rapidly and are subject to change without warning. This forecast is accepted by the recipient on the condition that errors, omissions and/or changes to the contents shall not be made the basis for any claim, demand or cause of action against the California ISO.

Funded by the investor-owned utilities and authorized by the CA Public Utilities Commission, Flex Alerts are part of an educational and emergency alert program that informs consumers about how and when to conserve electricity.

Tweet | g+1 | Like 12

Figure 4: "Simple Actions" Flex Alert Screen Shot



Accessed January 23, 2014

2.3.3.3. IOUs' Responsibilities

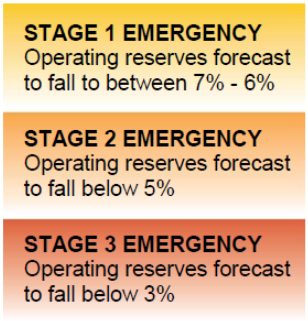
The IOUs have comparatively fewer responsibilities when Flex Alerts occur, and specific actions undertaken differ somewhat across the three electric IOUs. All three utilities have designated staff to receive information about any Flex Alert. Staff will:

- **Post alert messaging on IOUs' websites.** The IOUs post alert messages on their website (*https://www.sce.com/*, *http://www.pge.com*, and *http://www.sdge.com/*). These messages typically direct people to the Flex Alert website.
- **Alert earned media.** SCE and PG&E's media relations teams send press releases to local media that are not targeted by the CAISO's media outreach efforts, and provide interviews if requested. A representative from SDG&E confirmed that they do not engage in media outreach when a Flex Alert event occurs, but will respond to requests for information from local media.

2.3.4. Relationships between Flex Alert and IOU Demand Response Programs

CAISO operates three official stages of electrical emergency: the first stage will trigger requests for conservation, stage two can lead to market intervention, and stage three may trigger potential load interruptions. The need for a Flex Alert is determined by the CAISO. Flex Alerts typically are called at or before a Stage 1 Emergency, when operating reserves are expected to fall below 6-7%. The IOUs will call demand response events within their service territories as needed.

Figure 5: CAISO Emergency Stages



2013 was the first year that a Flex Alert could be called for less-than-statewide events. Those involved in planning and managing the statewide electrical supply were concerned about the stability of supply in Southern California; however, in 2013 this less-than-statewide approach resulted in three event days, all in Northern California.

While Flex Alert and the local DR programs operate independently, local DR programs often are called on Flex Alert days because the conditions that affect supply at the state level often affect local utilities as well. The IOUs have developed a growing suite of local DR programs, including several that mimic the voluntary load shifting Flex Alert seeks to achieve. Using the data from "smart" interval meters, utilities are able to provide a bill credit or other payment for measured curtailment. This financial payment is not available for Flex Alert. Table 4 illustrates the overlap between Flex Alert and other behavior-based voluntary DR programs in 2013.

Table 4: Dates of Flex Alert Events and IOU Demand Response Programs in 2013

	April*	June		July			August				September		
Program	**16**	**7**	**28**	**1**	**2**	**19**	**19**	**28**	**30**	**31**	**5**	**9**	**10**
Flex Alert	✓			✓	✓								
PG&E Smart Rate		✓	✓	✓	✓	✓	✓					✓	✓
SCE Save Power Days					✓			✓	✓		✓	✓	
SDG&E Reduce Your Use										✓			

* The Flex Alert event in April occurred after vandalism damaged a substation near San Jose. While substantial media coverage occurred, the event happened before the paid media campaign for 2013 had launched.

The CAISO promotes the IOUs' DR programs during media interviews, as was requested by IOU representatives, and IOUs make an effort to educate customers about the differences between their DR programs and Flex Alert. Despite these efforts, stakeholder respondents agreed that many consumers do not differentiate between Flex Alert and other DR programs, or even ongoing messages about conservation. As one IOU representative noted, this lack of differentiation can confuse customers when IOUs do not call DR programs in conjunction with Flex Alerts. For example, customers may be upset if they do not receive expected rebates or

credits for curtailed energy use during a Flex Alert when the alert does not coincide with the DR program that typically provides incentives.

2.4. Flex Alert Events

2.4.1. Issuing Flex Alert Events

According to the Flex Alert Messaging Coordination and Optimization Report for summer 2013, the CAISO must make an effort to call Flex Alerts by 3:00 p.m. the day before curtailment is required. The 3:00 p.m. cutoff provides adequate time to alert earned media outlets, notify consumers, and launch local DR programs as appropriate. All stakeholders acknowledge that the CAISO may need to call some events with less warning, which, while necessary, may limit media coverage and contribute to confusion among consumers.

2.4.2. Communicating the End of Flex Alert Events

In prior years, the CAISO has canceled Flex Alerts after calling them due to changes in forecasted weather conditions. Marketing and IOU staff report that it is difficult to start and stop Flex Alert media messaging on short notice, and that unexpected cancelation of events causes considerable confusion among consumers. It can also be expensive, given the staff time involved and the media coordination required. Most stakeholders were satisfied with the increased coordination efforts and reported that the three regional events called in 2013 had ended as anticipated. As an IOU representative noted, however, no statewide events occurred in 2013.

A review of press releases, website documents, and social media posts indicates inconsistent messaging of the exact hours of the July 1 and July 2, 2013 Flex Alert called for Northern California. The Flex Alert messaging and posted information indicated that conservation was needed until 6:00 p.m., while the CAISO press release and several social media messages indicated that conservation was needed until 7:00 p.m. This could have created confusion on the part of reporters and consumers.

2.4.3. Flex Alert Events on Mondays

Respondents agreed that Flex Alerts for Mondays present special communication and planning challenges. In order to enable all intended alert protocols, the CAISO must call Monday Flex Alerts the preceding Friday. It is difficult to reach paid media outlets on Saturdays or Sundays because television and radio stations, particularly smaller stations and in-language stations are not as well-staffed over the weekend.

While this situation remains challenging, two approaches to addressing the situation emerged from interviews. First, as confirmed by media respondents, because Flex Alerts are considered newsworthy a late-breaking notice on a Sunday for a Monday event likely would be covered by major news organizations on Sunday night and Monday morning TV and radio broadcasts, as well as in digital media. Second, program respondents were encouraged by commitments from CAISO that, if an event is called, it will not be cancelled, even if grid conditions change. While

the relative need for conservation might diminish over the 24-48 hours that ensue between a Friday announcement and a Monday event, the confusion caused by cancelled events was considered worse than the possibility of an unneeded event.

2.4.4. Region-specific Flex Alert Events

Flex Alert events occasionally are called on a regional, rather than statewide, basis. In 2013, all Flex Alerts were confined to Northern California. The goal of regional alerts is to address local issues without asking for curtailed energy use in unaffected areas. As multiple stakeholders noted, however, earned media outlets may have a statewide perspective and choose to cover Flex Alerts, even if the alert is not occurring in their area. Media coverage in areas without a request for curtailment also, may confuse consumers. Several respondents stated the program may need additional, tailored messaging to explain regional Flex Alerts to media outlets and consumers.

2.4.5. Consecutive Flex Alert Event Days

The CAISO often calls multiple Flex Alerts over consecutive days. In addition to the aforementioned issues that arise when Flex Alerts are cancelled, stakeholders shared several other concerns about consecutive Flex Alerts. First, it is unclear to consumers when they should conserve energy. Consecutive Flex Alert days may communicate to consumers that they ought to conserve throughout the entire period, rather than during peak demand times on each day. One stakeholder expressed concern about maintaining consumer engagement throughout an alert period and suggested that program implementers consider additional ways to keep consumers engaged and motivated over the course of consecutive alert days.[14]

2.5. Outreach to Community-based Organizations

2013 was the first year that the Flex Alert awareness campaign included specific utility outreach to CBOs. SCE and SDG&E conducted focused community outreach efforts in areas under high threat of energy shortages due to the closing of SONGS.

SCE's community outreach focused on educating consumers about how the Flex Alert program works and what they can do to save energy on alert days. Outreach efforts included presentations about the program at community forums and the distribution of Flex Alert "toolkits" to CBOs. The kits included branded instructions and tokens (such as handheld fans and notepads). SDG&E focused its outreach efforts on informing consumers about demand response programs in general, and what to do when the utility calls a "Reduce Your Use" day. Information regarding the differences between Flex Alert and Reduce Your Use was also included in outreach efforts, with an emphasis to reduce confusion about the overlap between programs.

[14] This issue also emerged in media analysis done by Summit Blue for the 2008 Flex Alert program, in which the number of stories and associated website hits dropped substantially as sequential event days occurred.

2.5.1. Outreach to Non-English Language Communities

Educational and event day outreach to non-English-language populations in 2013 took several forms and came from a number of sources. Educational media messages (such as television commercials) were broadcast in both English and Spanish. SCE provided Flex Alert "toolkits" to CBOs in Spanish, Vietnamese, Korean, and Chinese. SDG&E provided community groups with grants that enabled them to translate educational messages about Reduce Your Use into the primary language spoken among their constituencies and distribute them through print and digital media. When the CAISO called Flex Alerts, media messages were broadcast in Spanish, Vietnamese, Korean, and Chinese by in-language media outlets. McGuire and Company provide the translated alerts to these groups.

A representative from one of the IOUs that engaged in in-language community outreach noted that, while many of the CBOs they target have small constituencies, outreach to CBOs is more successful at reaching non-English-speaking consumers than previous efforts. The evaluation team received limited information about how these groups would be activated in the event of a Flex Alert.

3. General Awareness Survey

The following section presents the results of a December 2013-January 2014 survey conducted with California residents to assess awareness, understanding, engagement, and attitudes about Flex Alert.

To facilitate and simplify access to the results in this section, readers should be aware of the following information about how the survey results are presented:

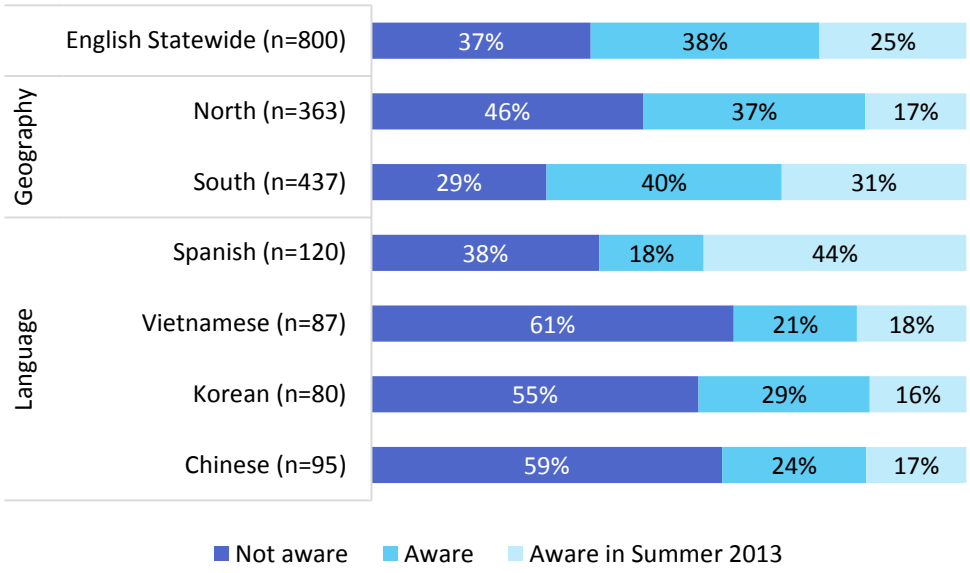
- *Language.* The findings in this section include the results of surveys with English speakers, and selected results from four non-English survey samples (Spanish, Korean, Vietnamese, and Chinese).
- *Geography*. In 2013, a majority of paid media appeared in Southern California (SDG&E and SCE territories) while the Flex Alert events occurred in Northern California (PG&E territory). To understand and account for the effects of these differences, the evaluation team presents the English language survey results separately for Northern California ("North") and Southern California ("South") where applicable. Elsewhere, the English language survey results are presented for California overall ("English Statewide").
- *Weighting.* To facilitate meaningful comparisons across geographic regions, English language results have been weighted so that the relative number of survey respondents from each utility is representative of the relative number of households in each territory (both the sample sizes and percentages represent weighted results). Due to rounding of the weighted results, percentages may not sum to 100%, and sample sizes may vary by +/-1 throughout the section. Non-English survey samples are presented without weighting.
- *Key results.* This section presents selected, key findings across the populations sampled. Full survey results by IOU and language group are presented in Appendix A, and include the following additional topics:
  - Flex Alert text and email notifications: awareness of, sign-up for, and reasons for not signing up
  - Flex Alert website use
  - Local residential DR programs: awareness and sign up
  - Actions taken to reduce energy use in past year
  - Full demographics responses

3.1. Relatively High Awareness

Figure 6 summarizes respondent awareness of Flex Alert, and the proportion of respondents who specifically recalled hearing of Flex Alert in the summer of 2013. Overall, 63% of English-speaking respondents reported that they had heard of Flex Alert. Awareness differed significantly across the state: 71% of Southern California respondents reported awareness of Flex Alert, versus 54% of Northern California respondents. Awareness among Vietnamese-, Korean-, and Chinese-speaking respondents was significantly lower than awareness among English and Spanish speakers.

A larger proportion of respondents in the South than in the North recalled specifically hearing of Flex Alert in the summer of 2013.

Figure 6: Awareness of Flex Alert by Geography and Language



Note: Significant difference in proportion of "not aware" respondents between North and South and between English, Vietnamese, Korean, and Chinese; significant difference in proportion of Aware in summer 2013 between North and South and between language groups; X^2 $p<.05$.

3.2. Source of Awareness Reflects Media Strategy

Those respondents with awareness of Flex Alert also reported how they learned about it. English-speaking respondents and most other language groups most frequently reported TV, and secondarily radio, as a source of Flex Alert awareness (Table 5). Non-English-speaking groups were more likely than English speakers to cite word-of-mouth, newspapers, social media, and nonprofit or community groups as sources of awareness.

The bottom two rows of the table show evidence of confusion between IOU DR programs and Flex Alert. A notable minority of respondents reported that they heard of Flex Alert by mail or via a text or email from their utility. Flex Alert messaging was not delivered by mail or utility notification. Southern California English speakers were more likely than those in Northern California to cite both of these sources of awareness.

Table 5: Source of Flex Alert Awareness (Multiple Responses Allowed)

Source of Awareness	English Statewide (n=505)	Spanish (n=74)	Vietnamese (n=34)	Korean (n=36)	Chinese (n=39)
TV*	56%	72%	50%	44%	49%
Radio*	27%	41%	50%	22%	26%
Family, friend, or acquaintance*	13%	23%	26%	28%	21%
A newspaper*	11%	23%	35%	22%	28%
Social media*	8%	26%	0%	3%	21%
A text or email from Flex Alert	7%	12%	6%	8%	15%
Some other website	5%	14%	6%	3%	5%
A nonprofit or community group*	3%	9%	18%	14%	8%
Some other way	3%	3%	0%	0%	5%
Don't remember	6%	3%	0%	6%	8%
Something in the mail*	26%	11%	26%	33%	21%
A text or email from your utility	15%	11%	18%	3%	15%

* Significant difference, X2 p<.05.

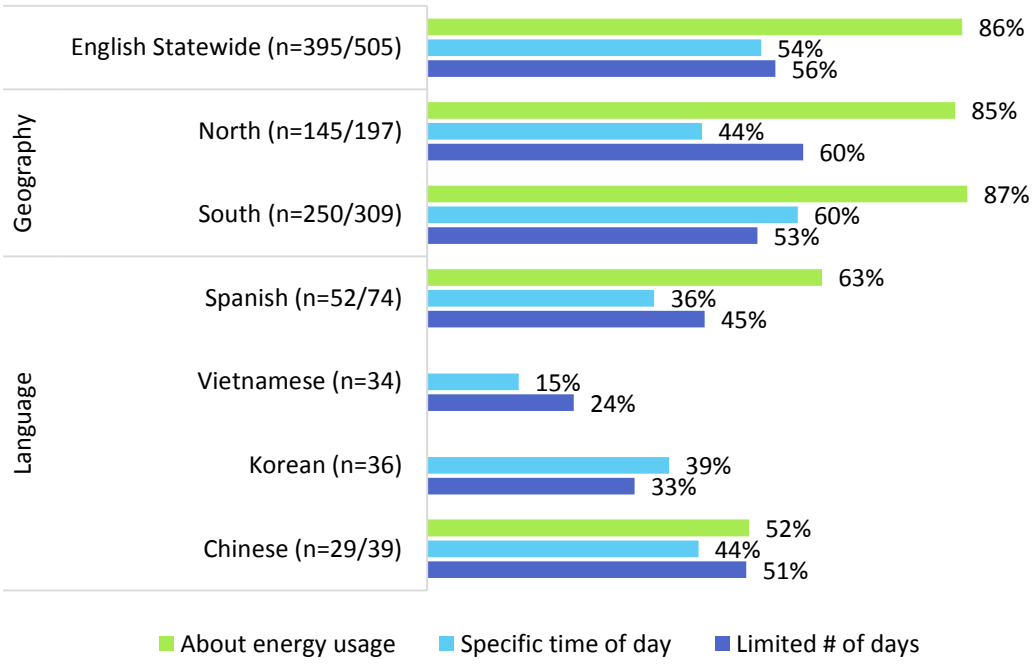
3.3. Mixed Understanding

The survey assessed respondents' understanding of Flex Alert through their understanding of four concepts:

- Flex Alert associated with energy conservation
- Limited duration of Flex Alert request
- Time of day of Flex Alert request
- Types of energy conservation actions requested by Flex Alert

A large majority of English-speaking respondents associated Flex Alert with energy conservation. Overall, 86% of respondents with unprompted awareness of the term "Flex Alert" correctly identified Flex Alerts having something to do with reducing electricity usage (Figure 7). Approximately half of English-speaking respondents recalled that Flex Alert requests occurred in the afternoons and on one specific day or several days. Overall, non-English-speaking groups had a lower understanding of these Flex Alert elements.

Figure 7: Correct Understanding of Flex Alert Elements, by Geography and Language



Note: Significant difference by language for all three elements of understanding; significant difference by geography for time of day only, X^2 $p<.05$.

Only respondents with unprompted awareness of Flex Alert were asked to identify whether Flex Alert was about energy usage. The first sample size refers to this item. The second sample size applies to the second and third items, which were asked of all Flex Alert-aware respondents.

Flex Alert-aware respondents also reported on the types of actions that Flex Alerts requested (Table 6). A majority of English-speaking respondents recalled that Flex Alerts requested them to postpone using major appliances until the evening (74%), turn off unnecessary lights (67%), and turn air conditioning (AC) up to at least 78 degrees (59%). These three actions appeared in TV and radio ads, as well as press releases. One-fourth of English-speaking Flex Alert-aware respondents (28%) recalled that Flex Alert requested them to use a fan when possible (instead of AC), a request that appeared in press materials, but not in TV or radio advertising. A notable proportion of respondents incorrectly recalled that Flex Alerts requested them to perform activities to increase the efficiency of their homes, through replacing incandescent light bulbs and inefficient appliances (the two activities appearing below the line in the table). The research team also observed no significant differences between Northern and Southern California residents. On average, English-speaking respondents were somewhat more likely than others to correctly recall that Flex Alert asked them to postpone using major appliances and turn their AC above 78 degrees, and less likely than others to recall that Flex Alerts asked them to perform efficiency actions.

Table 6: Recognition of Flex Alert-Requested Actions (Multiple Responses Allowed)

Action Requested:	English Statewide (n=505)	Spanish (n=74)	Vietnamese (n=34)	Korean (n=36)	Chinese (n=39)
Postpone appliance use until evening*	74%	55%	65%	44%	59%
Turn off unnecessary lights	67%	73%	85%	67%	56%
Turn AC up to 78 degrees or higher*	59%	27%	38%	58%	49%
Use a fan when possible	28%	31%	35%	25%	28%
Replace old incandescent light bulbs*	23%	50%	74%	61%	26%
Replace inefficient appliances*	20%	36%	38%	28%	38%
Don't remember	6%	4%	9%	8%	5%

* Significant difference, X2 p<.05.

3.3.1. Specific Recall of Requested Actions Varied by Awareness Source

For English-speaking respondents, the research team also examined whether the method of learning about Flex Alert affected the types of requested actions recalled by respondents. Consistent with the fact that the first three actions in the table above appeared in TV and radio ads, respondents who reported hearing of Flex Alerts by radio or TV were more likely than others to report that Flex Alerts requested these three actions (Table 7, bars indicate significant differences). Conversely, those who reported hearing of Flex Alert through social media, text alert, or email notifications were more likely to mistakenly report that Flex Alert requested them to replace old light bulbs or replace inefficient appliances. Those respondents who learned of Flex Alerts through social media also were significantly less likely to recall that Flex Alert requested them to postpone major appliance use or turn their AC to 78 degrees.

Table 7: Differences in Requested Action Recall by Method of Flex Alert Awareness (Multiple Responses Allowed)

Action	English Statewide (n=505)	Method of Hearing About Flex Alert: Radio (n=137)	TV (n=285)	Flex Alert Notification (n=34)	Social Media (n=41)
Turn off unnecessary lights	67%	+6%	+8%	+12%	+9%
Postpone using major appliances until the evening	74%	+8%	+4%	+2%	-14%
Turn your air conditioning up to 78 degrees or higher	59%	+10%	+4%	+6%	-20%
Use a fan when possible	28%	+3%	+1%	+28%	+23%
Replace inefficient appliances	20%	+3%	+2%	+30%	+21%
Replace old incandescent light bulbs	23%	+3%	+0%	+27%	+14%

Cells with bars: significant difference from respondents that did not report learning of Flex Alert through that method, X^2 p<.05.

In responses about both the duration and time of day of Flex Alerts, English-speaking respondents who learned of Flex Alert through social media were significantly less likely than other English speakers to correctly identify the duration and time of day of Flex Alert events. No notable patterns were found across other sources of awareness.

3.3.2. Understanding of Event Day Actions

Respondents also indicated the types of actions they would take (or had taken) to reduce their energy use in response to Flex Alert requests (Table 8). They reported a variety of actions, and responses varied across geography and language. The proportion of respondents who reported that they "don't know" what they would do was largest among Northern California and Chinese respondents. Overall, 20% of those English-speaking respondents who reported they had not previously responded to a Flex Alert request reported that they were unsure of what to do and 11% reported they would do nothing.

Table 8: Actions Taken or Would Take in Response to Flex Alert Request (Multiple Responses Allowed)

		Geography		Non-English Language			
	English Statewide (n=800)	North (n=363)	South (n=437)	Spanish (n=120)	Vietnamese (n=87)	Korean (n=80)	Chinese (n=95)
Turn off unneeded lights*†	69%	66%	72%	68%	92%	74%	49%
Change when you do laundry*†	51%	46%	54%	38%	56%	31%	31%
Pull window shades or curtains*	42%	40%	43%	33%	62%	59%	36%
Turn off other appliances, electric equipment, or devices*	41%	38%	43%	40%	57%	53%	35%
Manually adjust the AC or turn it off	40%	40%	39%	39%	53%	45%	39%
Use fans to cool the house*	38%	36%	39%	32%	53%	40%	29%
Change when you run the dishwasher*	37%	36%	38%	17%	17%	19%	17%
Set timers, thermostats, or household controls to use less electricity	31%	33%	30%	37%	37%	28%	25%
Change cooking times*	22%	22%	22%	11%	31%	14%	15%
Turn off a pool pump	13%	13%	13%	20%	11%	10%	17%
Other things	2%	2%	1%	3%	0%	1%	1%
Nothing	6%	5%	6%	3%	0%	4%	4%
Don't know*†	10%	14%	6%	9%	2%	8%	20%

* Significant difference between languages, X2 p<.05.

† Significant difference between North and South, X2 p<.05.

3.3.3. Evidence of Confusion with Local Demand Response

Several patterns of responses suggest that respondents are confusing Flex Alert with the residential DR programs run by utilities.

- *Overall reported rate of Flex Alert notification sign-up.* Fifteen percent of the 800 English-speaking respondents surveyed reported signing up for email, text, or both types of notifications. Note that only 7% of English-speaking Flex Alert-aware respondents

(4% of the total sample of 800) reported that they heard about Flex Alerts from "a text or email from Flex Alert," and program records show that less than 0.1% of Californians have signed up to receive Flex Alert notifications. Non-English-speakers reported similarly high rates of alert sign-up.

- *Reported sources of awareness of Flex Alert.* Seventeen percent of surveyed English speakers reported hearing about Flex Alert through the mail, and 9% reported hearing about it through a text message or email from their utility (26% and 15% of Flex Alert-aware respondents, respectively, Table 5). In reality, utilities did not send text, email, or postal mail notifications about Flex Alert.
- *Bill credits reported as important motivation to participate.* Overall, 67% of English speakers (including 69% of those who reported responding to requests, Table 9) reported that earning credits on electricity bills was an important motivation to respond to Flex Alert requests. Since "saving money on electricity bills" was another possible motivation that each respondent rated as part of this question, the proportion of respondents rating bill credits as important suggests respondents conflated Flex Alert with local DR programs, which offer bill credits for energy saved.

The research team also examined the relationship between how respondents said they heard about Flex Alert and their reported motivation for participating. The most notable difference across sources of awareness was that earning credits on electricity bills and saving money on electricity bills were particularly important motivations for those who heard of Flex Alert through text or emails (99% of those who reported hearing through Flex Alert text or email, versus 67% of others). This finding further suggests that those respondents who heard of Flex Alert through text or emails may be conflating Flex Alert with IOU demand response programs, which offer bill credits.

3.4. Generally Positive Attitudes

The survey also assessed respondents' engagement with and attitudes about Flex Alert events, including:

- Response to Flex Alert requests
- Motivations and barriers to responding to requests
- Likelihood of future response to Flex Alert request
- Likelihood of future notification sign-up
- Engagement with other DR programs and general energy conservation

Among those respondents who were aware of Flex Alert, more than three-fourths of English speakers (78% statewide, 76% North, 79% South) reported taking steps to reduce their electricity use on Flex Alert days. Note that this question did not specify a specific Flex Alert event, thus it is possible that respondents in Southern California were referring to actions taken in response to events in prior years. Reported response among non-English speakers aware of Flex Alert was

similar, with between 69% and 82% of non-English-speaking samples reporting having taken actions to reduce their energy use on event days (Q8 in Appendix section A.2.2). Overall, 49% of the 800 sampled English-speaking respondents reported reducing their energy use in response to Flex Alert requests.

3.4.1. Motivations and Barriers

Respondents also rated the importance of several potential reasons for responding to Flex Alert requests. Table 9 shows the proportion of respondents rating each motivation a "4" or a "5" on a five-point scale, where "1" is not at all important and "5" is extremely/very important, among those who reported taking action on event days. Respondents most frequently rated "helping avoid power outages" and "saving money on electricity bills" as a "4" or "5." At least two-thirds of respondents reported that "earning credits" on their electricity bills was an important reason for responding, even though Flex Alert offered no bill credits. There were no notable differences between Northern and Southern California English-speaking respondents.

