



Opinion **Dynamics**

Boston | Headquarters

617 492 1400 tel
617 497 7944 fax
800 966 1254 toll free

1000 Winter St
Waltham, MA 02451



2013–2015 California Statewide Marketing, Education, and Outreach Program: Cross-Cutting Process Study

California Public Utilities Commission
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Contact List

Organization/Role	Name	Role	Email	Phone
Energy Division, California Public Utilities Commission	Rory Cox	Evaluation Lead	rory.cox@cpuc.ca.gov	415-703-1093
EM&V Advisor to the CPUC	Ralph Prah	Consultant	ralph.prah@gmail.com	608-334-9942
Opinion Dynamics	Tami Buhr	ME&O Research Roadmap Lead	tbuhr@opiniondynamics.com	617-301-4654
Opinion Dynamics	Hannah Arnold	Study Director	harnold@opiniondynamics.com	510-214-0183
Opinion Dynamics	Olivia Patterson	Study Manager	opatterson@opiniondynamics.com	510-214-0191

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Glossary

Stakeholder and Program Abbreviations

Abbreviation	Definition
AAPOR	American Association of Public Opinion
BayREN	Bay Area Regional Energy Network
CALSPREE	California Statewide Programs for Residential Energy Efficiency
CARE	California Alternative Rates for Energy
CBO	Community-Based Organization
CEC	California Energy Commission
CPUC	California Public Utilities Commission
CSE	Center for Sustainable Energy
CTOR	Click-Through Open Rates
CTR	Click-Through Rate
EM&V	Evaluation, Measurement, and Verification
ESA	Energy Savings Assistance
HEC	Home Energy Check-Up
HER	Home Energy Report
ICP	Integrated Communication Plan
IOU	Investor-Owned Utility
ME&O	Marketing, Education, and Outreach
PA	Program Administrator
PG&E	Pacific Gas and Electric Company
PIP	Program Implementation Plan
PLA	Plug Load and Appliances
POP	Point-of-Purchase
POS	Point-of-Sale
RASCI	Responsible, Accountable, Supportive, Consulted, and Informed
REA	Residential Energy Advisor
REN	Regional Energy Network
RR	Response Rate
SCE	Southern California Edison
SCG	Southern California Gas Company
SDG&E	San Diego Gas & Electric Company
SEM	Search Engine Marketing
SoCalREN	Southern California Regional Energy Network
SW ME&O	Statewide Marketing, Education, and Outreach

Glossary of Marketing Terms

Throughout the report, we use a number of standard marketing terms to describe the goals or achievements of marketing, education, and outreach activities. The table below provides a brief definition of these terms.

Term	Definition
Click-Through (or “Click”)	The number of users who clicked on a specific internet advertisement or link
Click-Through Rate (CTR)	The number of click-throughs per impression (i.e., the percentage of people visiting a web page who access the website via a link on digital paid media)
Cost per Click	The cost of each click on a link or advertisement (i.e., on a website, email, or social media post)
Engagement	A direct interaction between an individual and a program; on social media specifically, this refers to such actions as a “like,” a “re-tweet,” a new social media follower, a comment, or a “share”
Engagement Rate	Most commonly used for social media, this refers to the percentage of people who reacted to a post or message (via some type of engagement, defined above) among all people who saw the post or message
Impression	A single view or display of an ad; total impressions indicates the number of times an ad was displayed
Open Rate	The percentage of recipients who open an email
Website Views/Visits	The number of times a website (or a specific web page) is visited; this is not a unique count of people who visited, as one person can visit multiple times
Metric	An indicator of an activity’s success or performance
Success Criteria	A predetermined target, typically numeric, that indicates success or failure

1. Executive Summary

This report presents findings from the Cross-Cutting Process Study of California's 2013-2015 Marketing, Education and Outreach (ME&O) efforts. This study has three overarching goals: (1) to assess how well coordination occurs between the Statewide (SW) ME&O administrator and the Investor Owned Utility (IOU)¹ and Regional Energy Network (REN)² Program Administrators (PAs), (2) to document PA ME&O design and implementation activities, and (3) to document how consumers engage with SW and PA ME&O. This study is the second of two ME&O evaluations the Opinion Dynamics evaluation team conducted for the 2013-2015 program cycle. The evaluation team provided findings related to the effectiveness of the SW ME&O program in the Verification and Integrated Effectiveness report in April 2016.

This study represents the first comprehensive evaluation of PA ME&O efforts. It also fills important gaps in CPUC knowledge related to coordination between SW and PA ME&O. Given that this study was planned and executed in an ever-changing policy environment, the evaluation team has already shared many of these findings in real time to inform discussions among the CPUC and stakeholders regarding the future of SW ME&O, as well as how SW ME&O and PA ME&O can work in a complementary manner.

1.1 Overview of California's ME&O Activities

Within California, ME&O is deployed as a stand-alone program at the SW level, and as a strategy by the IOUs and RENs (referred to as PAs throughout this report) to promote their energy efficiency programs. The following is a brief description of how the California Public Utilities Commission (CPUC) and PAs use ME&O:

- **SW ME&O:** In 2012, the CPUC established Energy Upgrade California as the umbrella brand for SW ME&O activities to increase ratepayer awareness of energy efficiency, demand response, and distributed generation, and to offer ways for consumers to better manage their energy use. The SW ME&O program is a social marketing campaign designed to educate, activate, and motivate Californians to take energy-saving actions. The SW ME&O 2014-2015 program two-year budget was approximately \$40 million, spent almost exclusively on promotional efforts including paid media, educational resources and activities, and community outreach.
- **PA ME&O:** PA ME&O efforts are embedded within existing demand-side management programs and work to support the achievement of program goals. Program marketing staff typically tailor their ME&O activities to first serve the immediate purpose of raising awareness of programs, but ultimately seek to encourage participation. Although marketing involves more than just promotion, in this case and throughout this report, when we refer to PA ME&O efforts, the focus is strictly on promotional campaigns and not the other facets of program marketing (such as determining incentive levels, developing vendor networks, etc.). The PA's ME&O two-year budget for 2013-2014 was approximately \$28 million.³

¹ Pacific Gas and Electric (PG&E), Southern California Edison (SCE), Southern California Gas (SCG), and San Diego Gas and Electric (SDG&E).

² Bay Area Regional Energy Network (BayREN) and Southern California Regional Energy Network (SoCalREN or the Energy Network).

³ The program years associated with the budgets provided for SW and PA ME&O differ given the timing of implementation and evaluation. For example, while the SW ME&O program launched in 2014 and was evaluated through the end of 2015, the evaluation team focused the evaluation of PA ME&O on the 2013-2014 cycle.

1.2 Research Approach

The evaluation team used a range of research activities to assess PA ME&O efforts including interviews with ME&O administrators and stakeholders, a review of secondary data and documents provided by the PAs, and quantitative surveys and qualitative focus groups with California consumers to support our three research objectives. We provide a brief synopsis of the research performed for each research objective below:

- **Assess coordination between the SW ME&O administrator and the PAs:** We conducted a series of in-depth interviews with key stakeholders, and reviewed policy documentation and program materials to determine how efforts were coordinated across the ME&O administrators. The goals were to document the ways in which ME&O administrators are coordinating with one another, identify potential opportunities for improvement, and explore the barriers and benefits to developing and implementing a consumer referral process from the statewide website www.EnergyUpgradeCA.org to PA programs. Further, we outline the governance structure established for the SW ME&O program and provide considerations for the future design of SW ME&O.
- **Document PA ME&O design and implementation activities:** We reviewed PA data, conducted interviews with PA staff, and developed an activities matrix that catalogued all 2013-2014 ME&O activities for the California Statewide Programs for Residential Energy Efficiency (CALSPREE). Given the substantial scope of the PA marketing activities, we focused our documentation on the 27 CALSPREE programs in 2013–2014. We selected these programs because the PAs administer them (rather than third parties), they represent a substantial portion of residential marketing budgets,⁴ and they cover similar target audiences to the SW ME&O program.
- **Document how consumers engage with SW and PA ME&O:** We conducted primary data collection with California consumers including 10 focus groups and quantitative surveys for select ME&O campaigns conducted in early 2016. The evaluation team worked with the CPUC to select six campaigns out of 31 residential campaigns offered during the time frame.⁵

1.3 Key Findings and Recommendations

We present key findings and recommendations associated with each research objective below, followed by an integrated assessment across all research objectives to inform future program design and implementation. The evaluation team also developed two additional volumes to this study that provide supporting research that informs many of the findings and recommendations presented in this report.⁶

⁴ The CALSPREE marketing budgets represent approximately 37% of the total marketing budget (\$28 million out of \$75 million). Documentation regarding total budgets differ across IOU and CPUC sources, making this value an approximate of the total budget.

⁵ Our selected campaigns represent a little more than a third of all Q1 2016 marketing activities. Further, our selected campaigns generally align with the population in terms of channel mix, though the selections slightly over represent email activities. Findings presented from this assessment are not generalizable to the full suite of marketing campaigns offered by the PAs.

⁶ Volume II provides interim cross-cutting study findings regarding PA-led ME&O budget allocation and tracking, as well as documentation of campaign objectives and activities. Volume III provides interim coordination findings, focus group results and survey dispositions and response rates.

Research Objective 1: Assess coordination between the SW ME&O administrator and the PAs (Chapter 5)

Key Findings

In Decision D.12-05-15, the CPUC highlighted the need to understand how local and statewide efforts can best be coordinated and complementary. The current SW ME&O vision and goals also require greater focus on coordination⁷ and collaboration⁸ across the various stakeholders and administrators. Therefore, it is essential, both from a consumer perspective, as well as from a funding perspective, that these efforts are integrated rather than duplicative or inconsistent. As such, the evaluation team was asked to focus on documenting the way in which the SW ME&O administrator and the PAs coordinated, and assessing how well that coordination was occurring.

Based on interviews with key stakeholders, the evaluation team found that coordination has improved over time, including increased two-way communication, more collaborative quarterly stakeholder meetings, and earlier opportunities to provide feedback on creative materials. Stakeholders, however, continue to identify challenges that need to be overcome moving forward. These include the separate ME&O planning processes, insufficient time or resources to provide feedback, and uncertainty about whether feedback is incorporated into SW ME&O design. Notably, many of these challenges may be alleviated by the development of Joint Consumer Action Plans.⁹

Recommendations to Improve the Coordination Process and Encourage Collaboration

The evaluation team makes the following recommendations to strengthen the capacity of the group engaged in coordination with the hope that a collaborative relationship will develop:

- **Recommendation 1:** As the parties embark on the integrated planning process and closer alignment moving forward, **the CPUC should consider utilizing an independent facilitator to design this process.** Using an independent party will ensure that the arbiter does not favor any particular outcome.
- **Recommendation 2:** Given the nature of the collaborative process envisioned, we recommend **that the CPUC or a designated party establish formal rules and procedures for the group.** If feasible, these procedures may be established through collaboration among the CPUC, SW ME&O implementer and ME&O stakeholders.
- **Recommendation 3:** To codify institutional arrangements in a way that is transparent to all parties, the SW ME&O administrator **should expand on the most recent RASCI model to indicate the different levels of responsibility by stakeholder for different implementation activities.** The model currently outlined in Decision 16-09-020 is a good starting point, but not sufficient given the different areas where

⁷ Coordination is defined by Merriam-Webster as the process of organizing people or groups so that they work well together.

⁸ Collaboration is defined by Mattessich as “a mutually beneficial and well-defined relationship entered into by two or more organizations to achieve common goals. The relationship includes a commitment to: a definition of mutual relationships and goals; a jointly developed structure and shared responsibility; mutual authority and accountability for success; and sharing of resources.”

⁹ CPUC 03/22/2016. “Decision on Phase 3 Issues: Post-2016 Statewide Marketing, Education and Outreach Activities” Decision 16-03-029. Describes the Joint Consumer Action plans as part of the integrated planning process to prioritize program areas and include goals and objectives, target audiences, high-level approaches and strategies, metrics, and implementation roles and responsibilities for each strategy. pp. 69.

collaboration needs to occur and the fact that roles and responsibilities of a given participant could differ across those areas.

- **Recommendation 4: The SW ME&O administrator should establish a formal feedback loop** so that it is clear how information or input provided by the PAs has been used to inform campaign design.

As the stakeholders develop the ME&O Strategic Roadmap, the Joint Consumer Action Plan, and future planning documents, we also provide the following recommendations regarding SW ME&O program metrics.

- **Recommendation 5:** Given the differing positions, perspectives, and incentives of stakeholders in the ME&O Proceeding, **we recommend a collaborative approach to developing SW ME&O metrics (including program implementers, administrators, and evaluators).** As noted in the SW Verification and Integrated Effectiveness Study, the CPUC, SW ME&O administrator, PAs, and evaluation team have important roles to play in determining the key metrics for ME&O efforts. Each of these parties bring different expertise and all have valuable perspectives on what aligns with campaign goals, what can reasonably be measured, and how related measures can be triangulated to provide a fuller picture.
 - **5A: The SW ME&O administrator should include metric development as a specific activity in the updated RASCI model** and, as noted in the SW Verification and Integrated Effectiveness Study, metrics should be in place in advance of program deployment.
 - **5B: CPUC staff involved in the ME&O Proceeding should coordinate with their counterparts in other proceedings,** including those that support Energy Efficiency, Electric Vehicles, Demand Response, Customer-Owned Generation, and the Residential Rate Reform Proceeding to determine the desired level of alignment between the metrics used for all efforts. As an example, based on preliminary information, it appears that there is consistency between the construct being developed by the retail rates team and that developed by statewide ME&O. These include awareness, attitudes, knowledge, self-efficacy/barriers, and actions taken.
 - **5C: CPUC staff should engage the SW ME&O evaluator in developing program performance metrics using the PTLM as a guide.** The CPUC should consider giving the evaluation team a greater role in the development of program performance metrics. In the 2014-2015 period, the evaluation team was asked to comment on draft metrics and provided input regarding potential measurement challenges. Expanding this role would help ensure that the metrics provide a more holistic view of program performance.
- **Recommendation 6: Take a holistic view of campaign performance based on multiple metrics.** As discussed extensively in the SW Verification and Integrated Effectiveness Study, and noted by stakeholders in the ME&O Proceeding, it is important to link metrics to key program objectives and clearly define what needs to be measured to assess how a campaign is performing. Further, it can be difficult to establish a single metric to perfectly measure a particular concept. As such, it is important to look at multiple metrics and consider what they convey in aggregate. This triangulation of findings can help identify inconsistencies across different measurements and also provide multiple perspectives on a particular metric of interest.

Research Objective 2: Document PA ME&O design and implementation activities (Chapter 4)

Key Findings

Given the limited information on PA design and implementation of ME&O efforts, a central component of this Cross-Cutting Process Study was to document how the PAs performed these various functions. In particular,

we focused on documenting ME&O objectives and activities, budgets and expenditures, and metrics and performance tracking to increase the transparency of PA ME&O efforts. The findings from this research are a first step in documenting PA efforts and can serve as a foundation for future evaluations.

PA ME&O differs from the SW ME&O program because SW ME&O focuses exclusively on promotion whereas PA marketing is rooted in all four elements of marketing (i.e., the Four Ps of product, price, place and promotion). Because the “action” that PA ME&O efforts seek to encourage is participation in marketed energy efficiency programs, they are distinct from SW ME&O efforts in the following ways:

- PA marketing reflects one of many strategies, such as rebates, that the PAs deploy to support program participation. For example, this study covered only PA promotional ME&O budgets, which reflect only 9% of overall CALSPREE 2013-2014 program administration budgets.
- PA marketing efforts are typically program-specific. The majority of PA ME&O funding is allocated to program-specific marketing efforts as opposed to general awareness or energy management efforts.
- PA marketing staff focus on developing marketing plans for key programs. According to the PAs, they tend to develop more comprehensive and targeted plans for programs with larger energy savings or participation goals, and rely on portfolio-wide plans to document strategies for programs with smaller energy savings or participation goals.
- PA ME&O efforts are regionally focused. The PAs conduct ME&O within their territories to deliver specific messages targeted toward their customers or constituents. Each PA has their own specific targeting and segmentation schemes that are tailored to specific programmatic efforts.

As discussed within this report, as well as the SW Verification and Integrated Effectiveness Study, having metrics in place is an essential component of measuring performance. The PAs develop and track a variety of program- and channel-specific metrics to assess the effectiveness of their activities. However, while all PAs indicate that they develop marketing plans as a key step in determining what ME&O activities to conduct, we found that their availability, the timing of their development, and their content varies across PAs, programs, and program cycles. Additionally, a review of 2013-2014 PA ME&O data indicates that, in some cases, the PAs did not identify or document metrics for their ME&O campaigns, and nearly two-thirds of 2013-2014 ME&O data received from the PAs did not include success criteria. Notably, when we revisited this issue and looked at 2016 marketing campaigns, we found that the PAs’ documentation of metrics and success criteria was more robust than originally assessed.

Recommendations for Future PA ME&O Design and Implementation

In support of greater documentation, we provide the following recommendations regarding CPUC oversight of PA ME&O efforts.

- **Recommendation 7: Require enhanced PA documentation of ME&O efforts.** This evaluation reveals wide variations in terms of the level of documentation around PA marketing efforts in support of energy efficiency programs. While some variation is expected and reasonable, particularly for programs where the promotional aspect of marketing does not play an important role, or for smaller PAs with limited marketing budgets, the PAs should provide more documentation for major promotional campaigns so that the CPUC can ensure that ratepayer funds are being spent appropriately. The CPUC should work with each of the PAs to determine the extent to which they can do the following:
 - **7A: Require annual reporting of ME&O budgets and expenditures.** We found conflicting information about the amount of money budgeted for and spent on PA ME&O. Inconsistent information about

budgets and expenditures makes it difficult for the CPUC to ensure that ratepayer funds for energy efficiency are truly being spent on energy efficiency messaging. As a result, we recommend that the PAs submit annual energy efficiency ME&O budgets and expenditure information for each program where PAs utilize promotional campaign marketing. This information should not be provided for approval by the CPUC, but as a record of what occurred.

- **7B: Require PAs to develop strategic marketing plans at the program or portfolio-level and share them on a post-hoc basis.** Marketing plans are a valuable tool for aligning marketing tactics with overall program goals. Without an understanding of factors such as the current market, company and marketing objectives, and target audience, it is challenging to make informed decisions about which strategies to pursue, or whether PAs are achieving their promotional marketing goals.

Research Objective 3: Document how consumers engage with SW and PA ME&O (Chapter 6)

Key Findings

The evaluation team conducted six case studies of PA ME&O efforts - one for each PA. While we provide detailed PA specific findings within the report, the following are overarching findings from across the case studies:

- Customers who have been exposed to program marketing tend to have moderate to high levels of program awareness and recall of marketing materials. As expected, levels of program awareness and recall vary widely across campaigns ranging from 13% to 92% of targeted customers.
- Customers generally report that they clearly understand the intended message from the marketing. However, results vary across the marketing campaigns likely due to the different messages and different levels of complexity associated with these messages. For example, 88% of BayREN survey respondents found it very clear from the marketing how to attend an event, while 76% of PG&E survey respondents found it very clear where to go to complete the Home Energy Check-up. The call to action of the two campaigns is quite different. BayREN is asking customers to attend an in-person event whereas PG&E is asking customers to go on-line and complete an exercise. These different types of activities may appeal to different customers, which may account for their varying awareness levels rather than a difference in marketing effectiveness.
- Customers exposed to the marketing campaigns tend to report that they have taken, or plan to take, intermediate or subsequent steps to participate or engage with the promoted program after exposure to the marketing. For example, in the two months since respondents were exposed to the marketing, 44% of SCE survey respondents, who were aware of the program, have taken at least one intermediate step toward participation. Further, within the SCE case study:
 - Compared to customers who did not recall marketing, those who recalled marketing were significantly more likely to have recently looked for more information online about the program (21% vs. 6%), to have discussed the program with someone in their household (25% vs. 14%), and to have contacted a contractor to learn more about the program (6% vs. 2%). For some programs, customers had already expressed interest in the program so that this greater awareness may reflect a preexisting interest in the program and not an increase in interest due to marketing.
 - In addition, customers who remember the marketing state that, on average, it had a moderate influence in their action taking – 48% of the respondents who recall the marketing and took at least one action in the past month noted that the marketing had some influence on their action.

- Overall, our assessment indicates that the PA marketing campaigns appear to be achieving or on track to achieve their campaign objectives, such as increasing awareness of programs, providing clear messaging, and motivating energy savings actions.

Future Program Design (Chapter 7)

Key Findings

Based on the evaluation of 2013-2015 ME&O efforts at the SW and PA levels, we believe it is appropriate for the CPUC to provide different levels of oversight for the SW ME&O program compared to PA ME&O efforts. The SW ME&O program focuses exclusively on promotion whereas PA marketing goes beyond promotion to include product, price, and place (i.e., the Four Ps). Given this distinction, it does not make sense for the CPUC to provide oversight of only the promotional aspect of PA ME&O in isolation from the program(s) it supports. As a result, we have number of recommendations to the CPUC regarding where, and how, to focus future oversight and guidance in the area of PA ME&O.

Recommendations for Future Program Design

The current SW ME&O vision and goals require focus on coordination and collaboration across the various stakeholders and administrators. It is essential, both from a consumer perspective, as well as from a funding perspective, that these efforts are integrated, rather than duplicative or inconsistent. As a result, we provide the following recommendations:

- **Recommendation 8: CPUC should focus its oversight on all coordinated efforts between the PAs and the SW ME&O program.** By focusing on the areas where the PAs and SW ME&O program coordinate, the CPUC can ensure that the potential for customer confusion is minimized, and that PA led promotional campaigns support achievement of the SW ME&O vision. The Joint Consumer Action Plans outlined by the CPUC play an important role in this process by helping to identify high priority areas for SW ME&O in consultation with the PAs. Early attempts to implement this type of process through SW ME&O Quarterly Stakeholder Meetings were well received and provided an opportunity for the PAs to share information on how high priority topics related to their own programmatic efforts.¹⁰
- **8A: Develop relevant metrics to assess how well the coordination process is working.** Metrics for effective coordination can include a suite of qualitative and quantitative measurements that address the level and efficacy of coordination. The CPUC, working with a facilitator and stakeholder groups, should determine the most pertinent metrics for assessing the effectiveness of the collaborative process. Metrics to consider include:
 - Achievement of established coordination goals (i.e., were all issues addressed, were the solutions thorough, did the solutions address the issues)
 - Progress relative to the timeline (i.e., were tasks completed on time, were there delays)
 - Level of participant engagement (i.e., is the level of engagement or amount of time dedicated to the tasks appropriate)

¹⁰ Per CPUC 03/22/2016. "Decision on Phase 3 Issues: Post-2016 Statewide Marketing, Education and Outreach Activities" Decision 16-03-029. The Annual "Joint Consumer Action Plan" will propose prioritized program areas, and if approved, will include the goals and objectives, target audiences, high-level approaches and strategies, metrics, and implementation roles and responsibilities for each strategy (pp. 67).

- **8B: Continue to ensure the SW ME&O program and PAs coordinate on messaging and content if both entities are promoting a particular program to California consumers.** Focus group findings and other qualitative research conducted as part of this study indicate that customers prefer multiple sources of information and do not appear to be confused by multiple messages offered across administrators in the market. Moving forward, general energy management topics and program-specific information promoted by the SW ME&O program and the PAs should continue to be coordinated to ensure consistency, as well as accuracy, of content.
- **Recommendation 9: Assess the effectiveness of coordinated efforts between the PAs and the SW ME&O program.** An assessment of the effectiveness of coordinated marketing is essential to future SW ME&O campaigns, particularly when coordination of PA and SW ME&O efforts achieves both the short-term and long-term SW ME&O goals and vision. PA marketing is an essential component to supporting these goals and our team believes that there are currently core programmatic areas where measurement of coordinated effects is vital. These include all activities associated with lead generation for PA programs, as well as coordinated efforts to market specific programs such as the Energy Upgrade California® Home Upgrade Program. At present, the SW ME&O program performance metrics (PPMs) do not link statewide and PA efforts, but the development of a clear lead generation mechanism is an important step in linking statewide efforts to local program participation.
- **Recommendation 10: The PAs, although not required to by the CPUC, should consider embedding a comprehensive assessment of marketing effects as part of program-specific evaluation efforts.** The PAs should consider directing evaluators to assess the effectiveness of marketing campaigns in achieving programmatic goals—particularly for underperforming programs. We recommend focusing on those programs that are not achieving their goals, are not cost-effective, are newer initiatives, or have hard-to-reach target audiences. These evaluations should move beyond studying efforts, to also assessing *effects*. As noted above, PA ME&O goes well beyond promotion, making it more valuable to assess marketing effects as part of the evaluation of the program(s) it supports. To date, there have been few comprehensive assessments of marketing effects within existing program evaluations. Refer to Section 4 for information on what a more comprehensive assessment would cover.