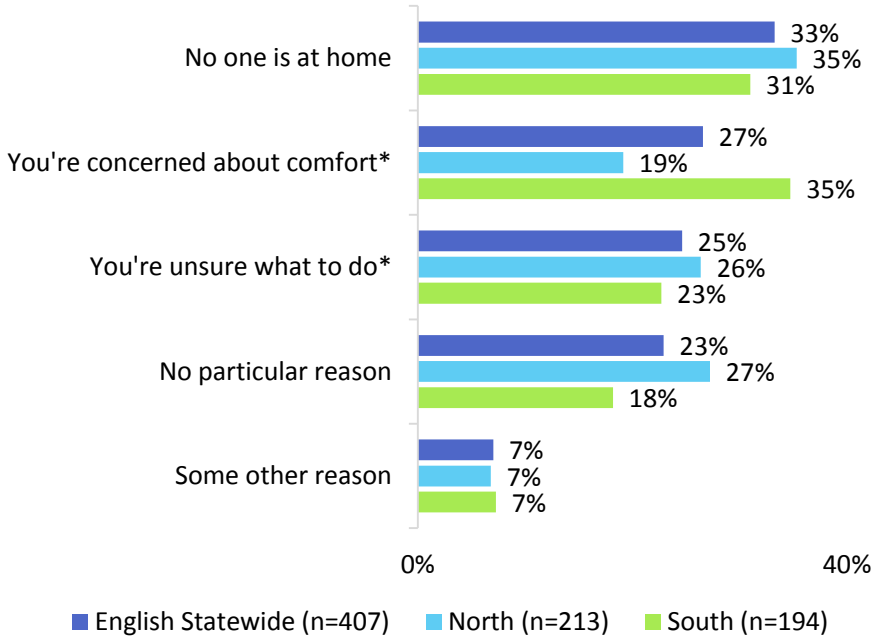
Table 9: Rating of Importance of Motivations Responses to Flex Alert Requests among Flex Alert Responders (Multiple Responses Allowed)

Reason	English Statewide (n=393)	Spanish (n=59)	Vietnamese (n=26)	Korean (n=25)	Chinese (n=32)
Helping avoid power outages*	89%	88%	96%	76%	88%
Saving money on electricity bills*	86%	93%	100%	84%	81%
Helping the environment*	80%	93%	88%	72%	81%
Doing your part for California*	78%	86%	88%	72%	72%
Earning credits on your electricity bills*	69%	78%	92%	72%	84%

* Significant difference across language groups, Kruskal-Wallis, p<.05.

In addition to their motivations, English-speaking respondents also reported on the types of barriers that might keep them from taking action on event days. Figure 8 displays the ratings of potential barriers to responding to Flex Alert requests, for those who reported taking no action or who were unaware of Flex Alert. Those 407 respondents who did not report responding to a Flex Alert request most frequently cited having no one at home who could take the appropriate action, concern about comfort, and being unsure what to do as barriers to responding to Flex Alert requests. Comfort was particularly concerning for Southern California respondents who had not taken action in the past: 35% reported that comfort might be a barrier, compared with 19% of Northern California respondents.

Figure 8: Potential Barriers to Responding to Flex Alert Requests (Multiple Responses Allowed)



* Across all respondents, significant difference between North and South, X2 p<.05.

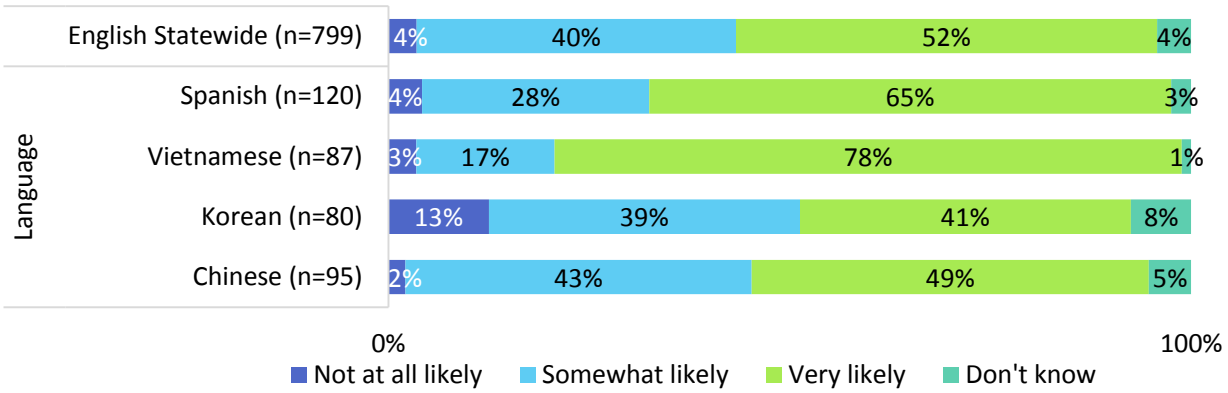
Among those respondents who had taken action to respond to a Flex Alert request, the most frequently selected barrier was "no particular reason" (34%), followed by having "no one at home" (33%). Just 11% cited "being unsure what to do" as a barrier.

The evaluation team also explored whether selection of "unsure what to do" differed depending on how respondents learned about Flex Alert. We found no significant differences between those who learned about Flex Alert via TV, radio, and email or text notification, but found differences in those who heard about Flex Alert through social media. Specifically, 33% of the 40 respondents who reported learning of Flex Alert through social media cited "unsure what to do" as a potential barrier to action, versus 10% of those who did not learn about Flex Alert through social media.

3.4.2. Future Engagement

This survey also assessed respondents' intentions to engage with Flex Alert in the future. Overall, a large majority of surveyed respondents (92%) indicated they would be "somewhat" or "very" likely to respond to future Flex Alert requests (Figure 9), including over half who reported they are "very likely" to respond to event requests in the future.

Figure 9: Future Likelihood of Responding to Flex Alert Requests



Respondents also reported on their likelihood of signing up for notifications in the future. One-third of English-speaking respondents not currently signed up for notifications (31%) indicated they would be likely to sign up for text notifications, and one-half (49%) indicated they would be likely to sign up for email notifications (rated a "4" or a "5" on a five-point scale where "1" is "very unlikely" and "5" is "very likely"). Responses among non-English-speaking groups were similar, although Spanish and Vietnamese speakers were somewhat more likely than English speakers to sign up for text message notifications (41% and 40% versus 31%), and Korean speakers were less likely to sign up for either type of notification (23% likely to sign up for email, 15% likely to sign up for text messages).

3.4.3. Other Demand Response and Energy Conservation

Respondents also indicated whether they had logged onto their IOU's website to check their electricity usage in the past year. Reported rates of website use differed significantly across IOUs: 34% of PG&E respondents, 43% of SCE respondents, and 45% of SDG&E respondents indicated they had checked their usage).

This survey also assessed respondents' general engagement with energy conservation. Other than responding to Flex Alert requests, three-fourths of English-speaking respondents (76%) reported performing other actions in the past year to reduce their energy use.

3.5. General Media Use

Respondents reported on the types of media they use daily (Table 10). Over half of English-speaking respondents reported doing the following daily: watching news on TV (61%), watching or reading news on a computer (53%), and using Facebook (52%). Although not shown, eight to nine percent more Northern California than Southern California respondents reported watching or reading news on a computer, smartphone, or tablet.

Table 10: Daily Media Use (Multiple Responses Allowed)

Media Source	English Statewide (n=800)	Spanish (n=120)	Vietnamese (n=87)	Korean (n=80)	Chinese (n=95)
Watch news on TV*	61%	68%	68%	65%	48%
Watch or read news on a computer*	53%	43%	37%	43%	54%
Use Facebook*	52%	58%	31%	20%	38%
Listen to music on the radio*	44%	59%	41%	23%	39%
Listen to news on the radio*	32%	38%	56%	24%	37%
Watch/ read news on a phone or tablet*	23%	38%	18%	24%	35%
Read a local newspaper (paper format)	23%	23%	29%	38%	19%
Use Twitter*	18%	32%	14%	4%	8%

* Significant difference, see Appendix for rating scale; Mann-Whitney U p<.05.

3.6. Key Demographic Differences from Census

This section summarizes key differences between English-speaking survey respondents and the California population. Selected California Census (2011) values and survey results from the Public Policy Institute of California are included for comparison, where applicable.[15] Full demographic information for English- and non-English speaking samples appears in Appendix A.

Overall, nearly three-fourths of respondents (73%) reported that a household member was regularly at home during the day. According to the 2011 California Census, 51% of Californians were employed outside of their home; however a 2008 evaluation of the Flex Alert Campaign found similar levels of respondents reporting that someone was home during the afternoon.[16]

Table 11 shows the age range of surveyed respondents. Less than 1% of respondents reported their age as 65 or higher, while in the 2011 California Census 16% of the population reported they were 65 or older and 15% were 55 to 64.

15 *http://www.ppic.org/main/series.asp?i=12*; *http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml*

16 Summit Blue Consulting, LLC. December 10, 2008. CALMAC Study ID PGE0270.01 Available at *http://www.calmac.org/publications/2008_Flex_Alert_Final_Report_12-18-08.pdf*

Table 11: Respondent Age

Age	North (n=364)	South (n=437)	Total (n=801)	CA Census
18 to 24	11%	14%	12%	10%[1]
25 to 34	25%	24%	24%	20%
35 to 44	14%	12%	13%	19%
45 to 54	23%	18%	20%	19%
55 to 64	27%	31%	30%	15%
65 or higher	1%	<1%	<1%	16%
Rather not say	<1%	<1%	<1%	-

Table 12 shows respondents' reported pre-tax household income. Half of respondents (54%) reported making $50,000 or more annually.

Table 12: Household Pre-tax Income

Household Pre-tax Income	North (n=363)	South (n=437)	Total (n=800)	CA Census
Less than $25,000	15%	17%	16%	21%
$25,000 to less than $50,000	24%	26%	25%	22%
$50,000 to less than $75,000	20%	22%	21%	17%
$75,000 to less than $100,000	17%	16%	16%	12%
$100,000 or more	18%	15%	16%	28%
Don't know	1%	<1%	1%	-
Rather not say	5%	5%	5%	-

4. Outreach to Other Organizations

This section presents survey results focused on understanding how Flex Alert information is disseminated to other organizations in California through the Flex Alert Network and through outreach and engagement with community-based organizations in Southern California.

4.1. Flex Alert Network

The Flex Alert Network (the Network) is a list of governmental and commercial organizations that have agreed to receive a notice of a Flex Alert. These organizations are expected to forward the Flex Alert notice to their employees or constituents and may take action within their own organization to reduce electricity use. According to respondents at McGuire and Company, the Network was built in prior program years and includes many organizations that were recruited in the early days of Flex Your Power.

McGuire and Company activates the Network by sending event information to Network contacts. The Network reaches contacts at local government, commercial, industrial, and agricultural organizations that might otherwise be difficult to reach through news and social networking. Thus, activation of the Network could result in curtailment activities during Flex Alert events outside of the consumer-focused media and educational efforts.

While no direct funding for building the Network was included in the 2013 and 2014 program budgets, maintaining and updating Network contacts and leveraging the existing Network was expected to occur. To understand the Network and thus the potential reach of Flex Alerts, Research Into Action conducted a brief online survey of the Flex Alert Network organizations.

4.2. Approach

McGuire and Company provided the research team with a list of the 208 unique organizations on the 2013 Flex Alert Network list (Appendix E). The evaluation team categorized these organizations using general organizational categories based on an understanding of their general focus; the results of this categorization are shown in Table 13.

Governmental organizations were the most common type of organization represented (41% of the list). Also well-represented were trade associations representing a wide range of trades, including: grocers, property and facility managers, food processers, restaurants, retailers, agriculture, dry cleaning, technology, and business alliances such as chambers of commerce. “Other” organization types include utility districts, nonprofits, educational institutions, and other miscellaneous organizations.

Table 13: Summary of Flex Alert Network by Coverage Area

	Northern California	Southern California	Statewide	Total	
				Count	Percent
Governments	30	51	5	86	41%
Trade associations	19	21	36	76	37%
Commercial buildings			8	8	4%
Energy organizations	2	2	3	7	3%
Industrial facilities			3	3	1%
Other	5	11	12	28	13%
Total	**56**	**85**	**67**	**208**	**100%**

Due to the proprietary nature of the Flex Alert Network list, McGuire and Company declined to provide us with the full list of contact information to use for survey purposes, but instead agreed to send out an anonymous survey link to the contacts on the Network. The survey invitation email was sent to 225 email addresses, followed by two reminder emails. A total of 38 respondents completed the survey between December 12, 2013 and January 10, 2014. The total response rate was 17%, relatively low for an email survey of engaged respondents.

4.3. Findings

4.3.1. Characterization of Flex Alert Network

Of the 38 respondents, more than half (55%) reported representing a government organization (Table 14), typically a local government, although several respondents were with regional or state governments.

Table 14: Organization Types

Organization	Count	Percent
Government	**21**	**55%**
Local (counties and municipalities)	17	
Regional or association of governments	2	
State	2	
Trade associations	**8**	**21%**
Retailers	2	
Commercial building owners	2	
Nonprofits	2	
Grocery	1	
Unknown	1	

continued

Organization	Count	Percent
Industrial facilities	**3**	**8%**
Optical manufacturing	2	
Other manufacturing	1	
Religious organizations	**3**	**8%**
Commercial building	**1**	**3%**
Agricultural organization	**1**	**3%**
Energy service professional	**1**	**3%**
Total	**38**	**100%**

Half reported they received information about Flex Alert days in 2013 (Table 15). Without the ability to map responses to specific respondents we cannot identify if half of those responding were in Southern California (and thus may not have received a Flex Alert notice in 2013). However, since nearly a quarter of all respondents indicated that their organization participated in a DR program with SCE we assume that the lack of information received about Flex Alert in 2013 likely reflects the absence of events in Southern California.

Table 15: Received Flex Alert Information in 2013?

Received Flex Alert Information	Count	Percent
Yes	19	50%
No	16	42%
Don't know	3	8%
Total	**38**	**100%**

Slightly less than half of the respondents (45%) reported their organizations were participating in other DR programs. When asked which utility's DR program, more than half reported SCE and about one-fourth reported PG&E (24%). Three industrial facility respondents participated in a program through an aggregation firm.

Table 16: Participation in Demand Response Programs

Demand Response Program Participation	Count	Percent
Yes	**17**	**45%**
SCE	9	
PG&E	4	
Aggregator-specific	3	
Own organization's DR program	1	
No	**16**	**42%**
Don't know	**5**	**13%**
Total	**38**	**100%**

4.3.2. Plans and Actions

Nearly 80% of respondents reported that their organization had a plan for responding to Flex Alerts. A majority of government organizations (19 of 21) reported they had a plan of action, but only half of trade associations (4 of 8) said they had such a plan. All industrial facility and religious organization respondents also said they had a plan for how to respond when they receive Flex Alert notifications.

Table 17: Have a plan for Flex Alert?

Flex Alert Plan	Count	Percent
Yes	30	79%
No	6	16%
Don't know	2	5%
Total	**38**	**100%**

Whether they had a "plan" of action or not, almost all organizations (95%) reported Flex Alerts caused them to take some action (Table 18).

Table 18: Flex Alerts Trigger Any Actions?

Flex Alert Trigger Actions	Count	Percent
Yes	36	95%
No	2	5%
Total	**38**	**100%**

The most common action reported was relaying Flex Alert notifications to respondents outside of their organization such as their constituents or stakeholders by forwarding Flex Alert emails (69% of the respondents) (Table 19). Nearly one-half of respondents (42%) said Flex Alerts also triggered energy reduction actions in their organizations. In addition, a quarter of the respondents reported posting Flex Alert information on their website.

Table 19: Actions Triggered by Flex Alert (Multiple responses allowed, n=36)

Actions Triggered	Count	Percent
Forward the Flex Alert notice to constituents and stakeholders	25	69%
Launch a predetermined plan to reduce our energy use	15	42%
Post information about Flex Alert on our website	9	25%

When Flex Alert notification emails are forwarded, they are most commonly directed to employees within the organization (42% of the respondents). One-third reported forwarding Flex Alert notification emails outside of their organization including to colleagues, constituents, and stakeholders, or to a listserv managed by the organization (Table 20).

Estimates of the number of people to whom these emails are forwarded ranged from 10 to 4,000. The median number reported was 200.

Table 20: To Whom Forward Flex Alert Notification (Multiple response allowed, n=38)

Flex Alert Received Notification	Count	Percent
Employees in own organization	16	42%
Colleagues in other organizations	12	32%
Constituents or other stakeholders	11	29%
Listserv managed by organization	7	18%
Other professional organization	5	13%

4.3.3. Suggestions for Improvement

When asked for suggestions for program improvement, only a few respondents offered suggestions:

- The alert email should be worded more carefully to provide sufficient detail about the reasons for the Flex Alert and request specific actions recipients should take (such as conservation or spreading the message to others).
- The alert email should be sent with as much advance notice as possible.

4.4. Community-based Organizations

The evaluation team sought to understand the level of engagement and potential for future engagement with a sample of community-based organizations in SCE and SDG&E territories. The evaluation team sought to understand if the community groups were used to expand the efficiency of Flex Alert with a focus on identifying whether or not these organizations provided outreach to targeted populations, particularly non-English language populations. The lack of Flex Alert events in Southern California limited the evaluation's ability to assess how well these organizations were able to disseminate information; however, this research identified potential opportunities for increased leverage.

The evaluation team surveyed 40 respondents from community-based organizations known to SCE and SDG&E. Ultimately, 28 respondents from the SCE CBO list and 12 from the SDG&E CBO list completed the survey. (PG&E did not have explicit direction to engage CBOs in 2013, reflecting a statewide concern around expected constraints near the SONGs facility.) CBOs answered questions about their awareness of Flex Alert, their capacity for communicating with constituents, and the types of populations they serve.

4.4.1. CBO Survey Findings

CBOs ranged in size from one employee to 70 employees, with an average of 12 employees. CBOs reported delivering a diverse set of community services, the most common of which was youth development. Table 21 shows the types of services provided by surveyed CBOs.

Table 21: Services Provided by Surveyed CBOs (Multiple Responses Allowed)

Services provided	Count
Youth development	20
Employment training and education	14
Cultural heritage programs	12
Health education	11
Economic relief and development	10
Minority rights	9
Mental health and counseling	8
Housing assistance	7
Disability services	5
Faith-based services	4
Domestic violence services	3
Parenting education	2
Alternative transportation advocacy	1
Environmental advocacy	1

Although youth development may seem to be an unlikely avenue for Flex Alert outreach, some CBOs are engaging youth in Flex Alert and general energy efficiency efforts. One CBO respondent said they are engaging Latino youth to produce culturally appropriate and effective PSAs about Flex Alert.

CBOs also described the population or ethnic group their organization served. Nearly half of the CBOs (19 of 40) reported serving specific ethnic populations, including Hispanic (10), Asian (7), African/African American (5), Pacific Islander (5). Some CBOs reported serving multiple ethnic groups. These ethnic group distinctions were used to explore how CBOs facilitated distributing Flex Alert information to non-English-speaking constituents.

Fourteen of the 40 surveyed CBOs reported offering or promoting additional energy efficiency programs or services, in some cases several programs. The most common additional energy efficiency activity reported was promoting residential energy efficiency (mentioned by 9 respondents). Other activities included: promoting access to rate credit programs (7), promoting financing options for energy efficiency (6), low-income weatherization (4), and small business outreach for energy efficiency (2).

4.5. CBOs and Expanded Reach of Flex Alerts

When asked if they recognized Flex Alerts, almost three-quarters (29 of 40) CBO respondents reported hearing about Flex Alerts. Twelve of these were CBOs serving non-English speaking groups. For CBOs that served non-English-speaking ethnic groups, slightly more than half remembered hearing about Flex Alerts (12 of 19).

Of the 29 CBOs who recalled Flex Alert information, most recalled receiving information about specific Flex Alert days and the need to reduce energy use during certain times (21), background information on Flex Alerts (20), and brochures or other material to distribute to their constituents (17). Multiple responses were allowed. Some CBOs also reported hearing about the closure of the San Onofre Generating Station (8). Five of the 17 CBOs that received materials to distribute to their constituents served non-English-speaking ethnic groups (Asian and Pacific Islander populations).

CBOs reported what types of actions (if any) they would take on a Flex Alert day. Over half (26 of 40) planned to do something for Flex Alert days, including 12 of the 19 CBOs serving non-English-speaking groups. Across CBOs serving different ethnic groups, the most common actions taken on Flex Alert days were to turn off unnecessary lights and turn up the thermostat during the summer. CBOs serving Hispanic or African/African Americans were more likely to mention Flex Alert information in daily interactions with constituents than CBOs serving Asian or Pacific Islander populations, and Hispanic- and Asian-serving CBOs were more likely to post a message about Flex Alert on social media than were CBOs serving African/African American and Pacific Islander communities.

Table 22 shows how many CBOs use social media and email blasts (electronic communication strategies) to contact their constituents in general and how many were willing to use social media and email blasts for Flex Alerts.

Table 22: Current and Planned Use of Electronic Communication

	All CBO (n=40)		Ethnic orgs (n=19)	
	Count	%	Count	%
Strategy for email blasts?	23	58%	12	63%
Willing to use for Flex Alert?	11	28%	5	26%
Have social media presence?	21	53%	14	74%
Willing to use for Flex Alert?	11	28%	6	32%

Half of the CBO respondents provided general feedback about the Flex Alert program. Ten CBO respondents also requested more printed information, such as brochures, posters, and flyers to distribute to constituents at their offices or during events. Several comments reflected limited exposure to non-English language Flex Alert collateral, including four respondents requesting Flex Alert program materials be translated into additional languages, including American Sign Language, Spanish, various Asian languages, and various African languages. Four respondents also wanted video or radio PSAs to distribute to their members about general program

information and on Flex Alert days, and another four CBOs specifically requested preformatted email content they could easily send to their members on Flex Alert days.

4.6. Summary

The web survey of contacts on the Flex Alert Network obtained a relatively low response rate (17%), making it difficult to assess the level of engagement among this population. Even the limited responses revealed somewhat encouraging findings. Most respondents reported that they represented local government and trade associations, and nearly all respondents reported that receipt of a Flex Alert notice triggered some sort of action at their organization, most commonly that the Flex Alert notice was forwarded to constituents and stakeholders. Nearly half of those responding reported that their organization participated in another DR program either through their utility or an agreement with an aggregator.

The survey of CBO contacts revealed connection with many hard-to-reach populations and an overall willingness to help disseminate information from utilities to their constituents. Seventy-five percent of CBO respondents reported awareness of Flex Alert and about half of those were ready and willing to disseminate Flex Alerts through social media or email distribution lists. Enrolling these organizations in the statewide alert system may be needed to ensure that they have event day information.

5. Comparative Research

This process evaluation included a request to identify and compare similar programs in order to understand alternative program designs and identify opportunities to produce comparable outcomes with similar or lower costs. To accomplish this research task the evaluation undertook the following activities:

1. Identify key features and potential outcomes of the Flex Alert program,
2. Conduct a literature review to understand the DR landscape and identify similar programs and activities, and
3. Request additional information from representatives of potentially similar programs.

5.1. Key Features of Flex Alert Program

The first step in conducting a comparative analysis of any program begins with identifying similar programs based on key program features such as program administration type, targeted sector, program magnitude, intervention type, and expected outcomes. Table 23 summarizes the features of the Flex Alert program, including features the evaluation team considered to be program features that would aid in identifying similar programs.

Table 23: Flex Alert Program Features

Feature	Flex Alert	Defining Feature?
Program Administrator Type	ISO	Yes
Implementation Contractor Used?	Yes	
Targeted Sector	Mainly residential	Yes
Intervention Type	Information-only	Yes
Primary Outreach Strategy	Paid media	
Outreach Timing	During capacity constraints	
	During season when capacity constraints occur	
Short-term Outcomes	Reduce severity of capacity constraints	Yes
	Consumer education about capacity constraints	Yes
Long-term Outcomes	Increased awareness of potential for capacity constraints	
	Consumers informed about how to reduce energy use	
	Reduced frequency of capacity constraints	

As indicated above, the evaluation team identified five defining characteristics of the Flex Alert program: the program administrator is an ISO, the targeted sector is mainly residential, the intervention type is information-only (as opposed to incentives, price changes, or enabling technology), and the expected short term program outcomes include reducing the severity of

capacity constraints and educating residential ratepayers about capacity constraints. The evaluation team sought comparison programs with similar characteristics.

5.2. Peak Load Reduction Program Landscape

Preliminary research suggested that Flex Alert is in many respects a unique program, falling outside traditionally classified program types. In researching similar programs, the evaluation team started by documenting the existing program definitions and classification systems for programs that seek to reduce peak load. Although one of Flex Alert's goals is to reduce demand during peak periods, it is not a typical DR program. The U.S. Department of Energy (DOE) and the Federal Energy Regulatory Commission (FERC) define DR as "changes in electric usage by end-use customers from their normal consumption patterns in response to changes in the price of electricity over time, or to incentive payments designed to induce lower electricity use at a time of high wholesale market prices or when system reliability is jeopardized."[17] The Flex Alert does not offer the financial incentives mentioned in that definition.

Assuming that this definition may offer an overly narrow view of DR, the Research Into Action team looked for other demand management program classifications and regulatory requirements that could provide a framework by which to compare similar programs. The sections below summarize the program classifications and regulatory requirements that shape the DR landscape in which Flex Alert operates.

5.2.1. Demand Response Program Classifications

Flex Alert also falls outside some classifications of DR program types. The 2009 National Assessment of Demand Response Potential commissioned by FERC defines five demand response program types:[18]

- **Dynamic pricing without enabling technology.** Class of rates where rates vary in response to actual cost to provide electricity. Customers respond by voluntarily and manually reducing energy use when rates are higher.
- **Dynamic pricing with enabling technology.** Class of rates where rates vary in response to actual cost to provide electricity. Customers have enabling technology that can automatically reduce energy use when prices are higher.
- **Direct load control.** Program administrator has direct control over customer electricity use through enabling technology, and can shut off devices during periods of high demand.

17 The Brattle Group, Freeman, Sullivan & Co., and Global Energy Partners, LLC, A National Assessment of Demand Response Potential (Federal Energy Regulatory Commission, June 2009), *http://www.ferc.gov/legal/staff-reports/06-09-demand-response.pdf*.

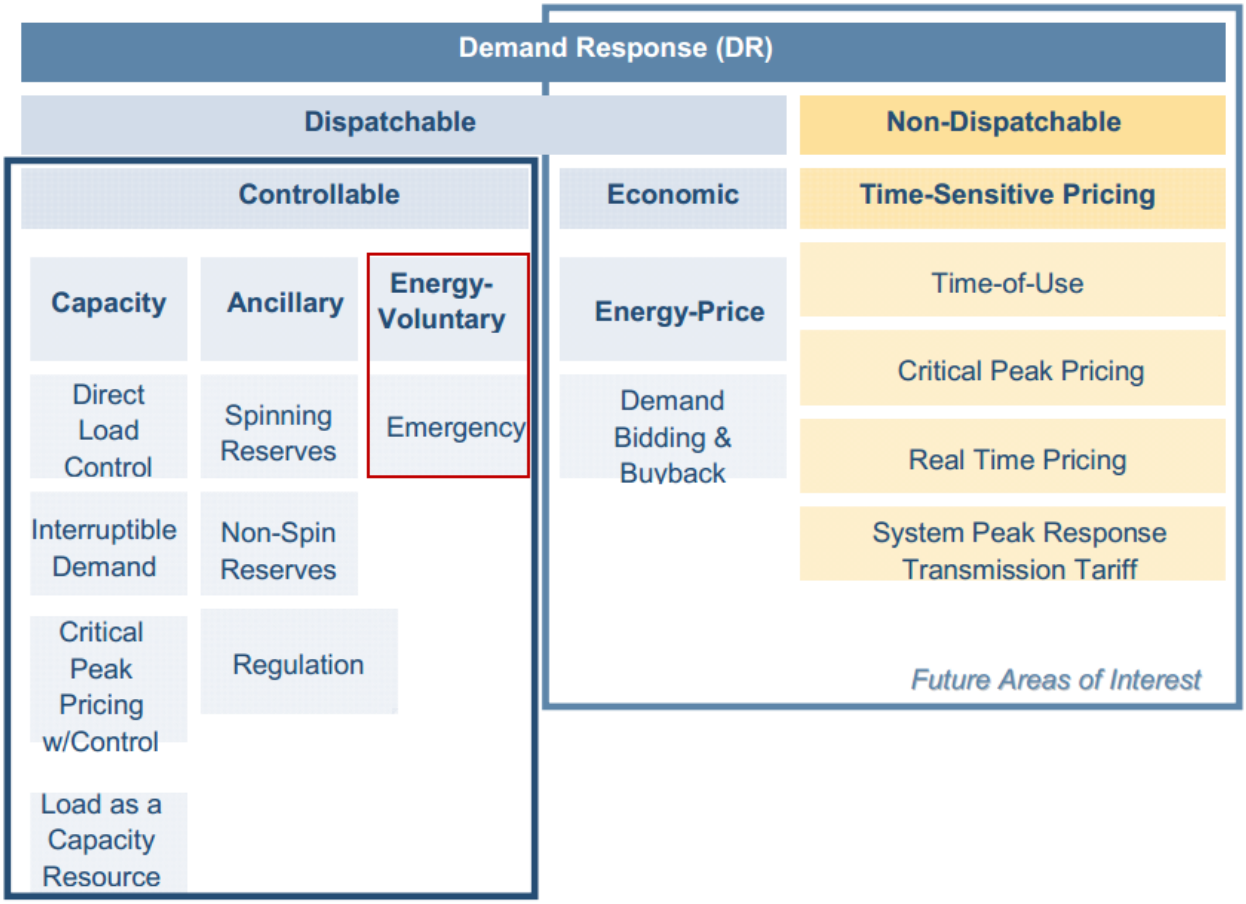
18 Ibid.

- **Interruptible tariffs.** Customers (typically medium and large commercial or industrial) agree ahead of time to reduce consumption during system reliability problems in return for an incentive payment or lower rate.
- **Other.** Includes "programs primarily available to medium and large commercial and industrial customers such as capacity bidding, demand bidding, and other aggregator offerings."[19]

None of these program types include voluntary DR without monetary incentives.

On the other hand, the North American Electric Reliability Corporation (NERC) categorization of DR programs includes voluntary emergency response programs (Figure 10).

Figure 10: NERC Demand Response Categorization[20]



19 Ibid.

20 North American Electric Reliability Corporation, "2011 Long-Term Reliability Assessment," November 2011, *http://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/2011%20LTRA_Final.pdf*.

NERC further operationalized this system into the categories described in **Error! Reference ource not found.**. Note that this classification also includes an "Other" category, not shown.

Table 24: NERC/FERC Demand Response Program Classifications[21]

Incentive-Based Programs	Time-Based Programs
• Demand Bidding and Buyback • Direct Load Control • Emergency Demand Response • Interruptible Load • Load as Capacity Resource • Non-Spinning Reserves • Regulation Service • Spinning Reserves	• Critical Peak Pricing with Control • Critical Peak Pricing • Peak Time Rebate • Real-Time Pricing • Time-of-Use Pricing • System Peak Response Transmission Tariff

DR potential in these reports focuses on incentive or rate-based programs. Voluntary public appeals like Flex Alert are not mentioned specifically. Thus, although Flex Alert technically may fall under some classifications of DR programs, in practice there is very little literature that identifies or characterizes these voluntary public appeals as demand response.

5.2.2. Emergency Operation Regulatory Requirements

Regulatory requirements also provide context to understand Flex Alert-type programs. Federal regulations require that transmission operators and balancing authorities have an emergency operations plan. One of the considerations in the development of these plans includes "public appeals – Appeals to the public through all media for voluntary load reductions and energy conservation including educational messages on how to accomplish such load reduction and conservation."[22] Thus, many regional transmission operators' emergency plans could include contingencies for issuing public appeals during acute capacity constraints.

Although they may share some similar features, these emergency operations public appeals are not necessarily comparable to Flex Alert. In comparing these emergency operations plans with Flex Alert, there are several factors to consider: the role of branding, existence of a media budget, planning assumptions about likely impact, and implementation outside of the most severe systems emergency situations.

5.2.3. Similar Programs Identified

With this background into how voluntary public appeals for conservation are characterized in the demand response program landscape, and how they fit within the context of regulatory

21 Federal Energy Regulatory Commission, Assessment of Demand Response and Advanced Metering: Staff Report, Staff Report, December 2012, 21.

22 North American Electric Reliability Corporation, "Reliability Standards for the Bulk Electric Systems of North America," December 12, 2013, 644, *http://www.nerc.com/pa/Stand/Reliability%20Standards%20Complete%20Set/RSCompleteSet.pdf*.

requirements, the evaluation team researched activities conducted throughout North America that shared key features with Flex Alert. In researching similar programs, the team limited the search to programs or activities administered by Independent System Operators (ISO). Entities investigated included the following:

- United States
  - Electric Reliability Council of Texas (ERCOT)
  - ISO-New England (ISO-NE)
  - New York ISO (NYISO)
  - PJM Interconnection (PJM)
  - Midcontinent ISO (MISO)
  - Southwest Power Pool (SPP)
- Canada
  - Alberta Electric System Operator (AESO)
  - Independent Electric System Operator (IESO) (Ontario)
  - New Brunswick System Operator and New Brunswick Power (NBSO / NB Power)

Table 25 summarizes the DR and public appeal activities conducted by each ISO. Based on reviews of each ISO's website and recent press releases, the evaluation team selected the first four ISOs in the table as potential sources of comparison programs, and contacted their press offices for more information about if and how they issue public appeals during grid constraints, and whether they conduct customer education or outreach about these public appeals.

Table 25: Summary of ISO Demand Response and Public Conservation Appeal Activities

ISO	Manage DR Programs		Emergency Operations Plan: Public Appeal					
	Res.	C&I	Activated in Last 2 Years	Activated Below Maximum Severity	How Implemented	Has Savings Estimate	Customer Opt-in Alerts	Off-Peak Messaging
ERCOT[23]	No	Yes	Yes	Yes	Directly	Yes	Yes	Yes
ISO-NE[24]	No	Yes	Yes	Yes	Directly	Yes	No	Very limited
NYISO[25]	No	Yes	Yes	Unknown	Through utilities, NYSERDA & PSC	None located	No	N.
PJM[26]	No	Yes	Yes	Unknown	Largely through local entities	None located	No	PA-PUC-delivered summer tips[27]
MISO[28]	No	Yes	No		Unknown	None located	No	No
SPP[29]	No	No						
AESO[30]	No	No						
IESO[31]	No	Pilot	Possibly					
NBSO[32]	No	No						

23 ERCOT Press Contact, Phone, January 14, 2014; Texas Public Utility Commission, "Power To Save | Texas," accessed January 10, 2014.

24 ISO-NE Press Contact, Phone, December 20, 2013; Independent System Operator New England, "ISO New England Operating Procedure No. 4 - Action During A Capacity Deficiency," October 5, 2013.

25 NYISO Press Contact, Phone, December 18, 2013; New York Independent System Operator, "Demand Response Programs," *NYISO*, accessed December 19, 2013.

26 PJM Interconnection, "Demand Response," May 20, 2013; *http://www.pjm.com/~/media/about-pjm/newsroom/fact-sheets/demand-response-fact-sheet.ashx*; PJM Interconnection System Operations Division, "PJM Manual 13: Emergency Operations," January 1, 2014.

27 Pennsylvania Public Utility Commission, "Be Prepared for Summer Heat Waves" (Office of Communications, July 2012); Pennsylvania Public Utility Commission, "PUC: Beat the Heat and Conserve Energy," *Press Releases*, July 16, 2013.

28 Midcontinent Independent System Operator, Inc., "MISO," accessed January 10, 2014; Midcontinent Independent System Operator, Inc., "Understanding Emergency Operations," July 14, 2013.

29 Southwest Power Pool, "Market and Operations," accessed December 19, 2013.

30 Alberta Electric System Oparator, "Consolidated Authoritative Document Glossary," *AESO*, accessed December 19, 2013,.

31 Independent Electric System Operator, "Demand Response," *IESO*, accessed December 19, 2013.

32 NB Power, "Operations," accessed December 19, 2013.

Based on these brief, informal information requests, we identified two ISOs that have conducted public conservation appeal activities beyond those required by NERC's emergency operation requirements: ISO-NE and ERCOT. Both of these ISOs have systems in place to issue public appeals in advance of actual grid emergencies, have to some extent branded their requests, and have issued public service announcements (PSA) about peak energy and/or grid emergencies.

Among the broader list of ISOs contacted, those respondents that do not use public appeals said that entity recognition and trust also were factors in customers' responses. Respondents with two of the ISOs reported that they do not directly issue conservation appeals because customers are not as familiar with them as they are with utilities and local governments. ISOs that manage their grids zonally said they very rarely have grid emergencies that span their full territory. Public appeals are not easily issued within a single zone, especially when not aligned with a media market.

5.3. Program Comparison

Table 26 provides an overview of Flex Alert and the two most similar ISO programs identified. Following this table is a summary of each program, and a comparison of how each ISO has designed key program elements.

Table 26: Overview of Comparison Programs

		CAISO	ISO-NE	ERCOT/TPUC	
Program		Flex Alert	Power Watch/Power Warning	Conservation Alert/Power Watch/ Power Warning	Power to Save Texas
Implemented by		Implementer	NE-ISO	ERCOT	PUC (ERCOT helps fund)
Peak Activities	**Message Channels**	Paid Media			
		Earned Media	Earned Media	Earned Media	
		Opt-in notifications		Opt-in notifications	
		Website	Website	Website	Website
		Social Media App	Social Media App	Social Media App	
	Planning Demand Savings Estimation	NA	0 (Power Watch)	750-1500 MW, preliminary estimate	
			~200-300 MW (Power Warning)		
Off-Peak Activities	**Message Channels**	Paid Media	Explanation in two annual press releases (in the past, had PSAs)		Paid Media
		Website		Website	Website
				App	
	Message	Save energy when Flex Alerts called.	Save energy when Power Watch/Power warning is called	Grid Status: is conservation needed?	Save energy during peak hours Grid status
		Energy-saving actions	Energy-saving actions	Energy-saving actions	Energy-saving actions

5.3.1. ISO-NE[33]

ISO-New England's emergency operations protocols for action during a capacity deficiency includes two steps that involve public requests for conservation: a "Power Watch" (less severe) and a "Power Warning" (more severe). The terminology was based on the National Weather Service storm warning system, to give customers an idea of the severity of the event. Each appeal can be activated within sub-regions of ISO-NE's territory. Both alerts include press releases, targeted media outreach, and social media but no paid media. Outside of formal emergency operations protocols, ISO-NE can also issue voluntary appeals for conservation when circumstances dictate that conservation could help avoid a grid emergency. These appeals use similar media strategies.

In the past (2000-2002), when grid constraints were more of an issue in their territory, ISO-NE used PSAs, but now find that press releases and social media are enough to disseminate conservation requests.

ISO-NE conducts almost no outreach to increase awareness of these conservation appeals outside of the appeals themselves. The winter and summer load forecast press releases include a paragraph with information about these conservation appeals. In the past, ISO-NE issued press releases about Power Watch and Power Warnings, but no longer does so.

ISO-NE has not done research to assess awareness of these requests, and does not do post-hoc impact assessment, but their planning assumptions estimate 200-300 MW demand reduction in response to a Power Warning.[34]

5.3.2. ERCOT and TPUC[35]

Texas's public conservation appeals consist of two coordinated activities, the "Power to Save | Texas" campaign, implemented by the Texas Public Utilities Commission (TPUC), and ERCOT's Conservation Alert/Power Watch/Power Warning grid condition system.

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33 Independent System Operator New England, "ISO New England Requests Voluntary Electric Conservation"; Independent System Operator New England, "ISO New England Operating Procedure No. 4 - Action During A Capacity Deficiency"; Independent System Operator New England, "Appendix A - Estimates of Additional Generation and Load Relief From System Wide Implementation of Actions in ISO-NE OP4," October 29, 2013, *http://www.iso-ne.com/rules_proceds/operating/isone/op4/op4a_rto_final.pdf*; Independent System Operator New England, "About the Power System," ISO New England, accessed December 19, 2013, *http://www.iso-ne.com/nwsiss/grid_mkts/pwr_sys/index-p3.html*; ISO-NE Press Contact, interview.

34 The 2008 indirect impact analysis resulted in estimates of 222-282 MW. Summit Blue, 2008.

35 Electric Reliability Council of Texas, "External Relations Update," August 16, 2011, *http://www.ercot.com/content/meetings/board/keydocs/2011/0816/Item_04b_-_External_Affairs_Update.pdf*; *Dizzy*, 2012, *http://www.youtube.com/watch?v=SE_NbPNVB_Q&feature=youtube_gdata_player*; *Fanfare*, 2012, *http://www.youtube.com/watch?v=LoJsBW6TbQ4&feature=youtube_gdata_player*; Electric Reliability Council of Texas, "ERCOT Energy Emergency Alert Communications," April 26, 2013, *http://www.ercot.com/content/news/presentations/2014/Energy%20Emergency%20Alert%20Communications%20Matrix%202013_4262013.pdf*; Electric Reliability Council of Texas, "Energy Emergency Alert in Progress - System Conditions Improving"; ERCOT Press Contact, interview; Texas Public Utility Commission, "Power To Save | Texas."

ERCOT's public conservation appeals focus on increasing awareness of the grid condition level. ERCOT's grid operation plan includes five grid conditions:

- Normal Conditions (Green)
- Conservation Alert (Yellow)
- Power Watch, Conservation Needed (Orange)
- Power Warning, Conservation Critical (Red)
- Power Emergency, Critical Conditions (Black)

These emergency conservation requests are outlined in ERCOT's NERC-mandated emergency operations protocol. They use the "conservation alert" level (added a few years ago) to request voluntary conservation in situations when there is a potential risk but not an imminent emergency.

To increase awareness of grid conditions and encourage voluntary conservation when needed, ERCOT posts the current grid condition on its website, and has developed a mobile app through which customers can monitor current grid conditions. During peak events, ERCOT uses social media, their website, and the app to distribute conservation appeals, as well as press releases and earned media. They do not use paid media to notify customers of conservation appeals during emergency circumstances.

In addition to ERCOT's own activities to use voluntary conservation requests to reduce the severity of grid emergencies, they support the Power to Save Texas campaign. This campaign is primarily funded through the TPUC's marketing education and outreach funds, but ERCOT contributed funding in 2012 and 2013. The campaign includes a website and PSAs in English and Spanish (including both TV and radio spots). Messaging was fully developed in late summer 2012 and placement continued in summer 2013. This messaging and the associated website promote conservation at peak hours through specific activities such as increasing AC temperatures by 2 degrees. The website also includes the current grid condition, an explanation of grid conditions and requested conservation behaviors at each condition. Through this website, customers can sign up to receive notifications about grid conditions and tips to save energy. ERCOT is reevaluating whether to continue funding Power to Save's paid media campaign in 2014.

Together, these activities seek to raise awareness of peak energy and reduce the severity and frequency of grid-constrained periods. Although no assessment of awareness resulting from these activities has been conducted, anecdotal evidence suggests that the campaign has been effective in reducing peak loads during public appeals. Planning assumptions expect that the appeals can reduce load by 750 to 1,500 MW. Anecdotally, since it began customer education in 2012, ERCOT has had no Energy Emergency events. ERCOT is working to refine their ability to estimate the effects of public conservation appeals on system load.

5.3.3. Comparison of Program Features

- *Delivery and Management.* Flex Alert is the only messaging program identified that uses paid media to deliver public conservation appeals focused on events, and the only program the evaluation team identified that uses an implementation contractor. Respondents with the two comparison programs reported that they found paid media unnecessary to deliver these requests; one reported that paid media were "highly unnecessary."
- *Outreach Message Timing.* Flex Alert is the only program the evaluation team identified that advertises public conservation appeals at times other than capacity emergencies solely to increase awareness of public appeals. Although the TPUC's program includes messaging about grid conditions at times other than grid emergencies, it also urges habitual conservation during peak periods, and links with other general conservation programs. One respondent said that the grid events themselves are the most effective tool to increase awareness and educate customers about how the grid works.
- *Public Appeal Content.* All of the programs the evaluation team identified used specific examples of behaviors in their appeals.
- *Objectives.* As many of the activities examined here are not separately budgeted or considered "programs," and several fulfill regulatory requirements, it is difficult to compare program objectives. All of the programs' conservation alerts aim to reduce system load during times of emergency (or near emergency). The goals of off-peak messaging differ slightly. The goal of the TPUC's PSAs is to reduce peak energy conservation every day, while the goal of Flex Alert messaging is to increase awareness of Flex Alerts and what to do when they are called on a specific day.
- *Impact.* Although two of the programs the evaluation team located have planning assumptions that include demand reductions from public appeals, no program has evaluated awareness or verified impacts sufficiently to enable comparisons about program effect or cost-effectiveness.

5.4. Summary

This section has summarized a preliminary analysis of comparative programs. Given the very small number of similar programs, there is insufficient data to develop "best practices" recommendations for this type of emergency conservation appeal program. The potential for further research into the identified comparison programs is limited, since little research has been done to evaluate their effectiveness. While further research may uncover other, similar programs operated on a smaller scale, it is unlikely that further research into these programs will result in substantive recommendations to improve Flex Alert.

6. Flex Alert Media Outreach

This section presents the results of research into the media coverage of Flex Alert during 2013. For a detailed description of the methodology and data sources, please see Appendix A.

6.1. Flex Alert Paid Media

6.1.1. Broadcast Media

Between June 10 and September 29, 2013, the Flex Alert program broadcast radio and TV advertisements to raise awareness of Flex Alerts and suggest actions that people could take to reduce their energy use when a Flex Alert event occurred. The program used two distinct advertisements: one focused on actions individuals could take, and the other on actions communities could take. Flex Alert provided both 30-second and 15-second versions of the advertisements and versions designed for both radio and TV. In addition to these advertisements, the program sponsored weather reports, traffic reports, and talk radio programs; the sponsorship included brief information about Flex Alerts. The program's advertisements aired on Spanish-language TV stations in the Los Angeles and San Diego areas, and Spanish, Vietnamese, Chinese, and Korean radio stations throughout Southern California.

The program launched its first radio advertisements on June 10, 2013 in Southern California and radio advertising increased throughout the month of June. Reflecting a planned emphasis on Southern California, as of the July 1 and 2, 2013 event days, only the program's traffic radio sponsorships had launched in Northern California, providing an estimated average of 1,110,124 impressions per day. The program launched its TV advertising in Southern California on July 8, 2013 and the advertising campaign reached its full strength by July 15, 2013. The program began ramping down advertising the week of September 9, 2013.

Advertising efforts focused on Southern California. Television advertisements aired exclusively in Southern California, as did all of the advertising in languages other than English. Overall, 86% of the program's advertising budget went to advertisements in Southern California, and 81% of the impressions that advertising generated were in Southern California.

Table 27: Flex Alert Paid Media Spending and Estimated Impressions (in thousands)

	Northern California		Southern California		Total	
Media Type	**Cost**	**Impressions Provided[1]**	**Cost**	**Impressions Provided[1]**	**Cost**	**Impressions Provided[1]**
Spot TV			$2,470	224,533	$2,470	224,533
Cable			$1,297	49,780	$1,298	49,780
Spot Radio	$843	124,268	$1,327	210,067	$2,170	334,335
Traffic Radio	$105	26,555	$162	47,525	$267	74,077
Spot Hispanic Radio			$672	95,835	$672	95,835
Vietnamese Radio[2]			$17		$17	
Korean Radio[2]			$27		$27	
Chinese Radio[2]			$35		$36	
Total	**$948**	**150,820**	**$6,007**	**627,743**	**$6,956**	**778,563**

[1] Estimates based on media market audience sizes listed in the Arbitron *Market Survey Schedule and Population Rankings*, for Fall 2013, available at *http://www.arbitron.com/downloads/fa13_market_survey_schedule_poprankings.pdf*.

[2] Because media audience estimates are extrapolated from samples of radio listeners and TV viewers, audience data may not be available for programming reaching relatively small audiences.

6.1.2. Online

In addition to radio and TV advertising, the program purchased online advertising, which appeared on a variety of media outlet websites, weather sites, map sites, streaming media sites and other locations. The program's first online media advertisements, including Google display and search advertising, launched on June 10, 2013, with the remainder of the program's online advertising launching on June 28, 2013. Overall, the program spent $703,801 on online advertising, which delivered approximately 1,783,720 impressions.

6.2. Earned Media

6.2.1. Coverage of 2013 Flex Alert Events

Between April 16 and September 24, 2012, 297 news items mentioned Flex Alerts. Television news outlets provided the largest amount of Flex Alert media coverage, followed by newspapers and radio stations (Table 28).

Table 28: Flex Alert Media Coverage by Outlet Type

Media Outlet Type	Number of Outlets Providing Coverage	Number of Stories
TV	36	199
Newspaper	16	52
Radio	8	41
Online Only	4	5

Consistent with the program's focus on media outreach around event days, 70% of these news stories appeared on Flex Alert days, with an additional 12% of stories appearing the day before or the day after a Flex Alert day. The program also received notable increases in coverage in early June, when SCE announced that the SONGS would close permanently, and on July 5, 2013 when nine stories aired about the role conservation had played in avoiding power outages on the July 1 and 2, 2013 event days.

The geographic distribution of Flex Alert media coverage also reflects the concentration of coverage on event days. A large majority of Flex Alert earned media coverage (85%) appeared in Northern California, where all of the 2013 Flex Alert events took place. The largest number of stories appeared in the Sacramento and San Francisco media markets (Table 29).

Table 29: Location of 2013 Flex Alert Media Coverage

Location	Newspaper		Online Only		Radio		TV		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%
Northern California										
Sacramento-Stockton-Modesto	9	17%			17	41%	74	37%	**100**	**34%**
San Francisco-Oakland-San Jose	33	63%	4	80%	16	39%	40	20%	**93**	**31%**
Fresno-Visalia							33	17%	**33**	**11%**
Chico-Redding							19	10%	**19**	**6%**
Monterey-Salinas							7	4%	**7**	**2%**
Bakersfield							5	3%	**5**	**2%**
Eureka			1	20%					**1**	**0%**
Southern California										
Los Angeles	9	17%			2	5%	8	4%	**19**	**6%**
San Diego	1	2%			6	15%	6	3%	**13**	**4%**
Santa Barbara-Santa Maria-San Luis Obispo							5	3%	**5**	**2%**
Yuma, AZ - El Centro							2	1%	**2**	**1%**
Total	**52**	**100%**	**5**	**100%**	**41**	**100%**	**199**	**100%**	**297**	**100%**

The research team was able to estimate the size of the audience reached by 265 of the 297 news stories identified in the Metro Monitor report (Table 30). Appendix A provides a detailed description of the source of these estimates.

Table 30: Availability of Audience Size Estimates

Media Outlet Type	Number of Stories
AUDIENCE ESTIMATES AVAILABLE	
TV	189
Newspaper	52
Radio	22
Online Only	2
Total	*265*
AUDIENCE ESTIMATES NOT AVAILABLE	
Radio	19
TV	10
Online Only	3
Total	*32*

The 265 Flex Alert news items for which we could identify audience estimates generated a cumulative 40.3 million impressions. Consistent with the concentration of Flex Alert news items in Northern California, 91% of earned media impressions were in Northern California (Table 31). The majority of impressions from Flex Alert news items occurred in the San Francisco Bay Area, although a larger number of news items appeared in the Sacramento media market. The Bay Area and Sacramento are the two largest media markets in Northern California.

Table 31: Location of 2013 Flex Alert Earned Media Impressions

	News Items		Impressions	
Market	Count	% of Statewide Total	Count	% of Statewide Total
NORTHERN CALIFORNIA				
San Francisco-Oakland-San Jose	74	28%	21,896,870	54.2%
Sacramento-Stockton-Modesto	97	37%	13,894,018	34.4%
Fresno-Visalia	31	12%	492,742	1.2%
Chico-Redding	19	7%	160,996	0.4%
Monterey-Salinas	7	3%	150,166	0.4%
Bakersfield	5	2%	46,490	0.1%
Eureka	1	0%	1,042	0.0%
Total	*234*	*88%*	*36,642,324*	*90.8%*

continued

Market	News Items		Impressions	
	Count	% of Statewide Total	Count	% of Statewide Total
SOUTHERN CALIFORNIA				
Los Angeles	18	7%	2,622,975	6.5%
San Diego	8	3%	707,961	1.8%
Santa Barbara-Santa Maria-San Luis Obispo	5	2%	395,431	1.0%
Total	*31*	*12%*	*3,726,367*	*9.2%*

The impressions generated by Flex Alert news items were concentrated around event days, with approximately 75% of earned media impressions occurring within one day of a Flex Alert event (Table 32).

Table 32: Timing of Flex Alert Earned Media Impressions

Day News Item Appeared	News Items		Impressions	
	Count	%	Count	%
NORTHERN CALIFORNIA				
Event day	179	67.6%	25,870,327	64.1%
Day before or after event	31	11.7%	4,272,500	10.6%
Other day	24	9.1%	6,499,497	16.1%
Total	*234*	*88.30%*	*36,642,324*	*90.8%*
SOUTHERN CALIFORNIA				
Event day	12	4.5%	1,859,354	4.6%
Other day	19	7.2%	1,867,013	4.6%
Total	*31*	*11.7%*	*3,726,367*	*9.2%*

The majority of impressions from Flex Alert news items came from stories produced by newspapers, followed by TV stations (Table 33).

Table 33: Earned Media Impressions by Media Outlet Type

Outlet Type	Northern California		Southern California		Grand Total	
	Impressions	%	Impressions	%	Impressions	%
Newspaper	24,638,756	61.0%	1,671,695	4.1%	26,310,452	65.2%
TV	11,592,579	28.7%	1,863,383	4.6%	13,455,962	33.3%
Radio	394,350	1.0%	191,288	0.5%	585,638	1.5%
Online Only	16,639	0.0%			16,639	0.0%
Total	*36,642,324*	*90.8%*	*3,726,367*	*9.2%*	*40,368,691*	*100.00%*

6.2.2. Comparison of Earned Media and Paid Media

Over the summer as a whole, the Flex Alert program's paid media generated a much larger number of impressions than the program gained from earned media (Table 34). This is particularly true in Southern California, where the program focused the bulk of its advertising activities and where no Flex Alert events took place. However, during the days surrounding events, earned media generated far more impressions than paid broadcast media. Although the program did not have paid broadcast media in place when the April 2013 and February 2014 events occurred, earned media provided numbers of impressions comparable to the program's summer paid media campaign. During the July 2013 event period, earned media provided nearly eight times as many impressions as paid media in Northern California, where the Flex Alert took place.

Table 34: Comparison of Impressions per Day from Earned Media and Paid Media

Outreach Type	2013 Demand Response Season (Jun 10-Sep 22)	April 2013 Event Period (Apr 16-Apr 17)	July 2013 Event Period (Jun 30-Jul 3)	February 2014 Event Period (Feb 6-Feb 7)
NORTHERN CALIFORNIA				
Paid Media*	1,465,529	-	832,593	-
Earned Media	269,938	1,525,768	6,772,823	5,482,235
SOUTHERN CALIFORNIA				
Paid Media*	5,947,297	-	4,195,933	-
Earned Media	21,150	217,345	358,081	4,041,004

* Includes only TV and radio advertising, excludes online advertising.

Because the primary cost the Flex Alert program bears for earned media is staff time, it is difficult to make a direct comparison between the cost per impression of earned media and the cost per impression of broadcast advertising. Table 35 indicates that the program spent approximately one cent for each impression its broadcast advertising generated during the summer of 2013.

Table 35: Cost per Impression of Paid Media

Region	Cost	Impressions	Cost per Impression:
Northern CA	$948,102.50	153,880,495	$0.006
Southern CA	$6,756,325.29	624,466,134	$0.011
Statewide	$7,704,427.79	778,346,629	$0.010

Without an estimate of the cost of staff resources devoted to generating earned media during the summer of 2013, it is not possible to generate a similar cost per impression estimate for earned media. However, an equivalent number of paid advertising impressions to the 40.4 million earned media impressions the program generated in 2013 would have cost the program nearly $400,000.