2. Introduction

In California, marketing, education, and outreach (ME&O) is used both as a strategy within each of the four investor-owned utility's¹¹ (IOU) and two regional energy network's¹² (REN) energy efficiency portfolios and as an overarching statewide energy efficiency program implementation method. We refer to these IOUs and RENs as Program Administrators (PAs). At the statewide level, the California Public Utilities Commission (CPUC) selected the Center for Sustainable Energy (CSE) to serve as the statewide ME&O (SW ME&O) administrator to design and implement a social marketing campaign that launched in 2014 and will be in market through 2016. At the local level, the PAs conduct ME&O largely as part of energy efficiency program implementation to the customers in their service territories.¹³

The Cross-Cutting Process Study documented in this report represents an attempt to look at both the relationship between the SW ME&O administrator and PA ME&O efforts and between the processes related to and results from PA ME&O efforts. It is important to note that the Cross-Cutting Process Study is a complementary deliverable to the SW Verification and Integrated Effectiveness Study issued by Opinion Dynamics in April 2016,¹⁴ which documented and assessed the processes and performance of the SW ME&O program from 2014 to 2015. As shown in Figure 1, the Cross-Cutting Process Study provides the first comprehensive assessment of PA ME&O efforts and touches on limited elements of the SW ME&O program that involve the PAs.

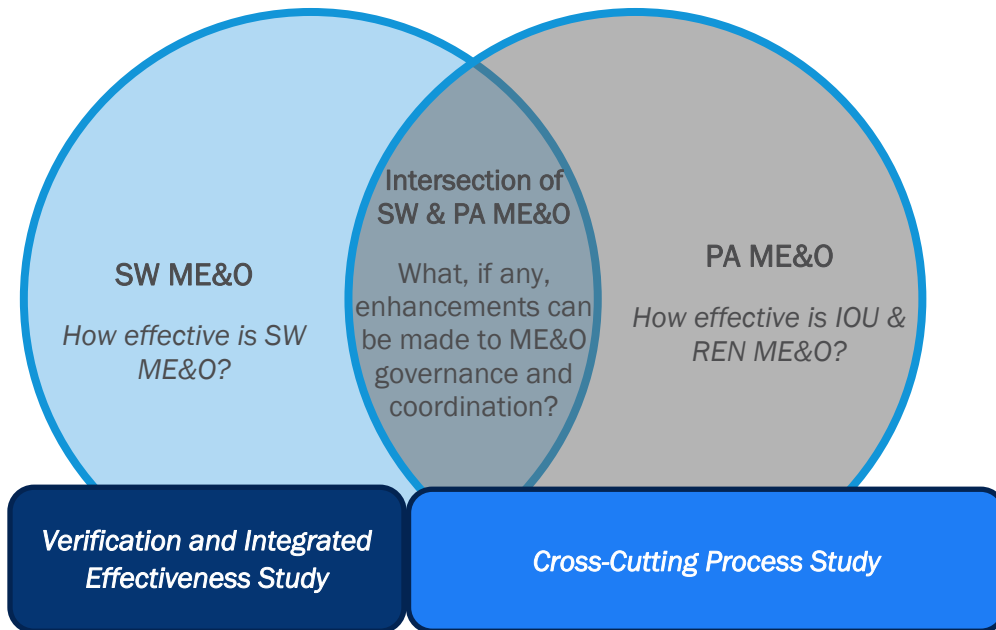
¹¹ Pacific Gas and Electric Company (PG&E), San Diego Gas & Electric Company (SDG&E), Southern California Edison (SCE), and Southern California Gas Company (SCG).

¹² The Bay Area Regional Energy Network (BayREN) and the Southern California Regional Energy Network (SoCalREN).

¹³ In addition to program-specific ME&O efforts, the PAs also communicate with their customers about rate reform and energy management issues.

¹⁴ Opinion Dynamics. April 2016. 2013–2015 California Statewide Marketing, Education, and Outreach Program: Verification and Integrated Effectiveness Study. CALMAC Study ID: CPU0110.02. Prepared for the CPUC.

Figure 1. Overview of 2013–2015 ME&O Evaluation Studies



The impetus for this study came from the fact that there was limited information available related to IOU-led marketing efforts. In particular, CPUC practice is to cap marketing and administrative costs at 6% of an IOU’s total portfolio, but not to perform any additional review of marketing as part of the IOU applications. Further, while IOU marketing is often evaluated as part of program-specific process evaluation efforts led by the IOUs, there has not been a comprehensive evaluation of marketing across the energy efficiency portfolios. As a result, the CPUC stipulated in Decision 13-12-038 that the 2013–2015 evaluation, measurement, and verification (EM&V) roadmap for ME&O should include an assessment of IOU-led marketing. Given the new role of the RENs in implementing energy efficiency programs, the CPUC also decided to include them and their ME&O efforts in this study.

Below we provide an overview of California’s ME&O efforts covered in this study, a discussion of the research objectives addressed by the study, and an overview of the report structure.

2.1 Overview of California’s ME&O Programs

2.1.1 Statewide ME&O Program

In 2012, the CPUC established Energy Upgrade California as the brand for SW ME&O activities to increase ratepayer awareness of energy efficiency, demand response, and distributed generation, and to offer ways for consumers to better manage their energy use. In addition, the CPUC selected CSE to implement all SW ME&O efforts in 2014–2015. Subsequently, the CPUC tasked the SW ME&O program with nine objectives and, in an effort to produce quantifiable target values to assess SW ME&O program performance, directed CSE to develop program performance metrics linked to these objectives.

The overarching goal of the SW ME&O program is to educate, motivate, and activate consumers to manage their energy use and to provide them with a path for doing so. To that end, the 2014–2015 program began with efforts to raise consumer awareness and understanding of the value of energy efficiency, demand response, and distributed generation. The program also sought to connect the concept of energy management

to the Energy Upgrade California brand, as well as to enhance energy management efficacy – a sense among target audiences that energy management is worthwhile and that their energy actions make a difference.

CSE formally launched the Energy Upgrade California SW ME&O program in May 2014, as a multifaceted SW ME&O program that uses social marketing techniques to influence human behavior for a social good. The program used paid, earned, digital, and social media to establish the brand in consumers' minds across the state and to make it the go-to resource for all energy management information. In addition, the program conducted extensive person-to-person outreach and education through community-based organizations (CBOs), retail engagement, mobile education, and experiential events.

In the 2014–2015 period, CSE also focused attention on updating the existing Energy Upgrade California website (energyupgradeCA.org) to serve as a comprehensive, interactive, and easy-to-use resource for varied audiences as opposed to a platform for promoting the Energy Upgrade California Home Upgrade Program.¹⁵ To augment its direct marketing efforts, CSE also engaged in partnerships and sponsorships that reached the program's targeted audiences and their influencers.

In addition to implementing ME&O activities targeted to California residents, CSE conducted research into the small business market to inform development of a marketing and outreach strategy for this sector. The research, which was performed in the first half of 2015, was designed to create small business customer segments that could be used for targeting and message development. CSE ultimately launched pilot outreach efforts aimed at the small business sector in November 2015.

Through all of these endeavors, CSE strived to work closely with SW ME&O stakeholders, including CPUC staff, designated marketing leads at the IOUs and RENs, and parties to the SW ME&O proceeding.

2.1.2 PA ME&O Efforts

In contrast to SW ME&O, which is administered as a stand-alone program, PA ME&O efforts are embedded within existing demand-side management programs. Based on program goals, the PAs develop ME&O budget proposals to align with the required regulatory approach.

According to the PAs, the ultimate goals of the PA ME&O efforts are to educate consumers and motivate them to take action on energy efficiency or conservation measures. Largely, the “action” that PA efforts seek to encourage is participation in the PA-promoted energy efficiency program.¹⁶

According to PA marketing staff, customers tend to be unaware of energy-saving opportunities. As a result, marketing staff tailor their ME&O activities to first serve the immediate purpose of raising awareness of the program. For these efforts, PAs use targeted and program-specific marketing activities like placing paid advertisements, engaging with customers on social media, sending direct mail materials, and running general awareness-building campaigns. The PAs market programs and energy awareness using a mix of targeted and mass media channels.

¹⁵ The website can be viewed in five languages: English, Spanish, Chinese, Korean, and Vietnamese.

¹⁶ Per the EM&V roadmap, “For some utilities, the ‘local’ ME&O leverages customer analytics to personalize messaging and offer relevant demand side management solutions directed at customers within each utility’s service territory, or for the RENs, local geographic area. Activities are often tied to key engagement opportunities that are unique to the customer and IOU/REN, and could include items such as service turn-on or program enrollment.” 2013–2015 Energy Division Investor-Owned Utility Energy Efficiency Evaluation, Measurement and Verification Plan Version 6, p. 3.

Because these are regionally focused efforts, the PAs conduct ME&O within their territories to deliver specific messages targeted toward their customers or constituents. Notably, objectives for the PA ME&O activities vary by individual campaign, program, or effort.

Typically, most local and regional ME&O messaging is program-specific — attempting to funnel customers into participating in the PA’s suite of demand-side management programs. All administrators focus on delivering program-specific information to customers. Nonetheless, most administrators also use a relatively small portion of their ME&O budgets to promote general energy management topics (e.g., energy conservation practices not associated with program recommended actions). While the evaluation team sought to gather only anecdotal information on the split between general and program-specific marketing, two of the IOUs — Pacific Gas and Electric Company (PG&E) and San Diego Gas & Electric Company (SDG&E) — were able to indicate that their general energy management ME&O comprised about 25% of their total ME&O budget.

Notably, while the PAs report that they spend all energy efficiency funding on energy efficiency-related efforts, the PAs do take into account, where applicable, the needs of various internal non-energy efficiency stakeholders when marketing programs. Thus, marketing efforts may focus on energy efficiency, but also go beyond to discuss other topics, such as safety.

In addition to administering local and regional marketing campaigns, the PAs work closely with the SW ME&O administrator to coordinate efforts.

2.2 Research Objectives Addressed by the Study

As noted at the outset of this section, this study integrates multiple evaluation efforts to better understand PA performance and effectiveness, and coordination across SW ME&O administrator and PAs for ME&O efforts. The overarching goals of the Cross-Cutting Process Study are to document SW and PA ME&O activities and related processes and to assess the effectiveness of PA ME&O activities based on the stated goals and objectives of each administrator. The evaluation has three broad research objectives: 1) describing and assessing ME&O program design and implementation, 2) assessing coordination efforts, and 3) understanding consumer perspectives. The following is a brief description of each:

- **Program Design and Implementation:** Document current ME&O design and implementation activities and assessing opportunities for modifications in the future.
- **Coordination:** Assess how well coordination occurs between the SW ME&O administrator and the PAs.
- **Consumer Perspectives:** Document how consumers engage with SW and PA ME&O from multiple sources, capture their perspectives to understand opportunities for improvement, and assess achievement of campaign objectives for select PA ME&O campaigns.

Overall, the evaluation team identified 33 research questions in the evaluation plans for this study.¹⁷ Table 1 summarizes the key areas of exploration within each of the objectives for this study.

¹⁷ These research questions are documented in: Opinion Dynamics. June 2015. 2013–2015 ME&O Cross-Cutting Process Study Research Plan. Prepared for the CPUC.

Table 1. Cross-Cutting Process Study Objectives and Areas of Exploration

Objective Category	Area of Exploration	Purpose	Report Section
Design and Implementation	Budget allocation and tracking	Document how and why funding earmarked for selected ME&O campaigns/programs is allocated, spent, and tracked	4
	Campaign objectives and activities	Document the goals and objectives of ME&O activities, and the specific activities implemented	4
Coordination	SW governance structure	Document SW ME&O program design, as well as factors that influence design and governance, and whether the CPUC can provide more clarification around each stakeholder's role	5
	Future program design	Determine whether the CPUC should provide guidance to IOUs and RENs regarding their approach to marketing, as well as whether CSE and the PAs should continue to provide a mix of messages about utility programs, no-/low-cost actions, etc.	7
	Coordination between the SW ME&O and the PAs	Document the ways in which the SW ME&O administrator and the PAs are currently coordinating between one another, assess how well that coordination is occurring, and identify potential opportunities for improvement	5
	Referrals to PA programs	Explore the barriers and benefits to developing and implementing a referral process from CSE to the PAs, as well as whether, in the future, CSE should refer consumers PA programs	5
Consumer Perspectives	Consumer engagement and interaction with ME&O across administrators (the intersection of ME&O efforts)	Explore how consumers engage with specific ME&O campaigns, their perceptions of the marketing they are exposed to (i.e., whether they resonate with them), potential market confusion, and the achievement of campaign objectives	5
	Achievement of objectives for select ME&O campaigns	Explore the achievement of objectives for selected 2016 marketing campaigns	6*

Note: One research task that sought to assess coordination between ME&O administrators and implementation partners was not implemented per discussion and directive from the CPUC.

* We provide additional findings regarding achievement of ME&O objectives for select campaigns for each PA in the detailed findings in Appendix A through Appendix F.

It is worth noting that given the implementation schedule for the SW ME&O program (i.e., a formal launch in 2014), the time period under study differs to some degree for the SW and PA ME&O efforts. For example, while research on the SW ME&O program covers 2014–2015, research on the PA programs covers the 2013–2015 period.

This report serves as a key input into future SW ME&O design and implementation and provides information in support of developing the 5-year Strategic Roadmap and Annual Joint Consumer Action Plan. Because this was a multi-phased evaluation effort, data collection occurred throughout 2013–2016 to address core research objectives. We have provided ongoing results of our research at Project Coordination Group meetings and EM&V workshops. We note that stakeholders have raised some new questions since our original work scope was developed (these include the appropriate level of coordination required across stakeholders, metrics need to track progress towards programmatic objectives, processes and customer journey mapping for lead generation, as well as integrated planning needs moving into 2017). Where possible, we have worked to address these questions in this report. However, it is important to note that the evaluation team had

conducted the bulk of the research prior to the release of the latest Proposed Decision¹⁸ and thus we cannot address all new questions in this report.

2.3 Report Structure

In the remainder of this report, we provide the following information:

- A summary of our evaluation approach and research activities, including data sources and limitations (Section 3)
- Key findings and conclusions about the PA’s ME&O program design and implementation efforts, including program budgets and expenditures, objectives and activities, and metrics and performance tracking (Section 4)
- Key findings and conclusions regarding the intersection of SW and PA marketing, including aspects related to the governance structure, and considerations for future program design (Section 5)
- Key findings and conclusions regarding PA-administered ME&O campaigns (Section 6)
- A summary of findings and recommendations related on program design (Section 7)
- We provide PA specific ME&O Campaign Achievement findings in Appendix A through Appendix F
- Additional detail about data collection instruments, interim report findings, and detailed results from various evaluation activities (Volume II and Volume III).

¹⁸ CPUC. 02/16/2016. “Decision on Phase 3 Issues: Post-2016 Statewide Marketing, Education, and Outreach Activities.” Application 12-08-007.; and CPUC. 08/12/2016 “Decision Approving Implementer for the 2017–2019 Statewide Marketing, Education and Outreach Program and Providing Guidance for 2017 Activities,” Application 12-08-007.

3. Evaluation Methodology

This study integrates multiple evaluation efforts to better understand and assess the effectiveness of PA ME&O efforts. This section provides an overview of the evaluation activities that Opinion Dynamics used to conduct this evaluation.

Table 2. Cross-Cutting Process Study Evaluation Activities

Research Objective	Evaluation Activity	Description	Time Frame	Focus/ Target Population
Program Design and Implementation	Review ME&O Data	Reviewed data provided by the PAs in response to two data requests from the evaluation team	July, October–December 2015	2013–2014 California Statewide Programs for Residential Energy Efficiency (CALSPREE) programs
	Conduct In-Depth Interviews with PAs	Interviewed PA staff regarding the budget allocation and tracking process, as well as the activities conducted with the allocated budget; interviews focused on specific energy efficiency programs selected in advance	October–November 2015	PA program staff and marketing staff
	Develop a Matrix of ME&O Activities	Organized PA-provided data into an aggregated data file for use in analysis	August–October 2015	2013–2014 CALSPREE programs
	Develop Program Highlights	Aggregated PA data, as well as information gleaned from interviews, to develop a description of specific programs	October–December 2015	2013–2014 CALSPREE programs
Coordination across ME&O Efforts	In-Depth Interviews	Conducted eight interviews with IOU, REN, CSE, and CPUC staff	April 2015, March 2016	IOU, REN, CSE, and CPUC staff
	Coordination Meeting Observations	Observed SW ME&O Lead Generation Meetings and Stakeholder Meetings	2015–2016	SW ME&O Program Stakeholders
Consumer Perspectives	Focus Groups	Conducted 10 focus groups in five different locations across California to explore the consumer experience with ME&O, as well as the market for energy management more broadly	November 10–18, 2015	Residential utility customers
ME&O Campaign Achievements	Secondary Data Review	Reviewed secondary data provided by the PAs about customer engagement with selected Q1–Q2 ME&O campaign activities, as well as to inform an evaluability assessment of campaigns	December 2015–June 2016	Q1–Q2 2016 select PA ME&O campaign program materials
	Consumer Surveys	Six surveys with PA customers to evaluate ME&O campaign achievements	June–July 2016	Range of residential customers depending on campaign being evaluated (see Table 8)

The following sections provide detailed information about each activity.

3.1 Program Design and Implementation

The purpose of the program design and implementation effort was to learn how the PAs developed, planned, documented, and assessed their ME&O activities. The evaluation team performed four activities as part of this effort: We reviewed data provided by the PAs, conducted in-depth interviews with staff from the PAs, and developed an activities matrix based on data supplied by the PAs. We then summarized each of their ME&O activities during 2013–2014 and provide additional context to findings about their budget allocation, expenditures, and associated activities through a more detailed review of illustrative programmatic activities in 2014 (see Volume II). We provide additional detail about each research activity in the sections below.

Given the substantial scope of the PA marketing activities, our documentation is based on only a sample of all the ME&O efforts. We focus on marketing activities that promote the six CALSPREE programs in California in 2013–2014: Energy Upgrade California Home Upgrade Program, Multifamily Energy Efficiency Rebates, Plug Load and Appliances (PLA), Residential Energy Advisor (REA), Residential HVAC and Residential New Construction. Each IOU serves as its service area’s implementer for all six of these programs, while the RENs implement two of the programs.¹⁹

The evaluation team, working with the CPUC, selected 2013-2014 CALSPREE programs because these programs are administered by the PAs rather than third parties, they represent a substantial portion of marketing budgets,^{20,21} and they cover similar target audiences to the SW ME&O program. Within CALSPREE programs, we selected 27 programs that conducted ME&O during the program cycle. We also selected five non-CALSPREE programs that conducted ME&O during the program cycle, for a total of 32 unique programs. We draw our findings from a series of research activities including a review of PA tracking data, multiple rounds of in-depth interviews with the PAs, as well as in-depth interviews with CSE. We provided results from these evaluation activities to stakeholders in March 2016 and include detailed information on PA ME&O in Volume II.²² Note that we also include findings from the SW ME&O evaluation effort, which covers 2014–2015.²³

3.1.1 Review ME&O Data

In July 2015, Opinion Dynamics requested copies of marketing plans, listings of 2014 ME&O activities, and relevant marketing materials/collateral from each PA. After completing in-depth interviews with each PA (see below), we issued additional data requests or follow-up questions (October–December 2015). We gathered

¹⁹ RENs implement fewer programs given their newer role in implementing energy efficiency programs. These include the Energy Upgrade California Home Upgrade Program (and its associated Multifamily component), in addition to other local programs (e.g., Codes & Standards, Financing, and Green Building Labeling). We describe these in detail in Volume II.

²⁰ Note that does not include all PAs ME&O budgets for the given timeframe, as it excludes commercial, third party and non-energy efficiency related efforts.

²¹ The CALSPREE program marketing budgets represent approximately 37% of the total marketing budget (\$28 million out of \$75 million). However, documentation regarding total budgets differ across IOU and CPUC sources, making this value an approximate of total budgeted. See Volume II for more detail.

²² In Volume II, we also summarize each of the PAs ME&O activities during 2013-2014 and provide additional context to findings about their budget allocation, expenditures, and associated activities through a more detailed review of illustrative programmatic activities in 2014.

²³ For information on the methods used for that study, see the SW Verification and Integrated Effectiveness Study.

additional information from the California Energy Efficiency Statistics²⁴ website, including ME&O budget and expenditures, program implementation plans (PIPs), and annual narratives describing program goals for ME&O activities. Opinion Dynamics conducted a review of these materials to understand what data were available, document ME&O-associated activities, and develop a series of interview questions about the marketing efforts used to promote the programs selected for review.

3.1.2 Conduct In-Depth Interviews with Program Administrators

Following the receipt and review of marketing data, in October and November 2015, we conducted one in-depth interview with each of the six PA's marketing staff, EM&V staff, and in some cases associated energy efficiency program managers. The goals of these interviews were to gain additional understanding about the data we had received and the overall process of allocating ME&O budgets across programs, to learn about marketing strategy development, and to discuss activity performance during 2014. We also discussed one or two of the PA's CALSPREE programs that would be good candidates for in-depth analysis. Further, we conducted these interviews to better understand how budgets were developed, allocated, and spent, as well as how marketing activities were developed, targeted, and deployed.

3.1.3 Develop a Matrix of ME&O Activities

We reviewed marketing materials, calendars, and plans to develop a detailed listing of 2014 ME&O activities. This includes, where available, information on marketing channels that the PAs used, their target audiences, marketing objectives and goals, metrics for those objectives, and results of individual activities. We corrected inaccuracies in the tracking data where we identified contradictory information or where PAs stated that the data should be corrected. In all cases, any corrections were approved by the PAs.

3.1.4 Develop Program Highlights

To understand ME&O planning and implementation processes more fully, we also studied one or two of each of the PA's statewide CALSPREE programs in detail (11 out of the 27 CALSPREE programs for which the PAs reported doing marketing activities in that program cycle, reflecting 65% of the total sample ME&O budget). We selected these case studies using a semi-structured approach. For five of the six PAs, we selected two programs: the first was the program with the largest ME&O budget (as a percentage of total program budget), and the second was suggested by the PA as representative of its typical approach to ME&O. The sixth PA, BayREN, implemented significant ME&O activities for only one program. Table 3 lists the programs we selected.

To develop these program highlights, we incorporated our review of ME&O data, in-depth interviews with PAs, and our matrix of ME&O activities. This included documenting all of the PA-supported programs that were promoted, organizational structure, and planning and strategy development. For each selected program, we document their 2014 activities, budget and spending, and the approaches each PA used to assess performance.

²⁴ <http://eestats.cpuc.ca.gov/>.

Table 3. Highlighted CALSPREE Programs

Program Administrator	Selected By	Program Name	Brief Description
BayREN	Evaluation Team	Energy Upgrade California Home Upgrade Program	Offers incentives to customers for completing whole home retrofits. Customers must complete the retrofits through a participating contractor. BayREN also offers the Home Upgrade Advisor service, which provides customers with hands-on assistance with planning and completing a home upgrade.
PG&E	Evaluation Team	REA	Uses Home Energy Reports (HERs) and the Home Energy Check-Up (HEC) online tool to engage customers and encourage participation in energy programs.
	PA	Energy Upgrade California Home Upgrade Program	Offers incentives to customers for completing whole home retrofits. Customers must complete the retrofits through a participating contractor.
Southern California Edison (SCE)	Evaluation Team	REA	Uses HERs, mail-in surveys on energy use, and interactive online tools to engage customers and encourage participation in energy programs.
	PA	Home Energy Efficiency Rebates (part of the PLA program)	Offers rebates and incentives for purchasing and installing high-efficiency appliances.
Southern California Gas Company (SCG)	Evaluation Team	PLA	Offers rebates and incentives for purchasing and installing high-efficiency appliances; this study focuses on point of purchase (POP) rebates only (not appliance recycling).
	PA	Energy Hero Campaign**	A marketing campaign that promotes three CALSPREE program offerings: Whole Home/Home Upgrade, PLA, and Energy Efficiency Starter Kits.
SDG&E	Evaluation Team	Energy Upgrade California Home Upgrade Program	Offers incentives to customers for completing whole home retrofits. Customers must complete the retrofits through a participating contractor.
	PA	Home Energy Advisor*	Uses HERs, mail-in surveys on energy use, and interactive online tools to engage customers and encourage participation in energy programs.
Southern California Regional Energy Network (SoCalREN)	Evaluation Team	Energy Upgrade California Home Upgrade Program	Offers incentives to customers for completing whole home retrofits. Customers must complete the retrofits through a participating contractor.
	PA	Green Building Labeling**	Trains and certifies “green” real estate professionals and connects homebuyers with “green home agents” who can advise customers about rebates and financing to undertake energy efficiency upgrades when they purchase a home.