6.2.3. Media Coverage of February 2014 Flex Alert Event

Media monitoring reports provided by SCE identified 177 news items related to the February 2014, Flex Alert event. Together, these news items generated an estimated 16.2 million impressions. Despite the greater impact of the natural gas shortage that triggered the event on Southern California power plants, the majority of media coverage of the February Flex Alert occurred in Northern California (Table 36).

Table 36: Location of Earned News Coverage of February 2014 Flex Alert

	Stories		Impressions	
Region	**Count**	**Percent**	**Count**	**Percent**
Northern California	111	63%	11,194,095	69%
Southern California	66	37%	4,973,706	31%
Total	177	100%	16,167,801	100%

As with the events that occurred during the summer of 2013, TV stations carried the largest numbers of stories related to Flex Alerts. However, the audience estimates in the media monitoring reports SCE provided suggest that media items from newspapers (including both print and online versions) reached the largest audience (Table 37).

Table 37: February Flex Alert Coverage by Media Outlet Type

	News Items		Impressions	
Outlet Type*	**Count**	**Percent**	**Count**	**Percent**
Television	110	62%	7,233,557	45%
Radio	35	20%	1,174,217	7%
Newspaper	30	17%	7,530,028	47%
Online Only	2	1%	230,000	1%
Total	177	100%	16,167,801	100%

* Includes both traditional and online versions of these media

6.2.4. Media Perspectives

This sub-section presents the results of a limited set of in-depth interviews with media representatives. [For a description of list source and methods, see Appendix A.]

6.2.4.1. Decision to Cover Flex Alerts

The potential for power outages was the most common consideration media professionals cited (cited by 8 of 11 respondents) both in their decision to cover a Flex Alert and in determining the content of their stories. Interview findings suggest that media professionals view potential outages as the aspect of a Flex Alert event with the greatest relevance to their audiences.

According to one respondent, *"The main thing for us is how people are being impacted if there will be a brownout or a power outage."* Another said, *"We would focus on the biggest events that would affect people across the state – a major strain [on the electrical grid] that will put people in jeopardy or in the dark."*

The research team found that approximately one-fourth (24%) of the news items captured in the media monitoring data drew a direct connection between Flex Alert events and the potential for power outages. Additional items stated that the Flex Alert was related to energy demand "stressing" or "taxing" the grid (11%), or the potential for energy reserves to reach "emergency" levels (3%), but did not directly connect the Flex Alert to the potential for outages.

The interviewed media professionals most often stated that their coverage of a Flex Alert would be distinct from their weather coverage, although weather coverage might reference a Flex Alert or serve as a transition to general news coverage of a Flex Alert event.

6.2.4.2. Coverage of Cause and Timing of Flex Alerts

The causes of a Flex Alert and the time period when electrical demand was expected to be greatest were also common elements that media professionals stated they would seek to include in coverage of a Flex Alert event. Media monitoring data largely support media professionals' reports that they would cover the cause of a Flex Alert event. More than 70% of the items about a specific Flex Alert event listed the cause of the Flex Alert, most often citing weather.

Table 38: Causes of Flex Alert Listed in News Items about Specific Events (n=198)

Cause of Flex Alert	Count	Percent
Weather	113	57%
Loss of generation or transmission capacity	30	15%
Strain on electrical grid: no underlying reason given	11	6%
Other	3	2%
No reason given	58	29%
Unclear from transcript	15	8%

The interviewed media professionals largely (8 of 11) reported that, when a Flex Alert occurs, they are aware of the start and end times and include that information in their stories if airtime or page space allow. Nonetheless, media monitoring data suggest that news items about Flex Alert events contain specific information about start and end times relatively infrequently.

The news items about Flex Alert events more often provided specific information about the time Flex Alert events ended than when they began, but a minority of stories provided either specific start times or specific end times. Instead, news items more often provided general information about timing, for example, stating that a Flex Alert was in effect "today" or that residents were being asked to conserve electricity "during the late afternoon."

Table 39: Information Provided about Flex Alert Timing in Items about Specific Flex Alert Events (n=198)

Information Provided About Timing of Flex Alert	Flex Alert Day		Other Days		Total	
	Count	Percent	Count	Percent	Count	Percent
Specific start time given	49	35%	14	37%	63	32%
Flex Alert is happening "now"	18	13%	1	3%	19	10%
Specific end time given	74	52%	17	45%	92	46%
Flex Alert is over "now"	--	--	6	16%	6	3%

The news items that reported specific start times for Flex Alert events typically did so accurately; only one of the 63 items that included a specific start time reported an incorrect start time, stating that the April 16, 2013 event began at 10:00 a.m. rather than 10:30 a.m. News items were less consistent in their reporting of the end times of Flex Alerts. A majority of the stories that reported a specific end time for the July 1 and 2, 2013 Flex Alerts (63 of 88, 72%) reported that the alerts would end at 7:00 p.m. while 25 stories (28%) implied that the alerts would end at 6:00 p.m., often in the context of advising viewers to postpone use of major appliances. Discrepancies in the announced end time for the July 1 and 2 Flex Alerts are visible in the content of the CAISO press release, the Flex Alert website, and information sent via Twitter. (Section 3 provides examples of this content.)

6.2.4.3. Information Sources Regarding Flex Alert Events

Media professionals reported that they would seek to cover the general response to a potential energy shortage, although respondents more often stated they would cover actions taken by the IOUs and the CAISO than actions the general public could take to reduce energy usage. The organizations quoted and referenced in relation to Flex Alerts are consistent with this focus on the response of IOUs and the CAISO to energy shortages.

Nearly 80% of the news items in the monitoring data mentioned a source for the Flex Alert, most commonly the CAISO, including 42 items that quoted CAISO staff (Table 40).

Table 40: Organizations Mentioned in Relation to Flex Alerts

Organization	Quoted		Mentioned		Total	
	Count	Percent	Count	Percent	Count	Percent
CAISO	42	18%	103	44%	145	62%
IOU	6	3%	28	12%	34	15%
Unspecified govt. officials	0	0%	9	4%	9	4%
Specific state or local govt. officials/organizations	5	2%	3	1%	8	3%
Publicly-owned utility	1	0%	5	2%	6	3%
Local business owner	4	2%	0	0%	4	2%
Unclear from transcript	3	1%	6	3%	9	4%
None					48	21%

Forty items (17%) mentioned some organization in relation to the Flex Alert, but did not mention the CAISO. These items most often mentioned IOUs (19 items), including 12 items that mistakenly credited the IOU with issuing the Flex Alert. These stories also frequently cited "state officials" without providing additional detail.

6.2.4.4. Action Requested of Viewers

More than 80% of the news items about Flex Alert included a request that viewers take action to reduce their energy use when a Flex Alert event was called. However, these news items most often included only a general request to reduce energy use, rather than suggesting specific actions viewers could take to reduce their energy consumption.

Table 41: Actions Requested of Viewers by Flex Alert News Items

Action Requested of Viewers	Items Focused on: Specific Flex Alert Events		Flex Alerts in General		Total	
	Count	Percent	Count	Percent	Count	Percent
General request to reduce energy use	95	48%	15	43%	110	47%
Specific action requested	69	35%	12	34%	81	35%
Turn up AC thermostat	*46*	*23%*	*12*	*34%*	*58*	*25%*
Postpone using major appliances	*49*	*25%*	*4*	*11%*	*53*	*23%*
Turn off unnecessary lights	*34*	*17%*	*8*	*23%*	*42*	*18%*
Other	*14*	*7%*	*4*	*11%*	*18*	*8%*
Viewers not asked to take action	30	15%	8	23%	38	16%
Total	198	100%	35	100%	233	100%

The news items that suggested specific actions for viewers to take most often suggested one or more of the three actions listed on the landing page of the Flex Alert website.[36] Other common actions that news items suggested included unplugging unused appliances and electronic devices, closing blinds to keep out the sun, and using fans, when possible, rather than air conditioners. Occasionally, reports also suggested longer-term efficiency measures like installing weather stripping or replacing incandescent light bulbs with compact fluorescents.

[36] The website suggests setting thermostats to 78 degrees or higher to reduce air conditioning use, waiting until after 6:00 p.m. to use major appliances, and turning off unnecessary lights. Figure 4 in Section 2 provides an example of this content.

6.2.5. Media Professionals' Use of Information from CAISO

The interviewed media professionals most often (8 of 11) stated that they typically learn about Flex Alert events through emails or press releases from the CAISO, although two respondents noted that they proactively check the CAISO website if weather makes a Flex Alert likely. Other sources of awareness of Flex Alerts that media professionals cited included Twitter, advertising, and coverage by wire services. One media professional noted that the IOU serving his area typically also provides a notification about Flex Alerts, but stated that information from the IOU was less credible than information from the CAISO. According to this respondent, *"People don't believe the utility when they say power is short or not short. It's more believable if CAISO announces it; they run the grid. After 2000, 2001, our utility is in the same boat as the rest of [the utilities], credibility-wise."*

All of the interviewed media professionals stated that the CAISO's goal of notifying them by 3:00 p.m. on the day prior to a Flex Alert should provide sufficient time for them to cover the event. Media professionals stated that more advanced notice allows them to cover Flex Alert events in greater depth. A respondent at one TV station reported that sending a reporter to cover a Flex Alert event would require at least three hours of lead time prior to the newscast. Nonetheless, respondents also stated that they can include less detailed information on Flex Alert events in broadcasts on short notice. Most of the interviewed media professionals (6 of 11), particularly those in larger media markets, stated that covering a Saturday or Sunday announcement of a Monday Flex Alert event would not pose a challenge. However, three respondents noted that different staff members produce weekend news coverage than weekday coverage, and one suggested that it may be beneficial for the CAISO to ensure that media contact lists include weekend editors.

None of the interviewed media professionals had major complaints about the information they had received from the CAISO related to Flex Alerts. Media professionals cited three ways the CAISO could facilitate their coverage of Flex Alerts, but stated that the information they received had been sufficient.

- **Ensure staff are available to respond to questions from media:** Four media professionals said it is important that the CAISO have staff available to respond to questions from the media when a Flex Alert has been called. One respondent noted that it is important that these contacts respond quickly so media outlets can place stories online prior to their regular news broadcasts. Two respondents stated that CAISO staff typically had been available to answer their questions.
- **Use simple language in communications with the media and the public:** Two media professionals noted that energy is a complicated field that uses a large number of acronyms and technical jargon. These media professionals stated that they value clear explanations of the situation that prompted the Flex Alert, the potential consequences, and when the risk of energy shortages is expected to recede.

- **Provide visuals for use in news stories:** Two media professionals from TV stations stated that it is important for them to have visual elements to include in their stories. For example, these respondents suggested that the CAISO could make staff members available for broadcast-quality video interviews or provide access to facilities that might give a visual sense of how much energy is being used.

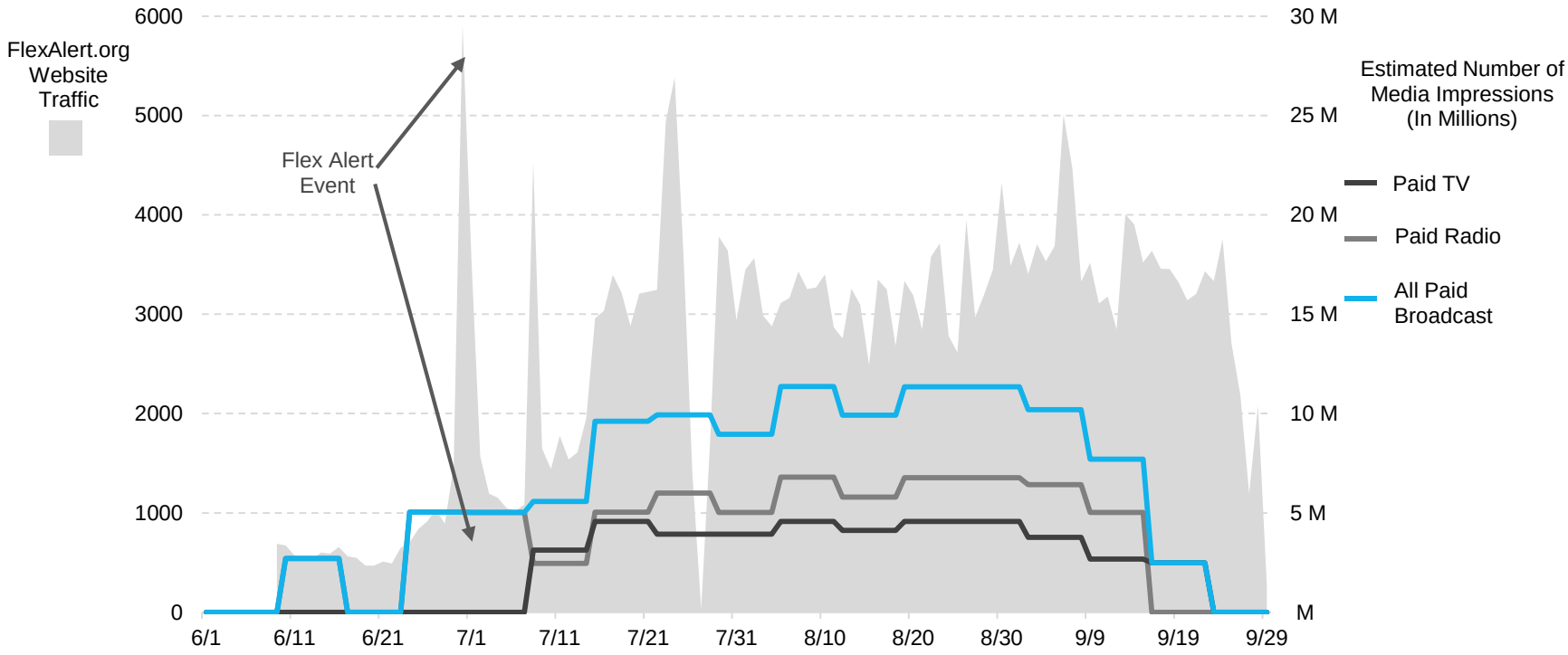
6.3. Flexalert.org Website

This section presents the results of a review of web analytic files for Flexalert.org.

6.3.1. Traffic Overview

Daily traffic to the Flex Alert website peaked at 5,912 visitors on the July 1, 2013event day. However, overall volume to the site steadily increased in late July and August, 2013 from an average of approximately 1,000 visitors per day in June and early July to approximately 3,000 visitors per day later in the summer. This increase in traffic was likely a result of Flex Alert advertising in broadcast media. While the program's online advertising had fully launched by June 28, website traffic did not dramatically increase until late July and August 2013, when the program's broadcast advertising efforts were most intensive. Most of the program's 2013 earned media also had appeared by the end of the first week of July, corresponding to the only Flex Alert days called during the summer of 2013.

Figure 11: Flex Alert Media Timeline



The majority of visitors came to the website as direct traffic: visitors who entered the website's address in their browsers directly rather than using a search engine or clicking on a link (Table 42). This is consistent with the hypothesis that broadcast advertising was a driver of visits to the Flex Alert website. Visitors coming to the website as direct traffic likely learned the address from an offline source, like program advertising.

Table 42: Sources of Traffic to Flex Alert Website

	Summer			Event Period		
Traffic Source	**Visitors**	**Avg. Visitors/Day**	**% of All Traffic**	**Visitors**	**Avg. Visitors/Day**	**% of All Traffic**
Direct traffic	189,911	1,696	65%	14,578	972	51%
Organic search	15,663	140	5%	3,455	230	12%
Referrals	86,162	769	30%	10,529	702	37%
Total	**291,750**	**2,605**	**100%**	**28,564**	**1,904**	**100%**

The larger average number of visitors per day for the summer as a whole relative to the event period reflects the overall increase in website traffic later in the summer, and is consistent with the ramp-up of the program's advertising.

- The difference in average daily traffic is most pronounced for **direct traffic.** During the event period, the program's broadcast advertising, which likely drove direct traffic had not fully launched.
- As discussed below, the program's online advertising efforts were a primary source of **referrals.** The program fully launched its online advertising at the beginning of the event period.
- Unlike direct traffic and referrals, the pace of **organic search** traffic was greater during the event period. This may reflect an increase in the number of visitors searching for more information about Flex Alerts after hearing about them in news reports or through other channels.

6.3.1.1. Website Visitor Behavior

Table 43 summarizes key metrics reflecting the behavior of visitors to the Flex Alert website during the summer as a whole and the event period in July.

Table 43: Website Visitor Behavior

Traffic Source	% New visits		Pages/Visit		Avg. Visit Duration (Seconds)	
	Summer	Event Period	Summer	Event Period	Summer	Event Period
Direct traffic	78.11%	89.29%	1.29	1.37	46	38
Organic search	86.43%	85.59%	1.64	1.75	54	70
Referrals	91.75%	91.56%	1.25	1.44	24	47
Total	82.59%	89.68%	1.3	1.44	40	45

During both time periods, website visitors viewed relatively few pages and stayed on the site a fairly short time. According to program staff, this is expected because the site is straightforward and designed to provide its messaging on the homepage. The 40-second average visit duration may be enough for many visitors to take in the content on the homepage. The simplicity of the site also may contribute to the high proportion of unique visitors as few visitors may be compelled to return to the site for additional information.

On average, visitors coming to the site through organic search spent the most time and viewed the most pages. This distinction is more pronounced for visitors whose search terms suggest they were interested in Flex Alerts specifically, as opposed to those who searched for more general, related topics.

Table 44: Visitor Behavior by Search Topic for Top 10 Search Terms*

Search Topic	Example Keyword	Visits	Pages/Visit	Avg. Visit Duration	
Flex Alert	Flex Alert California	2,445	1.96	0:01:23	83
Related topic	Breaking local news	214	1.13	0:00:21	21

* The Google Analytics reports provided to the research team contained data for only the nine most frequently used organic search keywords, and only for searches conducted on search engines that do not secure their searches. The top nine search terms accounted for 17% of organic search traffic during the summer.

Over the summer as a whole, on average, visitors coming as direct traffic spent longer on the site and visited slightly more pages than those who visited the site as referrals. However, during the event period these characteristics reversed. This difference may reflect a greater proportion of referrals coming from earned media, social media, professional organizations, and government websites during the event period.

6.3.1.2. Website Visitor Language

Most visitors accessed the Flex Alert website on web browsers with the default language set to English (Table 45). The preponderance of English-speakers accessing the website is even more pronounced for the period including the event days than during the summer as a whole, suggesting that the program's advertising later in the summer may have been effective in drawing more non-English speakers to the site.

Table 45: Top Web Browser Language Settings of Website Visitors

Browser Language Setting	6/10-9/30	6/25-7/10
English	94.5%	97.4%
Spanish	4.0%	0.9%
Italian*	N/A	0.1%
Chinese*	N/A	0.1%
Unknown	1.5%	1.5%

* The Audience Overview reports provided to the evaluation team listed only the 10 most common browser language settings for Flex Alert website visitors. Italian and Chinese appeared in the top 10 for the 6/25-7/10 period, but not for the 6/10-9/30 period.

6.3.2. Referral Traffic

"Referrals" are visitors who come to a website by clicking a link on another site. In the summer of 2013, referrals made up 30% of all visitors to the Flex Alert website. Consistent with the increase in earned media coverage of Flex Alerts during event days, referrals made up a larger proportion of the site's visitors (37%) during the two weeks that included the events.

During the summer as a whole, referrals were somewhat more likely to be new visitors, spend more time on the site, and visit more pages than the full population of visitors (Table 46).

Table 46: Characteristics of Referrals to Flex Alert Website

Metric	Referrals	All Visitors
Proportion new visitors	91.8%	82.6%
Average time spent on site (seconds)	49	40
Number of pages viewed	1.4	1.3

Websites affiliated with media outlets like newspapers, TV, and radio stations were the most common source of referrals to the Flex Alert website (Table 47). Visitors following links from IOU and CAISO websites and professional organizations like Building Owners Managers Association (BOMA) and International Facilities Managers Association (IFMA) stayed on the site the longest and viewed the largest number of pages (highlighted rows in Table 47).

Table 47: Sources of Referrals to Flex Alert Website

Site Type	Example Site	Total Visits	New Visitors	Average Pages Viewed Per Visit	Average Visit Duration (Seconds)
Media	UTSanDiego.com	25,120	22,891	1.3	51
Ad Network/Exchange	Ad.doubleclick.net	18,266	17,184	1.2	40
Maps	Mapquest.com	14,971	13,741	1.2	21
Streaming Content	Youtube.com	14,453	13,392	1.3	34
Government	Dfg.ca.gov	3,155	2,771	1.6	67
IOU & ISO	CAISO.com	1,924	1,559	2.3	106
Social Media	m.facebook.com	1,259	1,164	1.2	34
Search Engines*	Search.pch.com	1,183	1,057	1.4	32
Games	Kizi.com	950	871	1.3	59
Lifestyle	m.la.com	293	258	1.7	56
Entertainment news	Entertainmentwise.com	197	185	1.3	28
Reference	Dictionary.reference.com	130	128	1.2	11
Email	Us-msg5.mail.yahoo.com	108	97	1.4	29
How-to	Programming4.us	87	87	1.1	12
Shopping	Amazon.com	42	39	1.2	8
Professional Org.	IFMASanDiego.org	37	19	3.4	324
Other		133	123	1.2	12
Unclear		304	269	1.2	37

* Most search traffic is captured in a separate Google Analytics report. The search engines included in this report primarily come from less-used sites.

The types of websites providing large numbers of referrals suggest that the program's online advertising efforts are primarily responsible for referrals to the Flex Alert website. Advertising networks and exchanges were the second most common source of referrals to the Flex Alert website. The third and fourth most common sources of referrals, those from sites whose primary content is unrelated to energy issues – such as map and streaming media sites – likely resulted from program advertising that included web links.

6.3.2.1. Pace of Referrals

The website received the largest number of referrals per day on the July 1 and 2, 2013 event days, when media coverage of Flex Alerts was greatest. The program averaged more than twice as many referrals per day on the event days than it did over the summer as a whole, and referrals made up a larger proportion of all website visitors on event days (Table 48).

Table 48: Pace of Referrals

Period	Referrals (total visits)	Referrals/Day	Referrals as % of All Traffic
June 10 – September 30, 2013	82,612	738	30%
June 25 – July 10, 2013	10,365	690	37%
July 1 – July 2, 2013	3,942	1,971	42%

The pace of referrals during the two-week event period was slower than the average for the summer as a whole; likely due to the recent launch of the program's online advertising campaign and the focus of the program's advertising on Southern California. The pace of referrals during the event period is consistent with the general trend in traffic to the site, which, as noted above, grew from an average of approximately 1,000 visits per day in June to an average of approximately 3,000 visits per day in August 2013.

A comparison of the pace of referrals by referral source during the two weeks in which the Flex Alert events occurred to the summer as a whole largely supports the hypothesis that an increase in online advertising increased the pace of referrals occurring later in the summer (Table 49).

Table 49: Pace of Referrals by Site Type

	Referrals/Day	
Site Type	**6/10-9/30**	**6/25-7/10**
Providing More Referrals In Period with Event Days		
Ad Network/Exchange	163.09	215.67
Government	28.17	62.53
IOU & CAISO	17.18	91.53
Social media	11.24	69.47
Search engines	10.44	20.67
Email	0.96	4.40
Professional organizations	0.33	2.33
Providing More Referrals Over Summer as a Whole		
Media outlets	224.48	40.20
Maps	133.67	116.80
Streaming content	128.23	59.40
Games	8.48	0.47
Entertainment news	1.30	0.87
Reference	1.16	0.20
Shopping	0.38	0.13
Other	7.08	5.27

The pace of referrals from sites expected to alter their content in response to Flex Alerts was greater during the period in which events occurred. These sites include:

- **Government, IOU, and CAISO**: These sites are expected to post warnings that a Flex Alert is in progress and provide links to Flexalert.org.
- **Social media**: CAISO, IOU, implementation and media staff use these channels to inform people about Flex Alerts.
- **Advertising**: On event days, the program changes the content of its online and purchased advertisements to state that an event has been called. This may suggest that the program's event day advertisements have a greater impact on viewers than their non-event day advertisements. This also may contribute to the increase in referral traffic from search engines.
- **Professional organizations**: The members of these organizations may seek information on actions they could take in response to a Flex Alert.

The majority of the sources that averaged fewer referrals per day during the period in which events occurred than over the course of the summer likely would not be expected to alter their content in response to Flex Alerts. These include sites that provide streaming music and video content, sports and entertainment news, and games.

The average pace of referrals from the websites of media outlets, including newspapers, TV stations, and radio stations, was much greater through the summer as a whole than during the period when the events occurred. Further analysis suggests that this also likely reflects an increase in program advertising later in the summer, particularly in Southern California (Table 50). The average number of referrals per day from the websites of media outlets in Northern California was slightly higher during the period including the event days, when these outlets likely carried stories about the Flex Alerts. However, this increase in the pace of referrals for Northern California media outlets was offset by Southern California media outlets, which averaged a much larger number of referrals per day over the summer as a whole than during the period when the events occurred.

Table 50: Media Site Referrals by Region

	Referrals/Day	
Area Served by Media Outlet	**6/10-9/30**	**6/25-7/10**
Northern California	7.90	12.87
Southern California	149.81	11.87
National	10.79	8.53
Unclear	55.79	6.93

6.4. Summary

The Flex Alert program's media outreach efforts focused on broadcast advertising. Radio and TV advertisements accounted for the majority of the program's spending on media and provided the largest number of impressions. These broadcast advertising efforts peaked after mid-July 2013 and focused on Southern California. As a result of the timing and geographic focus of the program's broadcast advertising, earned media played an important role in providing information about the Flex Alert events on April 16 and July 1 and 2, 2013. During the events, earned media provided more impressions in the affected areas of Northern California than broadcast advertising.

Interviews with media professionals confirmed that the reporters and editors responsible for covering Flex Alerts viewed the events as newsworthy, primarily due to the implied potential for energy shortages to result in power outages. Respondents also saw the CAISO as a credible source of information. Earned media coverage of Flex Alert events ranged from brief mentions that a Flex Alert had been called to news items providing detailed information on energy supply and demand. While most news items (82%) included a request that viewers take action, only one-third (35%) suggested specific actions viewers could take. Media professionals stated that the timing of a Flex Alert was an important element to include in their stories; however, approximately half of the news items mentioning Flex Alerts did not include specific start or ending times for the alerts. Media coverage indicated some uncertainty regarding the end time of the July 1 and 2, 2013 events, with more than one-fourth (28%) of the stories with verified coverage of the event reporting that the curtailment was needed until 6:00 p.m. and 72% reporting an end time of 7:00 p.m..

The program operates a relatively simple website to provide additional information about Flex Alerts and advice about actions visitors can take to reduce their energy use when an event is called. Website analytics data suggest that the program's broadcast advertising was a primary driver of traffic to the website; website traffic paralleled the ramp-up of broadcast advertising and the majority of website visits came through direct traffic – visitors entering the web address in their browser directly. The program also used online advertising efforts, including advertisements on search engines, media outlet websites, and entertainment websites, to drive traffic to the website.

7. Conclusions and Recommendations

Flex Alert is a voluntary load reduction program based on the expectation that short-term consumer conservation can be activated when needed by the CAISO through public appeals disseminated through a mixture of paid and earned media.

No Flex Alert events were called in September or October 2013, and none of the three 2013 event days were activated for Southern California. Because the purchased media was nearly all earmarked for the Southern California media markets, the lack of events in 2013 in Southern California limited the level of detail available for exactly how media switch outs occurred, the extent to which information was transferred between the organizations involved, and feedback about specific coordination experiences.