Source: 2014 Annual Narratives provided on EESTATS.

* SDG&E refers to its SW REA program as “Home Energy Advisor.”

**Reflects campaigns or local program efforts.

3.1.5 Limitations

This study involved gathering a large amount of qualitative data, which the evaluation team used to organize, review, analyze, and interpret. Our research faced a few important limitations consistent with qualitative research:

- **Generalizability:** While we developed many of our findings through systematic analysis of 2014 data from all PAs, we also used case study analyses to develop program-specific insights and to facilitate an in-depth study of ME&O implementation beyond a budgetary analysis. Due to the broad nature of ME&O activities and available evaluation budget, the evaluation team needed to focus the study by selecting a smaller number of programs for in-depth analysis. In general, the team used this approach where we found it to be too costly to complete research across the full portfolio of ME&O activities implemented by each ME&O administrator. Case study analysis is an appropriate tool given that each PA operates within a unique context (e.g., target community demographics, number of programs, program stakeholders). However, case studies limit our ability to draw universal conclusions about the broader state of ME&O for all CALSPREE programs and administrators. By design, this study also excludes non-residential or third-party programs. To address this issue, we make statements related to our specific scope and do not generalize to all efforts.
- **Subjective Assessments:** In many cases, the administrators do not set defined objectives or success criteria for ME&O activities and do not have quantitative results for their ME&O activities. As a result, administrators' assessments of their ME&O performance tend to be subjective. Thus, to gauge overall performance of ME&O activities, we asked administrators to state qualitatively whether their activities met expectations. These responses are naturally subjective. A related limitation is recall bias. Given limited data (documented below), Opinion Dynamics relied on PAs to discuss activities conducted over the past 2 years; given this lag, it is likely that there was some degree of recall bias. To distinguish our objective evaluations from subjective self-reports, we took care to note which statements come from interviewees and which assessments are our own.
- **Data Availability:** One important limitation that can be associated with qualitative research is the availability and reliability of sources and types of data. The level of detail in our analysis is limited by the degree of aggregation in source data from the PAs. Unfortunately, some PAs track ME&O activity budgets and performance only at an aggregated level (see Section 4 for an overview across PAs). For example, some IOUs group multiple marketing activities into one budget category (for example, grouping homeowner workshops, community events, direct mail, email blasts, print ads, and other activities). As a result, information is not always available on how specific activities performed. Cases like these limited us to a relatively coarser analysis than would have been possible if PAs tracked more-detailed budget and performance metrics. As such, our findings and conclusions reflect the data provided, but may not sufficiently reflect the universe of ME&O activities and their associated implementation processes. We note within the report where sparse data limit our ability to draw conclusions and provide recommendations that can support future evaluation efforts.

To address these limitations, the evaluation team took detailed notes of meetings and interviews, recorded and transcribed interviews, and developed analytical matrices to ensure that the qualitative analysis was well documented and transparent to internal reviewers.²⁵ This approach provided a systematic way for staff to review findings across stakeholders and ultimately create a summary of results across a set of themes. Using the tactics described above helps ensure that the qualitative analysis performed is systematic across the PAs evaluated and that methods and results are well documented and transparent to the evaluation team so that findings are well substantiated.

²⁵ PG&E did not agree to having Opinion Dynamics record the interview.

3.2 Coordination across ME&O Efforts

These evaluation efforts were conducted in support of understanding coordination efforts across the various ME&O administrators and stakeholders. At a high level, the goals of these tasks are to:

1. Document the ways in which ME&O administrators are currently coordinating with one another, assess the effectiveness of the coordination, and identify potential opportunities for improvement
2. Explore the barriers and benefits to developing and implementing a consumer referral process from CSE's statewide website to PA programs

3.2.1 In-Depth Interviews

Opinion Dynamics conducted two sets of in-depth interviews with the staff from eight organizations: four IOUs, two RENs, CSE, and the CPUC. These results supplement findings from previous interviews that Opinion Dynamics conducted in November 2014 to inform the development of the 2013–2015 Cross-Cutting Process Study Research Plan.²⁶ The first set was conducted in April 2015, followed by a subsequent round of interviews in March 2016. The purpose of these interviews was to provide an updated assessment of the coordination occurring between PA and SW ME&O efforts.

3.2.2 Observation of Statewide ME&O Coordination Meetings

The evaluation team observed meetings in which SW ME&O program stakeholders discussed SW ME&O efforts. These included quarterly SW ME&O stakeholder meetings, as well as Energy Upgrade California Lead Generation Working Group Meetings. In total, the evaluation team attended four stakeholder meetings and four Lead Generation Meetings. The Lead Generation Working Group sessions are hosted by CSE and attended by representatives of various California IOUs, including SDG&E, SCE, PG&E, and SCG. Representatives from BayREN, BKi (a California company that works in the energy, water, and transportation sectors), the CPUC, and Opinion Dynamics also participated in the working group sessions.

3.2.3 Limitations

As with any in-depth interviews and qualitative data processing, results may be subjective. As a result, we used experienced qualitative interviewers, took detailed notes of meetings and interviews, recorded and transcribed interviews, and developed analytical matrices to ensure that the qualitative analysis is well documented and transparent.

3.3 Consumer Perspectives

3.3.1 Consumer Engagement with ME&O

An evaluation objective was to learn more about how consumers engage with energy management ME&O, particularly when it comes from multiple sources.

²⁶ Opinion Dynamics. June 2015. 2013–2015 ME&O Cross-Cutting Process Study Research Plan. Prepared for the CPUC.

3.3.2 Focus Groups

The focus groups were designed to explore the consumer experience with ME&O, as well as the market for energy management more broadly. As part of this effort, the evaluation team looked at how ME&O efforts resonate with consumers, and particularly how consumers perceive information shared by the PA and SW campaign. Given consumer exposure to ME&O from a wide range of sources (IOU, REN, and SW among others) focus groups were designed to understand the information seeking process and competing sources of information, as well as to share and discuss marketing from each administrator on similar topics where possible (e.g., marketing efforts from each administrator on residential appliances) to identify potential market confusion.

The evaluation team conducted ten focus groups from November 10th to November 18th, 2016 (n=8-10 per focus group) in five different locations across California as seen in Table 4. Each session was conducted in English and lasted approximately one hour and a half. Focus groups were composed of residential energy customers, and participants were recruited from the appropriate geographic area by phone. As part of the recruitment process, the research team screened respondents’ eligibility based on their zip code and utility provider. Recruitment criteria was developed to strike a balance on core demographics—for example age, gender, home ownership, and income. In addition, consumer segmentation data was used to understand differences in attitudes across different population segments.

Table 4. Focus Group Dates and Locations

Location	Date	# of Groups
San Francisco	Tuesday, November 10 th	2
Oakland	Wednesday, November 11 th	2
San Diego	Monday, November 16 th	2
Riverside	Tuesday, November 17 th	2
Marina del Rey	Wednesday, November 18 th	2

As part of the group discussions, the evaluation team displayed the marketing collateral detailed in Table 5. The team selected these materials based on responses to its data request with the goal of identifying programs or programmatic areas that both the PAs and CSE communicated to consumers.

Table 5. Marketing Collateral Shown in Focus Groups

Region	Program/Topic	Creative Materials to be Shown
Bay Area	Whole Home	<ul style="list-style-type: none"> PG&E – Home Upgrade email Bay REN – Home Upgrade Flyer CSE – Home Upgrade Fact Sheet
	Appliance Recycling	<ul style="list-style-type: none"> CSE – Flyer PG&E – Direct Mail
Southern California	Appliance Rebates	<ul style="list-style-type: none"> SCG – Energy Hero Flyer SCE – Summer Readiness handout CSE – Appliance Brochure
	Whole Home	<ul style="list-style-type: none"> The Energy Network (SoCalREN) – Whole Home Flyer SCE – Whole Home Upgrade brochure CSE – Home Upgrade Fact Sheet

Region	Program/Topic	Creative Materials to be Shown
San Diego	Whole Home	<ul style="list-style-type: none"> • SDG&E – Whole Home Fact Sheet • CSE – Home Upgrade Fact Sheet
	Appliance Rebates	<ul style="list-style-type: none"> • SDG&E – SDG&E Appliance Rebate Handout • CSE – CCSE Appliance Rebate Handout
	Appliance Recycling	<ul style="list-style-type: none"> • SDG&E – SDG&E Appliance Recycling Handout • CSE – CCSE Appliance Recycling Handout

3.3.3 Limitations

Our research faced a few important limitations:

- Focus groups are a powerful qualitative research method that can provide more detailed and nuanced insight than structured quantitative surveys. However, because focus groups are conducted with a small sample of customers, require a significant amount of time, and require that customers be comfortable in a group setting, the results may not be representative of all customers. When recruiting customers, we focused on enlisting a cross-section of customers based on demographics. To ensure that the groups were not comprised of “professional” focus group participants, we only recruited customers that had not participated in a focus group for at least a year.
- Focus groups can be difficult to manage if one or two participants dominate the group. Some people are also more reluctant to share their views. As a result, focus group results can reflect the results of just a handful of participants. We addressed this methodological limitation by using experienced focus group moderators who are skilled at providing opportunities to all group members to contribute to the discussion.

3.4 ME&O Campaign Achievements

A core aspect of the research effort addressed five central questions of interest related to customer engagement with, and effectiveness of, PA marketing. As documented below, these questions focused on exploring customer engagement with specific ME&O campaigns,²⁷ their perceptions of the marketing that they are exposed to, and the achievement of campaign objectives.

- How many customers are exposed to the marketing campaign?
- What effect does the marketing campaign have on the target market in terms of awareness of marketed programs and offerings?
- Do customers find the information they received clear?
- Do customers take action or are they likely to take action due to the marketing?
- How effective is the campaign in achieving its objectives?

²⁷ We define a “campaign” as a specific, defined series of activities used to market a product or service. An “activity” is messaging and/or collateral delivered through a specific channel. The rationale for developing summaries at a campaign level is that a campaign reflects the PA’s integrated marketing strategy and captures multiple points of customer exposure. Further, many administrators indicate that they develop objectives and measure results at the campaign level.

To answer these questions, the evaluation team worked with the CPUC and PAs to identify one campaign per PA for assessment. Due to the broad nature of ME&O campaigns deployed by the PAs, the evaluation team needed to identify areas of focus to address these research questions. In general, the evaluation used this approach where we believed it would be too burdensome or costly to complete research across the full portfolio of ME&O activities implemented by each PA. As a result, findings presented from this assessment are not generalizable to the full suite of marketing campaigns offered by the PAs. However, our selected campaigns represent a little more than a third of all Q1 2016 marketing activities. Further, our selected campaigns generally align closely with the population in terms of channel mix, though the selections slightly over represent email activities. We selected 6 campaigns out of 27 available residential campaigns offered during the given time frame.

Given the timing of the evaluation efforts, and the seasonal component to PA marketing, our team focused on exploring customer engagement for campaigns deployed around the first quarter 2016. This allowed our team to gauge near real-time exposure to the campaigns and reflected when the PAs indicated that their greatest volume of marketing activities would occur. We used the following criteria, established through discussions with the CPUC and PAs, to select each campaign:

- **Broad coverage of ME&O activities:** We selected campaigns that involved the implementation of ME&O activities across a wide range of channels.
- **Represent the most common marketing activities statewide:** Across all of the PA’s Q1 2016 activities, the five most common marketing channels are email, events/workshops, direct mail, website, and telephone calls. Where possible, we selected campaigns that also used many of these channels.
- **Include activities that provide an opportunity to speak directly with customers:** We selected campaigns for which recipient contact information was available for many activities (i.e., phone numbers, emails, addresses).

Prior to selecting the campaigns, the evaluation team also worked with each PA to assess the evaluability of each campaign. This process involved multiple rounds of in-depth interviews with each PA and data review over the course of several months. In particular, we focused on identifying campaigns where we could speak directly with residential customers exposed to the campaign. Not all campaigns in our sample frame supported primary data collection, so our team selected from a sample of campaigns where customer contact information was available or general population survey efforts were appropriate. The PA campaigns that we selected are listed in Table 6.

Table 6. PA ME&O Selected Marketing Campaigns

Program Administrator	Campaign
BayREN	Energy Upgrade California Home Upgrade Program Q1 Marketing Campaign
PG&E	REA Q1 Marketing Campaign
SDG&E	California Alternative Rates for Energy (CARE) and Energy Savings Assistance (ESA) Programs Q1 Marketing Campaign
SCE	Energy Upgrade California Home Upgrade Program Q2 Marketing Campaign
SCG	Energy Hero Winter 2015 Campaign and Spring 2016 Cold Water Washer Campaign
SoCalREN	Energy Upgrade California Home Upgrade Program Q1 Marketing Campaign

Once selected, our research addressed two overarching objectives. The first objective was to document the core activities that each PA completed during the campaign to examine how well these activities align with the

program theory and stated program goals, as well as to assess program performance associated with these goals. Second, we assessed the success of a specific marketing activity within the campaign by examining the customer engagement with the campaign. Evaluation activities were similar for all campaigns and are outlined in Table 7 below.

Table 7. ME&O Campaign Evaluation Activities Summary

Evaluation Task	Respondent Group	Brief Description
Evaluability Assessment	Program Staff	Data request and interview with program staff; final determination of evaluation activities
Secondary Review of ME&O Accomplishments	n/a	Review of secondary data provided by each PA on progress as of the end of the campaign compared to goals
Customer Surveys	See Table 8	For each PA, a customer survey to understand awareness and recall of the program and ME&O received, their perceptions of the clarity of the ME&O, and ME&O influence on actions they've taken or plan to take toward participating in the targeted program

3.4.1 Secondary Data Review

For all campaigns, we reviewed secondary data provided by the PAs about each campaign including communications plans, budgets, metrics, success criteria, and outcomes for all activities. We then compared campaign goals for customer engagement with secondary data provided. The type of secondary data and metrics reviewed varied across the different campaigns.

3.4.2 Customer Surveys

We conducted surveys with PA customers to assess campaign achievements from the customer perspective. We measured achievement in a broad sense in terms of driving awareness and knowledge of the targeted program and the clarity and usefulness of the information marketing provided. We also looked at customer ability to recall the ME&O as well as its influence on consumers' decisions to take the actions specified by the campaign. The survey mode and respondent groups varied across campaigns (Table 8). We provide more detail on the survey methods used for each campaign below.

Table 8. ME&O Campaign Survey Respondent Groups

Campaign	Survey Mode	Respondent Group
BayREN Energy Upgrade California Home Upgrade ME&O Campaign	Internet	Homeowners who received Q1 workshop invitation emails from BayREN, attended workshops, or contacted the Home Upgrade Advisor call center
PG&E REA ME&O Campaign	Internet	Residential customers who received the Q1 digital Energy Advisor newsletter and/or completed the HEC Tool in Q1 2016
SDG&E CARE/ESA ME&O Campaign	Internet and Telephone	Low-income households (English and Spanish speaking), of whom had signed up and were deemed eligible for CARE and ESA during Q1 2016
SCE Energy Upgrade California Home Upgrade ME&O Campaign	Internet	Residential customers who received Q2 email from SCE
SCG Energy Hero ME&O Campaign	Internet	General population living within SCG service territory
SoCalREN Energy Upgrade California Home Upgrade ME&O Campaign	Internet	Homeowners who received Q1 newsletters from SoCalREN, attended workshops, or contacted the Home Upgrade Advisor call center

We conducted additional research activities for three programs. For BayREN, we reviewed call center volume in relation to ME&O efforts. For SCE, we used secondary data to look at how aggregate measures of customer engagement, specifically call center volume and SCE landing page website traffic, changed over the course of Q2 in relation to campaign activities. For SDG&E, we reviewed the results of a CARE Customer Satisfaction survey that SDG&E conducted in the fall of 2015.

BayREN Energy Upgrade California Home Upgrade ME&O Campaign Homeowner Internet Survey

Opinion Dynamics conducted an internet survey targeting homeowners exposed to Q1 2016 marketing efforts from BayREN that promoted the Energy Upgrade California® Home Upgrade Program. The objective of the survey was to assess the role that BayREN marketing efforts played in moving consumers along the path toward participation in the program. We also explored the influence of marketing efforts on actions taken in Q1 or Q2 2016 or future plans.

As shown in Table 9 below, our survey target population was consumers who received Q1 marketing, attended a workshop, or engaged with a Home Upgrade Advisor. All of these customers signed up to receive communications from BayREN. BayREN provided us with a list of all customers who were exposed to Q1 marketing. To maximize the number of completed interviews, we attempted to complete interviews with all customers in the population. Because this survey was a census attempt, the concept of sampling error does not apply. Therefore, we do not provide estimates of precision associated the survey estimates. The survey results are subject to other sources of error as noted above and discussed further in the Research Limitations section.

Table 9. BayREN Energy Upgrade California Home Upgrade Program ME&O Campaign Survey Population

Consumer Touchpoint	Number of Contact Emails	
	Population	Completed Surveys*
Consumers Who Received Q1 2016 Marketing Efforts		
Received a workshop invitation via email in Q1 2016	213	19
Attended a Homeowner Workshop in Q1 2016	42	4
Consumer Who Took Action in Q1 2016		
Contacted a Home Upgrade Advisor about participating in the program*	371	34
Total Unique Emails*	590	50

* Does not sum because some contacts fall into multiple categories.

Opinion Dynamics sent an email survey invitation to 590 consumers on June 24, 2016. After sending four email reminders to complete the survey, we pulled the survey from the field on July 21, 2016. A total of 50 customers completed the survey. The final American Association of Public Opinion (AAPOR) Response Rate 3 (RR3) was 8.5%.²⁸ We calculated the RR by dividing the number of completed interviews by the total number of potentially eligible respondents. Survey dispositions and RR formulas can be found in Volume III.

²⁸ American Association of Public Opinion (AAPOR) provides formulas for calculating four different response rates (RRs). They differ in terms of the treatment of partial interviews and sample units with unknown eligibility. We used AAPOR's RR3 for all surveys, which treats partial interviews as refusals and includes an estimate of eligibility for unknown sample units.

PG&E Residential Energy Advisor ME&O Campaign Assessment

In Q1 2016, PG&E's campaign included a number of activities marketing its HEC tool, which is part of its REA program. Opinion Dynamics conducted an internet survey with PG&E customers who received marketing materials or had direct experience with the HEC. The objective of the survey was to assess awareness of the HEC and recall of PG&E's Q1 marketing efforts, the clarity and relevance of the January 2016 Energy Advisor email newsletter messaging, and the effectiveness of Q1 marketing efforts in inducing completion of the HEC.

As shown in Table 9, our target population are customers who received the Q1 Energy Advisor newsletter and/or completed the Home Energy Checkup during Q1 2016. Customers received the newsletter from PG&E if they signed up to receive it. PG&E provided us with a complete list of the target population. A simple random sample from this population would have resulted in a relatively small number of completed interviews with customers who had enough contact with the marketing to comment on their experiences with it. As the aim of the survey was to understand customer experiences with the marketing, we oversampled customers with higher levels of engagement with marketing materials to ensure that we completed enough interviews to assess customer experiences with the newsletter and the HEC. We thus oversampled customers who either opened the newsletter, opened the newsletter and clicked on the HEC advertisement in the newsletter, and/or who had completed the HEC during Q1 2016. Table 9 shows the survey sample frame and completed surveys by level of engagement with the newsletter and HEC tool completion.

Table 10. PG&E Residential Energy Advisor Program ME&O Campaign Survey Population ^a

Customer Touchpoint	Population		Sample ^a		Completed Interviews ^a		Precision at 90% Confidence Interval
	Number	Percentage	Number	Percentage	Number	Percentage	
Customers who Received January 2016 Energy Advisor Newsletter							
Received Newsletter, Did Not Open	1,334,270	25%	6,000	26%	169	11%	6.3%
Completed HEC	14,452	0.3%	n.d.	n.d.	66	4%	
Did not Complete HEC	1,319,818	24%	n.d.	n.d.	103	7%	
Received Newsletter, Opened	392,929	7%	6,000	26%	458	30%	3.8%
Completed HEC	7,072	0.1%	n.d.	n.d.	90	6%	
Did not Complete HEC	385,857	7%	n.d.	n.d.	368	24%	
Received Newsletter, Opened and Clicked on HEC Link	6,190	0.1%	5,821	25%	705	47%	2.9%
Completed HEC	1,449	0.03%	n.d.	n.d.	225	15%	
Did not Complete HEC	4,741	0.1%	n.d.	n.d.	480	32%	
Total Newsletter Recipients	1,733,389	32%	17,821	76%	1,332	89%	2.3%
Completed HEC	22,973	0.4%	n.d.	n.d.	381	25%	
Did not Complete HEC	1,710,416	32%	n.d.	n.d.	951	63%	
Customers who Did Not Receive January 2016 Energy Advisor Newsletter^b							
Total	3,666,611	68%	5,634	24%	173	11%	6.3%
Completed HEC	23,800	0.4%	827	4%	173	11%	
Did not Complete HEC	3,642,811	67%	0	0%	0	0%	
Grand Total	5,400,000		23,455		1,505		2.1%

^a Note about the sample: Subgroup percentages for "Completed HEC" are not available based on the way PG&E was able to provide data to the evaluation team. The data request response included one file of customers who completed HEC in Q1 2016 and one file of customers who received the newsletter. Prior to fielding, we merged the two files, removing duplicate customers found in both files. Customer IDs found in both files can be affirmatively categorized as "completed HEC in Q1 2016, received newsletter," however the lack of a match across files does not confirm that a customer didn't, for example, take the HEC in Q1 2016 (or at other points in time, such as Q4 2015 or Q2 2016) or didn't get the newsletter (because each file was a sample). ^b: Note about customers who did not receive the January 2016 newsletter: Because PG&E communicates about HEC through avenues in addition to the email newsletter, those who did not receive the newsletter may have received information about HEC through other means, such as bill inserts or a mailer.

Opinion Dynamics sent an email survey invitation to 23,455 customers on June 21, 2016. After sending three email reminders to complete the survey, we pulled the survey from the field on July 7, 2016. A total of 1,505 customers completed the survey. The final AAPOR RR3 was 6.4%.²⁸ We calculated the RR by dividing the number of completed interviews by the total number of potentially eligible respondents. Survey dispositions and RR formulas can be found in Volume III.

To account for the oversamples, we weighted the survey results so the overall sample was representative of the population of customers who received the Q1 newsletter and/or completed the HEC tool in Q1 2016.²⁹ Many of our analyses focused on subgroups that differed by their level of engagement with the marketing materials, which required creating additional weights for use in those analyses. The tables below provide the details for the eight different weights that we use in our survey analysis to provide transparency about the data weighting approaches we used to account for the survey over-sampling approach.

Table 11. Weights Reflecting Population of Q1 Newsletter Recipients (Weight A)

	Population	Completed Interviews	Weight A
Received newsletter, did not open newsletter			
Did Not Complete HEC Tool	1,319,818	103	9.847
Completed HEC Tool	14,452	66	0.168
Received newsletter, opened newsletter			
Did Not Complete HEC Tool	385,857	368	0.806
Completed HEC Tool	7,072	90	0.060
Received newsletter, clicked through newsletter			
Did Not Complete HEC Tool	4,741	480	0.008
Completed HEC Tool	1,449	225	0.005
Total Unique Emails	1,733,389	1,332	-

Table 12. Weights Reflecting Full Sample Frame (Weight B)

	Population	Sample	Weight B
Did not receive newsletter			
Completed HEC Tool	827	173	0.004
Received newsletter, did not open newsletter			
Did Not Complete HEC Tool	1,319,818	103	0.190
Completed HEC Tool	14,452	66	11.120
Received newsletter, opened newsletter			
Did Not Complete HEC Tool	385,857	368	0.910
Completed HEC Tool	7,072	90	0.068
Received newsletter, clicked through newsletter			
Did Not Complete HEC Tool	4,741	480	0.009
Completed HEC Tool	1,449	225	0.006
Total Unique Emails	1,734,216	1,505	-

²⁹ We asked all respondents whether they had completed an HEC regardless of whether the PG&E data indicated that they had. Approximately 15% of responses did not match PG&E data. Some responses conflicted with PG&E's records. Specifically, not all customers that completed the HEC according to PG&E records recall having done so, and some customers who did not complete the HEC during Q1 2016 per PG&E records tell us that they have completed the HEC. In our analyses, our definition of HEC completion is limited to those respondents who both show up in PG&E's records and who self-report completion in the survey.

Table 13. Weights among Q1 Newsletter Recipients Who Did Not Open It (Weight C)

	Population	Sample	Weight C
Received newsletter, did not open newsletter			
Did Not Complete HEC Tool	1,319,818	103	1.623
Completed HEC Tool	14,452	66	0.028
Total Unique Emails	1,334,270	169	-

Table 14. Weights among Q1 Newsletter Recipients Who Opened It (Weight D)

	Population	Sample	Weight D
Received newsletter, opened newsletter			
Did Not Complete HEC Tool	385,857	368	1.222
Completed HEC Tool	7,072	90	0.092
Total Unique Emails	392,929	458	-

Table 15. Weights among Q1 Newsletter Recipients Who Opened It and Clicked on HEC Link (Weight E)

	Population	Sample	Weight E
Received newsletter, clicked through newsletter			
Did Not Complete HEC Tool	4,741	480	1.125
Completed HEC Tool	1,449	225	0.733
Total Unique Emails	6,190	705	-

Table 16. Weights among Customers Who Completed HEC Tool in Q1 2016 (Weight F)

	Population	Sample	Weight F
Received newsletter, did not open newsletter			
Completed HEC Tool	14,452	66	3.632
Received newsletter, opened newsletter			
Completed HEC Tool	7,072	90	1.303
Received newsletter, clicked through newsletter			
Completed HEC Tool	1,449	225	0.107
Total Unique Emails	22,973	381	-

Table 17. Weights among Customers Who Received Newsletter and Did Not Complete HEC Tool in Q1 2016 (Weight G)

	Population	Sample	Weight G
Received newsletter, did not open newsletter			
Did Not Complete HEC Tool	1,319,818	103	7.125
Received newsletter, opened newsletter			

	Population	Sample	Weight G
Did Not Complete HEC Tool	385,857	368	0.583
Received newsletter, clicked through newsletter			
Did Not Complete HEC Tool	4,741	480	0.005
Total Unique Emails	1,710,416	951	-

Table 18. Weights Reflecting All Customers Who Completed HEC Tool in Q1 2016 (Weight H)

	Population	Sample	Weight H
Did not receive newsletter			
Completed HEC Tool	827	173	0.111
Received newsletter, did not open newsletter			
Completed HEC Tool	14,452	66	5.097
Received newsletter, opened newsletter			
Completed HEC Tool	7,072	90	1.829
Received newsletter, clicked through newsletter			
Completed HEC Tool	1,449	225	0.150
Total Unique Emails	23,800	554	-

SCE Home Upgrade California Home Upgrade ME&O Campaign Assessment

Opinion Dynamics conducted an internet survey with customers who were sent an email marketing for the Energy Upgrade California Home Upgrade Program in May 2016. The main objectives of the survey were to assess customer recall of any of the Q2 program marketing activities and to assess the effectiveness and influence of the Q2 email on customer actions related to the program.

The target population for the survey was the 337,291 customers to whom SCE sent the Q2 2016 email.³⁰ Opinion Dynamics sent an email survey invitation to a random sample of 24,000 customers on June 24, 2016. After sending three email reminders to complete the survey, we pulled the survey from the field on July 14, 2016. A total of 1,128 customers completed the survey (Table 19). The final AAPOR RR 3 was 4.7%. We calculated the RR by dividing the number of completed interviews divided by the total number of potentially eligible respondents. Survey dispositions and RR formulas can be found in Volume III.

Table 19. SCE Energy Upgrade California Home Upgrade Program Event Follow-Up Survey Summary

Population	Sample	Completed Interviews	Precision at 90% Confidence Interval
337,291	24,000	1,128	2.4%

³⁰ SCE provided a listing of all marketing activities and customers reached through each activity. SCE indicated that the email was sent to 329,038 customers in that request. When SCE sent us the sample for the survey, they sent us 337,617 customers. We removed 326 SCE email addresses from this database at SCE's request (i.e., name@sce.com). For the purposes of this survey, the remaining 337,291 customers serve as our target population. In our review of all campaign activities in Chapter 6, we use the number provided in the original data request (329,038).

SCG Energy Hero ME&O Campaign Assessment

The Energy Hero campaign primarily used mass media marketing techniques, so we conducted a general population survey to assess this campaign. The purpose of this survey was to gauge customer awareness of the Energy Hero campaign, recall of Energy Hero campaign materials, and the effectiveness of these materials. The survey also measured awareness of other SCG energy efficiency programs.

We fielded the survey using an internet panel provided by YouGov. YouGov employs a sample-matching approach to draw a representative sample of the target population from its panel members. The sample for the survey was matched to the California population in terms race, gender, and age. The target population for the survey was SCG residential customers. We surveyed customers whose zip codes matched SCG service territory. Prior to analysis, we weighted the survey results to reflect the SCG population in terms of age, gender, race, education, and geographic location.³¹

YouGov sent email survey invitations to 898 panel members, of which 121 were deemed ineligible because they did not live in SCG territory. A total 250 people completed the survey, achieving an AAPOR RR 3 of 37.3%. The survey was in the field between June 31 to July 11, 2016. Survey dispositions and RR can be found in Volume III.

Table 20. SCG Energy Hero Survey Summary

Population	Sample Frame	Completed Interviews	Precision at 90% Confidence Interval
SCG Residential Customers	898	250	5.2%

SDG&E CARE/ESA ME&O Campaign Assessment

Opinion Dynamics conducted a multi-mode survey with SDG&E customers who signed up and were deemed eligible for CARE and ESA during Q1 2016. The purpose of this survey was to explore customers’ recollection of program marketing, feedback about its clarity and usefulness, and the influence marketing had on their decision to participate in the programs.

Based on a review of the available contact information for customers who recently signed-up for or inquired about CARE/ESA, we determined that a multi-mode survey approach would be the most effective fielding strategy. The survey included two methods of outreach:

- **Online:** We emailed a sample of all customers for whom we had an email address an invitation to complete the survey on-line.
- **Mail:** We mailed customers for whom we did not have an email address, and who did not inquire about the programs online (e.g., households that may have limited internet access) an invitation to complete the survey online or over the telephone through our call center.

To encourage completion of the survey, we entered all respondents who completed the survey into a drawing for \$500. All respondents had the option to complete the survey in English or in Spanish.

The target population for our survey included customers who had applied for and were deemed eligible for CARE or ESA in Q1 2016, of which the large majority had only applied for CARE (Table 21). A small number customers had applied for both CARE and ESA. SDG&E provided us a complete list of the survey target population. After removing duplicate customer records and invalid contact information, our sample frame included 11,494 customers.

³¹ Weights were based on the 2013 American Community survey and weights larger than 4 were trimmed.

Table 21. SDG&E CARE/ESA ME&O Survey Population

Program	Population	Sample Frame	Completed Interviews
CARE Only	11,071	10,892	679
ESA Only	639	513	43
CARE and ESA	89	89	8
Total	11,799	11,494	730

We attempted to complete interviews with the 11,494 customers in the sample frame. Most customers had email addresses. For these customers, Opinion Dynamics sent e-mail invitations using an Opinion Dynamics e-mail account (Table 22).

We sent three reminder e-mails after the initial invitation. For customers without email addresses, we sent a letter with instructions about how to complete the survey either online or over the telephone. We did not send reminders to customers who were mailed the invitation to complete the survey. All customers had the option to complete the survey in English or in Spanish. The survey was in the field from July 12 - 27, 2016, and completed 730 interviews. The final AAPOR Response Rate Three was 6.3%. We calculated the response rate by dividing the number of completed interviews by the total number of potentially eligible respondents. Survey dispositions and response rate formulas can be found in Volume III. Because this survey was a census attempt, the concept of sampling error does not apply. Therefore, we do not provide estimates of precision associated the survey estimates. The survey results are subject to other sources of error as noted above and discussed further in the Research Limitations section.

Table 22. SDG&E CARE/ESA ME&O Completed Interviews by Survey Mode

Survey Mode	Completed Interviews			
	CARE Only	ESA Only	CARE & ESA	Total
Email Survey Invitation – Completed Online	607	43	8	658
Mailed Survey Invitation	72	0	0	72
<i>Completed Online</i>	39	0	0	39
<i>Completed by Telephone</i>	33	0	0	33
Total	679	43	8	730

SoCalREN Energy Upgrade California Home Upgrade ME&O Homeowner Internet Survey

Opinion Dynamics conducted an internet survey targeting homeowners exposed to Q1 2016 marketing efforts from SoCalREN that promoted the Energy Upgrade California® Home Upgrade Program. The objective of the survey was to assess the role that SoCalREN marketing efforts played in moving consumers along the path towards participation in the Energy Upgrade California® Home Upgrade Program. We also explored the influence of marketing efforts on actions taken in Q1 or Q2 2016 or future plans.

As shown in Table 23, our survey target population was consumers who received Q1 2016 marketing, attended a workshop, engaged with a Home Upgrade Advisor, or began participating in the program. All of these customers signed up to receive communications from SoCalREN. SoCalREN provided us with a list of all customers who were exposed to Q1 marketing. To maximize the number of completed interviews, we attempted to complete interviews with all customers in the target population. Because this survey was a census attempt, the concept of sampling error does not apply. Therefore, we do not

provide estimates of precision associated the survey estimates. The survey results are subject to other sources of error as noted above and discussed further in the Research Limitations section.

Table 23. SoCalREN Energy Upgrade California Home Upgrade ME&O Survey Population

Consumer Touchpoint	Number of Contact E-mails	
	Population	Completed Interviews
Consumers who Received Q1 2016 Marketing Efforts		
Received a Home Upgrade Advisor e-mail newsletter in Q1 2016	821	34
Attended a Homeowner Workshop in Q1 2016	8	1
Consumers who Took Action in Q1 2016		
Contacted a Home Upgrade Advisor about participating in the program	6	1
Began participating in the Energy Upgrade California® Home Upgrade Program	48	5
Total Unique E-mails*	877	40

*Does not sum because some contacts may fall into multiple categories

Opinion Dynamics sent an email survey invitation to 877 customers on June 22, 2016. After sending four email reminders to complete the survey, we pulled the survey from the field July 21, 2016. A total of 40 customers completed the survey. The final AAPOR RR 3 was 4.7%. We calculated the RR by dividing the number of completed interviews by the total number of potentially eligible respondents. Survey dispositions and RR formulas can be found in Volume III.

3.4.3 Research Limitations

It is important to note that each campaign promotes a distinct program with associated campaign goals, activities, and target audiences. The calls to action of the different campaigns are quite varied. As a result, our evaluation surveys also had distinct target populations. For some programs, customers had already expressed interest in the program so that the results may reflect a preexisting interest in the program and not a positive impact of marketing. These distinctions between campaigns and survey target populations are important to consider when reviewing results associated with each PA.

Customer Surveys

All surveys are subject to different sources of error. We discuss the potential for several different types of error below and our attempts to mitigate them.

- Coverage Bias:** A survey can be affected by coverage bias when a portion of the target population is excluded from the sample frame. For most of our customer surveys, our sample frame was comprised of the entire target population or is a random sample of that population. However, with the exception of SDG&E, respondents could only complete the interviews in English, which has the potential for coverage bias if the campaigns targeted non-English speakers. The surveys were designed to assess a specific marketing activity, and in most cases the collateral for these activities was only in English. In some cases, there were some program materials on PA websites that were in Spanish as well as English. Given the limited non-English marketing that was done for the campaigns that are the focus of our evaluation, we should have little coverage bias because the interviews were only in English. For SDG&E, the CARE and ESA marketing collateral were in both English and Spanish. Accordingly, respondents could complete the interview in either language.

- **Non-Response Bias:** We calculated AAPOR RR for all of our surveys. While many were less than 10%, these rates are typical of most surveys in today's environment. Response rates have been declining for decades, and it is increasingly difficult to get people to respond to surveys. We attempted to maximize our response rates by sending multiple reminders to complete the survey and extending the fielding periods. A low response rate does not guarantee biased survey results due to non-response, even when the demographics of those who respond to the survey are different from those that do not. Non-response bias occurs when those who complete a survey are different from those that do not on a characteristic that is correlated with the topics covered in the survey. To assess whether our survey results may suffer from non-response bias, we need information about the target population so we can compare or sample respondents to the larger target population. If our sample is different from the target population, we then would see if our study variables are correlated with the characteristic on which the sample and the population differ.
- **For BayREN, SoCalREN, and PG&E,** we had population information about customer engagement with the campaign (i.e. the proportion who attended a workshop, contacted a Home Upgrade Advisor, received an e-mail, participated in the program, or opened an email newsletter). When we compared the overall population with our survey respondents, we found no evidence to suggest that the BayREN and SoCalREN respondents differed significantly from respondents in terms of their engagement with the program. For PG&E, more engaged customers were more likely to complete the survey.³² We also found that engagement is correlated with many of our survey questions. To address this bias, we weighted the survey results so that the respondents match the population in terms of campaign engagement.
- **For SCG,** we used an internet panel provided by YouGov panel to complete a survey with SCG customers. We chose to use the YouGov panel due to the very low survey response rates of general population telephone surveys, which results in low survey fielding production and high survey costs. The YouGov panel is an opt-in panel, which has its own limitations, mainly selection bias. One could argue this bias is similar to that of telephone surveys today given the small percentage of customers that will participate. To reduce the possibility of selection bias associated with observable demographic characteristics, YouGov employs a sample-matching approach to draw a representative sample of the target population from its panel members. The sample-matching before fielding reduces the need to apply large weights after fielding in which the responses of a handful of people must be dramatically inflated to match the survey to the population. We still constructed and applied a post-stratification weight based on age, education, ethnicity, and gender to adjust for any remaining differences between our survey sample and the target population. We compared the sample to the California population on a number of demographic characteristics that are typically correlated with energy attitudes and behaviors. The results show the final weighted sample to be a representative of the population. As with all surveys, the sample-matching and post-stratification weighting processes do not address self-selection bias that results from differences in the people who choose to be part of the panel if those differences are associated with unobservable characteristics.
- We did not have any population data for **SDG&E** that would allow us to compare the Q1 CARE and ESA customers who completed our survey with all Q1 CARE and ESA customers.

³² As noted previously, we also oversampled customers who were more engaged with the marketing campaign. But even beyond these oversamples, the higher the level of customer engagement, the higher the response rates.

As a result, we cannot assess the presence of non-response bias in our results and correct for them.

- **Measurement Error:** Our surveys rely on respondent recall of marketing messages. Consumers are exposed to so much advertising that it is difficult for them to recall campaign exposure. To minimize measurement error associated with recall of marketing messages, we conducted the surveys as close as possible to customer exposure to campaign marketing. We limited our survey samples and marketing examples to those that occurred in either Q1 or Q2 2016. We also showed respondents actual marketing collateral and measured their reactions rather than relying solely on recall of marketing. For all survey questions, we carefully worded and tested the questions to ensure that respondents interpreted the question as we intended.

4. ME&O Program Design and Implementation

While IOU marketing can be evaluated as part of program-specific process evaluations led by the IOUs, there has not been a comprehensive evaluation of IOU-led marketing efforts to date. Further, the RENs only recently launched energy efficiency programs, so there was little information on their marketing efforts available prior to this study. Given the limited information on PA design and implementation of ME&O efforts, a central component of this Cross-Cutting Process Study is to document how the PAs performed these various functions. In particular, the evaluation team focused on documenting ME&O objectives and activities, budgets and expenditures, and metrics and performance tracking to increase the transparency of PA ME&O efforts. The findings from this research are a first step in documenting PA efforts and can serve as a foundation for future evaluations.

Based on the broad scope of PA marketing, our analysis focuses on a sample of ME&O efforts. In particular, we conducted our research on PA ME&O activities undertaken as part of the six CALSPREE programs in California in 2013–2014: Energy Upgrade California Home Upgrade Program, Multifamily Energy Efficiency Rebates, PLA, REA, Residential HVAC, and Residential New Construction. Note that each IOU serves as its service area’s implementer for all six of these programs, while the RENs implement only two of the six programs.

The evaluation team, working with the CPUC, selected 2013–2014 CALSPREE programs because these programs are administered by the PAs rather than third parties, they represent a substantial portion of marketing budgets,^{33,34} and they cover similar target audiences to the SW ME&O program. We draw our findings from a series of research activities, including a review of PA tracking data, multiple rounds of in-depth interviews with the PAs, and in-depth interviews with CSE. We provided results from these evaluation activities to stakeholders in March 2016 and include detailed information on PA ME&O in Volume II.³⁵

Finally, we include information on the SW ME&O program in this section so that readers can more easily see similarities and differences in PA and SW ME&O administrator processes. For the SW ME&O program, our review focused on all activities conducted in 2014–2015.³⁶

4.1 PA ME&O Design and Implementation

4.1.1 Planning and Strategy Development

According to the PAs, the ultimate goals of the PA ME&O efforts are to educate consumers and motivate them to take action on energy efficiency or conservation measures. Largely, the “action” that IOU and REN efforts seek to encourage is participation in the marketed energy efficiency program.

³³ Note that this does not include all PA ME&O budgets for the given time frame, as it excludes commercial, third party, and non-energy efficiency-related efforts.

³⁴ The CALSPREE program marketing budgets represent approximately 37% of the total marketing budget (\$28 million out of \$75 million). However, documentation regarding total budgets differ across IOU and CPUC sources, making this value an approximate of total budgeted. See Volume II for more detail.

³⁵ In Volume II, we also summarize each of the PAs ME&O activities during 2013–2014 and provide additional context to findings about their budget allocation, expenditures, and associated activities through a more detailed review of illustrative programmatic activities in 2014.

³⁶ Detailed results from our analysis of the SW ME&O program can be found in: Opinion Dynamics. April 2016. 2013–2015 California Statewide Marketing, Education, and Outreach Program: Verification and Integrated Effectiveness Study. CALMAC Study ID: CPU0110.02. Prepared for the CPUC.

According to PA marketing staff, customers tend to be unaware of energy-saving opportunities and, as a result, marketing staff tailor their ME&O activities to first serve the immediate purpose of raising awareness of the program. For these efforts, PAs use targeted and program-specific marketing activities, for example placing paid advertisements, engaging with customers on social media, sending direct mail materials, and running general awareness-building campaigns. Because these are regionally focused efforts, the PAs conduct ME&O within their territories to deliver specific messages targeted toward their customers or constituents. As expected, objectives for the PA ME&O activities vary by individual campaign or program.

In terms of planning, PA staff report developing program and/or portfolio-level ME&O plans on a program cycle basis to determine which activities they will conduct. At the most basic level, the marketing team then develops an initial marketing plan that lays out specific marketing objectives, target audiences, and outreach channels to deliver ME&O efforts. As part of this process, PAs may use predictive analytics or modeling to identify customers with the greatest propensity to participate. According to the PAs, they tend to develop more comprehensive and targeted plans for programs with larger energy savings or participation goals and rely on portfolio-wide plans to document strategies for programs with smaller energy savings or participation goals. While we provide a general overview here, it is important to note that each PA uses a slightly different approach that is tailored to its goals and aligned with its other business activities.

While all PAs indicate that they develop marketing plans as a key step in determining what ME&O activities to conduct, the evaluation team found that their availability, the timing of their development, and their content varies across PAs, programs, and program cycles. In particular, not all of the programs we reviewed had marketing plans available (11 of 27 CALSPREE programs did)³⁷ and the content of the marketing plans we received varied significantly both within and across PAs.³⁸ For instance, while nearly all marketing plans provided information regarding the campaign objectives, target audience, channel mix and timing, only some marketing plans included metrics (seven plans) and success criteria (six plans).

In terms of the strategy employed in 2013–2014, the PAs targeted 11 types of audiences on both the demand and supply sides of the market for their CALSPREE ME&O efforts: contractors, single-family homeowners, local governments, home builders, small businesses, business owners, low-income households, middle-income households, multifamily property owners, renters, and residential households in general. The PAs most often targeted single-family homeowners, likely because CALSPREE programs tend to focus on high-income, single-family homeowners. However, engaging contractors and builders of new homes was also important, as many of these programs rely on market actor promotion. Importantly, each PA may incorporate its own specific segmentation and prioritization schemes to target its marketing campaigns.

Given the varied target audiences for PA ME&O efforts, the PAs promoted programs and energy awareness using a mix of targeted- and mass-media channels. Table 24 shows that PAs most frequently used digital marketing strategies, such as digital media, email, websites, and social media, to market to audiences. Direct mailings, events, and workshops were also commonly employed marketing strategies.

³⁷ This excludes local programs that were offered ME&O during the 2013-2014 program cycle.

³⁸ See Volume II for a list of all PA programs, and details regarding their marketing plans.

Table 24. Marketing Channels used by PAs in 2014

Channel Type	BayREN*	PG&E	SCE	SCG	SDG&E	SoCalREN	Number of PAs That Used Channel
Direct mail	✓	✓	✓	✓	✓	✓	6
Email	✓	✓	✓	✓	✓	✓	6
Website	✓	✓	✓	✓	✓	✓	6
Digital media		✓	✓	✓	✓	✓	5
Events/workshops	✓	✓	✓	✓		✓	5
Social media	✓		✓	✓	✓	✓	5
Flyers	✓	✓	✓			✓	4
In-store/Retail		✓	✓	✓	✓		4
Out-of-home			✓	✓	✓	✓	4
Radio	✓		✓	✓	✓		4
Paid search		✓			✓	✓	3
Television		✓		✓			2
Telephone calls						✓	1
Total Channels Used by PA	7	9	10	10	9	10	13

Source: We derived these categorizations primarily from PA responses to our first data request, received between August 3, 2015 and August 5, 2015. In a few cases, the PAs provided additional detail via follow-up data requests that was incorporated into our assessment.

* For BayREN, this table includes only channels for the Whole Home/Home Upgrade Program. BayREN did not provide Multifamily program channels.

While this section provides a high-level overview of activities across PAs, it is important to note that each PA developed its strategy based on the needs of and context within its particular service territory. Volume II provides detailed information on the specific marketing activities conducted by the PAs in 2014.

4.1.2 Budget Development and Allocation

Based upon program goals, the PAs develop ME&O budget proposals to align with the required regulatory approach, which the CPUC must authorize. Upon developing, proposing, and subsequently administering these program funds, PAs develop internal budgets across program years, as well as for specific programs that support CALSPREE ME&O activities. The large majority of PA ME&O funding is allocated to program-specific marketing efforts as opposed to general awareness or energy management efforts. However, some of the PAs may include general messaging as part of marketing designed to drive program participation. For example, in January 2016, PG&E delivered the Energy Advisor Monthly Email Newsletter, which contained messaging specific to the HEC, in addition to messaging about staying safe before, during, and after winter storms. While the evaluation team was tasked with gathering only anecdotal information on the split between general and program-specific marketing, PG&E and SDG&E indicated that their general energy management ME&O was no more than 25% of their total ME&O budget.

Overall, the PAs marketing budget for the CALSPREE programs was approximately \$28 million between 2013 and 2014, which represents 9% of the overall CALSPREE program administration budgets. More specifically, each IOU dedicated between 6% and 10% of its CALSPREE program budget to ME&O,

while each REN dedicated 16% of its CALSPREE program budget to ME&O. There is also variation across the PAs in terms of the proportion of the ME&O budget allocated to specific CALSPREE programs. Staff typically allocate budgets based on the size of the program goals or the cost of the appropriate channels needed to reach the target audience for the program. For example, the Energy Upgrade California Home Upgrade Program received the largest share of the PAs' collective CALSPREE ME&O budgets (42%). Finally, it is important to note that, typically, 2013-2014 PA ME&O budgets are available only at the program level, as opposed to the campaign or activity level.

Table 25. Percent of Program Budgets Dedicated to ME&O in 2013–2014, by PA

Program Administrator	Number of Programs	Authorized CALSPREE Program Budget	PA Developed ME&O Budget	Percentage of Program Budget Dedicated to ME&O
BayREN	2	\$16,293,750	\$2,532,980	16%
PG&E	6	\$113,146,809	\$8,449,699	7%
SCE	6	\$90,900,000	\$7,881,080	9%
SCG	6	\$39,131,240	\$2,229,066	6%
SDG&E	6	\$27,499,214	\$2,631,016	10%
SoCalREN	2	\$28,943,939	\$4,576,882	16%
Total		\$315,914,952	\$28,300,723	9%

Sources: ME&O Budget: Data Provided by the PAs. Program Budget: EESTATS Monthly Reports

When looking at ME&O expenditures statewide, the PAs spent 10% less than their total 2013–2014 ME&O budgets. In particular, four of the six PAs spent less than their planned budget, while two spent more than their planned budget. According to the PAs that underspent, cost savings were often achieved as a result of cost efficiencies in delivery channels (such as using preexisting mailers or social media campaigns). Several PAs also mentioned that regulatory delays and programmatic changes in 2013 and early 2014 had major implications on their ability to spend program budgets for the Energy Upgrade California Home Upgrade Program. As a result, most PAs either underspent their Energy Upgrade California Home Upgrade Program budget or overspent in 2014 because they shifted unused 2013 funds to accelerate efforts within a shorter-than-planned time frame. Unfortunately, while the evaluation team has a good sense of budget allocations and expenditures at the program level, the PAs do not always track budget information at the activity level, which could help support assessments of cost-effectiveness by activity.