The lack of a Flex Alert event during the evaluation period (as of January 31, 2014) and the absence of Flex Alert events in Southern California for all of 2013 limited the extent to which the research team could investigate several specific research questions around inter-organizational coordination, activation of CBOs, and the importance of the paid media campaign relative to earned media during an actual event.

7.1. Findings

7.1.1. General Awareness Survey

The general awareness survey found a substantial level of reported awareness, as well as evidence of confusion. Notable findings include:

There are relatively high levels of familiarity with the term Flex Alert. Nearly 50% of respondents reported familiarity with the term Flex Alert unprompted from a list of public alerts and an additional 14% reported familiarity when prompted, although awareness was significantly higher among Southern California respondents. Statewide, 86% of respondents with unprompted awareness of the term Flex Alert correctly identified Flex Alerts as about reducing electricity usage.

A substantial portion of the current level of awareness is likely attributable to the campaign efforts of prior years. When asked specifically about messages received in 2013, only 17% of Northern California respondents reported hearing about Flex Alert in the summer of 2013, compared with 31% of Southern California respondents. This likely reflects the difference in paid media for 2013.

The source of information affects level of understanding. The most common source of awareness was television, offered by nearly 60% of respondents. Respondents that reported hearing about Flex Alerts by radio or television were more likely to correctly identify the actions requested in television and radio ads, while those who reported hearing of Flex Alert through social media were less likely to identify these actions.

There is likely confusion between Flex Alert messaging and the requests of utility-run behavior-based curtailment programs. Two-thirds of respondents rated earning bill credits as an important reason for responding to requests, nearly 15% of the sample reported they had opted into a notification process, and 26% reported hearing of Flex Alert through the mail. All three of these components are unlikely due to communication from Flex Alert.

7.1.2. Results for Non-English Language Survey

Although there were few clear patterns in responses across the four non-English speaking groups, overall, non-English speakers were somewhat less aware of Flex Alert than English speakers, and they had somewhat more limited understanding of Flex Alert requests. The same confusion about IOU-managed DR programs and Flex Alerts exists in both English and non-English speaking groups.

We did not find evidence that Flex Alert understanding varied based on respondents' source of information about Flex Alert among non-English speaking populations (small sample sizes precluded detailed analyses, however).

Community groups played a relatively larger role in informing non-English speaking respondents of Flex Alert than English speaking respondents, but community groups were not a major source of awareness for any of the groups.

Among language-specific Flex Alert-aware respondents, the reported rate of response to Flex Alert requests did not vary significantly across the language groups, and non-English speakers generally provided similar ratings of their motivations for responding to Flex Alert requests as English language respondents. Non-English speakers were more likely than English speakers to rate "earning credits on utility bills" as highly motivating, indicating some confusion between Flex Alert and utility curtailment requests that could result in bill credits.

7.1.3. Media Analyses

The Flex Alert Program's media outreach efforts primarily focused on broadcast advertising. Radio and TV advertisements accounted for the majority of the program's spending on media and provided the largest number of impressions. These broadcast advertising efforts peaked after mid-July 2013 and primarily focused on Southern California. As a result of the timing and geographic focus of the program's broadcast advertising, earned media played an important role in providing information about the Flex Alert events on April 16 and July 1 and 2, 2013. During the events, earned media provided more impressions in the affected areas of Northern California than broadcast advertising.

Interviews with media professionals confirmed that the reporters and editors responsible for covering Flex Alerts view the events as newsworthy, primarily due to the implied potential for energy shortages to result in power outages. Respondents also see the CAISO as a credible source of information. Earned media coverage of Flex Alert events ranged from brief mentions that a Flex Alert had been called to news items providing detailed information on energy supply and demand. While most news items (82%) included a request that viewers take action, only

one-third (35%) suggested specific actions viewers could take. Media professionals stated that the timing of a Flex Alert was an important element to include in their stories; however, approximately half of the news items mentioning Flex Alerts did not include specific start or ending times. Media coverage indicated some uncertainty regarding the end time of the July 1 and 2 events, with more than one-fourth (28%) of the stories with verified coverage of the event reporting that the curtailment was needed until 6:00 p.m. and 72% reporting an end time of 7:00 p.m.

The program operates a relatively simple website to provide additional information about Flex Alerts and advice about actions visitors can take to reduce their energy use when an event is called. Website analytics data suggest that the program's broadcast advertising was a primary driver of traffic to the website; website traffic paralleled the ramp-up of broadcast advertising and the majority of website visits came through direct traffic – visitors entering the web address in their browser directly. The program also used online advertising efforts, including advertisements on search engines, media outlet websites, and entertainment websites, to drive traffic to the website.

7.1.4. Flex Alert Network

The communication activities for Flex Alert included information distributed through the Flex Alert Network, a group of governmental and other nonresidential organizations. The web survey of contacts on the Flex Alert Network obtained relatively low response rate, making it difficult to assess the level of engagement among this population. Because the survey occurred in the winter and straddled holiday weeks, contacts that track Flex Alert as a summer campaign may have simply ignored communication from the program.

Even the limited responses revealed somewhat encouraging findings, however. Most respondents reported that they represented local government and trade associations and nearly all of those responding reported that receipt of a Flex Alert notice triggers some sort of action at their organization, most commonly that the Flex Alert notice is forwarded to constituents and stakeholders.

Nearly half of those responding reported that their organization participates in another DR program, either through their utility or through an agreement with EnerNOC. Interviews with curtailment service providers engaged with the nonresidential demand response programs in California could illuminate how they frame Flex Alert events for their clients enrolled in other DR programs.

7.1.5. Staff and Stakeholders

There is support for a statewide public notification system among program stakeholders and many of the individuals interviewed noted that Flex Alerts garner significant media attention. Respondents had differing levels of certainty around the value of the paid media campaign – while some were convinced it was necessary to keep the public aware of the brand and informed about what to do during an event, others believe the earned media might be sufficient. Interviews also revealed that stakeholders generally are satisfied with coordination and communication

efforts between the groups responsible for delivering the program, including the weekly briefing calls held by the CAISO during peak demand season and increased communication and collaboration regarding the end time of Flex Alert events.

Despite increasing coordination and communication efforts in recent years, responsibility for and commitment to the program differ greatly across stakeholders. The CAISO and the marketing implementer are responsible for much of the program's delivery and appear highly invested in Flex Alert. The IOUs, on the other hand, pay for the program but have comparatively little responsibility for its delivery. Differing levels of investment in Flex Alert contribute to a lack of clarity regarding program leadership and the perception that Flex Alert may be redundant to the IOUs' demand response programs.

7.2. Conclusions

7.2.1. General program management and communication

Organizational roles reflect a web of communication activities associated with alerts. The IOUs have limited responsibility for and engagement with Flex Alert. The CAISO is responsible for triggering the events and works directly with marketing subcontractor McGuire and Company to execute key alert tasks.

There are multiple email distribution lists, notification systems, and communication avenues. McGuire and Company manages the paid media effort, and relies on Revolution Media, a media buying service, to coordinate messaging and switch-outs. McGuire and Company change website alerts messages on state government websites. Text, email, application, and social media communication occur independently at McGuire and Company, the CAISO, and the affected IOUs. The diffusion of responsibility among these organizations made it challenging for the evaluation team to obtain detailed plans and records.

Weekly coordination calls improved inter-organizational communication. CAISO led weekly calls with stakeholders, including the IOU marketing teams. There was consensus among stakeholders that these calls were beneficial and that inter-organizational coordination was sufficient in 2013. IOU staff reported being notified of the Flex Alert event as part of the automatic notification process. However, all of the stakeholder respondents agreed that the potential for coordination increased with the level of advance notice.

7.2.2. Event day processes and coordination

Coordination with utility DR programs is limited. IOU respondents reported that their local DR programs are triggered in response to local conditions and that staff monitor the need for those programs throughout the summer. Flex Alerts, on the other hand, may not reflect local conditions and have triggers outside of utility control. In addition, because local utility DR programs typically involve a payment or bill credit for curtailment, the utility has more visibility and confidence around customer performance during events.

Documentation of event end times remains unclear. Confirming that the end of the Flex Alert is synchronized across media modes and messages will require more detailed media monitoring during an event in which paid media switch outs would be expected. A review of the earned media and program materials for 2013 found that the end times in press releases did not match the previously developed Flex Alert creative material or standard website messaging on the Flex Alert website.

Monday events likely will remain challenging to implement effectively, although no issues emerged in 2013. Those involved in dissemination of Flex Alert information acknowledged that events that start on a Monday are challenging, because of the lack of weekend staffing at newsrooms and among those that control ad placement for media outlets. The challenges associated with Monday events appear to be a bigger issue for the paid media switch outs than for earned media, particularly for smaller media outlets and/or ethnic stations that may not have staff on-call to replace an educational spot with alert messaging. July 1, 2013 was a Monday and the first day of a two-day Flex Alert called for Northern California. The lack of reported issues with media messaging switch outs reflected the lack of previously scheduled paid media for Northern California markets. Encouragingly, media respondents all said they would figure out how to distribute information on urgent Flex Alert events, even if the notice arrived late in the day or on a weekend. They also noted that different staff might be in charge on the weekend or late at night.

7.2.3. Messaging strategy and effectiveness

Higher level of awareness among Southern Californians provides evidence of the effect of paid media. While the lack of opportunity to conduct a post-event survey limited the extent to which the research team was able to assess the effectiveness of different methods of reaching consumers during a Flex Alert, the general awareness survey results indicate a higher level of awareness of Flex Alert among respondents in Southern California, where most of the paid media budget was allocated.

About half of those aware of Flex Alert understand the key components of the request. Findings from the general awareness survey indicate that just over half of those aware of Flex Alerts accurately recalled that Flex Alerts are called for a single day or several days, and a similar proportion accurately reported that Flex Alerts asked them to use less electricity in the afternoons. General awareness survey findings also indicated that a greater proportion of those reporting they heard about Flex Alert from social media, as opposed to those who learned of the alerts through TV and radio broadcasts, did not know what to do during a Flex Alert and were more likely to confuse it with general efficiency messages.

Reaching non-English-speaking and non-Spanish-speaking populations remains challenging. The results of the general awareness survey indicate that awareness differed significantly across language groups. About two-thirds of both English-speaking and Spanish-speaking respondents were aware of Flex Alert, compared with 39% of Vietnamese speakers, 45% of Korean speakers, and 41% of Chinese speakers. All non-English-speaking groups more frequently reported learning about Flex Alert from family, friends, acquaintances or a nonprofit or community group than did the English-speaking respondents.

Community-based organizations may have access to hard-to-reach populations but will likely need coaching to prepare them to disseminate alerts. While 75% of CBO respondents reported awareness of Flex Alert, about half of those were ready and willing to disseminate Flex Alerts through social media or email distribution lists. Several specifically requested preformatted email content that could be easily forwarded on event days. Enrolling these organizations in the statewide alert system may be needed to ensure that they have event day information.

7.2.4. Program Comparison

There are few sources of information on alternative program designs and best practices. The research team found few truly comparable programs that could inform Flex Alert improvements. The team reviewed standard protocols for public notification of potential supply disruptions or grid constraints, and learned that these efforts rarely use paid media to disseminate alerts.

7.3. Recommendations

- Continue weekly coordination calls, as they helped the organizations involved stay apprised of Flex Alert developments.
- Ensure that alert start and end times are communicated in each program-supplied message and that the messages match the educational material. Because event times reflect specific circumstances of each Flex Alert, the creative material for the paid media campaign should be adjusted to be less specific about end-times.
- Identify the key contacts in media outlets' weekend newsrooms and maintain current contact information for them to ensure that events called for a Monday receive maximum coverage.
- Improve the consistency and accuracy of Flex Alert information and curtailment messages distributed via social media by ensuring that each tweet and post includes critical pieces of information, including start and end times. Creating and disseminating text appropriate for tweets and posts will encourage re-tweeting and re-posting.
- Clarify the role of and expectations for the organizations in the Flex Alert Network.
- Community outreach efforts are tied to summer readiness campaigns operated by the Southern California utilities. Enroll these organizations in the statewide alert system to ensure they receive Flex Alert notifications in time to inform their constituents.

Appendices

Appendix A: Methods

Appendix B: General Awareness Survey Frequencies

Appendix C: General Awareness Survey

Appendix D: Flex Alert Network Survey

Appendix E: Flex Alert Network

Appendix F: Media Data Processing Protocol

A. Methods

This section describes the methodology employed for the general program awareness survey, the media analysis and review tasks, and the Flex Alert Network survey.

A.1. General Program Survey

Research into Action enlisted Survey Sampling International (SSI) to deploy a general program awareness survey using a combination of web-based surveys and computer-aided telephone interviews (CATI). This mixed-mode approach enabled the survey to reach the general audience of California residents in the target utility territories, while also making the effort necessary to reach low-incidence non-English-speaking populations.

The survey was offered in English, Spanish, Vietnamese, Korean, and Chinese (Mandarin and Cantonese). SSI translators translated the surveys, which were then reviewed by independent translators and staff at Research Into Action for accuracy.

Those who preferred to take the survey in English, Spanish, or Chinese completed the web-based survey. The lower incidence of web surveys for Korean and Vietnamese populations was supplemented with phone surveys to achieve desired sample sizes. Completed interviews by language[37] and method of administration are shown in Table A..

Table A.1: Completed Interviews by Language and Method of Administration

Language	Web	Phone	Total
English	800	0	800
Spanish	120	0	120
Vietnamese	22	65	87
Korean	21	59	80
Chinese	95	0	95
Total	**1,058**	**124**	**1,182**

[37] Interviews counted toward non-English languages if the respondent took the survey in that language and/or spoke that language regularly at home, even if the survey was completed in English.

A.1.1. Fielding Dates and Interview Length

The web survey was fielded first, followed by phone interviews to achieve the desired sample sizes. The English language web-based survey launched before the translated versions were programmed.

The English surveys were completed from mid-November through mid-December 2013 and the non-English surveys followed in December 2013 through mid-January 2014. Average interview length was eight minutes for the web survey, and 16 minutes for the phone survey. Given the short length, no incentive was offered to respondents. Instead, the survey encouraged cooperation by explaining that it was being done on behalf of several California utilities to help shape how public alerts will be communicated in the future.

A.1.2. Quota Structure

Research Into Action set quotas by language and electric utility to ensure a minimum number of completed surveys would support analyses of specific sub-groups. The survey assigned respondents to a non-English language quota under either of the following two conditions: 1) the respondent took the survey in that language, or 2) the language was spoken at home most of the time. Those in the English language quota took the survey in English and spoke English at home most of the time. Utility quota assignment was based on respondents' answers to a question asking what utility provides electricity to their home. For non-English languages, the targets were set as ranges to allow for natural incidence in the target populations.

The difference in allocation of media spending and the focus of actual events in the 2013 Flex Alert campaign resulted in different experiences for residents of Northern and Southern California. Thus, the research team expected that analysis of reported levels of awareness, understanding, and engagement would need to compare Northern and Southern California. This expectation is reflected in the quota structure presented in Table A.2 and Table A.3. Quota targets are shown in Table A.2. The final distribution of actual completed interviews is shown in Table A.3.

Table A.2: Target Quotas by Language and Region

Language	Target Statewide Total	Target Sub-region (North/South)
English	800	400
Spanish	80-120	30-60
Vietnamese	80-120	30-60
Korean	80-120	30-60
Chinese	80-120	30-60
Total	**1120-1280**	**520-640**

Table A.3: Completed Interviews by Language and Utility

Language	Total Completes	By Region		South Utility Region	
		North (PG&E)	South (SCE & SDG&E)	SCE	SDG&E
English	800	400	400	200	200
Spanish	120	60	60	47	13
Vietnamese	87	38	49	35	14
Korean	80	39	41	38	3
Chinese	95	55	40	35	5
Total	**1,182**	**592**	**590**	**355**	**235**

A.1.3. Sample Sources and Invitation Methods

For the web surveys, a sample was drawn from a blend of SSI's online consumer panel and other website user communities run by partners of SSI. For the non-English language interviews, these sources were supplemented with another consumer panel that caters to foreign language speakers. SSI and its partner websites delivered invitations to take the survey via email and other messaging methods specific to those sites.

SSI's online sampling method aims to enhance representativeness by balancing the sample from various sources per a set of key proprietary demographic and attitudinal characteristics. Respondents are prescreened through SSI's Dynamix™ platform site, which controls for variations in respondent characteristics to best match the general consumer population before sending respondents to a specific survey.[38] Before entering the survey screener for this study, all respondents were asked to confirm that they currently reside in one of the three target utility territories.

The phone survey sample for interviews in Korean and Vietnamese used listed landlines in the targeted geographies based on utility service area. SSI filtered the list for Korean and Vietnamese ethnic names based on a combination of first, middle, and last name, together with geography.

Because screening criteria were minimal, most respondents who entered the survey qualified to complete it. Most of those who did not complete the survey were screened out because a language or utility quota was full. See Table A.4 for disposition of the screener sample; note data shown are for respondents who entered the survey only.

38 For details on SSI's sample blending procedures, see: *http://www.surveysampling.com/ssi-media/Corporate/White%20Paper%202012/SSI-Sample-Blending.image*

Table A.4: Disposition of Sample Entering the Survey Screener by Method of Administration

Mode	Qualified				Not Qualified*		
	Complete	Incomplete	Quota Full	Qualified Total	Age	Utility	Not Qualified Total
Web	1,058	32	2,344	3,434	40	346	386
Phone	124	23	35	182	18	41	59
Total	**1,182**	**55**	**2,379**	**3,616**	**58**	**387**	**445**

* Not Qualified by Age: Either under 18 or refused to provide age. Not Qualified by Utility: Either not in targeted utility territory or did not know utility.

The cooperation rate for phone interviews in Vietnamese and Korean (defined as the percentage of those who completed the survey among those who entered the survey plus those refusing to answer screening questions) was 45%.

A.1.4. Weighting for English Language Results

Survey responses from the IOUs were weighted so that the proportion of responses from each IOU in the sample represented the relative proportion of each IOU's population within the state. Table A.5 shows the weighting for the English language results of the general awareness survey.

Table A.5: English Language Weighting

Region	IOU	Population	Sample Size	Percent of Population	Percent of Sample	Statewide Weight	Weighted Sample Size
Northern California	PG&E	4,586,166	400	45%	50%	0.9064	362.6
Southern California	SDG&E	1,237,906	200	12%	25%	0.4893	97.9
	SCE	4,295,524	200	42%	25%	1.6979	339.6

A.1.5. Limitations of Survey Methodology

Efforts were made to minimize differences by mode of survey administration. Most notably, telephone interviewers read response option lists to respondents, ensuring they were as aware of the possible response options as were web-based respondents.

However, mode effects can be seen in age differences by method of administration. Web survey completes for this survey are generally representative of the population under 65 years old, but those 65 and older are not represented. While the age of those who completed the survey by telephone interviews skews older; this affected only the interviews in Korean and Vietnamese.

A.2. Media Analysis

A.2.1. Interviews with Media Professionals

CAISO staff provided the evaluation team with a list of 13 named media contacts, representing TV stations, radio stations, newspapers, and wire services, and phone numbers for the assignment desks at 15 television stations. All of the contacts provided were large English-language media outlets. Research Into Action staff interviewed reporters or editors involved in covering energy issues at 11 media outlets. Table A.6 summarizes the types of media outlets the interviewed media professionals represent. The majority of interviewed media professionals were TV journalists.

Table A.6: Media Professionals Interviewed

Media Outlet Type	Number of Contacts Received	Number of Interviews Completed
Television	19	8
Print	8	2
Radio	1	1
Total	**28**	**11**

Interviews with media professionals lasted approximately 15 minutes and addressed the aspects of a Flex Alert event the media professionals viewed as most important, how they would cover a Flex Alert event, and how they viewed the information they received from the ISO. Research Into Action staff analyzed the interviews with media professionals using *NVivo* qualitative analysis software.

A.2.2. Analysis of Media Monitoring Data

Research Into Action enlisted Metro Monitor, a media monitoring service to provide the evaluation team with data on media coverage during the Flex Alert season. Metro Monitor provided a list of 531 news items that appeared between April 16, 2013, and September 27, 2013, and contained the term "Flex Alert." Each item included a transcript of the segment containing the term "Flex Alert," an estimate of the audience reached, and, in many cases, a link to the original news item, although many of these links were broken or expired.

While the Metro Monitor search was not intended to capture program advertising, a preliminary review of the data nonetheless suggested that many of the items were paid media. Research Into Action staff used keyword searches, followed by a manual review of the remaining items from media outlets found to have a high proportion of paid media, to identify segments that were paid media. Table A.7 summarizes the steps Research Into Action staff took to identify paid media in the monitoring data. Overall, 135 items were identified as paid media, leaving 297 earned media items.

Table A.7: Method Used to Identify Paid Media

Paid Media Type	Example Transcripts	Method of Identification	Number of Stories
Radio Advertisements	• When one hand turns off one unnecessary light at home or at work, becomes two hands turning lights off whenever possible, becomes 10 hands turning thermostats to 78 degrees or higher, becomes an entire community turning off lights, adjusting air conditioning, not using appliances like washers and dryers or electronics like computers and copiers until after 6:00 p.m., we've just made sure there will be plenty of energy to go around. Even in a heat wave, or when wildfires threaten transmission lines, or simply when too many people are using too much electricity. Because when State officials call a Flex Alert, the power is in all our hands. For tips, updates and more, visit Flex Alert dot org. That's Flex Alert.org. For other ways to save money while saving energy, see your local utility's website. • Let's hear it for hands. Highly skilled, they can adjust thermostats to 78 degrees or higher to help prevent power outages, which, if the state calls for a Flex Alert will come in handy indeed. Tips at flexalert.org. • State officials have called a Flex Alert and are asking for everyone's help. Please turn off unnecessary home and workplace lights and adjust thermostats to 78 degrees or higher. For updates, visit flexalert.org.	1. Searched for transcripts that either contained both the phrases "highly skilled" and "come in handy" or the phrase "save money by saving energy." 2. Identified stations with higher-than-normal numbers of stories and reviewed transcripts and recordings of stories not identified as containing key phrases listed above.	132
Radio Program Sponsorship	• This is Capital Public Radio. We get support from Flexalert.org, reminding Sacramento Valley residents that when state officials call a Flex Alert, it is time to adjust thermostats to 78 degrees or above. Tips at Flexalert.org. • Support for KPBS comes from your membership and from Flexalert.org. Reminding you that, when state officials call a Flex Alert, use your head and hands by turning off unnecessary lights at home and at work. Tips at Flexalert.org. • This hour of the Voice of Merrill is brought to you by Flexalert.org	• Filtered results for public radio channels and manually reviewed transcripts, paying particular attention to the phrase "reminding Sacramento Valley residents" and the inclusion of Flex Alert references among lists of program sponsors. • Identified others during content analysis	76
Sponsored TV Weather Forecasts	• Now your microclimate forecast presented by Flexalert.org. • Here's a look now at the seven-day forecast brought to you by Flex Alert. • Here's the Flex Alert seven-day forecast for the mountain areas.	1. Searched for transcripts that contained the phrases "brought to you by Flex Alert," "presented by Flex Alert," or "Flex Alert seven-day forecast" and its variants. 2. Manually reviewed other reports from stations identified in text search.	26

Research Into Action staff analyzed the 297 remaining media items identified to characterize the earned media that the Flex Alert program received. Research Into Action staff also conducted a content analysis of those items to determine how they addressed key aspects of the Flex Alert program, including the information they provided about the cause of the Flex Alert, the start and end times of the Flex Alert, and what action each item requested of its viewers in response to the Flex Alert.

Table A.8: Earned Media Records Received

Monitoring Data	Number of Items
Earned Media	297
Items With Usable Transcripts/Recordings	293
Unique Items	235
Items using the Term "Flex Alert" in Relation to Energy[1]	233
Total Items Received	**531**

[1] Two items used the term "Flex Alert" as a play on words to introduce a story about a bodybuilding competition. These items were excluded from our content analysis.

Some of the items in the monitoring data appeared more than once; in some cases TV and radio stations aired stories multiple times, and in others, multiple print media outlets ran the same story from a wire service. Because these rebroadcasts increased the audience exposed to news items containing information about Flex Alerts, they are included in the characterization of the program's earned media. However, rebroadcasts were excluded from our content analysis findings because they do not represent a unique presentation of information about Flex Alerts. Ultimately, 233 unique news items were included in the content analysis.

A list of the specific media data processing protocols that guided the coding of media data is included in Appendix F.

A.2.3. Audience Estimation for 2013 Earned Media

The research team drew on five sources of data to estimate the size of the audience that the items identified in the Metro Monitor report reached. Table A.9 summarizes these sources of data and lists the number of sources for which each provided an estimate.

Table A.9: Sources of Earned Media Audience Size Estimates

Estimate Source		Media Types	New Items
Nielsen TV Audience Estimates		TV Broadcasts	152
SCE Media Monitoring Reports		TV and Newspaper Websites	46
Quantcast		TV and Newspaper Websites	40
Nielsen Radio Audience Estimates		Radio Broadcasts	19
Alliance for Audited Media	Readership	Newspaper Websites	7
	Website Usage	Newspaper Websites	1
Total			**265**

The following sections provide additional detail about how we generated audience size estimates from each data source. When multiple audience estimates were available for a single news item, we prioritized the Nielsen TV audience estimates from the Metro Monitor report, followed by the media monitoring reports provided by SCE, followed by the Nielsen radio rating data and Alliance for Audited Media data.

A.2.3.1. Nielsen Audience Figures Included in the Metro Monitor Report

The report included a field labeled "Nielsen Audience" for news items the monitoring service captured from TV broadcasts. We used these figures as our estimate of the number of impressions these news items generated.

A.2.3.2. Media Monitoring Reports Provided by SCE

We received copies of two reports on media coverage of the February 2014, Flex Alert event prepared by an advertising agency under contract to SCE; one report focused on Southern California and the second focused on central and Northern California. For each media outlet carrying Flex Alert news items, these reports included estimates of the average number of impressions a story carried on that outlet is expected to generate. To the extent that the media outlets listed in the reports SCE provided overlapped with those in the Metro Monitor report, we used the data on average impressions by media outlet from the SCE reports to estimate the impressions generated by stories the Metro Monitor report captured from online sources.

A.2.3.3. Quantcast Website Audience Estimates

The media monitoring report focused on Southern California that SCE provided cited Quantcast as the source of its website traffic estimates. Quantcast offers online traffic tracking services to website owners, and makes limited website traffic information available to the public. Quantcast also gathers information on traffic to sites that do not subscribe to its service from third-party sources, and makes that information available to the public. We used publicly available information from Quantcast to generate audience size estimates for media items the Metro Monitor report captured from online sources not included in the reports provided by SCE. Consistent with the methodology of the report SCE provided focused on Southern California, we used Quantcast's monthly estimates of website visitors from the United States. We then divided those estimates by 30 to obtain an estimate of each site's average daily visitors. Finally, we multiplied the estimate of average daily site visitors by 0.25 to account for website visitors not exposed to the story about Flex Alerts.

A.2.3.4. Alliance for Audited Media Audience Estimates

The Alliance for Audited Media (AAM) maintains a database of audience estimates for newspapers and their websites.[39] The AAM Website Usage Report lists weekly estimates of unique visitors and page views for a somewhat limited range of newspaper websites. The AAM Newspaper/Website Readership Report estimates readership, defined as the number of adults who have visited a newspaper's website at least once in the past week for a larger number of newspaper websites.

Using data from both reports, we used a procedure consistent with the procedure used in the report on Southern California earned media provided by SCE to generate an estimate of the average number of impressions generated by any particular story. We first divided the AAM's audience measurement figures (page views in the Website Usage Report and projected readership in the Readership report) by seven to obtain an average daily audience size. We multiplied these average daily audience figures by 0.25 to account for readers who visited the site but did not see the news items related to Flex Alerts.