Table 26. 2013–2014 CALSPREE Budgets and Expenditures, by PA

Program Administrator	Total Budget	Total Expenditures	% of Budget
PG&E	\$8,449,699	\$9,772,231	116%
SCG	\$2,229,066	\$2,333,163	105%
BayREN	\$2,532,980	\$2,257,953	89%
SCE	\$7,881,080	\$6,458,973	82%
SDG&E	\$2,631,016	\$1,284,309	49%
SoCalREN	\$4,576,882	\$3,282,385	72%
All PAs	\$28,300,723	\$25,389,014	90%

4.1.3 PA ME&O Performance Tracking and Assessment

Developing metrics is an essential component of measuring performance. To assess the effectiveness of their ME&O activities, the PAs develop and track a variety of program- and channel-specific metrics. Notably, the CPUC does not play a role in overseeing the development of metrics or require documentation of performance tracking for PA marketing. Examples of potential metrics include the

number of collateral materials distributed, the number of events held or click through rate (CTR) from digital advertising.

A review of 2013-2014 PA ME&O data indicates that, in some cases, the PAs did not identify or document metrics for their ME&O campaigns. For example, while three-quarters (76%) of the ME&O activities under study had a defined metric, the number of metrics for each PA varied widely—BayREN identified no defined metrics, while SCG and SDG&E identified metrics for all activities. In the cases where PAs do not develop metrics, we cannot determine whether the campaign achieved its objectives.

To assess performance, metrics also require success criteria³⁹, something few PAs had at the activity level. For instance, nearly two-thirds of 2013-2014 ME&O data received from the PAs did not include success criteria, and in many cases when success criteria were provided, they were provided at a campaign rather than activity level. For example, for one of SCE's email campaigns, SCE reported on several marketing metrics, such as number of emails delivered and email open rates, but did not have success criteria for these marketing metrics (such as an anticipated open rate). In addition, BayREN, SDG&E, and SoCalREN did not document any success criteria. Because of this lack of information on success criteria, it is difficult to ascertain whether or not activities met expectations. Notably, a review of 2016 marketing campaigns indicate that the PAs have improved in terms of documenting metrics and success criteria (see Chapter 6 for more information).

PA marketing staff indicated that for those activities that did not have documented success criteria they typically assessed performance based on their prior experience marketing the program or compared to similar marketing activities in the energy efficiency industry (for example, PAs indicated that they compare CTRs against industry rates based on their own knowledge of the industry).

A key challenge when evaluating marketing campaigns is that there is often a greater focus on measuring efforts than on measuring effects. For example, measuring *effort* asks questions determining what and how much was accomplished (e.g., how many materials were put out, what was the campaign reach), whereas *effect* focuses on changes that result from a campaign (e.g., was there any awareness or behavior change). In the case of 2014 marketing activities, there is variation within and across PAs in terms of measuring efforts (e.g., collateral developed, number of unique visitors), as opposed to effects (e.g., as a result of these efforts, customers signed up for the program or requested information about the program).

According to interviews, the PAs struggle to understand how ME&O activities may have caused or contributed to changes in program outcomes. Reasons that administrators cited ranged from a lack of data on lead generation to large gaps in time between marketing activities and when customers complete program participation (for example, PG&E mentioned that exposure to marketing and a decision to conduct a home upgrade could be anywhere from 6 to 12 months apart). As a result, the PAs do not report results that causally link an ME&O activity to a program outcome.

While there is no regulatory requirement to show causality between ME&O efforts and their effects, understanding the relationship between the two could help determine the most cost effective ME&O strategies to pursue. Where opportunities exist, the PAs could seek to deploy various strategies to support assessment of marketing effectiveness. We recognize that these opportunities tend to be easier to implement depending upon the channel used for delivering marketing content. For example, a step the PAs can take to expand performance tracking beyond documentation of program outputs involves the design of marketing efforts that embed the direct assessment of results (e.g., developing a unique web address for recipients of specific program enrollment emails). In those cases, where this

³⁹ Success criteria is a predetermined target, typically numeric, that indicates success or failure, while the metric may be CTR, the success criteria is a CTR of 5%.

approach is feasible, marketing staff will have a record of those participants who were exposed to the marketing collateral and used that channel to participate in the program.

In many cases, the objective of PA marketing campaigns is to encourage customers to participate in programs. As a result, the PAs have an opportunity to implement low-cost methods to directly track the effectiveness of certain marketing channels. If funding is available, the PAs could also consider conducting studies that measure effectiveness, through incorporating experimental designs or other survey fielding efforts to support measuring program effectiveness. In these cases, outcome evaluation of marketing effects requires additional cost, time, rigor and methodological oversight.

4.2 SW ME&O Design and Implementation

We chronicle the program design and implementation processes for the SW ME&O program in the SW ME&O Verification and Integrated Effectiveness Study.⁴⁰ However, there are a number of differences between the SW ME&O program and the PA ME&O efforts that are important to note here.

- The CPUC plays a more significant oversight role in the SW ME&O program and the budget development and allocation process than for the PA ME&O efforts. For SW ME&O, the CPUC requires the program implementer to develop a budget that considers the PAs total proposed budgets and administrative costs. The CPUC is responsible for final authorization of the budget and any changes to the budget over \$250,000 must be approved by the IOUs and the CPUC.
- The SW ME&O administrator, in contrast to the PAs, tracks budgets by channel, with the largest share of the budget going to paid media advertising, followed by website and community outreach efforts. Overall, the SW ME&O administrator spent 94% of their total budget of approximately \$40 million for PY2014-2015.⁴¹
- In contrast to the PA ME&O efforts, the CPUC outlined seven metrics against which performance of the Energy Upgrade California campaign would be evaluated in the 2014–2015 period. These were developed by CPUC staff with input from stakeholders and limited feedback from the program evaluator, and approved in the CPUC’s advice letter process. Three of the seven metrics have success criteria associated with them, while the other four metrics require only verification that they have taken place. In general, the SW ME&O performance metrics provided discrete measurements of awareness and knowledge, but did not require that the results be tied directly to the program (i.e., awareness and knowledge may be the result of other marketing efforts or information sources).

4.3 Key Findings and Recommendations

There are inherent differences between SW and PA ME&O efforts based on a myriad of factors, including regulatory oversight, program design, and implementation. Consequently, there are understandable differences in how each administrator plans, budgets and assesses the performance of their ME&O efforts. The evaluation team has therefore focused on reasonable steps that can be taken to document what performance means for each administrator and how it will be measured.

⁴⁰ Opinion Dynamics. April 2016. PY2013-2015 California Statewide Marketing, Education, and Outreach Program: Verification and Integrated Effectiveness Study. CALMAC Study ID: CPU0110.02. Prepared for the California Public Utilities Commission.

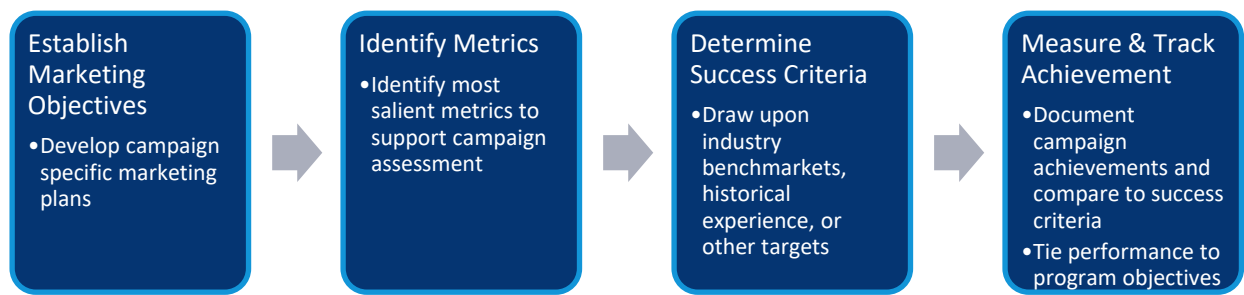
⁴¹ Statewide ME&O and the IOU and RENs set budgets for different periods. The IOUs and RENs set budgets for 2013-2014 and CSE set a Statewide ME&O budget for 2014 with a 2015 rollover.

In support of greater documentation and transparency, we provide the following recommendations regarding CPUC oversight of PA ME&O efforts.

- **Recommendation: Require enhanced PA documentation of ME&O efforts.** This evaluation reveals wide variations in terms of the level of documentation around PA marketing efforts in support of energy efficiency programs. While some variation is expected and reasonable, particularly for programs where marketing does not play an important role, or for smaller PAs with limited marketing budgets, more documentation is needed for major promotional campaigns so that the CPUC can ensure that ratepayer funds are being spent appropriately. The CPUC should work with each of the PAs to determine the extent to which they can do the following:
 - **Require annual reporting of ME&O budgets and expenditures.** We found conflicting information about the amount of money budgeted for and spent on PA ME&O. Inconsistent information about budgets and expenditures makes it difficult for the CPUC to ensure that ratepayer funds for energy efficiency are truly being spent on energy efficiency messaging. As a result, we recommend the annual submission of energy efficiency ME&O budget and expenditure information for each program where promotional campaign marketing took place on a post-hoc basis.
 - To the extent possible, this information should be provided at the marketing channel level (i.e., email, social media, or direct mail) so that the PAs have access to data that can help determine the most cost-effective channels for reaching their target audience.
 - **Consider requiring the development of annual PA strategic marketing plans at the program or portfolio-level and their provision on a post-hoc basis.** As discussed throughout this report, marketing plans are a valuable tool for aligning marketing tactics with overall program goals or even corporate goals. Without an understanding of factors such as the current market, company and marketing objectives, and target audience, it can be challenging to make informed decisions about which strategies to pursue or to determine whether marketing goals are being met. Our recommendation is that marketing plans should include the following components:
 - Program and Marketing Objectives
 - Target Audience
 - Messaging and Marketing Channels
 - Metrics and Success Criteria
 - Budget and Other Resource Needs

Marketing best practice suggests establishing marketing objectives, defining metrics aligned with objectives, and identifying success criteria for assessing performance of a particular marketing activity or campaign. Figure 2 outlines the components of this performance assessment framework.

Figure 2. Best Practices for Performance Tracking and Assessment



With this framework and context in mind, we offer the following recommendations related to PA documentation of ME&O efforts, as well as the assessment of their effectiveness. It is important to note that the evaluation team acknowledges that significant resources may be needed to implement these practices. As a result, we suggest that the PAs prioritize taking these actions in cases where their marketing efforts are likely to be coordinated with the SW ME&O program, or in cases where programs are not achieving their goals, are not cost-effective, or have hard-to-reach target audiences.

- **Consideration: PA marketing staff should identify metrics, and establish success criteria, for key marketing activities and continuously assess performance.** Metrics play an important role in assessing the performance of ME&O efforts. Without metrics and associated success criteria, it is challenging to assess the relative effectiveness of different channels or marketing activities and whether the administrator is getting a reasonable return on their investment. For the PAs, metrics are not always used to assess performance. A review of PA data indicates that in most cases, the PAs did not identify or document metrics for their ME&O campaigns.
- As part of this process, determine what data is available or could be collected to demonstrate achievement of certain metrics. If necessary and feasible, ensure that vendor contracts include provisions for access to this data.
- Where possible, create a link between customer, program, and marketing databases to allow PAs to track every customer touch and help PAs and evaluators to establish a causal link between marketing and participation, where it exists. This would be most appropriate where the PAs employ targeted/direct marketing. For activities not directed to a specific customer, the PAs should still track marketing timelines and associated impressions. We acknowledge that the RENs do not have access to utility customer databases.
- **Consideration: PA program staff should develop program theory and logic models (PTLMs) (per program) to better link marketing to achievement of programmatic objectives.** Once designed, the PAs should work with program evaluators to assess causal linkages. A PTLM outlines the theory underlying the program and why a program intervention, be it marketing or an incentive, will result in the desired outcome. In the case of marketing, the outcome may be an intermediate step that moves the customer along the pathway to participation, but may not be the final step, which is often why marketing activities and their effects are not tracked.

PTLMs play an important role in program planning, implementation, and evaluation. As part of planning and implementation, a PTLM makes clear all of the items that must be measured and tracked to assess the program. As part of the evaluation process, a PTLM provides a road map and helps focus the evaluation on the critical points of program intervention.

5. The Intersection of SW and PA Marketing

In Decision D.12-05-15, the CPUC highlighted the need to understand how local and statewide efforts can best be coordinated and complementary. As such, the evaluation team was asked to focus on (1) documenting the way in which the SW ME&O administrator and the PAs coordinated, (2) assessing how well that coordination was occurring, and (3) provide recommendations on how the process could be improved. The evaluation team presented findings around the first two areas of inquiry in interim deliverables and presentations to the CPUC, PAs, and other stakeholders.⁴² As such, this chapter outlines how coordination occurred within the framework of the governance structure established for the SW ME&O program, and provides considerations for the future design of SW ME&O based on empirical findings to date.

Before presenting this information, it is important to define what we mean by coordination and how it differs from another term used within this study, collaboration. Coordination is generally defined as the process of organizing people or groups so that they work well together.⁴³ While coordination occurs, people or organizations work together, but retain their own goals and function independently. In contrast, collaboration involves a shared goal that people or organizations are working towards together.⁴⁴ As outlined in the introduction to this section of the report, much of the evaluation team's research to date has focused on the status of coordination efforts. However, recommendations in this section and throughout the report attempt to move the CPUC and SW ME&O stakeholders towards collaboration.

5.1 2014-2015 Statewide ME&O Governance Structure

Before discussing the future of the program's design, it is instructional to consider the design put in place as the program ramped up in 2014. There are four primary parties involved in SW ME&O administration and implementation: (1) regulators at the CPUC and California Energy Commission (CEC), (2) the program administrator—in this case, CSE, (3) the PAs, and (4) additional stakeholders and advocates. The CPUC assigned CSE as the sole administrator for SW ME&O, but also created a governance structure that sought to provide “strong oversight by the Commission and the CEC, while also allowing the utilities and others to provide collaborative input and advice.”⁴⁵ Figure 3 below summarizes the roles and responsibilities of each of the organizations involved with SW ME&O during the 2014-2015 period. The arrows in Figure 3 indicate the directional flow of information between CSE, the CPUC, and key stakeholders. The types of communications between these groups are identified in the lists next to the arrows.

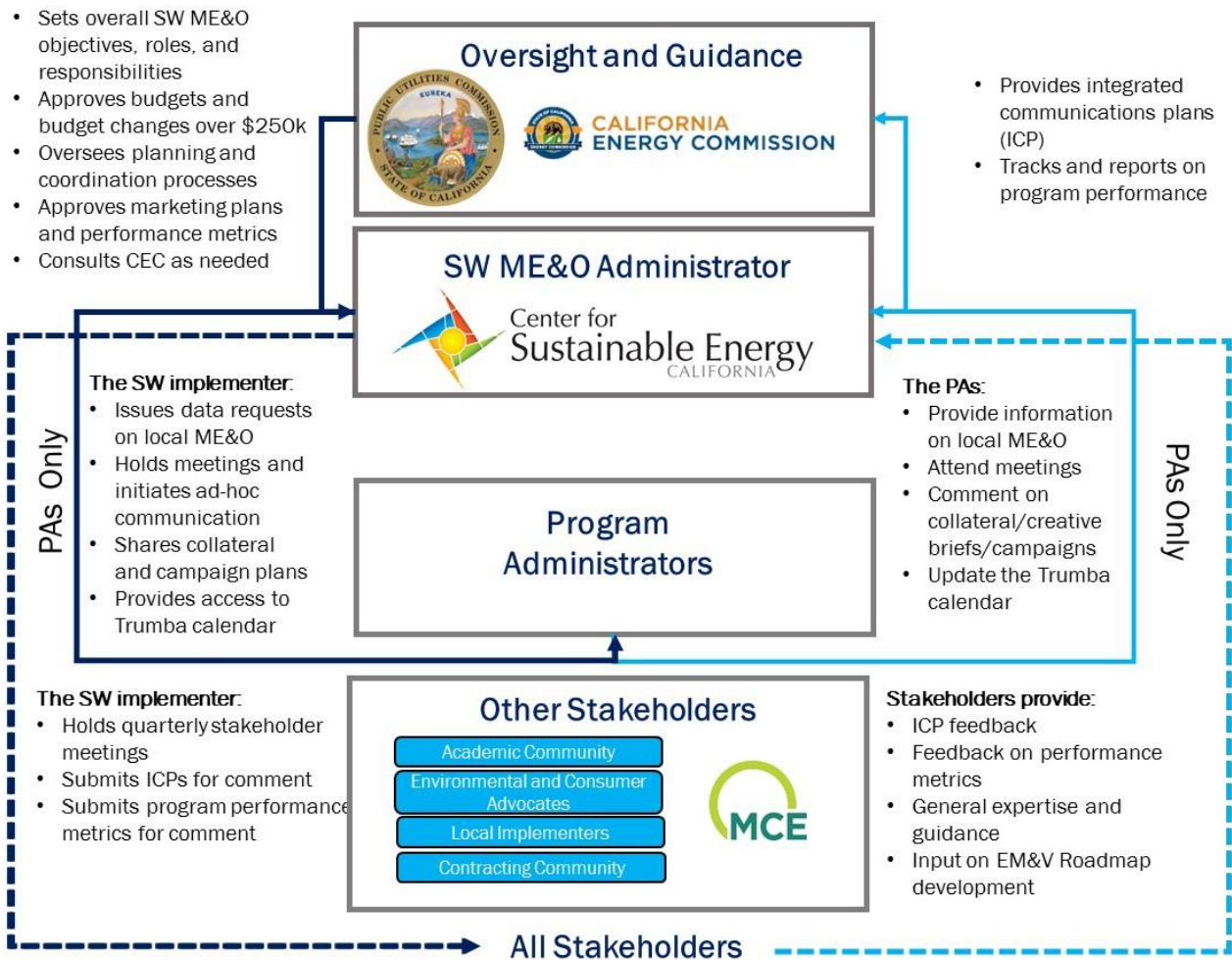
⁴² These activities included: ME&O Workshop, April 2016; Opinion Dynamics, ME&O Coordination Memo - April 11, 2016; Opinion Dynamics, Consumer Focus Group Findings - December 2015.

⁴³ “Coordination.” Merriam-Webster.com. Accessed November 1st, 2016. <http://www.merriam-webster.com/dictionary/coordination>.

⁴⁴ Mattessich et al. Collaboration: What Makes It Work. Accessed August 15th, 2016. <http://eric.ed.gov/?id=ED390758>

⁴⁵ CPUC. 12/19/2013. “Decision on Phase 2 Issues: Statewide Marketing, Education, and Outreach Plans for 2014 and 2015.” D.13-12-038. pg. 73.

Figure 3. SW ME&O Governance Structure and Communication Processes



In the following section, we detail the roles and responsibilities of key actors across various aspects of SW ME&O.

5.1.1 Administration and Implementation

The CPUC is responsible for establishing the roles and responsibilities for SW ME&O administration;⁴⁶ providing program oversight and guidance;⁴⁷ and ensuring that CSE, the IOUs, and the RENS coordinate their marketing efforts.⁴⁸ In its 2013 ruling, the CPUC appointed CSE as the SW ME&O administrator of the Energy Upgrade California statewide brand and marketing campaign.⁴⁹ In this role, CSE is responsible for leading SW ME&O campaigns, maintains ownership of the Energy Upgrade California brand, and has decision-making authority. The CPUC maintains ultimate control over the SW

⁴⁶ Ibid., pg. 57.

⁴⁷ Ibid., pg. 73.

⁴⁸ Ibid., pg. 66.

⁴⁹ Ibid., pg. 57.

ME&O program through establishment of an oversight system detailed in the subsequent sections and summarized in the top left corner of Figure 3.⁵⁰

The CPUC also mandated that CSE consult with a stakeholder group consisting of representatives of the RENS, IOUs, the CPUC, CEC, Marin Clean Energy, and other relevant stakeholders.⁵¹ The CPUC mandated the creation of this group for two reasons, (1) so that CSE has expert resources to consult for guidance and strategy⁵² and (2) so that the IOUs and RENS can carry out their own ME&O efforts and therefore have the CPUC recognize the importance of coordinating PA and statewide campaigns. The relationship between these parties was more formally codified through the development of a RASCI model⁵³ in D.13-12-038 and affirmed by D.16-03-029 (Table 27).

Table 27. RASCI Model

Role	Description of Role	Entity
Responsible	The one charged with delivering the successful outcome; Leads, coordinates, implements; can delegate to others as supportive	Statewide Implementer
Accountable	(also Approver): The ultimate authority who assigns and approves the deliverable	CPUC CEC
Supportive	Those who provide resources or play a supporting role in implementation or outcome and deems its success	Advisory Board IOUs RENS
Consulted	Those whose opinions are sought for input and/or buy-in and with whom there is two-way communication	IOUs RENS
Informed	Those kept up-to-date, often only upon completion, and with whom there is just one-way communication	Stakeholders Public

Source: Proposed Decision Approving Implementer for the 2017-2019 Statewide Marketing, Education and Outreach Program and Providing Guidance for 2017 Activities.

Two departments within the CPUC provide guidance on the development of marketing strategy: the Business and Community Outreach (BCO) team and the Energy Division. These two departments work together to designate primary and secondary statewide Energy Upgrade California topics. Business and Community Outreach also offers guidance as needed to CSE and the PAs regarding their ME&O efforts. The Energy Division provides guidance as needed on matters related to educational efforts, with a focus on website and mobile content.

5.1.2 Coordination between CSE and Stakeholders

Coordination with local and regional entities involved in ME&O was a key component of implementing the SW ME&O program. CSE sought to understand the efforts of other actors in the market, such as the PAs, through data requests and ongoing communications and meetings. In addition, CSE and the CPUC put a number of processes in place to ensure coordination on messaging and marketing activities.

⁵⁰ Ibid., pg. 74.

⁵¹ Ibid., pg. 75.

⁵² Ibid., pg. 75.

⁵³ This refers to the governance model set forth by the CPUC for statewide ME&O. Responsible, Accountable, Supportive, Consulted, and Informed (RASCI).

2013-2015 Coordination Efforts

As part of these efforts, CSE developed a process in conjunction with the CPUC to allow for the internal development and external sharing of program messaging. CSE developed Integrated Communications Plans in phased approaches to provide an opportunity for stakeholders to provide input, as well as to allow for ongoing CPUC staff oversight. The ICPs covered 6-month periods and described the planned target audience, messaging, and outreach activities for each period. In general, the ICPs focused on primary and secondary topics as designated by CPUC staff. Overall, CSE created four ICPs, summarized in Table 28.

Table 28. Integrated Communications Plan Periods

ICP	Time Period Covered
ICP1	April–September 2014
ICP2	October 2014–March 2015
ICP3	April–September 2015
ICP4	October–December 2015

In addition to the ICPs, CSE provided creative briefs and materials for each Energy Upgrade California campaign for PA marketing stakeholder feedback and approval by CPUC staff. In the latter half of 2015, CSE also held brainstorming meetings with stakeholders and its creative agency, Campbell Ewald, to ensure that the two groups were on the same page as to how best to communicate with consumers on certain topics, as well as what type of messaging would be best coming from the SW ME&O program.

As a way to facilitate the sharing of information between CSE and the PAs, the SW ME&O program also used Trumba, an online calendar, where the PAs could provide information on their upcoming marketing activities and see what CSE had planned. The time and effort expended by all three parties in keeping Trumba up to date and accurate illustrates a commitment to coordination.

5.2 Considerations for Future Program Design

Based on interim evaluation findings regarding coordination, as well as stakeholder feedback on the collaborative process to date,⁵⁴ the CPUC has taken a number of steps to refine the vision and goals of the SW ME&O program. However, research conducted as part of this Cross-Cutting Process Study can provide additional guidance on how to translate the intent of the Proposed Decision⁵⁵ into a well-functioning reality.

5.2.1 Procedural Background

While the history of the SW ME&O Proceeding is outlined within the Proposed Decision, it is important to highlight a couple of key modifications to the SW ME&O program before discussing the future direction of the program's design. In particular, we provide an overview of three documents: the October 2015 Amended Scoping Memo,⁵⁶ Decision D.16-03-029, and D.16-09-020.

⁵⁴ See Volume III for detailed findings.

⁵⁵ CPUC. 02/16/2016. "Decision on Phase 3 Issues: Post-2016 Statewide Marketing, Education, and Outreach Activities." Application 12-08-007.

⁵⁶ CPUC. 10/26/2015. "Amended Scoping Memo and Ruling of Assigned Commissioner." Application 12-08-007.

In October 2015, the CPUC released a Scoping Memo establishing a third phase of the SW ME&O Proceeding to collect stakeholder feedback on the vision, goals, governance structure, and budget of SW ME&O post-2016. After receiving stakeholder comments, the CPUC released a Proposed Decision⁵⁷ in August 2016, approving the implementer for the 2017–2019 SW ME&O program and providing guidance for 2017 activities. The CPUC hosted a workshop on this topic in April 2016.

below summarizes the existing 2014-2016 design and the CPUC’s proposed changes for 2017 SW ME&O design.

Table 29. Summary of Comments and Proposed Changes to SW ME&O Design

Topic	2014–2016 Design*	CPUC Proposed 2017 Design**	Key Changes
SW ME&O Vision	Californians will be engaged as partners in the state’s energy efficiency, demand-side management and clean energy efforts by becoming fully informed of the importance of energy efficiency and their opportunities to act. (p. 23)	<u>All Californians will be engaged as partners in the state’s energy efficiency, demand-side management and clean energy efforts by becoming fully informed of the importance of energy efficiency and other demand-side efforts, and their opportunities to act. Statewide marketing, education and outreach should serve as a lead generator for local and regional programs and drive consumers to directly take actions to reduce or manage energy use in other ways.</u> (p. 66)	<ul style="list-style-type: none"> • CPUC clarifies that SW ME&O should encourage <i>both</i> general energy management actions and IOU/REN program participation. • CPUC clarifies that “all” Californians will be engaged with SW ME&O, and messaging will cover energy efficiency, as well as other demand-side efforts.
Long-Term Goal of SW ME&O	Long-Term Goal: “Californians understand the value of energy efficiency, demand response, and distributed generation which leads to demand for products, services and rates for their homes and businesses. This demand leads Californians to take actions that save money increase the installation of customer-owned renewable energy technologies, use energy more efficiently, and shift energy use away from peak hours as needed.” (p. 62)	Adopted 2017 Long-Term Goal: <u>“Statewide marketing, education and outreach will lead consumers to products, services and rates that empower all Californians to take actions that will lead to lower bills, higher energy efficiency and more customer-owned renewable energy technologies.”</u> (Attachment A)	<ul style="list-style-type: none"> • Long-term goal: SW ME&O “<u>will lead consumers to products services and rates.</u>” (p. 42, underlines added)

⁵⁷ CPUC. 02/16/2016. “Decision on Phase 3 Issues: Post-2016 Statewide Marketing, Education, and Outreach Activities.” Application 12-08-007.

Topic	2014–2016 Design*	CPUC Proposed 2017 Design**	Key Changes
Short-Term Goal of SW ME&O	<p>Short-Term Goal: “Energy Upgrade California is re-launched as an integrated, umbrella Statewide Marketing, Education and Outreach effort that provides California residents and small business owners with information about energy concepts, programs, services, rates and benefits of taking action so that Californians (1) begin to understand their energy use, the opportunities available for them to act, and the benefits of their action, and (2) begin to take well informed action to better manage energy. (p. 62)</p>	<p>Adopted 2017 Short-Term goal: “Energy Upgrade California <u>is an</u> integrated, umbrella statewide marketing, education and outreach effort that provides California residents and small business owners with information about energy concepts, programs, services, rates and benefits of taking action so that <u>all</u> Californians <u>are empowered to</u> (1) <u>understand</u> their energy use, the opportunities available for them to act, and the benefits of their action, and (2) <u>take</u> well informed action to better manage their energy use.” (Attachment A)</p>	<ul style="list-style-type: none"> • Short-term goal: Empower <u>all</u> Californians “to take actions <u>to understand</u> their energy use....and ... <u>take well informed action</u> to better manage energy.” (p. 44, underlines added)
Governance Structure	<p>RASCI MODEL: CSE is lead administrator, CPUC provides oversight, IOUs and RENS are consulted, other stakeholders and the public are informed.</p>	<p>RASCI MODEL: Statewide Implementer is lead administrator (responsible), CPUC and CEC provide oversight (accountable), <u>Advisory Board, IOU and RENS are supportive in implementation</u>, IOU and RENS are consulted, other stakeholders and the public are informed.</p>	<ul style="list-style-type: none"> • Modifies current structure of program based on creation of a 5-year “EM&V strategic roadmap” planning process to facilitate better coordination and long-term planning between IOU and REN and SW ME&O administrators and Annual Joint Consumer Action Plan” to build bridge between the SW ME&O program and the ME&O activities funded within other demand-side and rate reform efforts.

Source: * 2014–2016 Design from CPUC. 12/27/2013. “Decision on Phase 2 Issues: Statewide Marketing, Education, and Outreach Plans for 2014 and 2015” Decision D.13-12-038.

** 2017 Design from CPUC. 03/22/2016 “Decision on Phase 3 Issues: Post-2016 Statewide Marketing, Education, and Outreach Activities,” Application 12-08-007; and CPUC. 08/12/2016 “Decision Approving Implementer for the 2017–2019 Statewide Marketing, Education and Outreach Program and Providing Guidance for 2017 Activities,” Application 12-08-007.

The CPUC will lead a collaborative process to develop both the 5-year Strategic Roadmap and the Joint Consumer Action Plans. The Strategic Roadmap will provide long-term goals, metrics, and strategies for how ME&O will serve to improve compliance with SB 350. The CPUC will develop initial drafts of the Joint Consumer Action Plan, which ranks program areas of high priority for the year. The plan is then reviewed by stakeholders and finalized by the PAs for final approval by the CPUC. Program areas that are selected as high priority will then be the focus of the Joint Consumer Action Plan and program “goals, objectives, target audiences, high level approaches and strategies, metrics, and implementation roles and responsibilities” will be developed for each topic.⁵⁸

⁵⁸ Ibid., pg. 69.

5.2.2 Designing a Successful Collaborative Process

The Proposed Decision calls for the implementation of a collaborative process involving the SW ME&O administrator and the PAs among other stakeholders. Here, we provide a framework for designing this process, as well as information regarding factors that may affect its success. The evaluation team developed this framework based on all of the primary research conducted, and a thorough understanding of the current ME&O structure and environment.

The evaluation team consists of experts in understanding participatory governance approaches. There are many theoretical frameworks to draw upon related to participatory government and collaborative governance. However, their application ranges widely across various policy areas or fields of inquiry such as public health and international development. Within the field of public administration, however, recent efforts have been made to specify an integrative framework for collaborative governance⁵⁹ that we believe are particularly useful as a conceptual framework here.⁶⁰

Given the importance of and emphasis placed on the collaborative process outlined in the Proposed Decision, it is important to understand and recognize the context in which this process is being implemented, the different drivers impacting its success and the dynamics between the participating entities. Figure 4 outlines these components and their respective elements.

Figure 4. Components of Collaborative Governance Frameworks



Adapted from Emerson et al, 2011⁶¹ and Ansell and Gash, 2009.⁶²

⁵⁹ Emerson, K., Nabatchi, T., Balogh, S. 2011. "An Integrative Framework for Collaborative Governance." *Journal of Public Administration Research and Theory*, Volume 22, Issue 1, pp. 1-29.

⁶⁰ A key benefit of this framework is that it aims to organize several variables into a multilevel framework, which may allow for quantitative analysis of the framework and its performance.

⁶¹ Emerson, K., Nabatchi, T., Balogh, S. 2011. "An Integrative Framework for Collaborative Governance." *Journal of Public Administration Research and Theory*, Volume 22, Issue 1, pp. 1-29.

⁶² Ansell, C. Gash, A. 2007 "Collaborative Governance in Theory and Practice." *Journal of Public Administration Research and Theory*, Volume 18, Issue 4, pp. 543-571.

While there are many facets of this framework, we highlight a few concepts and associated recommendations critical to ME&O collaborative efforts below.

- **Starting Conditions - Level of Trust or Conflict:**⁶³ The ease or difficulty of engaging in a collaborative process is inherently related to the history and nature of the relationships between the participating parties. This is understood both intuitively, as well as documented in the literature.⁶⁴ Despite stark historical differences of opinion between the CPUC and the PAs in terms of who should administer the SW ME&O program, the PAs have demonstrated an ability and willingness to provide concrete recommendations about the future of the SW program as part of the ME&O Proceeding. This indicates that stakeholders can work together to achieve shared goals. However, as discussed below, there are a number of steps that the CPUC and stakeholders must take to support this process.
- **Drivers - Leadership:**⁶⁵ To date, the CPUC has served as the initiating entity for coordination and, as outlined in the Proposed Decision, will continue to play that role in the integrated planning process. In terms of SW ME&O program implementation, leadership on coordination was largely taken on by the SW implementer, who developed a RASCI model to assign additional roles and responsibilities.
 - **Recommendation:** As the parties embark on the integrated planning process and closer alignment moving forward, **the CPUC should consider utilizing an independent facilitator to design this process.** Using an independent party will ensure that the arbiter does not favor any particular outcome.
- **Collaborative Dynamics – Capacity for Joint Action:**⁶⁶ Capacity for Joint Action brings together a number of factors that the CPUC, stakeholders, and the evaluation team identified as key inputs to the collaborative process: procedural and institutional arrangements, leadership, knowledge, and resources.⁶⁷ The evaluation team makes the following recommendations to strengthen the capacity of the group engaged in the collaborative process:
 - **Recommendation:** Given the nature of the collaborative process envisioned, particularly its long-term nature, **it is critical that the CPUC or a designated party establish formal rules and procedures for the group.** This could include by-laws, or other rules to help manage the interactions between parties over time. If feasible, these procedures may be established through collaboration among the CPUC, SW ME&O implementer and ME&O stakeholders.
 - **Recommendation:** To codify institutional arrangements in a way that is transparent to all parties, **the SW ME&O administrator should expand on the most recent RASCI model to indicate the**

⁶³ Starting conditions or context refers to the various contextual factors that might impact collaboration such as existing policy frameworks or the political environment. The level of trust or conflict refers specifically to the relationships between collaborating parties and their past levels of conflict or cooperation.

⁶⁴ Ansell, C. Gash, A. 2007 “Collaborative Governance in Theory and Practice.” *Journal of Public Administration Research and Theory*, Volume 18, Issue 4, pp. 543-571.

⁶⁵ Drivers are those factors without which collaboration cannot be fostered. In this case, the terms leadership represents an identified leader who can spur and support the collaborative process.

⁶⁶ Collaborative dynamics is the cyclical or iterative process by which parties collaborate. Within this context, the capacity for joint action refers to a number of elements that create the potential for action (i.e., procedural and institutional arrangements, leadership, knowledge and resources).

⁶⁷ Emerson, K., Nabatchi, T., Balogh, S. 2011. “An Integrative Framework for Collaborative Governance.” *Journal of Public Administration Research and Theory*, Volume 22, Issue 1, pp. 1-29.

different levels of responsibility by stakeholder for different implementation activities. The high level model currently outlined in the Proposed Decision is a good starting point, but not sufficient given all the different areas where coordination and ultimately collaboration needs to occur and the fact that roles and responsibilities of a given participant could differ across those areas (e.g., the PA role in lead generation versus statewide strategy development).

- **Recommendation:** The SW ME&O administrator should establish a formal feedback loop so that it is clear how information or input provided by the PAs has been used to inform campaign design. Given the different roles that stakeholders play and their experience in different areas, knowledge sharing is critical to aligning ME&O strategy and ensuring that coordination can take place effectively. The evaluation team understands that instituting these types of processes can add time to program timelines and require substantial staff hours. However, there are a range of approaches that require high to low levels of effort that the SW ME&O administrator could consider—for example, debrief calls once feedback has been reviewed require a lower level of effort than providing detailed responses to all of the feedback provided.

5.2.3 Program Performance Metrics

As discussed in Section 4.3, metrics play an important role in assessing the performance of ME&O efforts. Without metrics and associated success criteria, it is challenging to determine with any certainty how different channels or marketing activities are performing and whether the administrator is getting a reasonable return on its investment. As a result, there has been significant attention paid to metrics across both ME&O evaluation studies conducted for the 2013–2015 period. In the case of SW ME&O, the CPUC established metrics, but there has been debate about whether they measure the right things.

Given that both the ME&O Strategic Roadmap, the Joint Consumer Action Plan, and future planning documents are expected to contain metrics to help determine the success of ME&O efforts, the evaluation team felt it was important to provide recommendations based on lessons learned from both 2013-2015 ME&O evaluation studies.

- **Recommendation:** Given the differing positions, perspectives, and incentives of stakeholders in the ME&O Proceeding, **we recommend a collaborative approach to developing SW ME&O metrics (including program implementers, administrators and evaluators).** As noted in the SW Verification and Integrated Effectiveness Study, the CPUC, SW ME&O administrator, PAs, and evaluation team have important roles to play in determining the key metrics for ME&O efforts. Each of these parties bring different expertise and all have valuable perspectives on what aligns with campaign goals, what can reasonably be measured, and how related measures can be triangulated to provide a fuller picture.
- The SW ME&O administrator should include metric development as a specific activity in the updated RASCI model and, as noted in the Verification and Integrated Effectiveness Study, metrics should be in place in advance of program deployment.
- CPUC staff involved in the ME&O Proceeding should coordinate with their counterparts in other proceedings, including those that supporting Energy Efficiency, Electric Vehicles, Demand Response, Customer-Owned Generation, and the Residential Rate Reform Proceeding to determine the desired level of alignment between the metrics used for all both efforts. As an example, based on preliminary information, it appears that there is consistency between the construct being developed by the retail rates team and that developed by statewide ME&O s being measured in both areas. These include awareness, attitudes, knowledge, self-efficacy/barriers, and actions taken

- CPUC staff should engage the SW ME&O evaluator in developing program performance metrics using the PTLM as a guide. In the 2014-2015 period, the evaluation team was asked to comment on draft metrics and provided input on measurement strategies. Expanding this role would help ensure that the metrics provide a more holistic view of program performance.
- **Recommendation: Take a holistic view of campaign performance based on multiple metrics.** As discussed extensively in the SW Verification and Integrated Effectiveness Study, and noted by stakeholders in the ME&O Proceeding, it is important to link metrics to key program objectives and clearly define what needs to be measured to assess how a campaign is performing. Further, it can be difficult to establish a single metric to perfectly measure a particular concept. As such, it is important to look at multiple metrics and consider what they convey in aggregate. This triangulation of findings can help identify inconsistencies across different measurements and also provide multiple perspectives on a particular metric of interest.
- **Recommendation: Review the metrics on a regular basis and update the metrics when the SW ME&O program changes.** There are bound to be course corrections during the implementation of the SW ME&O program as the administrator sees how different channels are performing. Revisiting the program's metrics will ensure that they continue to provide insight into the program's performance.
- Regardless of a significant change in program implementation, **the SW ME&O administrator should regularly revisit metrics** to ensure that they are capturing the intended data and that any preliminary data suggest that the program is on track.

6. PA ME&O Campaign Achievement Findings

A core aspect of this research effort was addressing five key questions related to customer engagement with PA promotional marketing. As documented below, these questions focused on exploring customer engagement with specific ME&O promotional campaigns,⁶⁸ customers' perceptions of the marketing they are exposed to, and achievement of campaign objectives.

- How many customers are exposed to the marketing campaign?
- What effect does the marketing campaign have on the target market in terms of awareness of marketed programs and offerings?
- Do customers find the information they received clear?
- Do customers take action or are they likely to take action due to the marketing?
- How effective is the campaign in achieving its objectives?

Due to the broad nature of ME&O promotional campaigns deployed by the PAs and available evaluation budget, the evaluation team needed to identify areas of focus to address these research questions. We selected one campaign for each PA using the following criteria, established through discussions with the CPUC and PAs:

- **Broad coverage of ME&O activities:** We selected campaigns that involve the implementation of ME&O activities across a wide range of channels.
- **Represent the most common marketing activities statewide:** Across all of the PAs' Q1 2016 activities, the five most common marketing channels are e-mail, events/workshops, direct mail, website, and telephone calls. Where possible, we selected campaigns that also used many of these channels.
- **Include activities that provide an opportunity to speak directly with customers:** We selected campaigns for which recipient contact information was available for many activities (i.e., phone numbers, emails, addresses).

Given the timing of the evaluation efforts, and the seasonal component to PA promotional marketing, our team focused on exploring customer engagement for campaigns deployed around the first quarter 2016. This allowed our team to gauge near real-time exposure to the campaigns, and reflected when the PAs indicated that their greatest volume of marketing activities would occur within the evaluation timeframe.

Based on our selection approach, findings presented within this chapter are not generalizable to the full suite of marketing campaigns offered by the PAs. However, our selected campaigns represent a little more than a third of all Q1 2016 marketing activities.⁶⁹ Further, our selected campaigns generally align closely with the population of campaigns in terms of channel mix, though the selections slightly over-represent email activities.

⁶⁸ We define a "campaign" as a specific, defined series of activities used to market a product or service. An "activity" is messaging and/or collateral delivered through a specific channel. The rationale for developing summaries at a campaign level is that it reflects the PAs integrated marketing strategy, and captures multiple points of customer exposure. Further, many administrators indicate that they develop objectives and measure results at the campaign level.

⁶⁹ For SCE, we selected a Q2 2016 marketing campaign, as no marketing campaigns were launched during Q1 2016.

In total, we selected six campaigns out of the 31 residential campaigns offered during the given timeframe. We selected the following PA campaigns (Table 30).

Table 30. PA ME&O Selected Marketing Campaigns

Program Administrator	Campaign
BayREN	Energy Upgrade California Home Upgrade Program Q1 2016 Marketing Campaign
PG&E	REA Q1 2016 Marketing Campaign
SDG&E	California Alternative Rates for Energy (CARE) and Energy Savings Assistance (ESA) Programs Q1 2016 Marketing Campaign
SCE	Energy Upgrade California Home Upgrade Program Q2 2016 Marketing Campaign
SCG	Energy Hero Winter 2015 Campaign and Spring 2016 Cold Water Washer Campaign
SoCalREN	Energy Upgrade California Home Upgrade Program Q1 2016 Marketing Campaign

6.1 Marketing Campaign Overview

Though the selected campaigns are similar to the population of campaigns in a number of respects, as noted in Chapter 3, each campaign promotes a distinct program with associated campaign goals, activities, and target audiences. In addition, these campaigns also cover differing time frames given the deployment of marketing activities across PAs. Our evaluation surveys also had distinct target populations (Table 31). These distinctions between campaigns are important to consider when reviewing results associated with each PA’s campaign assessment.

Table 31. ME&O Campaign Target Audience and Survey Respondent Groups

Campaign	Campaign Goal	Target Audience	Survey Respondent Group
BayREN Energy Upgrade California Home Upgrade ME&O Campaign	Generate awareness and participation among homeowners, contractors, local governments, and real estate professionals	BayREN uses past participation and census data to identify target geographic areas with a high propensity for participation	Homeowners who received Q1 workshop invitation emails from BayREN, attended workshops, or contacted the Home Upgrade Advisor call center
SoCalREN Energy Upgrade California Home Upgrade ME&O Campaign	Generate awareness and participation among homeowners, contractors, and public agencies	Homeowners, contractors, real estate professionals, and local governments	Homeowners who received Q1 newsletters from SoCalREN, attended workshops, or contacted the Home Upgrade Advisor call center
SCE Energy Upgrade California Home Upgrade ME&O Campaign	Build awareness of the program, educate homeowners to overcome program participation barriers with the long-term goal of increasing program participation	Depending on the activity, either all residential customers or residential customers that SCE believes have a relatively high likelihood of engaging with the program, based on results of a propensity scoring model	Residential customers who received Q2 email from SCE

Campaign	Campaign Goal	Target Audience	Survey Respondent Group
PG&E REA ME&O Campaign	Build awareness of the HEC tool and to encourage completion of the HEC	All residential customers, some activities are targeted to residential customers who signed up to receive the newsletter	Residential customers who received the Q1 digital Energy Advisor newsletter and/or completed the HEC Tool in Q1 2016
SCG Energy Hero ME&O Campaign	Promote general awareness of energy management, and provide information to customers about three energy-related programs: Energy Upgrade California Home Upgrade, Energy Efficiency Rebate and Cold Water Washer, and Energy Efficiency Starter Kit	General population residential customers	General population living within SCG service territory
SDG&E CARE/ESA ME&O Campaign	Increase awareness of, and enroll low-income households in programs to assist with managing their energy use and costs	Low-income households in SDG&E service territory; some are identified through Nielsen PRIZM codes and census data or living in lower-income zip codes with low participation rates	Low-income households (English and Spanish speaking) that had signed up and were deemed eligible for CARE and ESA during Q1 2016

Further, each campaign has varied budgets and expenditures, and many of the PAs use different time frames when tracking their budgets, either annually, quarterly or by campaign (Table 32). For example, SCG provided campaign specific budgets and expenditures, while SDG&E provided 6-month budgets.

Table 32. Summary of Program ME&O Campaign Budget and Expenditures

Campaign	Annual Budget*	Quarterly Expenditures**	% of Budget
BayREN Energy Upgrade California Home Upgrade	\$870,263	\$125,402	14%
SoCalREN Energy Upgrade California Home Upgrade	\$878,623	\$270,091	31%
SCE Energy Upgrade California Home Upgrade	\$200,000	\$70,610 ^b	35%
PG&E REA	\$232,000 (Quarter 1)	\$92,027	40%
SCG Energy Hero Campaign ^a	\$288,330 (Campaign)	\$288,330 (Campaign) ^c	100% (Campaign)
SDG&E CARE and ESA	\$855,527 (6 Month)	\$371,319	43%

*Reflects annual budget unless otherwise denoted. **Reflects Q1 2016 expenditures unless otherwise denoted. ^a Excludes Cold Water Washer Program and Point of Sale Budgets. ^b SCE Energy Upgrade California Home Upgrade program campaign was fielded in Q2 2016. ^c SCG Energy Hero Campaign was fielded during mid-November 2015 through mid-January 2016.

6.2 Integrated Campaign Findings

We provide a summary of findings and conclusions across the six selected marketing campaigns by each of the key research questions addressed in this study. As noted above, although the selected campaigns represent a substantial portion of the marketing activities conducted during the evaluation period, these results are not meant to be compared against each other or generalized to other campaigns. We present the

comprehensive assessments of each PA campaign and detailed findings by each PA in Appendices A through F.

How many customers are exposed to the marketing campaign?

Each PA conducts distinct marketing campaigns that differ in terms of target markets and marketing channels and activities. In most cases, the PA marketing campaigns leverage multiple channels and activities that are typically broad (e.g., mass media) and deep (e.g., targeted marketing) to increase program awareness among likely participants. Typically, for direct marketing efforts, the PA marketing campaigns appropriately target customers who may be more likely to participate in the promoted program.

Table 33 provides a summary of customers exposed to each of the PA marketing campaigns. Depending upon the campaign activity (e.g., targeted or mass media approach), the number of potential customers exposed to the campaign can vary. The most commonly used metric that PAs, and many other companies, utilize to measure exposure is impressions, which is an estimate of the audience for a particular marketing activity. Impressions are a useful measure of marketing efforts, but not of marketing effectiveness, as they measure potential, but not actual exposure.⁷⁰

For a number of the PAs, impressions are the only metric available. However, for some campaign activities, there are alternative metrics that go further in measuring campaign exposure, such as click-through-rates (CTRs) for digital marketing campaigns. Because the PAs conducted a variety of campaign activities and were more likely to track impressions than other measures of exposure, we report impressions here. Further, compared across marketing activities for a single PA, impressions illustrate the depth versus breadth of different marketing activities. Finally, as previously noted, these results are not meant to be compared across PAs, and we provide additional measures of campaign exposure for each PA in Appendices A through F.