Because the Readership Report lists only the number of adults who visited the website at least once in the past week, this process underestimates daily readership and thus the impressions delivered for items from these media outlets. As a result, we used estimates from the Website Usage Report when possible, but this report provided data on only one media outlet not covered by the media monitoring reports provided by SCE.

A.2.3.5. Nielsen Radio Audience Estimates

For news items the Metro Monitor report captured from radio broadcasts, we used data from Nielsen and Arbitron to generate audience estimates.[40] Nielsen makes ratings data for subscribing radio stations publicly available.[41] These reports list the average quarter hour (AQH) share for each subscribing station in a particular market. A station's AQH share is the average proportion of people aged six and above listening to the radio in the station's market who are listening to that station during any 15-minute period between 6:00 AM and midnight.

We calculated the average number of people listening to the radio in each station's market by multiplying the market size, listed in the Fall 2013 *Arbitron Market Survey Schedule and Population Rankings* report,[42] by the average proportion of people listening to the radio during any 15-minute period between 6:00 AM and midnight nationally (the Persons Using Radio (PUR) AQH Rating). The most recent PUR AQH rating data available provided quarterly data for the 10-year period between fall, 1998, and spring, 2007.[43] These data showed a trend of

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39 Available at: *http://abcas3.auditedmedia.com/scarborough/login.aspx*

40 Nielsen acquired Arbitron in 2013.

41 Available at: *https://tlr.arbitron.com/tlr/public/market.do?method=loadAllMarket*

42 Available at: *http://www.arbitron.com/downloads/fa13_market_survey_schedule_poprankings.pdf*

43 Available at: *http://wargod.arbitron.com/scripts/ndb/ndbradio2.asp*

steadily declining radio usage, which we extrapolated to winter 2014 to be consistent with the AQH share data, which was for January 2014.

To obtain average audience estimates for each radio station, we multiplied the station's AQH share by the calculated average number of people listening to the radio in that station's market.

A.2.4. Analysis of Flexalert.org Website Analytics

Program staff provided the evaluation team with four reports on the Flex Alert website generated using Google Analytics.

- **All Traffic:** This report summarizes the sources of all of the website's traffic, including referrals, direct traffic (visitors who enter the web address in their browsers directly), and organic search (visitors who came to the website after it appeared as an unpaid search result). In addition to general statistics about the site, the report provided to the evaluation team listed the ten traffic sources responsible for the largest numbers of visitors.
- **Audience Overview:** This report provides overall statistics about site visitors, including the number of visitors, the number of unique visitors, the number of pages visited, and average visit duration. It also lists the ten most common language settings of visitors' web browsers.
- **Organic Search Traffic:** This report provides data on the number of visitors coming to the site from web searches, including the nine most commonly used search terms. Data on search terms are not provided for visitors using secure searches, including those using Google.
- **Referral Traffic:** Referrals are visitors who come to the Flex Alert website by clicking a link on another site. This report provides information about the 250 sites that referred the largest number of visitors to the Flex Alert website.

Program staff provided all reports for two different time periods: the summer of 2013 as a whole (June 10 to September 30) and the two-week period surrounding the July 1 and July 2 Flex Alert events (June 25 to July 10). Program staff also provided a listing of the total number of visitors to the Flexalert.org website each day from June 10 to September 30.

A.2.5. Review of Documents Related to Paid Media

Research Into Action staff reviewed three key documents related to the program's paid media efforts, all of which were provided by program staff.

- **2013 Flex Alert Final Media Recap**: McGuire and Company provided this document to SCE summarizing the Flex Alert media campaign. It contained estimates of spending and gross rating points achieved by media type and regional media market.
- **Flex Alert Media Plan**: The plan set weekly goals for targeted rating points achieved by market and media type.

- **Final Flex Alert Online Plan**: This plan listed the online advertising outlets the program planned to use and provided an estimate of the number of impressions each would provide.

In order to compare the program's paid broadcast media efforts to its online advertising, website hits, and earned media, Research Into Action converted gross and targeted rating points to impressions, using data from the Arbitron *Market Survey Schedule & Population Rankings* report for fall 2013.[44]

A.3. Flex Alert Network Survey

The Flex Alert Network is a list of local governments, commercial, industrial, trade and other nonresidential organizations that have agreed to be notified of Flex Alert events. Because Flex Alerts ask for curtailment from 2:00-6:00 p.m. (when many people are not at home), and because of the potential reach of this list, the research team developed a brief email survey to understand the Flex Alert Network, including any actions triggered by alert notification. McGuire and Company declined to provide a detailed contact list for the Flex Alert Network, but offered to send the survey link directly to the members of the network and to help legitimize the request by using their letterhead. The survey invitation email was sent to 225 email addresses, followed by two reminder emails. A total of 38 respondents completed the survey between December 12, 2013 and January 10, 2014. The total response rate was 17%, relatively low for an email survey of engaged respondents.

A.4. Community-based Organizations

Staff at SCE provided the evaluation team with a list of 107 organizations known to have received information about Flex Alert in 2013. The list contact information varied by record and included a mix of email and phone contact information. SDG&E provided a list of 31 organizations, a sample of the CBOs engaged in 2013.Using the lists provided, the evaluation team used a bimodal approach to contact SCE CBOs: beginning with an email invitation for a web survey, and then follow-up phone survey with CBOs that did not complete the web survey. The research team contacted the SDG&E CBO sample only by phone. Ultimately, 40 respondents completed the survey: 28 served by SCE and 12 by SDG&E.

The 40 CBOs were asked a range of questions about their capacity for communicating with their members, and how they share information with their members about Flex Alert. Table A.10 shows the dispositions for SCE and SDG&E CBO samples, and survey mode (email or phone), by sample.

[44] One gross rating point signifies that a media item produced a number of impressions equal to 1% of the overall media market in which the item appeared. Impressions do not signify unique viewers; a single viewer may account for multiple impressions. Targeted rating points function similarly to gross rating points, but rather than measuring against the overall media market, they measure against a pre-defined target audience. In converting rating points to impressions, we multiplied by the population of viewers age 12 and above in each media market, thus we may overestimate viewership relative to the program's target audience, which was adults ages 25-64.

Table A.10: SCE and SDG&E CBO Disposition

List	Record type		*N*
SCE	Email only		19
	Phone only		4
	Email and phone		84
		Total	107
		Errors*	11
		Complete	28
SDG&E	Phone		31
	Email		NA
		TOTAL	31
		Errors	0
		Complete	12

* The SCE contact list had 14 email bounces. For four contacts only an email address was provided (no phone number). The research team had phone numbers for and called the other 10 email bounces to attempt to get a survey response. Of these 10, seven contacts had disconnected phones, wrong numbers, or were not with CBOs.

B. General Awareness Survey Frequencies

B.1. Results by IOU

This section presents the unweighted English language results of the general survey by IOU..

B.1.1. Awareness and Understanding

Q1-5: Have you ever seen or heard anything about … Flex Alerts. Q2: Flex Alerts ask people to temporarily reduce electricity use to prevent outages during periods of high demand. Have you ever seen or hear anything about Flex Alerts?

	PG&E (n=400)	SCE (n=200)	SDG&E (n=200)
Unaware	46%	27%	38%
Aware, Unprompted (Q1E)	40%	59%	53%
Aware, Prompted (Q2)	14%	15%	10%

Q4: Flex Alerts ask people to temporarily reduce electricity use to prevent outages during periods of high demand. Did you hear about Flex Alerts during...? (Multiple Responses Allowed)

	PG&E (n=400)	SCE (n=200)	SDG&E (n=200)
Summer 2013	17%	34%	23%
Summer 2012	14%	29%	25%
Before Summer 2012	18%	25%	21%
Don't remember	17%	14%	14%
Unaware of Flex Alert	46%	27%	38%

Q5: Did you hear about Flex Alerts from...? (Multiple Responses Allowed)

	PG&E (n=217)	SCE (n=146)	SDG&E (n=124)
TV	57%	55%	60%
Radio	31%	22%	36%
Something in the mail	18%	35%	19%
Your family, a friend, or someone you know	14%	12%	12%
A newspaper	12%	11%	13%
A text or email from your utility	11%	17%	17%
Social media like Twitter or Facebook	8%	8%	9%
A text or email from Flex Alert	5%	7%	11%
Some other website	5%	6%	4%
A nonprofit or other community group	2%	3%	2%
Some other way	4%	1%	2%
Don't remember	7%	4%	6%

Q3: As best you can remember, are Flex Alerts about…?

	PG&E (n=160)	SCE (n=117)	SDG&E (n=105)
Reducing electricity usage	85%	86%	90%
It depends on the alert	6%	2%	1%
Earthquake warnings	3%	4%	3%
Wildfire danger	1%	2%	3%
Something else	1%	1%	1%
Don’t remember	4%	5%	3%

Q6: What did the Flex Alerts ask you to do? Do you recall if the Flex Alerts ask you to...? (Multiple Responses Allowed)

	PG&E (n=217)	SCE (n=146)	SDG&E (n=124)
Turn off unnecessary lights	64%	70%	65%
Postpone using major appliances until the evening	71%	75%	79%
Turn your air conditioning up to 78 degrees or higher	55%	64%	56%
Use a fan when possible	27%	28%	27%
Replace old incandescent light bulbs	21%	24%	23%
Replace inefficient appliances	17%	22%	24%
Don’t remember what Flex Alerts ask you to do	5%	5%	7%

Q6A: Did the Flex Alert message ask you to reduce your energy use....?

	PG&E (n=217)	SCE (n=146)	SDG&E (n=124)
On one specific day	35%	27%	33%
On several days	25%	24%	27%
All summer	11%	20%	10%
All year/ or "Throughout the year"	10%	14%	9%
Don't remember	18%	15%	21%

Q7: Do you recall what time of day the Flex Alerts ask you to use less electricity? Is it during the...?

	PG&E (n=217)	SCE (n=146)	SDG&E (n=124)
Morning	6%	5%	13%
Afternoon	44%	64%	43%
Evening	11%	8%	8%
Night time	1%	3%	3%
All day	18%	12%	21%
Don't remember	19%	8%	12%

Q13: Before this survey, did you know you could sign up for email or text notifications about Flex Alert days?

	PG&E (n=186)	SCE (n=133)	SDG&E (n=116)
Yes	38%	37%	43%
No	62%	63%	57%

B.1.2. Engagement and Attitudes

Q14: Did you sign up for email or text notification about Flex Alert days?

	PG&E (n=70)	SCE (n=49)	SDG&E (n=50)
Yes, email notifications	51%	47%	60%
Yes, text notifications	6%	12%	8%
Yes, both email and text notifications	11%	10%	4%
No, have not signed up for notifications	27%	24%	26%
Don't know	4%	6%	2%

Q15: What are the reasons you haven't signed up for email or text notifications? Is it because you…? (Multiple Responses Allowed)

	PG&E (n=19)	SCE (n=12)	SDG&E (n=13)
Do not text	32%	17%	15%
Think media messages are enough	32%	58%	31%
Are not interested	26%	17%	31%
Do not check email regularly	11%	<1%	15%
Do not have a cell phone	5%	<1%	8%
Do not have email	<1%	<1%	<1%
Have some other reason	5%	17%	23%
Don’t know	16%	17%	8%

Q16B: Have you visited the Flex Alert website at Flexalert.org?

	PG&E (n=217)	SCE (n=146)	SDG&E (n=124)
Yes	13%	15%	15%
No	82%	82%	81%
Don't remember	5%	3%	4%

Q8: Has your household ever taken steps to change how you used electricity on a Flex Alert day?

	PG&E (n=217)	SCE (n=146)	SDG&E (n=124)
Yes	76%	80%	74%
No	19%	16%	22%
Don't know	5%	4%	4%

Q10: On Flex Alert days, [what have you done/what would you do], if anything? (Multiple Responses Allowed)

	PG&E (n=400)	SCE (n=200)	SDG&E (n=200)
Turn off unneeded lights	66%	73%	70%
Change when you do laundry	46%	56%	51%
Pull window shades or curtains	41%	45%	38%
Manually adjust the air conditioner or turn it off	40%	40%	39%
Turn off other appliances, electric equipment or devices	39%	44%	42%
Use fans to cool the house	37%	38%	45%
Change when you run the dishwasher	36%	38%	40%
Set timers, thermostats, or household controls to use less electricity	33%	30%	31%
Change cooking times	22%	21%	24%
Turn off a pool pump	13%	13%	14%
Other things	2%	1%	3%
Nothing	6%	6%	6%
Don't know	15%	6%	9%

Q11: Please rate the importance to you of the following potential reasons... How important to you are the following potential reasons for reducing your electric use on Flex Alert days?

	PG&E (n=400)					SCE (n=200)					SDG&E (n=200)				
	1 - Not at all important	2	3	4	5 - Extremely important	1 - Not at all important	2	3	4	5 - Extremely important	1 - Not at all important	2	3	4	5 - Extremely important
A Doing your part for California	3%	5%	23%	29%	41%	3%	4%	21%	37%	36%	7%	5%	22%	30%	37%
B Helping the environment	4%	3%	19%	25%	50%	4%	3%	20%	32%	43%	7%	4%	20%	28%	42%
C Saving money on electricity bills	2%	4%	12%	25%	58%	3%	1%	15%	23%	59%	3%	4%	10%	29%	55%
D Helping avoid power outages	2%	3%	15%	31%	50%	2%	1%	13%	30%	55%	3%	1%	15%	29%	53%
E Earning credits on your electricity bills	4%	6%	24%	28%	38%	7%	5%	20%	32%	37%	4%	11%	23%	26%	37%

Q12: What would keep you from making an effort to reduce your electric usage on Flex Alert afternoons, if anything? Is it because...? (Multiple Responses Allowed)

	PG&E (n=400)	SCE (n=200)	SDG&E (n=200)
No one is at home	35%	31%	33%
You're concerned about comfort	22%	32%	28%
You're unsure what to do	21%	15%	17%
Some other reason	8%	5%	13%
No particular reason	28%	30%	26%

Q16: You can sign up for Flex Alert email or text message notifications for free on the Internet. How likely are you to sign up for email or text message notification about Flex Alert days?

	PG&E (n=330)					SCE (n=151)					SDG&E (n=150)				
	1 - Not at all likely	2	3	4	5 - Very likely	1 - Not at all likely	2	3	4	5 - Very likely	1 - Not at all likely	2	3	4	5 -Very likely
A Email notifications	16%	11%	26%	25%	23%	15%	13%	21%	27%	24%	15%	13%	23%	29%	21%
B Text message notifications	36%	15%	21%	16%	12%	35%	16%	16%	21%	13%	35%	15%	17%	17%	15%

Q16C: How likely are you to reduce your electricity use in response to future Flex Alert requests? Would you say you are...?

	PG&E (n=400)	SCE (n=200)	SDG&E (n=200)
Not at all likely	5%	2%	6%
Somewhat likely	38%	44%	31%
Very likely	52%	52%	59%
Don't know	6%	3%	5%

Q17: In addition to the statewide Flex Alerts [IOU] also has other, similar events that may occur on the same day as Flex Alert events. Before today, had you heard of [IOU] [Program Name]?

	PG&E (n=400)	SCE (n=200)	SDG&E (n=200)
Yes	24%	31%	40%
No	67%	61%	53%
Don't remember	9%	9%	8%

Q18A-C: Have you signed up with [IOU] for [Program Name] [alerts]?

	PG&E (n=94)	SCE (n=61)	SDG&E (n=79)
Yes	54%	59%	57%
No	43%	31%	38%
Don't know	3%	10%	5%

Q19: Have you logged onto [IOU]'s website to check your electricity usage in the last year?

	PG&E (n=400)	SCE (n=200)	SDG&E (n=200)
Yes	34%	43%	45%
No	62%	55%	54%
Don't know	4%	3%	1%

Q20: Other than on Flex Alert days, have you done anything to reduce your household's energy use in the last year?

	PG&E (n=400)	SCE (n=200)	SDG&E (n=200)
Yes	74%	79%	74%
No	20%	19%	21%
Don't know	6%	3%	6%

Q21: What have you done to save energy over the past year? (Multiple Responses Allowed)

	PG&E (n=294)	SCE (n=157)	SDG&E (n=147)
Installed a new ENERGY STAR appliance	35%	45%	31%
Received an energy audit	7%	6%	7%
Switched to CFLs or LED light bulbs	62%	69%	61%
Upgraded to a higher efficiency furnace or air conditioner	12%	15%	10%
Monitored household energy use online or on an in-home display	19%	24%	17%
Regularly turned off lights and unplugged electronics	84%	76%	84%
Used a programmable thermostat	29%	34%	24%
Something else	10%	4%	9%
Don’t know	1%	<1%	1%

B.1.3. Demographics

Selected California Census values and survey results from the Public Policy Institute of California are included for comparison, where applicable.[45]

Q22: My next question is about your use of media like TV and the Internet... About how often do you ...?

	PG&E (N=400)					SCE (N=200)					SDG&E (N=200)				
	Every day	At least once a week	At least once a month	Less than once a month	Never	Every day	At least once a week	At least once a month	Less than once a month	Never	Every day	At least once a week	At least once a month	Less than once a month	Never
Listen to news on the radio	33%	26%	9%	11%	21%	30%	31%	8%	12%	21%	32%	20%	8%	18%	23%
Listen to music on the radio	43%	34%	8%	8%	8%	46%	33%	9%	8%	4%	45%	30%	8%	9%	9%
Watch news on TV	61%	21%	6%	5%	6%	62%	24%	8%	4%	3%	57%	28%	2%	8%	6%
Read a local newspaper, in paper format	23%	30%	12%	16%	19%	24%	31%	12%	13%	20%	21%	24%	12%	17%	27%
Watch or read news on computer	58%	23%	7%	6%	7%	50%	27%	11%	8%	6%	46%	32%	10%	7%	6%
Watch or read news on smartphone/tablet	29%	22%	8%	9%	33%	18%	26%	10%	5%	42%	23%	20%	9%	9%	40%
Use Facebook	50%	18%	5%	5%	22%	55%	19%	7%	5%	15%	48%	23%	9%	4%	18%
Use Twitter	18%	13%	8%	7%	55%	20%	14%	9%	7%	51%	16%	12%	6%	8%	59%

Q23: Do you own or rent your home?

	PG&E (n=400)	SCE (n=200)	SDG&E (n=200)	Weighted Total (n=799)	CA Census
Own	59%	62%	51%	59%	55%
Rent	40%	37%	48%	39%	45%
Rather not say	2%	2%	2%	2%	-

[45] *http://www.ppic.org/main/series.asp?i=12*; *http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml*

Q24: What kind of home do you live in?

	PG&E (n=400)	SCE (n=200)	SDG&E (n=200)	Weighted Total (n=801)	CA Census
Single-family house	65%	72%	48%	66%	58%
Single-family attached home, such as a townhouse	4%	6%	8%	5%	7%
Duplex, triplex, or fourplex	4%	3%	7%	4%	8%
Apartment or condominium with 5 units or more	20%	15%	30%	19%	23%
Manufactured or mobile home	5%	5%	5%	5%	4%
Something else	3%	<1%	2%	1%	<1%
Don't know	<1%	1%	1%	<1%	-

Q26: Does your home have central air conditioning?

	PG&E (n=400)	SCE (n=200)	SDG&E (n=200)	Weighted Total (n=799)	CA Census
Yes	56%	66%	50%	59%	63%
No	42%	34%	49%	39%	37%
Don't know	2%	1%	2%	1%	-

Q27: Does your home have a pool? (Single-family Home Occupants Only)

	PG&E (n=260)	SCE (n=144)	SDG&E (n=96)	Weighted Total (n=527)	CA Census
Yes	14%	22%	17%	18%	18%
No	85%	78%	83%	82%	82%
Don't know	<1%	<1%	<1%	<1%	-

Q28: Do you have Internet service at home?

	PG&E (n=400)	SCE (n=200)	SDG&E (n=200)	Weighted Total (n=800)	Statewide PPIC*
Yes	96%	98%	100%	97%	82%
No	4%	2%	<1%	3%	18%
Don't know	<1%	<1%	1%	<1%	-

*Public Policy Institute of California

Q29: What kind of Internet service do you have at home? Is it…?

	PG&E (n=384)	SCE (n=196)	SDG&E (n=199)	Weighted Total (n=777)
Broadband (high speed access such as DSL, cable modem,...)	94%	95%	96%	95%
Dial-up	3%	1%	1%	2%
Something else	2%	2%	2%	2%
Don't know	2%	2%	2%	2%

Q30: Including yourself, how many people normally live in your household?... Do include all household members, including adults and children, whether they are related to you or not.

	PG&E (n=393)	SCE (n=191)	SDG&E (n=195)	Weighted Total (n=776)
1	20%	14%	17%	17%
2	33%	28%	39%	32%
3	21%	27%	22%	24%
4	15%	19%	12%	16%
5	6%	6%	6%	6%
6	3%	5%	3%	4%
7	2%	1%	2%	1%
8	1%	1%	<1%	1%
9	<1%	<1%	1%	<1%

Q31: Is anyone in your household regularly at home during the day?

	PG&E (n=400)	SCE (n=200)	SDG&E (n=200)	Weighted Total (n=800)
Yes	71%	75%	76%	73%
No	25%	19%	21%	22%
Don't know	1%	1%	2%	1%
Rather not say	3%	6%	2%	4%

Q32: What is your age? Please stop me when I reach the category with your age.

	PG&E (n=400)	SCE (n=200)	SDG&E (n=200)	Weighted Total (n=801)	CA Census
18 to 24	11%	15%	13%	12%	10%[1]
25 to 34	25%	25%	21%	24%	20%
35 to 44	14%	11%	16%	13%	19%
45 to 54	23%	17%	24%	20%	19%
55 to 64	28%	33%	26%	30%	15%
65 or higher	1%	<1%	1%	<1%	16%
Rather not say	<1%	1%	1%	<1%	-

Q33: What is your gender?

	PG&E (n=400)	SCE (n=200)	SDG&E (n=200)	Weighted Total (n=800)
Female	55%	62%	61%	59%
Male	45%	38%	39%	41%
Rather not say	<1%	1%	1%	<1%

Q34: Are you of Hispanic, Latino, or Spanish origin?

	PG&E (n=400)	SCE (n=200)	SDG&E (n=200)	Weighted Total (n=801)
Yes	17%	21%	12%	18%
No	83%	78%	87%	81%
Rather not say	1%	2%	2%	1%

Q35: What is your race? (Multiple Responses Allowed)

	PG&E (n=400)	SCE (n=200)	SDG&E (n=200)	Weighted Total (n=800)
White	68%	74%	83%	72%
Black or African American	6%	7%	4%	15%
American Indian or Alaska Native	3%	3%	5%	6%
Asian	19%	13%	10%	3%
Native Hawaiian or Other Pacific Islander	1%	1%	2%	1%
Something else	5%	5%	4%	5%
Rather not say	2%	4%	1%	3%

Q36: What is your annual household income, before taxes? Please stop me when I reach the category with your annual household income before taxes.

	PG&E (n=400)	SCE (n=200)	SDG&E (n=200)	Weighted Total (n=800)	CA Census
Less than $25,000	15%	17%	18%	16%	21%
$25,000 to less than $50,000	24%	25%	29%	25%	22%
$50,000 to less than $75,000	20%	24%	16%	21%	17%
$75,000 to less than $100,000	17%	16%	17%	16%	12%
$100,000 or more	18%	15%	16%	16%	28%
Don't know	1%	1%	1%	1%	-
Rather not say	5%	5%	5%	5%	-

B.2. Results by Language

This section presents the results of the general survey by respondents' language. Note that English language results have been weighted to represent the relative size of the IOU customer bases, as outlined in section 4. The Chinese, Korean, Vietnamese and Spanish results have not been weighted. For full survey instructions and skip logic, see Appendix B.

B.2.1. Awareness and Understanding

Q1-5: Have you ever seen or heard anything about … Flex Alerts. Q2: Flex Alerts ask people to temporarily reduce electricity use to prevent outages during periods of high demand. Have you ever seen or hear anything about Flex Alerts?

	English (n=800)	Spanish (n=120)	Vietnamese (n=87)	Korean (n=80)	Chinese (n=95)
Not Aware	37%	38%	61%	55%	59%
Aware, Unprompted	49%	43%	15%	19%	31%
Aware, Prompted	14%	18%	24%	26%	11%

Significant difference, X^2 p<.05.

Q4: Flex Alerts ask people to temporarily reduce electricity use to prevent outages during periods of high demand. Did you hear about Flex Alerts during...? (Multiple Responses Allowed)

	English (n=800)	Spanish (n=120)	Vietnamese (n=87)	Korean (n=80)	Chinese (n=95)
Summer 2013*	25%	44%	18%	16%	17%
Summer 2012*	22%	23%	8%	14%	17%
Before Summer 2012*	21%	13%	7%	15%	14%
Don't remember*	15%	5%	9%	8%	7%
Not aware of Flex Alert*	37%	38%	61%	55%	59%

* Significant difference, X^2 $p<.05$.

Q5: Did you hear about Flex Alerts from...? (Multiple Responses Allowed)

	English (n=505)	Spanish (n=74)	Vietnamese (n=34)	Korean (n=36)	Chinese (n=39)
TV*	56%	72%	50%	44%	49%
Radio*	27%	41%	50%	22%	26%
Something in the mail*	26%	11%	26%	33%	21%
A text or email from your utility	15%	11%	18%	3%	15%
Your family, a friend, or someone you know*	13%	23%	26%	28%	21%
A newspaper*	11%	23%	35%	22%	28%
Social media like Twitter or Facebook*	8%	26%	0%	3%	21%
A text or email from Flex Alert	7%	12%	6%	8%	15%
Some other website	5%	14%	6%	3%	5%
A nonprofit or other community group*	3%	9%	18%	14%	8%
Some other way	3%	3%	0%	0%	5%
Don't remember	6%	3%	0%	6%	8%

* Significant difference, X^2 $p<.05$.

Q3: As best you can remember, are Flex Alerts about…?

	English (n=395)	Spanish (n=52)	Vietnamese (n=13)	Korean (n=15)	Chinese (n=29)
Reducing electricity usage	86%	63%	54%	80%	52%
Earthquake warnings	4%	13%	8%	13%	21%
Wildfire danger	2%	6%	8%	0%	3%
It depends on the alert	3%	8%	8%	0%	7%
Something else	1%	2%	0%	0%	0%
Don’t remember	5%	8%	23%	7%	17%

Significant difference, X^2 $p<.05$.

Q6: What did the Flex Alerts ask you to do? Do you recall if the Flex Alerts ask you to...? (Multiple Responses Allowed)

	English (n=505)	Spanish (n=74)	Vietnamese (n=34)	Korean (n=36)	Chinese (n=39)
Turn off unnecessary lights	67%	73%	85%	67%	56%
Postpone using major appliances until the evening*	74%	55%	65%	44%	59%
Turn your AC up to 78 degrees or higher*	59%	27%	38%	58%	49%
Use a fan when possible	28%	31%	35%	25%	28%
Replace inefficient appliances*	20%	36%	38%	28%	38%
Replace old incandescent light bulbs*	23%	50%	74%	61%	26%
Don't remember what Flex Alerts ask you to do	6%	4%	9%	8%	5%

* Significant difference, X^2 $p<.05$.

Q6A: Did the Flex Alert message ask you to reduce your energy use....?

	English (n=504)	Spanish (n=74)	Vietnamese (n=34)	Korean (n=36)	Chinese (n=39)
On one specific day	31%	20%	15%	19%	26%
On several days	25%	24%	9%	14%	26%
All summer	15%	27%	29%	22%	26%
All year/ or "Throughout the year"	12%	14%	38%	22%	18%
Don't remember	17%	15%	9%	22%	5%
On one specific day or several days	56%	45%	24%	33%	51%

Significant difference, X^2 $p<.05$.