Table 33. Customers Exposed to the Marketing Campaigns

Campaign	# of Campaign Activities	Type of Campaign Activities	Impressions
BayREN Energy Upgrade California Home Upgrade	9	Focused on targeted rather than mass media approaches including events and workshops	Measured for only one activity – 249,049 radio impressions*
SoCalREN Energy Upgrade California Home Upgrade	12	Focused on targeted rather than mass media approaches including events and workshops	Not measured*
SCE Energy Upgrade California Home Upgrade	5	Targeted multi-touch campaign to repeatedly contact customers in multiple settings to encourage participation to high-propensity customers	Range from 147,679 to 4,200,000 by activity
PG&E REA	7	Provided both mass media and targeted activities deployed to high-interest customers	Range from 32,132 to 3,374,231 by activity
SCG Energy Hero Campaign	8	Mass media campaign	Range from 168,791 to 16,070,900 by activity
SDG&E CARE and ESA	12	Multi-tactic approach combines mass and direct marketing with community engagement	Range from 10,691 to 8,884,000 by activity

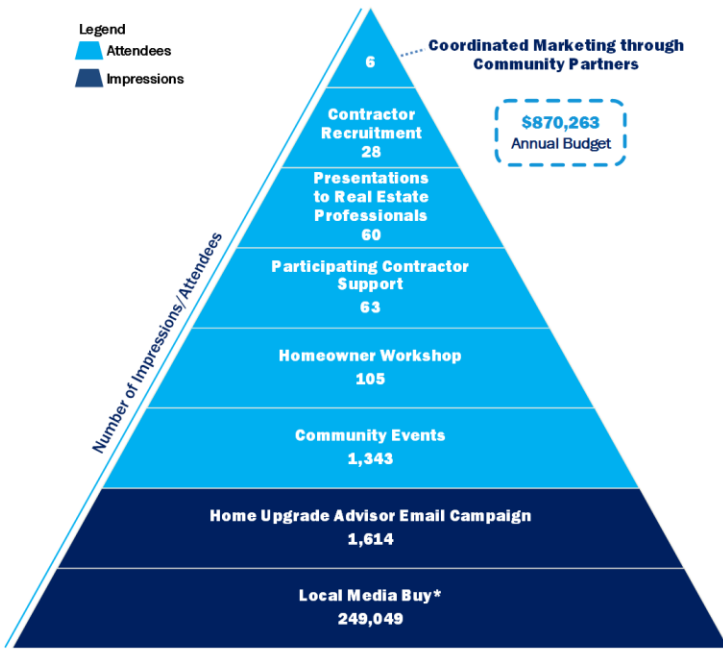
⁷⁰ For example, a television advertising campaign can have one million impressions because one million televisions were on when the ad aired, but that is different than measuring how many customers were actually watching their televisions and were fully attuned to the ad at the time.

Campaign	# of Campaign Activities	Type of Campaign Activities	Impressions
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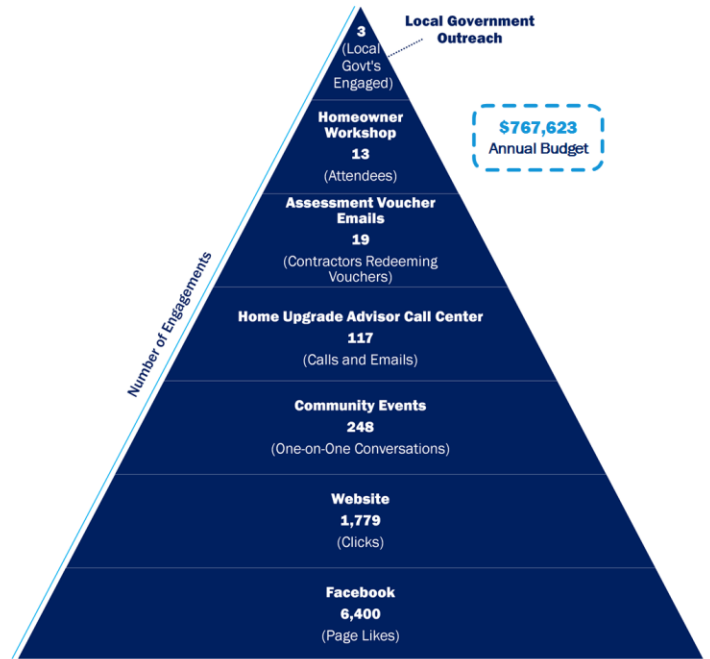
*SoCalREN and BayREN activities tracked “engagements”, attendees, and other metrics. SoCalREN did not track impressions.
Source: PA data

The Energy Upgrade California Home Upgrade program marketing campaigns provide an illustration of the variation across the PAs in terms of campaign activities and customer exposure. For instance, SCE, BayREN and SoCalREN each attempted to increase awareness of the program, but the activities they deployed differed. The RENs tended to focus on targeted activities, while SCE offered a mix of breadth (e.g., messaging on bill inserts to all residential customers) and depth (e.g., targeted emails to customer’s that SCE believes have a high likelihood of engaging with the program based on a propensity scoring model). As expected, the variation in marketing activities coincides with large variation in marketing budgets and customer bases.

BayREN Q1 2016 Energy Upgrade California Home Upgrade Campaign Reach



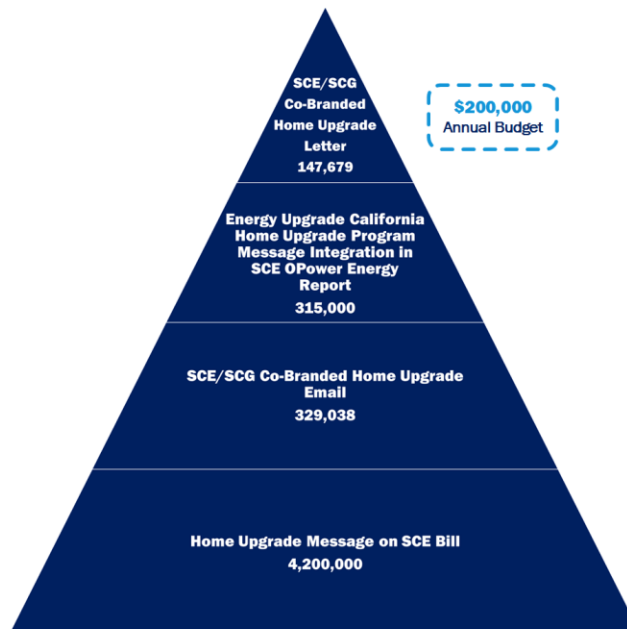
SoCalREN Q1 2016 Energy Upgrade California Home Upgrade Campaign Reach



Notes:
 * The local media buy activity was limited to radio and digital media activities in Q1 2016.
 The web analytics activity is not included because it does not track impressions or attendees.
 Source: Data provided by BayREN

Note:
 SoCalREN does not track interactions for the Email Newsletter and Homeowner Workshop Promotion activities.
 Source: Secondary data provided by SoCalREN

SCE Q2 2016 Energy Upgrade California Home Upgrade Campaign Reach



Note:
 Counts are the number of mailings or emails sent. Contractor outreach information not provided.
 Source: SCE response to Data Request

What effect does the marketing campaign have on the target market in terms of awareness of marketed programs and offerings?

Overall, customers who have been exposed to promotional marketing tend to have moderate to high levels of program awareness and recall of marketing materials. This result is not surprising as many of the survey respondents had either opted in to receive marketing communications or were program participants. With the exception of SCE and SCG, the survey respondents do not represent all customers who might have been exposed to marketing.

In Table 34, we provide awareness levels associated with each promotional campaign. Levels of program awareness and recall vary across campaigns. Importantly, this could reflect prior levels of customer interest in the program or marketing for some surveys. Further, other promotional efforts, not affiliated with the campaign, could drive reported awareness levels. Similarly, each campaign used multiple activities so customers may have learned about the program through a different activity than the one we evaluated, making it difficult to make a causal connection between a single marketing activity and self-reported awareness.

It is important to note that each campaign promotes a distinct program with associated campaign goals, activities, and target audiences as well as cover differing time frames given the deployment of marketing activities across PAs. Our evaluation surveys also had distinct target populations. These distinctions between campaigns are important to consider when reviewing results associated with each PA’s campaign awareness.

Table 34. Awareness of Marketing Programs and Offerings

Program	Aware of Program (% Aided)	Recall Campaign Marketing Materials (% Aided)	Program Familiarity (Mean Score on 1 to 7 scale)
BayREN Energy Upgrade California Home Upgrade	92% of homeowners who received Q1 newsletters from BayREN, attended workshops, or contacted the Home Upgrade Advisor call center were aware of the program (n=50)	82% of homeowners who received Q1 newsletters from BayREN, attended workshops, or contacted the Home Upgrade Advisor call center recall marketing (n=50)	5.3 of the respondents who were aware of the program (n=46)
SoCalREN Energy Upgrade California Home Upgrade	65% of homeowners who received Q1 newsletters from SoCalREN, attended workshops, or contacted the Home Upgrade Advisor call center were aware of the program (n=40)	60% of homeowners who received Q1 newsletters from SoCalREN, attended workshops, or contacted the Home Upgrade Advisor call center recall marketing (n=40)	5.5 of respondents who are aware of the program (n=26)
SCE Energy Upgrade California Home Upgrade	28% of customers who received Q2 email from SCE were aware of program (n=1,128)	34% of respondents who received Q2 email from SCE recall seeing the email newsletter (n=1,128)	3.9 of respondents who received Q2 email from SCE and were aware of the program (n=321)
PG&E REA	49% of all customers who received newsletter were aware of the HEC (n=1,332)	32% of all respondents recall at least one of PG&E’s HEC marketing activities (n=1,505)	4.3 of all newsletter recipients who were aware of the HEC (n=843)
SCG Energy Hero Campaign	13% of SCG customers were aware of the campaign (n=250)	11% of respondents recall seeing either print or TV marketing (n=250)	Not applicable
SDG&E CARE and ESA	92% of customers who had signed up and were deemed eligible for the	95% of respondents who were aware of the program and recall	4.8 for respondents who were aware of the

Program	Aware of Program (% Aided)	Recall Campaign Marketing Materials (% Aided)	Program Familiarity (Mean Score on 1 to 7 scale)
	programs in Q1 2016 had heard of CARE (n=660), 94% had heard of ESA (n=51)	signing up recall CARE marketing (n=592), 100% recall ESA marketing (n=48)	program CARE (n=609), 5.1 for ESA (n=48)

Source: Customer surveys fielded for each campaign.

Do customers find the information they received clear?

To assess the clarity of marketing materials presented to consumers, we provided survey respondents with an example of program marketing collateral and asked specific questions about the information provided in the collateral. Overall, customers report that the marketing messaging was clear about the call to action (Table 35). However, results vary somewhat across the marketing campaigns, each of which have slightly different calls to action and different levels of complexity associated with taking action. For example, SCG’s campaign asks customers to visit SCG’s website to look for more information about three promoted programs. In contrast, other efforts encouraged customers to contact a contractor to participate in the Energy Upgrade California Home Upgrade program. As noted above, distinctions between campaigns are important to consider when reviewing results associated with each PA’s campaign clarity.

Table 35. Clarity of Marketing Materials Across Campaigns

Campaign	% of Respondents Who Found Marketing <u>Very</u> Clear
BayREN Energy Upgrade California Home Upgrade	<ul style="list-style-type: none"> • 48% of respondents found it very clear how participating in the program benefits them • 72% of respondents found it very clear how to contact a Home Upgrade Advisor • 72% of respondents found it very clear how to find more information about the program • 88% of respondents found it very clear how to attend an event
SoCalREN Energy Upgrade California Home Upgrade	<ul style="list-style-type: none"> • 38% of respondents found it very clear how to participate in the program • 43% of respondents found it very clear how to find more information about the program • 65% of respondents found it very clear how to attend an event
SCE Energy Upgrade California Home Upgrade	<ul style="list-style-type: none"> • 43% of respondents found it very clear how participating in the program would benefit them • 50% of respondents found it very clear how to participate in the program • 58% of respondents found it very clear how to find more information about the program • 62% of respondents found it very clear how to find a contractor
PG&E REA	<ul style="list-style-type: none"> • 66% of respondents found it very clear why someone would want to complete the tool • 74% of respondents found it very clear how much it would cost to complete the tool (free) • 76% of respondents found it very clear where to go to complete the HEC
SCG Energy Hero Campaign	<ul style="list-style-type: none"> • 82% found the TV commercial to be very easy to understand • 84% found the print ad to be very easy to understand • 71% were able to correctly identify the messages conveyed in the marketing collateral

Campaign	% of Respondents Who Found Marketing <u>Very Clear</u>
SDG&E CARE and ESA	<ul style="list-style-type: none"> • 60% of respondents found it very clear what kind of assistance the program offers • 62% of respondents found it very clear how participating in the programs would benefit them • 62% of respondents found it very clear how to find out if they are eligible for the programs

Source: Customer surveys fielded for each campaign.

Do customers take action or are they likely to take action due to the marketing?

We assessed whether these campaigns could reasonably move customers to take action. Our assessment of actions taken focuses on short-term outcomes from the marketing and comments on the effectiveness of one key activity, such as an email newsletter, targeted to a specific sub-set of customers. We asked questions regarding whether or not customers had taken, or planned to take action, and the influence of the marketing on those plans. Customers tend to report that they have taken, or plan to take, intermediate or subsequent steps to participate or engage with the promoted program after receiving the marketing collateral. Importantly, the types of actions suggested in the collateral can range from looking for more information about the program to purchasing an energy efficiency appliance. Due to the varied nature of the campaigns and calls to action across the campaigns, we present the results separately for each PA in the detailed findings in Appendices A through F. We also provide a high-level summary of actions taken in Table 36. As noted above, distinctions between campaigns are important to consider when reviewing results associated with each PA's campaign actions taken or likelihood to take action.

Table 36. Summary of Actions Taken or Likelihood to Take Action

Campaign	Percent of Customers Who Took at Least One Action	Influence of Marketing on Action (Mean 1-7)	Percent of Customers Who Plan to Take at Least One Action	Influence of Marketing on Planned Action (Mean 1-7)
BayREN Energy Upgrade California Home Upgrade	96% of respondents report taking some action related to participating in the program (e.g., discussing the program with a friend, looking for information online) (n=50)	Moderate Influence: Range from 3.3 to 4.7 mean score	98% of respondents report planning to take some action related to participating in the program (e.g., discussing the program with a friend, looking for information online) (n=50)	Moderate Influence: Range from 2.0 to 5.0 mean score
SoCalREN Energy Upgrade California Home Upgrade	60% of respondents report taking some action related to participating in the program (e.g., discussing the program with a friend, looking for information online) (n=40)	Low Influence: 1.8 to 3.1 mean score	83% of respondents report planning to take some action related to participating in the program (e.g., discussing the program with a friend, looking for information online) (n=40)	Low Influence: 1.0 to 2.9 mean score
SCE Energy Upgrade California Home Upgrade	44% of respondents report taking some action related to participating in the program (e.g., discussed the program with a household member, sought out information, looked for or got a bid from a contractor) (n=807)	Moderate Influence: 2.5 to 4.3 mean score	24% of those respondents who haven't taken any action in the past few months plan to take at least one action (n=103)	Moderate Influence: 3.6 to 4.9

Campaign	Percent of Customers Who Took at Least One Action	Influence of Marketing on Action (Mean 1-7)	Percent of Customers Who Plan to Take at Least One Action	Influence of Marketing on Planned Action (Mean 1-7)
PG&E REA	1% of customers have completed the HEC (n=1,046)	Moderate Influence: 3.8 mean score	30% of respondents who have not completed the tool plan to complete the HEC (among newsletter recipients; n=149)	Moderate Influence: 4.3 mean score
SCG Energy Hero Campaign	39% of respondents report purchasing an energy efficient appliance or apply for a rebate (n=250)			
SDG&E CARE & ESA	<ul style="list-style-type: none"> 61% of CARE and 82% of ESA respondents looked or plan to look for information to save energy in the home 77% of CARE and 90% of ESA respondents have made or plan to make energy savings changes to home 			

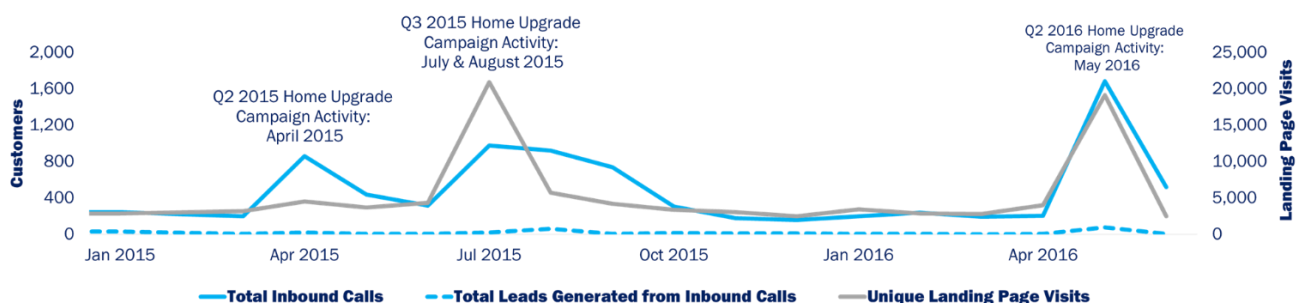
Beyond customer surveys, the evaluation team reviewed PA data to see if and how the PAs gathered data to support their own assessment of effectiveness. In particular, we provide an example of how SCE currently collects information that can facilitate this type of assessment.

SCE tracks the number of calls to its call center and visits to the Energy Upgrade California Home Upgrade program website. SCE sent program promotional emails and direct mailings within the first week of May 2016, along with messaging on customer bills and/or OPower reports during their May billing cycle, which extended to early June. While SCE does not link call volume and web traffic to individual marketing activities, the monthly totals likely capture most, but not all, of the customer interest generated from the Q2 marketing efforts.

Overall, our review of SCE data indicates that as a result of all Q2 marketing activities initiated in early May 2016, SCE’s customer call center and program landing page saw a threefold increase in activity during that month, relative to the prior four months of 2016 when SCE was not running a marketing campaign (Figure 38). Moreover, the Q2 2016 campaign performed well relative to SCE’s 2015 marketing campaigns, which suggests that Q2 activities played a part in nudging customers to investigate the program.

Results of our high-propensity customer survey also support this interpretation. Specifically, not only did 44% of high-propensity customers who were aware of the program take at least one program-related action within the months following Q2 campaign launch, but, on average, respondents also reported that the marketing played a moderate role in encouraging them to take these actions. In summary, the marketing materials are effective in generating short-term interest in the program.

Figure 5. SCE Call Center and Landing Page Activity January 2015–June 2016



Source: SCE Response to Data Request.

Even when attribution can be assessed, it is important to put results into context. While promotional activities are certainly useful in driving program awareness or providing compelling information on the program (e.g., about the rebates), promotional efforts are only one of many forces driving consumers’ decisions to participate in a program. However, as the SCE example demonstrates, there is value in tracking intermediate responses to marketing activities. This tracking would be even more valuable if SCE collected data on the information sources that motivated customers to call or visit the web site.⁷¹

How effective are the selected campaigns in achieving its objectives?

The evaluation team leveraged multiple data sources to assess the degree to which the selected campaigns achieved their objectives. First, we reviewed PA provided planning assumptions and tracking data to determine what goals, if any, each PA had for the campaign and what was achieved. Second, we looked at the results from customer surveys to see what the customer experience revealed about the achievement of campaign objectives and have discussed those results within the previous sections of Chapter 6.

Documentation-Based Assessment

Based only on a review of the documentation provided by the PAs, it is challenging to assess whether or not each campaign achieved its own marketing objectives. As discussed in Chapter 4, key challenges include the fact that PAs have metrics for some activities, but not all; not all metrics have associated success criteria (e.g., none of the campaigns we reviewed had complete success criteria across the various marketing activities deployed); and goals are set at various levels ranging from annual to quarterly.

However, following the evaluation team’s review of 2013-2014 CALSPREE programs, 2016 campaign activity documentation was much more thorough and documented across each PA. For instance, some PAs went from documenting no metrics or success criteria, to having metrics and success criteria for all marketing activities (e.g., BayREN). Table 37 summarizes the level of metric and success criteria documentation across the case studies. As can be seen, metrics were provided for most activities, although there were fewer success criteria than metrics.

Table 37. Summary of PA Documentation of Metrics and Success Criteria

Campaign	# of Activities	# of Metrics	# of Success Criteria
BayREN Energy Upgrade California Home Upgrade	9	35	22
SoCalREN Energy Upgrade California Home Upgrade	12	15	14
SCE Energy Upgrade California Home Upgrade	5	3	3
PG&E REA	7	21	12
SCG Energy Hero Campaign	8	15	7
SDG&E CARE and ESA	12	10	3
Source: PA provided data.			

In addition to marketing objectives, these campaigns also seek to achieve program objectives. However, as previously discussed (see Chapter 4), it is difficult for the PAs to link marketing campaign achievements to program participation goals. One of the primary reasons is that it requires greater data tracking and is also

⁷¹ The web tracking could be done with a short popup survey with a sample of customers.

better suited to some marketing activities than others (e.g. direct marketing versus mass marketing). With that said, the evaluation team looked at participation data for each of the case studies and found that two of three PAs who provided program participation information were on track to, or had already achieved their annual program participation goals.

- Overall, PG&E's participation goal is for 50,000 customers to complete an HEC by the end of 2016, a 25% increase over 2015's goal of 40,000 customers. PG&E estimated that about 23,800 customers, or close to half of the annual goal for 2016, had completed an HEC by the end of Q1 2016. In 2015, PG&E far exceeded its annual goal with more than 100,000 customers completing an HEC.
- One of SCE's marketing campaign goals is to drive increased Energy Upgrade California Home Upgrade Program participation. According to SCE, as of June 2016, SCE had already achieved 100% of its 2016 Energy Upgrade California Home Upgrade Program participation goal, with more than 1,325 Home Upgrade projects completed to date.
- SDG&E's goal is to enroll 90% of eligible customers in CARE in 2016. According to SDG&E's April 2016 monthly low-income report, 77% of the estimated 350,715 eligible customers were enrolled in CARE at the end of March.⁷² During Q1 2016, SDG&E enrolled 18,479 customers in the CARE program. For ESA, SDG&E's goal is for 10,158 customers to participate in the program between January and June 2016. At the end of March, 2,305 households had participated, 23% of the 6-month goal.

In considering these results, it is important to note the difficulty of attributing participation in Q1 2016 solely to Q1 marketing efforts. Participants may have been exposed to earlier campaigns but did not participate until Q1 2016. Further, PA ME&O goes well beyond promotion, so that multiple factors may drive program participation aside from a particular marketing campaign. For this reason, in the future, we believe it will be valuable to assess marketing effects as part of the evaluation of the program(s) it supports.

Evaluation-Based Assessment

Drawing upon both PA provided data and results from customer surveys, the evaluation team provides the following high-level summary of performance for each PA.

- **Overall, PG&E appears on track to achieve its marketing goals.** PG&E's marketing efforts performed well compared to their metrics with most marketing channels achieving or surpassing the planned goal for impressions and CTRs. As noted above, PG&E also showed progress toward meeting annual aggregate goals for participation. Additionally, nearly all survey respondents (98%) indicated that the email provided a clear sense of HEC tool details, including why someone would want to complete the HEC tool, how they could complete the tool, and what it would cost to do so (i.e., free). However, just 0.36% of customers who received the email newsletter clicked on the HEC link, although this is close to the goal of 0.39%.
- **SDG&E's approach has been effective in conveying information about CARE and ESA.** Survey respondents felt the CARE and ESA marketing provided clear information about program eligibility and benefits, with some opportunities for improvement. In particular, approximately one-third of respondents felt some of the key marketing messages were unclear. Further, information on the SDG&E website, direct marketing, and personal outreach were the most memorable and motivating marketing tactics.

⁷² The SDG&E April 2016 Low Income Monthly Report tables can be found at: <http://eestats.cpuc.ca.gov/EEGA2010Files/SDGE/ESARreport/SDGE%20Apr16%20Low%20Income%20Monthly%20Report%20Tables.1.xlsx>.

- **SCE's marketing campaign achieved success in several dimensions.** Survey respondents indicate that marketing materials deliver messages that are clear and actionable. One-third of respondents who received the Q2 marketing email opened it, and 11% of those who opened the email clicked on a link in the email. Respondents who recalled the Q2 marketing email were more often aware of the program than those who did not recall the email.
- **Some aspects of SCG's marketing campaign were more successful than others.** In all, it appears that SCG's Energy Hero campaign is reaching its target audience, has messaging that is clear and informative, and may have an influence on the energy-related actions of the customers who are exposed to it. Overall, 13% of respondents indicated that they were aware of the campaign prior to taking the survey. Further, respondents indicated that the campaign messaging was clear and easy to understand.
- **Overall, BayREN's marketing efforts appear successful, particularly in driving awareness.** More than three-quarters of survey respondents recall some marketing from BayREN. In addition, the marketing was generally effective in delivering its intended message, which focuses on giving consumers a clear idea of how to take action, such as attending community events or finding out more about the program.
- **It is unclear whether or not SoCalREN will achieve its annual marketing campaign goals.** Overall, SoCalREN's marketing campaign appears to be well targeted, and well suited to the Energy Upgrade California Home Upgrade program. Awareness of the program is moderate (65%), and SoCalREN efforts appear to be successful in driving program awareness. Further, a little under three-quarters of survey respondents recall some marketing from SoCalREN. However, respondent perception of the newsletter varied in terms of clarity and some aspects of the messaging could be improved.