Q7: Do you recall what time of day the Flex Alerts ask you to use less electricity? Is it during the...?

	English (n=505)	Spanish (n=74)	Vietnamese (n=34)	Korean (n=36)	Chinese (n=39)
Morning	7%	16%	24%	11%	3%
Afternoon	54%	36%	15%	39%	44%
Evening	9%	11%	12%	14%	18%
Night time	2%	8%	3%	3%	13%
All day	16%	18%	29%	8%	15%
Don't remember	13%	11%	18%	25%	8%

Significant difference, X^2 $p<.05$.

Q13: Before this survey, did you know you could sign up for email or text notifications about Flex Alert days?

	English (n=505)	Spanish (n=74)	Vietnamese (n=34)	Korean (n=36)	Chinese (n=39)
Yes	34%	43%	26%	14%	38%
No	71%	51%	86%	56%	55%
Unsure / don't recall	3%	5%	0%	5%	11%

Significant difference, X^2 $p<.05$.

B.2.2. Engagement and Attitudes

Q14: Did you sign up for email or text notification about Flex Alert days?

	English (n=171)	Spanish (n=32)	Korean (n=5)	Vietnamese (n=9)	Chinese (n=15)
Yes, email notifications	86	17	1	6	8
Yes, text notifications	16	3	0	1	4
Yes, both email and text notifications	17	3	2	1	1
No, have not signed up for notifications	44	7	2	1	2
Don't know	8	2	0	0	0

Q15: What are the reasons you haven't signed up for email or text notifications? Is it because you…? (Multiple Responses Allowed)

	English (n=44)	Spanish (n=7)	Vietnamese (n=1)	Korean (n=2)	Chinese (n=2)
Do not have email	0	0	1	0	0
Do not check email regularly	3	2	1	1	1
Do not have a cell phone	1	0	0	0	0
Do not text	10	1	1	0	0
Are not interested	10	1	0	1	1
Think media messages are enough	19	1	0	1	2
Have some other reason	6	2	0	1	0
Don’t know	7	0	0	0	0

Q16B: Have you visited the Flex Alert website at Flexalert.org?

	English (n=505)	Spanish (n=74)	Vietnamese (n=34)	Korean (n=36)	Chinese (n=39)
Yes	14%	34%	6%	8%	26%
No	82.0%	62.2%	91.2%	91.7%	74.4%
Don't remember	3.8%	4.1%	2.9%	0.0%	0.0%

Q8: Has your household ever taken steps to change how you used electricity on a Flex Alert day?

	English (n=505)	Spanish (n=74)	Vietnamese (n=34)	Korean (n=36)	Chinese (n=39)
Yes	78%	80%	76%	69%	82%
No	18%	14%	21%	28%	13%
Don't know	5%	7%	3%	3%	5%

Q10: On Flex Alert days, [what have you done/what would you do], if anything? (Multiple Responses Allowed)

	English (n=800)	Spanish (n=120)	Vietnamese (n=87)	Korean (n=80)	Chinese (n=95)
Turn off unneeded lights*	69%	68%	92%	74%	49%
Change when you do laundry*	51%	38%	56%	31%	31%
Pull window shades or curtains*	42%	33%	62%	59%	36%
Turn off other appliances, electric equipment or devices*	41%	40%	57%	53%	35%
Manually adjust the air conditioner or turn it off	40%	39%	53%	45%	39%
Use fans to cool the house*	38%	32%	53%	40%	29%
Change when you run the dishwasher*	37%	17%	17%	19%	17%
Set timers, thermostats, or household controls to use less electricity	31%	37%	37%	28%	25%
Change cooking times*	22%	11%	31%	14%	15%
Turn off a pool pump	13%	20%	11%	10%	17%
Other things	2%	3%	0%	1%	1%
Nothing	6%	3%	0%	4%	4%
Don't know*	10%	9%	2%	8%	20%

* Significant difference, X^2 $p<.05$.

Q11: Please rate the importance to you of the following potential reasons... How important to you are the following potential reasons for reducing your electric use on Flex Alert days?

	English (n=800)	Spanish (n=120)	Vietnamese (n=87)	Korean (n=80)	Chinese (n=95)
A: Doing your part for California*	71%	78%	86%	70%	62%
B: Helping the environment*	74%	88%	91%	71%	69%
C: Saving money on electricity bills*	82%	88%	93%	76%	71%
D: Helping avoid power outages*	83%	84%	87%	78%	71%
E: Earning credits on your electricity bills*	67%	70%	84%	65%	62%

* Significant difference, X^2 $p<.05$.

Q12: What would keep you from making an effort to reduce your electric usage on Flex Alert afternoons, if anything? Is it because...? (Multiple Responses Allowed)

	English (n=800)	Spanish (n=120)	Vietnamese (n=87)	Korean (n=80)	Chinese (n=95)
No one is at home*	33%	25%	26%	34%	46%
You're unsure what to do*	18%	25%	15%	23%	29%
You're concerned about comfort*	27%	27%	13%	18%	22%
Some other reason*	7%	3%	7%	1%	1%
No particular reason*	29%	37%	49%	30%	23%

* Significant difference, X^2 $p<.05$.

Q16: You can sign up for Flex Alert email or text message notifications for free on the Internet. How likely are you to sign up for email or text message notification about Flex Alert days?

	Percent Rating "4" or "5" out of 5				
	English (n=629)	Spanish (n=88)	Vietnamese (n=78)	Korean (n=75)	Chinese (n=80)
Email notifications*	49%	52%	35%	23%	45%
Text message notifications*	31%	41%	40%	15%	33%

* Significant difference, X^2 $p<.05$.

Q16C: How likely are you to reduce your electricity use in response to future Flex Alert requests? Would you say you are...?

	English (n=799)	Spanish (n=120)	Vietnamese (n=87)	Korean (n=80)	Chinese (n=95)
Not at all likely	4%	4%	3%	13%	2%
Somewhat likely	40%	28%	17%	39%	43%
Very likely	52%	65%	78%	41%	49%
Don't know	4%	3%	1%	8%	5%

Significant difference, X^2 $p<.05$.

Q17: In addition to the statewide Flex Alerts [IOU] also has other, similar events that may occur on the same day as Flex Alert events. Before today, had you heard of [IOU] [Program Name]?

English

	PG&E (n=363)	SCE (n=340)	SDG&E (n=98)
Yes	23%	31%	40%
No	67%	60%	52%
Don't remember	9%	9%	8%

Spanish

	PG&E (n=60)	SCE (n=47)	SDG&E (n=13)
Yes	42%	47%	54% (7)
No	47%	47%	31% (4)
Don't remember	12%	6%	15% (2)

Vietnamese

	PG&E (n=38)	SCE (n=35)	SDG&E (n=14)
Yes	18%	37%	21% (3)
No	76%	60%	71% (10)
Don't remember	5%	3%	7% (1)

Korean

	PG&E (n=39)	SCE (n=38)	SDG&E (n=3)
Yes	23%	18%	33% (1)
No	74%	76%	67% (2)
Don't remember	3%	5%	-

Chinese

	PG&E (n=55)	SCE (n=35)	SDG&E (n=5)
Yes	33%	40%	60% (3)
No	60%	46%	40% (2)
Don't remember	7%	14%	-

Q18A-C: Have you signed up with [IOU] for [Program Name] [alerts]?

	PG&E	SCE	SDG&E
English			
Yes	46	61	22
No	36	32	15
Don't know	3	10	2
Spanish			
Yes	18	8	5
No	7	13	1
Don't know	-	1	1
Vietnamese			
Yes	2	7	1
No	5	5	2
Don't know	-	1	-
Korean			
Yes	4	4	-
No	4	3	-
Don't know	1	-	1
Chinese			
Yes	10	8	2
No	6	5	1
Don't know	2	1	-

Q19: Have you logged onto [IOU]'s website to check your electricity usage in the last year?

English			
	PG&E (n=350)	SCE (n=331)	SDG&E (=97)
Yes	35%	44%	45%
No	65%	56%	55%
Spanish			
	PG&E (n=59)	SCE (n=46)	SDG&E (=12)
Yes	47%	30%	33% (4)
No	53%	70%	67% (8)
Vietnamese			
	PG&E (n=37)	SCE (n=33)	SDG&E (=14)
Yes	14%	30%	29% (4)
No	86%	70%	71% (10)
Korean			
	PG&E (n=38)	SCE (n=38)	SDG&E (=2)
Yes	24%	16%	- (0)
No	76%	84%	100% (2)
Chinese			
	PG&E (n=54)	SCE (n=33)	SDG&E (=5)
Yes	46%	39%	40% (2)
No	54%	61%	60% (3)

Q20: Other than on Flex Alert days, have you done anything to reduce your household's energy use in the last year?

	English (n=800)	Spanish (n=120)	Vietnamese (n=87)	Korean (n=80)	Chinese (n=95)
Yes	76%	74%	83%	59%	64%
No	20%	21%	14%	41%	27%
Don't know	5%	5%	3%	0%	8%

Significant difference, X^2 $p<.05$.

Q21: What have you done to save energy over the past year? (Multiple Responses Allowed)

	English (n=605)	Spanish (n=89)	Vietnamese (n=72)	Korean (n=47)	Chinese (n=61)
Regularly turned off lights and unplugged electronics*	81%	72%	93%	74%	77%
Switched to CFLs or LED light bulbs*	65%	69%	94%	81%	70%
Installed a new ENERGY STAR appliance	39%	25%	39%	32%	39%
Used a programmable thermostat	31%	24%	24%	36%	25%
Monitored household energy use online or on an in-home display	21%	21%	17%	13%	20%
Upgraded to a higher efficiency furnace or air conditioner*	13%	30%	36%	9%	21%
Received an energy audit *	7%	19%	21%	6%	10%
Something else	7%	6%	0%	2%	3%
Don't know	0%	0%	1%	0%	0%

* Significant difference, X^2 $p<.05$.

B.2.3. Demographics

Q22: My next question is about your use of media like TV and the Internet... About how often do you ...?

	Percentage Using Daily				
	English (n=800)	Spanish (n=120)	Vietnamese (n=87)	Korean (n=80)	Chinese (n=95)
Watch news on TV*	61%	68%	68%	65%	48%
Watch or read news on a computer*	53%	43%	37%	43%	54%
Use Facebook*	52%	58%	31%	20%	38%
Listen to music on the radio*	44%	59%	41%	23%	39%
Listen to news on the radio*	32%	38%	56%	24%	37%
Watch or read news on a smartphone or tablet*	23%	38%	18%	24%	35%
Read a local newspaper, in paper format	23%	23%	29%	38%	19%
Use Twitter*	18%	32%	14%	4%	8%

* Significant difference, X^2 $p<.05$.

Q23: Do you own or rent your home?

	English (n=799)	Spanish (n=120)	Vietnamese (n=87)	Korean (n=80)	Chinese (n=95)
Own	59%	48%	37%	71%	71%
Rent	39%	49%	62%	26%	25%
Rather not say	2%	3%	1%	3%	4%

Significant difference, X^2 $p<.05$.

Q24: What kind of home do you live in?

	English (n=801)	Spanish (n=120)	Vietnamese (n=87)	Korean (n=80)	Chinese (n=95)
Single-family house	66%	67%	59%	63%	72%
Single-family attached home, such as a townhouse	5%	3%	6%	9%	4%
Duplex, triplex, or fourplex	4%	8%	13%	6%	7%
Apartment or condominium with 5 units or more	19%	22%	21%	19%	14%
Manufactured or mobile home	5%	0%	2%	1%	2%
Something else	1%	1%	0%	0%	1%
Don't know	0%	1%	0%	3%	0%

Significant difference, X^2 $p<.05$.

Q26: Does your home have central air conditioning?

	English (n=800)	Spanish (n=120)	Vietnamese (n=87)	Korean (n=80)	Chinese (n=95)
Yes	59%	64%	40%	63%	64%
No	39%	33%	55%	34%	32%
Don't know	1%	3%	5%	4%	4%

Significant difference, X^2 $p<.05$.

Q27: Does your home have a pool?

	English (n=528)	Spanish (n=80)	Vietnamese (n=51)	Korean (n=50)	Chinese (n=68)
Yes	18%	26%	8%	14%	10%
No	82%	74%	92%	86%	90%
Don't know	0%	0%	0%	0%	0%

Q28: Do you have Internet service at home?

	English (n=799)	Spanish (n=120)	Vietnamese (n=87)	Korean (n=80)	Chinese (n=95)
Yes	97%	97%	68%	81%	94%
No	3%	3%	32%	16%	6%
Don't know	0%	0%	0%	3%	0%

Significant difference, X^2 $p<.05$.

Q29: What kind of Internet service do you have at home? Is it…?

	English (n=778)	Spanish (n=116)	Vietnamese (n=59)	Korean (n=65)	Chinese (n=89)
Broadband (high speed access such as DSL, cable modem,...)	95%	92%	88%	88%	94%
Dial-up	2%	6%	0%	6%	2%
Something else	2%	1%	2%	3%	1%
Don't know	2%	1%	10%	3%	2%

Q30: Including yourself, how many people normally live in your household?... Do include all household members, including adults and children, whether they are related to you or not.

	English (n=776)	Spanish (n=115)	Vietnamese (n=81)	Korean (n=75)	Chinese (n=83)
1	17%	9%	7%	13%	8%
2	32%	13%	20%	39%	28%
3	24%	22%	26%	21%	33%
4	16%	27%	14%	20%	20%
5	6%	11%	19%	4%	6%
6	4%	10%	9%	3%	5%
7	1%	4%	4%	0%	0%
8	1%	2%	1%	0%	0%
9	0%	0%	0%	0%	0%
10	0%	2%	1%	0%	0%
13	0%	1%	0%	0%	0%

Significant difference, X^2 $p<.05$.

Q31: Is anyone in your household regularly at home during the day?

	English (n=800)	Spanish (n=120)	Vietnamese (n=87)	Korean (n=80)	Chinese (n=95)
Yes	73%	83%	82%	64%	57%
No	22%	16%	17%	29%	34%
Don't know	1%	2%	1%	3%	1%
Rather not say	4%	0%	0%	5%	8%

Significant difference, X^2 $p<.05$.

Q32: What is your age? Please stop me when I reach the category with your age.

	English (n=800)	Spanish (n=120)	Vietnamese (n=87)	Korean (n=80)	Chinese (n=95)
18 to 24	13%	31%	7%	6%	17%
25 to 34	24%	34%	10%	9%	28%
35 to 44	13%	21%	20%	14%	19%
45 to 54	20%	7%	15%	10%	13%
55 to 64	30%	6%	26%	16%	11%
65 or higher	0%	2%	22%	41%	8%
Rather not say	0%	0%	0%	4%	4%

Significant difference, X^2 $p<.05$.

Q33: What is your gender?

	English (n=800)	Spanish (n=120)	Vietnamese (n=87)	Korean (n=80)	Chinese (n=95)
Female	59%	54%	46%	58%	52%
Male	41%	46%	53%	43%	44%
Other	0%	0%	1%	0%	1%
Rather not say	0%	0%	0%	0%	3%

Significant difference, X^2 $p<.05$.

Q34: Are you of Hispanic, Latino, or Spanish origin?

	English (n=800)	Spanish (n=120)	Vietnamese (n=87)	Korean (n=80)	Chinese (n=95)
Yes	18%	95%	2%	1%	1%
No	81%	3%	98%	95%	97%
Rather not say	1%	2%	0%	4%	2%

Significant difference, X^2 $p<.05$.

Q35: What is your race? (Multiple Responses Allowed)

	English (n=800)	Spanish (n=120)	Vietnamese (n=87)	Korean (n=80)	Chinese (n=95)
White*	72%	59%	3%	1%	4%
Black or African American*	6%	4%	0%	1%	0%
American Indian or Alaska Native	3%	3%	2%	1%	0%
Asian*	15%	2%	95%	94%	89%
Native Hawaiian or Other Pacific Islander	1%	2%	0%	0%	1%
Something else*	5%	23%	0%	0%	1%
Rather not say*	3%	8%	0%	4%	4%

* Significant difference, X^2 $p<.05$.

Q36: What is your annual household income, before taxes? Please stop me when I reach the category with your annual household income before taxes.

	English (n=799)	Spanish (n=120)	Vietnamese (n=87)	Korean (n=80)	Chinese (n=95)
Less than $25,000	16%	23%	45%	26%	11%
$25,000 to less than $50,000	25%	33%	16%	13%	14%
$50,000 to less than $75,000	21%	15%	13%	18%	26%
$75,000 to less than $100,000	16%	13%	11%	8%	16%
$100,000 or more	16%	12%	2%	16%	20%
Don't know	1%	3%	6%	5%	3%
Rather not say	5%	3%	7%	15%	11%

Significant difference, X^2 $p<.05$.

C. General Awareness Survey

C.1. Survey Language Preference

L1. Please select your preferred language for taking this survey.

1. English [COUNTS TOWARD ENGLISH QUOTA]
2. Spanish [COUNTS TOWARD SPANISH QUOTA]
3. Vietnamese [COUNTS TOWARD VIETNAMESE QUOTA]
4. Mandarin [COUNTS TOWARD CHINESE QUOTA]
5. Cantonese [COUNTS TOWARD CHINESE QUOTA]
6. Korean [COUNTS TOWARD KOREAN QUOTA]

C.2. Introduction

C.2.1. Web-Administered Survey

Welcome to our survey about California's energy alert system. Your opinions will help shape how public alerts are communicated in the future.

This survey is being conducted by Research Into Action, an independent research firm, for several California utilities. It is voluntary, and should only take about 10 minutes or less.

Your responses will be confidential. We won't ask for your name or any other information that might identify you.

If you have any questions about the survey, please contact: *support@researchintoaction.com*, and reference the California Energy Alert Study.

C.2.2. Phone-Administered Survey

Hi, my name is _____, and I'm calling with a short survey on behalf of California electric utilities. May I please speak to an adult in your household?

[WHEN ELIGIBLE RESPONDENT ON THE PHONE]

Hi, my name is _____, and I'm calling with a short survey on behalf of California utilities. It's about California's energy alert system. Your opinions will help shape how public alerts are communicated in the future.

I'm from [COMPANY NAME], an independent research firm. The survey is voluntary, and should only take about 10 minutes of your time. AS NEEDED: I won't ask for your name or any information that might identify you.

AS NEEDED: If you'd like to talk to someone in charge of the study, please call Research Into Action, at (503) 287-9136, and reference the **California Energy Alert Study.**

AS NEEDED: We're not selling anything; this is strictly for research purposes.

C.3. Screening

S1. First, which of the following categories includes your age?

[CATI: READ LIST; STOP ONCE RESPONDENT'S AGE IS REACHED]
1. Under 18
2. 18 to 34
3. 35 or higher
4. **[CATI: DO NOT READ]** Prefer not to answer

[S1 MUST EQUAL 2 OR 3 TO CONTINUE (18 OR OLDER). IF UNDER 18 OR REFUSE TO GIVE AGE, THANK AND TERMINATE]

S2. What utility provides electricity for your home?

[CATI: READ LIST AS NECESSARY]
1. Pacific Gas and Electric (PG&E)
2. Southern California Edison (SCE)
3. San Diego Gas and Electric (SDG&E)
4. Other [TERMINATE]
5. Don't know [WEB: TERMINATE; **CATI:** ASK FOR REFERRAL]

[CATI ONLY, ASK IF S2=5 (DOES NOT KNOW UTILITY NAME]

S2A. Is there anyone else in your household who would know the name of your electricity provider?

1. Yes (Available now) [SKIP BACK TO INTRO]
2. Yes (callback later) [RECORD NAME OF NEW PARTICIPANT AND SCHEDULE CALLBACK]
3. No [TERMINATE]

S3. What language do you use at home most of the time?

1. English [COUNT TOWARD ENGLISH QUOTA ONLY IF ENGLISH ALSO SELECTED AT L1]
2. Spanish [COUNTS TOWARD SPANISH QUOTA IF NOT SELECTED AT L1]
3. Vietnamese [COUNTS TOWARD VIETNAMESE QUOTA IF NOT SELECTED AT L1]
4. Mandarin [COUNTS TOWARD CHINESE QUOTA IF NOT SELECTED AT L1]
5. Cantonese [COUNTS TOWARD CHINESE QUOTA IF NOT SELECTED AT L1]
6. Other Chinese [COUNTS TOWARD CHINESE QUOTA IF NOT SELECTED AT L1]
7. Korean [COUNTS TOWARD KOREAN QUOTA IF NOT SELECTED AT L1]
8. Other (Please specify) [TEXT BOX]

[FINALIZE QUOTA COUNTS FOR ALL LANGUAGES AFTER S3. IF ENGLISH SELECTED AT L1 AND NOT S3, DO NOT COUNT AS ENGLISH]

C.4. Awareness & Flex Alert Opinions

The next questions are about alerts issued by public officials for various reasons.

Q1. Have you ever seen or heard anything about …?

[CATI: READ LIST, GET YES OR NO FOR EACH]

[COLUMNS WITH RADIO BUTTONS LABELED 'Yes, heard of it' and 'No, never heard of it'; RANDOMIZE LIST; REQUIRE YES OR NO FOR EACH ROW ATTRIBUTE]

1. Amber Alerts
2. Smog Alerts
3. Severe Weather Alerts
4. Flash Flood Warnings
5. Flex Alerts
6. Fire Alerts
7. [PIPE IN TEXT - [IF S2=1/PG&E CUSTOMER, SHOW: Smart Day Alerts; IF S2=2/SCE CUSTOMER, SHOW: Save Power Day Alerts; IF S2=3/SDG&E CUSTOMER, SHOW: Reduce Your Use Day Alerts]

[IF Q1 NOT EQUAL TO 5 (HAS NOT HEARD OF FLEX ALERT]

Q2. Flex Alerts ask people to temporarily reduce electricity use to prevent outages during periods of high demand.

Have you ever seen or heard anything about Flex Alerts?

1. Yes
2. No
3. **[CATI: DO NOT READ]** Don't know / unsure

[IF Q1=5 (HAS UNAIDED AWARENESS OF FLEX ALERT)]

Q3. As best you can remember, are Flex Alerts about…?

[CATI: READ ENTIRE LIST]

[RANDOMIZE ITEMS 1-3; SINGLE RESPONSE]

1. Reducing electricity usage
2. Earthquake warnings
3. Wildfire danger
4. It depends on the alert [SHOW THIRD TO LAST]
5. Something else [NO SPECIFY; SHOW SECOND TO LAST]
6. **[CATI: DO NOT READ]** Don't remember [SHOW LAST]

[IF Q1=5 OR Q2=1 (HEARD OF FLEX ALERTS), ASK Q4 – Q8; OTHERWISE SKIP TO Q10]

Q4. [SHOW TEXT IF Q1= 5 (HAS UNAIDED AWARENESS OF FLEX ALERT; SHOW REGARDLESS OF Q3 RESPONSE):] Flex Alerts ask people to temporarily reduce electricity use to prevent outages during periods of high demand.

Did you hear about Flex Alerts during…?

[WEB] *Please select all that apply.*

[CATI: READ LIST; ACCEPT MULTIPLES]

1. Summer 2013
2. Summer 2012
3. Before Summer 2012
4. Don't remember [EXCLUSIVE]

[IF Q1=5 OR Q2=1 (HEARD OF FLEX ALERTS)]

Q5. Did you hear about Flex Alerts from…?

[WEB] *Please select all that apply.*

[**CATI: READ LIST; ACCEPT MULTIPLES]**

[RANDOMIZE OPTIONS 1 THROUGH 10 – GROUP OPTIONS 4 AND 5 TOGETHER BUT RANDOMIZED, AND GROUP OPTIONS 8 AND 9 TOGETHER AND IN ORDER]

[MULTIPLE RESPONSE]

1. Radio
2. TV
3. A newspaper
4. A text or email from Flex Alert
5. A text or email from your utility
6. Your family, a friend, or someone you know
7. A nonprofit or other community group
8. Social media like Twitter or Facebook
9. Some other website
10. Something in the mail
11. Some other way (please specify)
12. [CATI: DO NOT READ] Don't remember [EXCLUSIVE]

[TAB PROGRAMMER: COMPARE TO BASELINE QUESTION PK3]

[IF Q1=5 OR Q2=1 (HEARD OF FLEX ALERTS)]

Q6. What did the Flex Alerts ask you to do?

[RANDOMIZE LIST; CHECKBOXES]

[CATI: READ LIST; ACCEPT MULTIPLES. AS NECESSARY: Do you recall if the Flex Alerts ask you to…?]

[WEB] *Please select all that apply.*

1. Turn off unnecessary lights
2. Postpone using major appliances until the evening
3. Turn your air conditioning up to 78 degrees or higher
4. Use a fan when possible
5. Replace inefficient appliances [TAB PROGRAMMER: CODE AS FALSE MESSAGE1]
6. Replace old incandescent light bulbs [TAB PROGRAMMER: CODE AS FALSE MESSAGE2]

7. Don't remember what Flex Alerts ask you to do [EXCLUSIVE; SHOW LAST]

[TAB PROGRAMMER: COMPARE TO BASELINE SURVEY QUESTION PK2C]

[IF Q1=5 OR Q2=1 (HEARD OF FLEX ALERTS)]

Q6A. Did the Flex Alert message ask you to reduce your energy use….?

[CATI: READ ENTIRE LIST BEFORE RECORDING RESPONSE]

1. On one specific day
2. On several days
3. All summer
4. All year/ or "Throughout the year"
5. Don't remember

[IF Q1=5 OR Q2=1 (HEARD OF FLEX ALERTS)]

Q7. Do you recall what time of day the Flex Alerts ask you to use less electricity? Is it during the…?

1. Morning
2. Afternoon
3. Evening
4. Night time
5. All day
6. Don't remember

[TAB PROGRAMMER: COMPARE TO BASELINE SURVEY QUESTION PK2A]

[IF Q1=5 OR Q2=1 (HEARD OF FLEX ALERTS)]

Q8. Has your household ever taken steps to change how you used electricity on a Flex Alert day?

1. Yes
2. No
3. Don't know

[Q9 DELETED]

[ASK ALL]

Q10. On Flex Alert days, [IF HAS TAKEN ACTION (Q8=1) what have you done / IF HAS NOT TAKEN ACTION (ALL OTHERS) what would you do, if anything]?

[WEB] *Please select all that apply.*

[CATI: READ LIST; GET YES OR NO FOR EACH]

[MULTIPLE RESPONSE; RANDOMIZE 1-11; KEEP 7 AND 8 TOGETHER AND IN ORDER]

1. Turn off unneeded lights
2. Manually adjust the air conditioner or turn it off
3. Set timers, thermostats, or household controls to use less electricity
4. Change cooking times
5. Change when you do laundry
6. Change when you run the dishwasher
7. Turn off a pool pump
8. Turn off other appliances, electric equipment or devices
9. Use fans to cool the house
10. Pull window shades or curtains
11. Other things (please specify)
12. Nothing [EXCLUSIVE]
13. Don't know [EXCLUSIVE]

[TAB PROGRAMMER: COMPARE TO PK5_3B IN BASELINE SURVEY]

[ASK ALL]

Q11. [CATI] Please rate the importance to you of the following potential reasons for reducing your electric use on Flex Alert days. Use a 1 to 5 scale, where '1' means 'Not at all important' and '5' is "extremely important'.

[WEB] How important to you are the following potential reasons for reducing your electric use on Flex Alert days?

[5 POINT SCALE WITH 1= 'Not at all important' and 5= 'Extremely important']

[RANDOMIZE LIST]

[CATI: READ LIST; REPEAT SCALE AS NECESSARY]

1. Doing your part for California
2. Helping the environment
3. Saving money on electricity bills
4. Helping avoid power outages
5. Earning credits on your electricity bills

[ASK ALL]

Q12. What would keep you from making an effort to reduce your electric usage on Flex Alert afternoons, if anything?

Is it because …?

[WEB] *Please select all that apply.*

[RANDOMIZE LIST; MULTIPLE RESPONSE]

[CATI: READ LIST, ACCEPT MULTIPLES]

1. No one is at home
2. You're unsure what to do
3. You're concerned about comfort
4. Some other reason (please specify)
5. No particular reason [EXCLUSIVE]

[IF Q1=5 OR Q2=1 (HEARD OF FLEX ALERTS)]

Q13. Before this survey, did you know you could sign up for email or text notifications about Flex Alert days?

1. Yes
2. No
3. Unsure / don't recall

[IF Q13= 1 (AWARE COULD SIGN UP FOR NOTIFICATIONS), ASK Q14]

Q14. Did you sign up for email or text notification about Flex Alert days?

1. Yes, email notifications
2. Yes, text notifications
3. Yes, both email and text notifications
4. No, have not signed up for notifications
5. Don't know

[IF Q13=1 and 14=4 (AWARE BUT NOT SIGNED UP FOR NOTIFICATIONS, ASK Q15]

Q15. What are the reasons you haven't signed up for email or text notifications? Is it because you…?

[WEB] *Please select all that apply.*

[CATI: READ LIST; ACCEPT MULTIPLES]

[RANDOMIZE LIST; MULTIPLE RESPONSE]
1. Do not have email
2. Do not check email regularly
3. Do not have a cell phone
4. Do not text
5. Are not interested
6. Think media messages are enough
7. Have some other reason (please specify) [TEXT BOX]
8. **[CATI: DO NOT READ]** Don't know [EXCLUSIVE]

[IF Q13= 2 OR 3 (NOT AWARE COULD SIGN UP FOR NOTIFICATIONS) OR SKIPPED Q13, ASK Q16]

Q16. You can sign up for Flex Alert email or text message notifications for free on the Internet. How likely are you to sign up for email or text message notification about Flex Alert days?

[CATI] Please use a scale from 1 to 5, where 1 is not at all likely, and 5 is very likely.

[WEB: 1 TO 5 SCALE FOR EACH ITEM, 1=Not at all likely; 5=Very likely]
1. **Email** notifications
2. **Text** message notifications

[IF Q1=5 OR Q2=1 (AWARE OF FLEX ALERTS); ASK Q16B]

Q16B. Have you visited the Flex Alert website at Flexalert.org?
1. Yes
2. No
3. Don't remember

[ASK ALL]

Q16C. How likely are you to reduce your electricity use in response to future Flex Alert requests?

[ROTATE 1-3 TOP TO BOTTOM AND BOTTOM TO TOP]

[CATI, READ:] Would you say you are…?

1. Not at all likely
2. Somewhat likely
3. Very likely
4. Don't know [SHOW LAST]

[ASK ALL]

Q17. In addition to the statewide Flex Alerts, [(S2=3): San Diego Gas & Electric; / (S2=2) Southern California Edison / S2=1: Pacific Gas & Electric] also has other, similar events that may occur on the same day as Flex Alert events.

Before today, had you heard of [(S2=3): San Diego Gas & Electric's Reduce Your Use day / (S2=2): Southern California Edison's Save Power Day / (S2=1): Pacific Gas & Electric's SmartDay]?

1. Yes
2. No
3. Don't remember

[IF Q17= 1 (AWARE OF IOU EVENT DAY) & IOU = SDG&E (S2=3)]

Q18A. Have you signed up with San Diego Gas & Electric for Reduce Your Use day alerts?

1. Yes
2. No
3. Don't know

[IF Q17= 1 (AWARE OF IOU EVENT DAY) & IOU = SCE (S2=2)]

Q18B. Have you signed up with Southern California Edison for Save Power Day alerts?

1. Yes
2. No
3. Don't know

[IF Q17= 1 (AWARE OF IOU EVENT DAY) & IOU = PG&E (S2=1)]

Q18C. Have you signed up with Pacific Gas & Electric for the SmartDay rate?
1. Yes
2. No
3. Don't know

[ASK ALL]

Q19. Have you logged onto [(S2=3): San Diego Gas & Electric's / (S2=2): Southern California Edison's / (S2=1: Pacific Gas & Electric's] website to check your electricity usage in the last year?
1. Yes
2. No
3. Don't know

C.5. Other Behaviors

Q20. Other than on Flex Alert days, have you done anything to reduce your household's energy use in the last year?
1. Yes
2. No
3. Don't know [EXCLUSIVE]

[IF Q20= 1 (REDUCED ENERGY USE IN PAST YEAR)]

Q21. What have you done to save energy over the past year?

[WEB] *Please select all that apply.*

[RANDOMIZE LIST; MULTIPLE RESPONSE]

[CATI: READ LIST; ACCEPT MULTIPLES]
1. Installed a new ENERGY STAR appliance
2. Received an energy audit
3. Switched to CFLs or LED light bulbs
4. Upgraded to a higher efficiency furnace or air conditioner
5. Monitored household energy use online or on an in-home display
6. Regularly turned off lights and unplugged electronics
7. Used a programmable thermostat
8. Something else (please specify) [TEXT BOX; SHOW SECOND TO LAST]
9. Don't know [EXCLUSIVE; SHOW LAST]

Q22. [**CATI]** My next question is about your use of media like TV and the Internet. I'll read you a list, and for each item, please tell me if you generally do this every day, at least once a week, at least once a month, less than once a month, or never.

[WEB] The next question is about your use of media like TV and the Internet.

[WEB & **CATI**] About how often do you …?

[RADIO BUTTON SCALE FOR EACH ATTRIBUTE WITH CATEGORIES: (1) Every day; (2) At least once a week, (3) At least once a month; (4) Less than once a month, (5) Never

[CATI: READ LIST AND REPEAT SCALE AS NECESSARY]

1. Listen to news on the radio
2. Listen to music on the radio
3. Watch news on TV
4. Read a local newspaper, in paper format
5. Watch or read news on a computer
6. Watch or read news on a smartphone or tablet
7. Use Facebook
8. Use Twitter

C.6. Demographics

Thanks for making it this far – you're almost done!

These last questions will make sure we hear from all kinds of people in California. As a reminder, we can't identify you from your answers.

Q23. Do you own or rent your home?

1. Own
2. Rent
3. Rather not say

Q24. What kind of home do you live in?

[CATI: READ LIST]

1. Single-family house
2. Single-family attached home, such as a townhouse
3. Duplex, triplex, or fourplex
4. Apartment or condominium with 5 units or more
5. Manufactured or mobile home
6. Something else
7. **[CATI: DO NOT READ]** Don't know

Q25. What is your ZIP code?

[5 DIGIT NUMBER – VERIFY THAT NUM STARTS WITH 9; CHECKBOX FOR 'Rather not say']

Q26. Does your home have central air conditioning?
1. Yes
2. No
3. Don't know

[SINGLE-FAMILY HOMES ONLY (Q25=1)]

Q27. Does your home have a pool?
1. Yes 2. [OPTION DELETED] 3. No
4. Don't know

Q28. Do you have Internet service at home?

1. Yes
2. No
3. Don't know

[IF Q28=1 (HAS INTERNET SERVICE), ASK Q30]

Q29. What kind of Internet service do you have at home?

[CATI, READ TEXT:] Is it…?

[**CATI: READ LIST, STOP WHEN RESPONDENT MAKES SELECTION]**

1. Broadband **[CATI AS NEEDED**/WEB DISPLAY TEXT] (high speed access such as DSL, cable modem, satellite, or fiber optic like FiOS) [**CATI: PRONOUNCED 'FEYE-ose', RHYMES WITH 'BIO', WITH AN 'S' AT THE END]**
2. Dial-up
3. Something else (please specify) [TEXT BOX]
4. **[CATI: DO NOT READ]** Don't know

Q30. Including yourself, how many people normally live in your household?

Please don't include anyone who is just visiting, or away at college or in the military.

Do include all household members, including adults and children, whether they are related to you or not.

[NUMBER BOX WITH CHECKBOX FOR 'Rather not say'; VALID RANGE 1-20]

Q31. Is anyone in your household regularly at home during the day?

1. Yes
2. No
3. Don't know
4. Rather not say

Q32. In what year were you born? [NUMBER BOX WITH YEAR FORMAT; VALIDATE FOUR DIGITS STARTING WITH '19'; INCLUDE CHECKBOX FOR 'RATHER NOT SAY']

[IF Q32=RF (WOULD NOT GIVE BIRTH YEAR), ASK Q32A]

Q32A. [CATI] Please stop me when I reach the category with your age.

[CATI: READ LIST; STOP WHEN RESPONDENT MAKES SELECTION]

[WEB] What is your age?

1. 18 to 24
2. 25 to 34
3. 35 to 44
4. 45 to 54
5. 55 to 64
6. 65 or higher
7. **[CATI: DO NOT READ]** Rather not say

Q33. What is your gender?

1. Female
2. Male
3. Other
4. Rather not say

Q34. Are you of Hispanic, Latino, or Spanish origin?

1. Yes
2. No
3. Rather not say

Q35. What is your race?

[WEB] *Please select all that apply.*

[CATI: READ LIST; ACCEPT MULTIPLES]

[MULTIPLE RESPONSE]

1. White
2. Black or African American
3. American Indian or Alaska Native
4. Asian
5. Native Hawaiian or Other Pacific Islander
6. Something else, please specify [TEXT BOX]
7. **[CATI: DO NOT READ]** Rather not say

Q36. [WEB] What is your annual household income, before taxes?

[**CATI]** Please stop me when I reach the category with your annual household income before taxes.

[CATI, READ LIST; STOP WHEN RESPONDENT MAKES SELECTION]

1. Less than $25,000
2. $25,000 to less than $50,000
3. $50,000 to less than $75,000
4. $75,000 to less than $100,000
5. $100,000 or more
6. **[CATI: DO NOT READ]** Don't know
7. **[CATI: DO NOT READ]** Rather not say

Those are all of our questions. Thank you very much for your time today.

D. Flex Alert Network Survey

D.1. Instrument

This is a web survey that will be distributed to the organizations on the Flex Alert Network by McGuire and Company. Below is draft introductory text. The web survey link will be included in the email. We expect to send at least two reminders.

Thank you for participating in this survey about California's Flex Alert Program. Please press the arrow below to begin.

D.1.1. Organization

First, we'd like to understand a little bit about your organization.

[ASK ALL]
Q1. Which of the following best describes your organization?

[SINGLE RESPONSE]

1. Commercial building operator
2. Industrial facility
3. Agricultural organization
4. Water organization
5. Trade association
6. Local government
7. Regional government or association of governments
8. State government

-96. Something else, please specify: [OPEN-ENDED RESPONSE]
-97. Not applicable
-98. Don't know
-99. Prefer not to say

[ASK IF Q1=1]
Q2. About how many square feet do you manage?

1. [OPEN-ENDED RESPONSE]
-98. Don't know

[ASK IF Q1=2]
Q3. What type of industry?

1. [OPEN-ENDED RESPONSE]
-98. Don't know

[ASK IF Q1=3]

Q4. What type of agricultural products?

1. [OPEN-ENDED RESPONSE]
-98. Don't know

[ASK IF Q1=4]

Q5. What trades do you represent?

1. [OPEN-ENDED RESPONSE]
-98. Don't know

[ASK ALL]

Q6. Does your organization have a plan for responding to Flex Alerts?

[SINGLE RESPONSE]

1. Yes
2. No
-96. Not applicable
-97. Don't know

[ASK ALL]

Q7. Please indicate any actions triggered by a Flex Alert at your organization. Select all that apply.

[MULTIPLE RESPONSE, RANDOMIZE LIST, CHECK ALL THAT APPLY]

1. We launch a predetermined plan to reduce our energy use
2. We forward the Flex Alert notice on to constituents or stakeholders
3. We contact people at other organizations about reducing their energy use
4. We post information about Flex Alert on our website
-96. Something else, please specify: [OPEN-ENDED RESPONSE]
-97. Not applicable
-98. Don't know

[ASK IF Q7= "FORWARD FLEX ALERT NOTICE TO CONSTITUENTS OR STAKEHOLDERS"]

Q8. Please indicate the types of people or organizations you forward these notifications to. Select all that apply.

[MULTIPLE RESPONSE, CHECK ALL THAT APPLY]

1. Other employees in my organization
2. Colleagues in other organizations
3. A listserv my organization manages
4. Other professional organizations

5. Constituents or other stakeholders –
-96. Other, please specify: [OPEN-ENDED RESPONSE]
-97. Not applicable
-98. Don't know

[ASK IF Q7=”FORWARD FLEX ALERT NOTICE TO CONSTITUENTS OR STAKEHOLDERS”]

Q9. About how many people receive the notices forwarded by your organization? Your best estimate is fine.

1. [OPEN-ENDED RESPONSE]

[ASK ALL]
Q10. Is your organization participating in any other demand response programs?

[SINGLE RESPONSE]

1. Yes
2. No
-96. Not applicable
-97. Don't know

[ASK IF Q10=1]
[DISPLAY LOGIC]
Q11. With which utilities? Select all that apply.

[MULTIPLE RESPONSE: CHECK ALL THAT APPLY]

1. PG&E
2. SCE
3. SDG&E
-96. Other, please specify: [OPEN-ENDED RESPONSE]
-97. Not applicable
-98. Don't know

[ASK ALL]
Q12. Do you recall receiving information about Flex Alert days in 2013?

[SINGLE RESPONSE]

1. Yes
2. No
-96. Not applicable
-97. Don't know

[ASK ALL]
Q13. Do you have any suggestions for improving your experience with Flex Alert requests?

1. [OPEN-ENDED RESPONSE]

Those are all of our questions. Thank you very much for your time!

Text here.

E. Flex Alert Network

E.1. 2013 Flex Alert Network: Commercial, Industrial, Governmental Organizations and Associations

Northern California

1. Alameda County
2. Association of Bay Area Governments (ABAG)
3. Association of Energy Engineers (AEE) --- Bay Area
4. Association of Energy Engineers (AEE) Northern California
5. Bay Area Alliance for Sustainable Communities
6. Building Owners & Managers Association (BOMA) Oakland
7. Building Owners & Managers Association (BOMA) Sacramento
8. Building Owners & Managers Association (BOMA) San Francisco
9. Building Owners & Managers Association (BOMA) Silicon Valley
10. Butte County
11. Calaveras County
12. California State Automobile Association (AAA), Northern California
13. City and County of San Francisco
14. City of Menlo Park
15. City of Visalia
16. Contra Costa County
17. Contra Costa Water District
18. Del Norte County
19. East Bay Municipal Utility District (EBMUD)
20. Fresno County
21. Fresno County Economic Development Corporation (EDC)
22. Fresno County Farm Bureau
23. Fresno Regional Jobs Initiative (RJI)
24. Fresno Unified School District
25. Indo---American Chamber of Commerce of Northern California
26. International Facility Managers Association (IFMA) California Central Coast
27. International Facility Managers Association (IFMA) East Bay
28. International Facility Managers Association (IFMA) Redwood Empire
29. International Facility Managers Association (IFMA) Sacramento
30. International Facility Managers Association (IFMA) San Francisco
31. International Facility Managers Association (IFMA) Silicon Valley
32. Joint Venture: Silicon Valley Network
33. Kings County
34. Marin County
35. Marin Municipal Water District (MMWD)
36. Mariposa County

37. McGuire and Company
38. Mendocino County
39. Merced County
40. Napa County
41. Northern California Water Association (NCWA)
42. Oakland Housing Authority
43. Plumas County
44. Sacramento Area Council of Governments (SACOG)
45. Sacramento County
46. Sacramento Hispanic Chamber of Commerce
47. Sacramento Metropolitan Chamber of Commerce
48. Santa Clara County
49. Santa Cruz County
50. Sierra County
51. Sonoma County
52. Sutter County
53. Tehama County
54. Tehama County Sheriff's Department
55. Tulare County
56. Tuolumne County

Southern California

1. Association of Energy Engineers (AEE) San Luis Obispo Chapter
2. Association of Energy Engineers (AEE) Southern California
3. Association of Energy Engineers (AEE) San Diego
4. Association of Professional Energy Managers (APEM)
5. Beach Cities Health District
6. Black Business Association of Los Angeles (BBA)
7. Building Industry Association of Southern California
8. Building Owners & Managers Association (BOMA) Los Angeles
9. Building Owners & Managers Association (BOMA) Orange County
10. Building Owners & Managers Association (BOMA) San Diego
11. California Center for Sustainable Energy
12. California State University, Channel Islands
13. California Vietnamese Chambers of Commerce Orange County (VACOC)
14. City of Alhambra
15. City of Anaheim
16. City of Arcadia
17. City of Bradbury
18. City of Brea
19. City of California City
20. City of Cathedral City
21. City of Chula Vista
22. City of Claremont
23. City of Costa Mesa

24. City of Covina
25. City of Desert Hot Springs
26. City of Duarte
27. City of Indian Wells
28. City of Irvine
29. City of Irvine Police Department
30. City of Lomita
31. City of Monrovia
32. City of Moreno Valley
33. City of Murrieta
34. City of Oxnard
35. City of Palm Springs
36. City of Ridgecrest
37. City of San Bernardino
38. City of San Diego Water Department
39. City of San Gabriel
40. City of San Marino
41. City of Simi Valley
42. City of South Gate
43. City of South Pasadena
44. City of Temecula
45. City of Ventura
46. City of Walnut
47. City of West Covina
48. Imperial County
49. Independent Filmmakers Association
50. Inland Empire Utilities Agency (IEUA)
51. International Facility Managers Association (IFMA) Central Valley
52. International Facility Managers Association (IFMA) Los Angeles
53. International Facility Managers Association (IFMA) Orange County
54. International Facility Managers Association (IFMA) San Diego
55. International Facility Managers Association (IFMA) San Fernando Valley
56. Irvine Chamber of Commerce
57. Kern County
58. Los Angeles Area Chamber of Commerce
59. Los Angeles Business Council
60. Los Angeles County
61. Los Angeles County Community and Senior Services
62. Los Angeles County Public Health
63. Los Angeles County Public Social Services
64. Los Angeles Department of Water & Power
65. Los Angeles Economic Development Council (LAEDC)
66. National Association of Industrial and Office Properties (NAIOP) SoCal
67. Orange County
68. Orange County Business Council (OCBC)

69. Orange Unified School District
70. Rising Sun Energy Center
71. Riverside County Flood Control and Water Conservation District
72. San Bernardino Area Chamber of Commerce
73. San Bernardino County
74. San Diego Association of Governments (SANDAG)
75. San Diego County
76. San Diego Regional Economic Development Corporation (EDC)
77. San Luis Obispo County
78. South Orange County Regional Chambers of Commerce
79. South Robertson Neighborhoods Council
80. Southern California Association of Governments (SCAG)
81. Sustainable Silicon Valley (SSV)
82. U.S. Green Building Council (USGBC) --- Los Angeles Chapter
83. U.S. Green Building Council (USGBC) --- San Diego Chapter
84. U.S. Naval Base --- Ventura County
85. Ventura County

Statewide

1. Adobe
2. Alliance for Justice (AFJ)
3. Associated Volume Buyers --- Pacific Rim Region
4. Association for Facilities Engineering (AFE)
5. Association of California School Administrators (ACSA)
6. Association of California Water Agencies (ACWA)
7. Association of Energy Engineers (AEE)
8. Blackrock Digital
9. Building Owners & Managers Association (BOMA)
10. Built Green Santa Barbara
11. California Air Pollution Control Officers Association (CAPCOA)
12. California Air Resources Board (ARB)
13. California Association of Councils of Governments (CALCOG)
14. California Association of Nonprofits (CAN)
15. California Association of Resource Conservation Districts (RCDs)
16. California Building Industry Association (CBIA)
17. California Business Alliance
18. California Business Properties Association (CBPA)
19. California Chamber of Commerce
20. California Chapter National Institute of Governmental Purchasing, Inc.
21. California Commissioning Collaborative (CCC)
22. California Council for Environmental and Economic Balance (CCEEB)
23. California Federation of Business and Professional Women (BPW)
24. California Grocers Assoc. (CGA)
25. California Hispanic Chambers of Commerce (CHCC)
26. California Hotel and Lodging Association (CH&LA)

27. California Independent Grocers Association
28. California League of Food Processors (CLFP)
29. California Peace Officers' Association (CPOA)
30. California Police Chiefs Association
31. California Portland Cement Company (CPCC)
32. California Poultry Federation
33. California Real Estate Inspection Association (CREIA)
34. California Restaurant Association
35. California Retailers Association (CRA)
36. California School Employees Association (CSEA)
37. California Service Station and Automotive Repair Association
38. California Small Business Association (SBA)
39. California Special Districts Association (CSDA)
40. California State Association of Counties
41. California Transit Association (CTA)
42. California Urban Water Conservation Council (CUWCC)
43. California Water Association (CWA)
44. California Workforce Association
45. Collaborative for High Performance Schools (CHPS)
46. CommNexus
47. Dairy Institute of California
48. Electric & Gas Industries Association (EGIA)
49. Electronic Control Systems (ECS)
50. Energy Coalition
51. Energy Inspectors
52. Guitar Center Inc.
53. HDR Insurance Managers
54. Industrial Environmental Association (IEA)
55. International Council for Local Environmental Initiatives (ICLEI) --- U.S. Office
56. Kaplan/Aspect
57. Korean Dry Cleaners Association
58. League of California Cities
59. Local Government Commission (LGC)
60. Macy's West
61. Northrop Grumman Corporation
62. Oakley Inc.
63. Pacific Asian Consortium in Employment (PACE)
64. Raley's Supermarkets
65. Toyota Motor Sales, U.S.A., Inc.
66. University of Oregon
67. Western Manufactured Housing Communities Association (WMA)

F. Flex Alert Media Samples

F.1. Flex Alert Email Sample

Flex Alert in effect July 1-2 in Northern CA. Save Energy Now
Flex Alert
07/01/2013 10:48 AM
Sent by: "Flex Alert" alert=flexalert.org@createsend1.com

Web Version | Update preferences | Unsubscribe

FLEX ALERT

Flex Alert in Effect
Save Energy NOW!

Share this Alert!

Forward to Friends
Simply Forward this email to your contacts

Forwarding Tool
Use our "forward to a friend" tool. Just click here to get started

Facebook
LIKE this message
Like

Twitter
TWEET this message!
Tweet

A Flex Alert is in Effect July 1st and 2nd in Northern California. Save energy now.

The California Independent System Operator (ISO), who monitors the electricity grid throughout California, has issued a Flex Alert for Monday and Tuesday, July 1st and 2nd in Northern California.

Due to the continued heat wave and subsequent rise in A/C use, electricity conservation is critical to prevent blackouts. It's important that you:

- Turn off all unnecessary lights.
- Postpone using major appliances until after 6:00 pm.
- If you must use an air conditioner, adjust it up to 78° degrees or higher.

We ask that you please forward this email to your friends and colleagues.

Through conservation efforts Californians can save about 1,000 megawatts statewide which is enough electricity to power 1 million households and equal to the output of two large power plants.

Find more information at www.flexalert.org/press-releases

You're receiving this email because you subscribed to receive Flex Alerts from our website.

Edit your subscription | Unsubscribe

Flex Alert
3053 Fillmore St. #139
San Francisco, CA 94123-4024

F.2. Flex Alert Press Release

FLEX ALERT

FLEXALERT.ORG

FOR IMMEDIATE RELEASE
July 2, 2013

STAGE 1 EMERGENCY
Operating reserves forecast to fall to between 7% - 6%

STAGE 2 EMERGENCY
Operating reserves forecast to fall below 5%

STAGE 3 EMERGENCY
Operating reserves forecast to fall below 3%

TRANSMISSION EMERGENCIES

Declared when local voltage levels are at risk due to sudden power line outages or when fires threaten the grid.

All-time peak (7/24/06): 50,270 MW

CONSERVATION TIPS

- Turn off unneeded lights
- Use appliances in the late evening
- Adjust A/C to 78 degrees or higher; turn off if away
- Pull drapes and turn on fans
- Set pool pumps for overnight
- Saving water saves energy. Avoid using water between 4-6 p.m. on Flex Alert days

SAVE WATER & ENERGY This Summer

California ISO
Shaping a Renewed Future

Contact: Stephanie McCorkle or Steven Greenlee at (888) 516-NEWS

Reminder: Day 2 of *Flex Alert!*

ISO thanks Northern Californians and urges them to keep up the good work

The California Independent System Operator Corporation (ISO) is reminding Northern Californians that a ***Flex Alert* is in effect today, Tuesday, July 2, 2013**. Consumers are encouraged to reduce their energy use between noon and 7 p.m., as air conditioners drive peak demand.

Actual peak demand was significantly under forecast yesterday, coming in at about 45,000 megawatts. A major factor in the reduced demand was Southern CA temperatures coming under forecast. However, Northern California peak demand was expected to break the all-time peak record and came in significantly shy of that 20,642 MW (record is 22,726 set on 7/25/06), which indicates that demand response programs and the voluntary conservation from the Flex Alert were very helpful in reducing the strain on the grid.

The ISO thanks its media partners and Northern Californians for their tremendous efforts and urges them to do the same during today's *Flex Alert*. Go to www.flexalert.org or www.caiso.com for conservation tips.

Today: Northern California-only *Flex Alert* Day!
Tuesday, July 2, 2013: noon to 7 p.m.
Forecast peak demand: 47,000+ MW around 4:30 p.m.

24-hours ahead: POTENTIAL
Northern California-only *Flex Alert* Day
Wednesday, July 3, 2013: noon to 7 p.m.
Forecast peak demand: 46,000+ MW around 4:30 p.m.

Please monitor the California ISO website at www.caiso.com for updated information. Track grid conditions in real time via smart phones by going to your app store for a free download of *ISO Today*.

This advisory is based on the best data available at the time of its release. Grid conditions can change rapidly and are subject to change without warning. This forecast is accepted by the recipient on the condition that errors, omissions and/or changes to the contents shall not be made the basis for any claim, demand or cause of action against the California ISO.

Funded by the investor-owned utilities and authorized by the CA Public Utilities Commission, Flex Alerts are part of an educational and emergency alert program that informs consumers about how and when to conserve electricity.

Please re-tweet and re-post this Flex Alert!

F.3. Flex Alert Screen Shot

G. Media Data Processing Protocol

Coding Protocol

Item #	Question:		Response Options:
CA0_A	Is the story a repeat of an earlier story?		• Yes - Go to next record • No - Continue
CA0_B	Is the transcript incoherent?		
CA0_C	Does the story appear to be paid media?		
CA1	Does the story deal with Flex Alerts, issued by CA ISO?		• Yes • No - Term "Flex Alert" used in other context [Skip to CA6]
CA2	Is the story informing the audience about?		• An upcoming Flex Alert • An ongoing Flex Alert • A past Flex Alert • An avoided Flex Alert • Flex Alerts in general • Other
CA3A	Related to Flex Alert, who does the story mention and who does it quote [Select all that apply]:	CA ISO	• Mentioned • Quoted
CA3B		IOU	
CA3C		No One	
CA3D		Other	
CA4A	What does the story say about:	The cause of the Flex Alert?	• Weather • Loss of generation or transmission capacity • No reason given • N/A: No Flex Alert called • Other
CA4B		Actions to take?	• Turn off unnecessary lights • Postpone using major appliances • Turn A/C thermostat up • No specific actions listed • Other
CA4C1		The start of the Flex Alert?	• Specific start time given • No specific start time given • N/A: No Flex Alert called • Flex Alert is happening "now"
CA4C2		The end of the Flex Alert?	• Specific end time given • No specific end time given • N/A: No Flex Alert called • Flex Alert is over "now"
CA5	Does the story contain any factual errors about Flex Alert? If so, what:		• Yes (list) • No
CA6	[Answer if CA1=No] In what context does the story use the term Flex Alert?		• Open-ended response