6.3 Recommendations

The findings from our assessment of ME&O campaign effectiveness strengthen the case for those considerations presented in Section 4 (e.g., identify salient metrics, develop success criteria, and deploy campaigns in a way that supports causal measurement). In addition, we provide the following considerations:

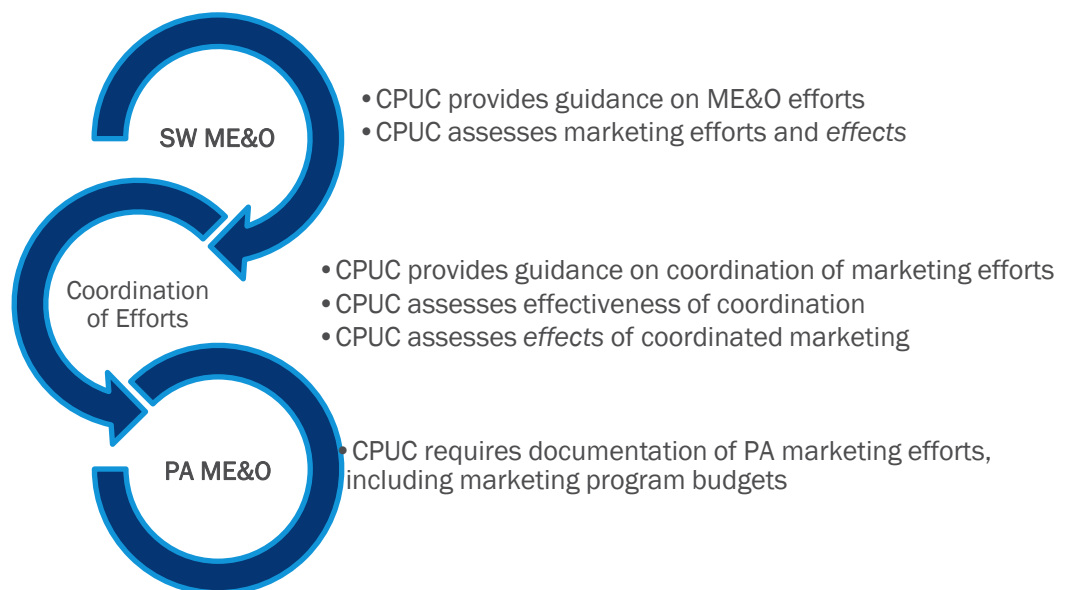
- **Consideration: PA marketing staff should identify metrics, as well as establish success criteria, for marketing activities and continuously assess performance:**
 - **Identify consistent metrics across activities to assess within campaign performance.** As noted above, in some cases the same metric is not tracked consistently across activities where this metric is appropriate (e.g., impressions across all mass media campaigns). The PAs should ensure that their vendors provide this data to be able to assess the relative value of their activities, as well as their return on investment.
 - **Develop success criteria, where feasible, for campaigns.** We understand that in some cases, success criteria are not available, or appropriate for some activities. However, to the extent feasible, we recommend that the PAs continue to build upon their enhanced documentation of activities since 2013-2014, and develop and document success criteria for relevant activities within their campaigns.
 - **Identify most salient metrics to measure effects.** We suggest that the PAs prioritize those metrics that support measuring campaign effectiveness.

7. Key Findings and Recommendations on Program Design

This section of the report integrates key findings and recommendations from throughout the evaluation to address two central questions related to future program design: 1) what role should the CPUC play in providing guidance on and oversight of PA ME&O marketing efforts, and 2) what types of messaging and content should SW and PA ME&O provide?

In Figure 6 below, we graphically depict a framework for the CPUC’s future oversight of the SW and PA ME&O efforts, as well as the overlap between them. Based on this evaluation, we believe the CPUC oversight function and the evaluation function are related, and therefore our recommendation incorporates both the oversight and evaluation.

Figure 6. Recommended CPUC Oversight and Evaluation Approach



Should the CPUC provide more guidance or add more oversight to the PAs ME&O activities?

While the level of oversight the CPUC currently provides for PA ME&O is generally acceptable, the evaluation team believes some changes should be made. Overall, it is appropriate for the CPUC to provide different levels of oversight for the SW ME&O program as compared to PA marketing efforts. These differences are acceptable because the SW ME&O program focuses exclusively on promotion whereas PA marketing is rooted in all four elements of marketing (i.e., the Four Ps of product, price, place and promotion). Given this distinction, it does not make sense for the CPUC to provide oversight of only the promotional aspect of PA ME&O in isolation from the program(s) it supports. As a result, we make the following recommendations to the CPUC regarding where, and how, to focus future oversight and guidance.

The current SW ME&O vision and goals require focus on coordination and collaboration across the various stakeholders and administrators. It is essential, both from a consumer perspective, as well as from a funding perspective, that these efforts are integrated, rather than duplicative or inconsistent.

- **Recommendation: CPUC should focus its oversight on all coordinated efforts between the PAs and the SW ME&O program.** By focusing on the areas where the PAs and SW ME&O program coordinate, the CPUC can ensure that the potential for customer confusion is minimized, and that PA led promotional campaigns support achievement of the SW ME&O vision. The Joint Consumer Action Plans outlined by the CPUC play an important role in this process by helping to identify high priority areas for SW ME&O in consultation with the PAs. Early attempts to implement this type of process through SW ME&O Quarterly Stakeholder Meetings were well received and provided an opportunity for the PAs to share information on how high priority topics related to their own programmatic efforts.⁷³
- **Develop relevant metrics to assess how well the coordination process is working.** Metrics for effective coordination can include a suite of qualitative and quantitative measurements that address the level and efficacy of coordination. The CPUC, working with a facilitator and stakeholder groups, should determine the most pertinent metrics for assessing the effectiveness of coordination, and progress towards collaboration. Metrics to consider include:
 - Achievement of established coordination goals (i.e., were all issues addressed, were the solutions thorough, did the solutions address the issues)
 - Progress relative to the timeline (i.e., were tasks completed on time, were there delays)
 - Level of participant engagement (i.e., is the level of engagement or amount of time dedicated to the tasks appropriate)
- **Continue to ensure the SW ME&O program and PAs coordinate on messaging and content if both entities are promoting a particular program to California consumers.** Focus group findings and other qualitative research conducted as part of this study indicate that customers prefer multiple sources of information and do not appear to be confused by multiple messages offered across administrators in the market. Moving forward, general energy management topics and program-specific information promoted by the SW ME&O program and the PAs should continue to be coordinated to ensure consistency, as well as accuracy of content.⁷⁴

Given the different levels of CPUC oversight for SW and PA ME&O, we recommend different requirements for evaluation within the current regulatory framework. In particular, as highlighted in Figure 6, the evaluation team recommends an ongoing focus on evaluating marketing effects for SW ME&O along with evaluating the coordination of ME&O efforts between the PAs and the SW ME&O administrator teams.

Given the different levels of CPUC oversight for SW and PA ME&O, we recommend different *requirements for evaluation* within the current regulatory framework.

- **Recommendation: Assess the effectiveness of coordinated efforts between the PAs and the SW ME&O program.** An assessment of the effectiveness of coordinated marketing is essential to future SW ME&O campaigns, particularly when coordination of PA and SW ME&O efforts achieves both the short-term and long-term SW ME&O goals and vision. PA marketing is an essential component to supporting these

⁷³ Per CPUC 03/22/2016. “Decision on Phase 3 Issues: Post-2016 Statewide Marketing, Education and Outreach Activities” Decision 16-03-029. The Annual “Joint Consumer Action Plan” will propose prioritized program areas, and if approved, will include the goals and objectives, target audiences, high-level approaches and strategies, metrics, and implementation roles and responsibilities for each strategy (pp. 67).

⁷⁴ It is important to acknowledge that the misalignment of SW ME&O and Energy Efficiency program cycles is a central challenge to coordination. While parties have been open and willing to coordinate, in many cases, the PAs are in the midst of implementing their marketing plans when SW ME&O planning is underway.

goals and our team believes that there are currently core programmatic areas where measurement of coordinated effects is vital. These include all activities associated with lead generation for PA programs, as well as coordinated efforts to market specific programs such as the Energy Upgrade California® Home Upgrade Program. At present, the SW ME&O program performance metrics (PPMs) do not link statewide and PA efforts, but the development of a clear lead generation mechanism is an important step in linking statewide efforts to local program participation.

- **Recommendation:** While the PAs should be required to document marketing efforts (but not measure effects), the CPUC should measure both market efforts and effects for SW ME&O. In particular, SW ME&O efforts require an assessment of market effects in addition to efforts. For example, measuring *effort* involves answering questions about what and how much was accomplished (e.g., how many materials were distributed and how many people did the campaign reach), whereas measuring *effect* involves assessing the changes that result from a campaign (e.g., has there been change in awareness or behavior, what actions have people taken).⁷⁵ We recommend that in the future, the CPUC work with the SW ME&O administrator to design campaigns to measure effects (or causal impacts associated with campaigns) through incorporating experimental or quasi-experimental research designs. In any cases where direct response tracking is available (e.g., where marketing staff can keep a record of those participants who were exposed to the marketing collateral and used that channel to participate in the program), incorporate this within the marketing campaign, and collect data to assess achievements. When experimental design is not an option, the evaluator should work to develop other methods for determining effects such as latent class discrete choice (LCDC), structural equation modeling, multi-level modeling, or other approaches, some of which were used in the previous ME&O evaluation work for the 2006-2008 program cycle.
- **Recommendation:** The PAs, although not required to by the CPUC, should consider embedding a comprehensive assessment of marketing effects as part of program-specific evaluation efforts. The PAs should consider directing evaluators to assess the effectiveness of marketing campaigns in achieving programmatic goals—particularly for underperforming programs. We recommend focusing on those programs that are not achieving their goals, are not cost-effective, are newer initiatives, or have hard-to-reach target audiences. These evaluations should move beyond studying efforts, to also assessing *effects*. As noted above, PA ME&O goes well beyond promotion, making it more valuable to assess marketing effects as part of the evaluation of the program(s) it supports. To date, there have been few comprehensive assessments of marketing effects within existing program evaluations. Refer to Section 4 for information on what a more comprehensive assessment would cover.

What mix of messaging should the SW ME&O administrator and the PAs provide in the future?

We see no issues with the SW ME&O implementer and PAs continuing to provide a mix of messages about utility programs, no/low cost actions, general energy management topics or the benefits of taking action, *if these campaigns are coordinated and consistent*. As previously mentioned, findings from customer research suggest that customers prefer multiple sources of information regarding energy efficiency. Additionally, customer research suggests that program sponsorship (e.g., IOU, REN, SW sponsors) does not affect participants' motivation to take part in the program nearly as much as the program design or the design of the program promotional materials. Further, a review of several PA marketing campaigns suggest that depending

⁷⁵ The latest SW ME&O evaluation both verifies (e.g., measures that efforts occurred) as well as assesses effectiveness (e.g., measures effects of marketing efforts that occurred).

upon the topic that is promoted, a single marketing activity may not spur customer action on its own; rather, customers may take action after having seen several marketing pieces or over a substantial period of time.

As a means of fostering coordination and consistency, the evaluation team emphasizes recommendation 7B above as a means to keep both the SW ME&O administrator and PA parties informed and aligned as they work through the Joint Consumer Action Plans.

Detailed PA ME&O Case Study Findings

A core aspect of this research effort addressed five central questions of interest related to customer engagement with, and effectiveness of, PA marketing. As documented below, these questions focused on exploring customer engagement with specific ME&O campaigns,⁷⁶ their perceptions of the marketing they are exposed to, and achievement of campaign objectives.

- How many customers are exposed to the marketing campaign?
- What effect does the marketing campaign have on the target market in terms of awareness of marketed programs and offerings?
- Do customers find the information they received useful and clear?
- Do customers take action or are they likely to take action due to the marketing?
- How effective is the campaign in achieving its objectives?

To answer these questions, the evaluation team worked with the CPUC and PAs to identify one campaign per PA for assessment. Due to the broad nature of ME&O campaigns deployed by the PAs and available evaluation budget, the evaluation team needed to identify areas of focus to address these research questions. We used the following criteria, established through discussions with the CPUC and PAs, to select each campaign:

- **Broad coverage of ME&O activities:** We selected campaigns that involve the implementation of ME&O activities across a wide range of channels.
- **Represent the most common marketing activities statewide:** Across all of the PA's Q1 2016 activities, the five most common marketing channels are e-mail, events/workshops, direct mail, website, and telephone calls. Where possible, we selected campaigns that also used many of these channels.
- **Include activities that provide an opportunity to speak directly with customers:** We selected campaigns for which recipient contact information was available for many activities (i.e., phone numbers, emails, addresses).

Given the timing of the evaluation efforts, and the seasonal component to PA marketing, our team focused on exploring customer engagement for campaigns deployed around the first quarter 2016. This allowed our team to gauge near real-time exposure to the campaigns, and reflected when the PAs indicated that their greatest volume of marketing activities would occur within the evaluation timeframe.

Based on our selection approach, findings presented within this section are not generalizable to the full suite of marketing campaigns offered by the PAs. However, our selected campaigns represent a little more than a third of all Q1 2016 marketing activities, and between 15% and 100% of marketing activities by PA.⁷⁷ Further, our selected campaigns generally align closely with the population of campaigns in terms of channel mix,

⁷⁶ We define a "campaign" as a specific, defined series of activities used to market a product or service. An "activity" is messaging and/or collateral delivered through a specific channel. The rationale for developing summaries at a campaign level is that it reflects the PAs integrated marketing strategy, and captures multiple points of customer exposure. Further, many administrators indicate that they develop objectives and measure results at the campaign level.

⁷⁷ For SCE, we selected a Q2 marketing campaign, as no marketing campaigns were launched during Q1 2016.

though the selections slightly over-represent email activities. In total, we selected 6 campaigns out of the 31 residential campaigns offered during the given timeframe. We selected the following PA campaigns (Table 30).

Table 38. PA ME&O Selected Marketing Campaigns

Program Administrator	Campaign	Report Location
BayREN	Energy Upgrade California Home Upgrade Program Q1 Marketing Campaign	Appendix A
PG&E	REA Q1 Marketing Campaign	Appendix B
SDG&E	California Alternative Rates for Energy (CARE) and Energy Savings Assistance (ESA) Programs Q1 Marketing Campaign	Appendix C
SCE	Energy Upgrade California Home Upgrade Program Q2 Marketing Campaign	Appendix D
SCG	Energy Hero Winter 2015 Campaign and Spring 2016 Cold Water Washer Campaign	Appendix E
SoCalREN	Energy Upgrade California Home Upgrade Program Q1 Marketing Campaign	Appendix F

In the following sections, we provide our summary of findings for each program marketing campaign, including a description of the campaign, our evaluation objectives and approach, key findings and conclusions, and detailed findings.

A. BayREN’s Energy Upgrade California Home Upgrade Program

A.1 Marketing Campaign Overview

BayREN’s Energy Upgrade California Home Upgrade Program offers up to \$3,150 in incentives to consumers for completing comprehensive home retrofits through a participating contractor. The overarching goals for the program’s marketing efforts during the first quarter of 2016 were to generate awareness and participation among several key target audiences: homeowners, contractors, local governments, and real estate professionals. For the purposes of this assessment, we focused on marketing efforts targeting homeowners, as these are ultimately the participants in the program and are the target of the majority of marketing activities. Further, Energy Upgrade California Home Upgrade Program contractors have been extensively interviewed as part of other ongoing evaluation efforts.⁷⁸

BayREN set out to achieve its marketing goals by promoting the program through email; in-person workshops or events; radio; and outreach to contractors, public agencies, and real estate professionals. BayREN also promoted the Energy Upgrade California Home Upgrade Program through its website (www.bayareaenergyupgrade.org). Table 39 provides a summary of BayREN’s Q1 2016 marketing activities, channels employed, and target audience.

Table 39. BayREN’s Q1 2106 Energy Upgrade California Home Upgrade Marketing Activities

Marketing Activity	Deployment Time Frame	Description	Channel	Audience
Local Media Buy	January 2016	County-specific marketing efforts; in Q1 2016 included radio and digital media efforts	<ul style="list-style-type: none"> Internet/Banner Ads Radio 	Homeowners
Home Upgrade Advisor Email Campaign	February–March 2016	Email blasts from Home Upgrade Advisor; includes homeowner workshop invitations and other topics	<ul style="list-style-type: none"> Email 	Homeowners
Community Events	January–March 2016	Tables, booths, or presentations at community events	<ul style="list-style-type: none"> Events/workshops 	Homeowners
Homeowner Workshop	March 2016	Educational workshops for homeowners that provide information on the program and other energy efficiency topics; participating contractors and past participants may also attend	<ul style="list-style-type: none"> Events/workshops 	Homeowners
Participating Contractor Support	January–March 2016	Ongoing support or training for participating contractors	<ul style="list-style-type: none"> Email Events/workshops In-person Phone 	Contractors
Presentations to Real Estate Professionals	March 2016	Maintain ongoing relationships with local real estate associations or mortgage lenders and present at marketing meetings	<ul style="list-style-type: none"> Email Events/workshops Leverage partner networks 	Real Estate Professionals

⁷⁸ In particular, participating contractors were interviewed during the study period as part of the IOU-led process evaluation of the Energy Upgrade California Home Upgrade Program.

Marketing Activity	Deployment Time Frame	Description	Channel	Audience
Contractor Recruitment	February–March 2016	Events or outreach to contractors to introduce them to the program and encourage them to become participating contractors; events may also cover other energy efficiency topics	<ul style="list-style-type: none"> • Door-to-door • Email • Events/workshops 	Contractors
Coordinated Marketing through Community Partners	February–March 2016	Marketing to homeowners through community partner networks; partners in Q1 included three cities and a local government partnership	<ul style="list-style-type: none"> • Email • Leverage partner networks 	Local Governments
Website Analytics	January–March 2016	Web analytics for local Home Upgrade Program websites (Home Upgrade Program information place on county websites, does not include partners’ websites) and regional Home Upgrade Program website	<ul style="list-style-type: none"> • Website 	Homeowners, Contractors, Local Governments, Real Estate Professionals

Source: BayREN Response to Data Request.

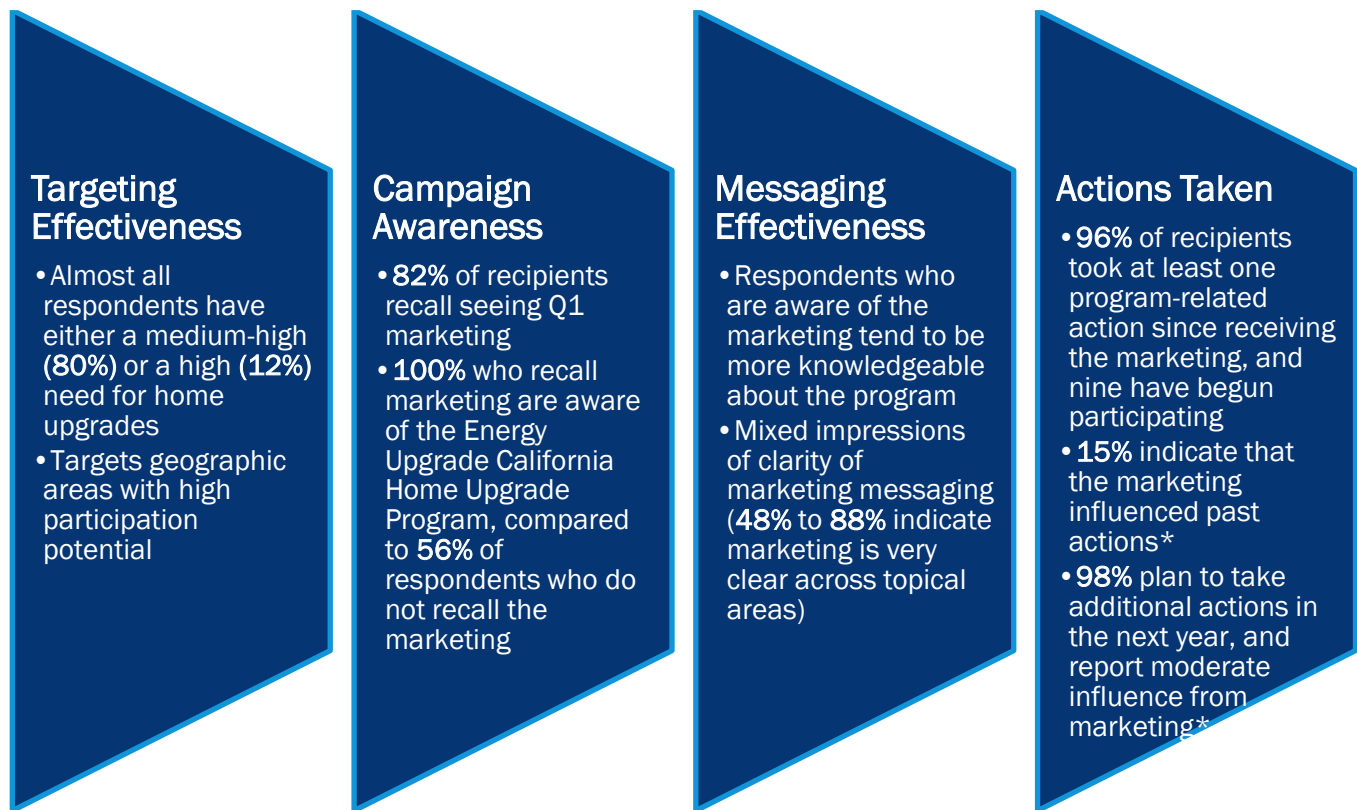
A.2 Evaluation Objectives and Approach

Our research addressed two overarching objectives. The first objective was to document the core activities BayREN completed during the campaign to examine how well these activities align with the campaign theory and stated campaign goals, as well as to assess campaign performance associated with these goals. Second, we assessed the effectiveness of one or more specific marketing activities within the campaign by fielding a survey with targeted customers. To meet the first objective, we reviewed program materials that BayREN provided, including communications plans, budgets, metrics, success criteria, and outcomes for all activities. Second, we fielded an internet survey to a census of 590 customers who received Home Upgrade Advisor workshop invitations, attended a workshop, or contacted the Home Upgrade Advisor call center. We completed surveys with 50 of these customers. As part of the survey effort, we explored the effectiveness of any BayREN marketing efforts that consumers recalled from 2015 or Q1 2016.

A.3 Key Findings and Conclusions

BayREN’s goals in promoting the program were to increase program awareness and program participation. Figure 7 presents research findings related to targeting, messaging, and awareness in a conceptual model of how the marketing campaign supports customers taking action with respect to the program. Below the figure, we expand on our conclusions about campaign effectiveness and discuss several limitations of the assessment.

Figure 7. BayREN Energy Upgrade California Home Upgrade Program Q1 2016 Marketing Campaign Summary of Results



* Percent who indicated that marketing influenced past or planned actions is based on the percent of respondents who recalled the marketing, took at least one action in the past few months, and, when asked about their likelihood to have taken or take action if they had not received information from the marketing, provided a score of 1, 2, or 3 on a scale of 1 “not at all likely” to 7 “very likely.”

Overall, the results of our study suggest that BayREN’s marketing campaign achieved success across several dimensions. Key findings and recommendations include:

- **BayREN’s marketing campaign appears to be well targeted.** In particular, BayREN’s marketing strategy and targeting approach is well suited for the Energy Upgrade California Home Upgrade Program. According to BayREN, the marketing campaign mixes direct marketing to homeowners by working with strategic partners (contractors, real estate professionals, local governments) who act as credible messengers to homeowners. This type of strategy is appropriate for the program, which relies on a network of participating contractors and requires a large financial investment from homeowners. BayREN’s focus on “deep engagement” efforts (such as presentations and conversations with customers), rather than mass media, is also aligned with the level of support homeowners may need to decide whether to participate. Finally, BayREN uses past participation and census data to identify target geographic areas with a high propensity for participation. Generally speaking, respondent awareness of the Energy Upgrade California Home Upgrade Program is high, as is recall of marketing materials designed to promote the program.
- **Awareness of Energy Upgrade California Home Upgrade is high (92% of respondents), and BayREN marketing efforts appear to be successful in driving program awareness.** More than three-quarters of survey respondents recall some marketing from BayREN. Further, consumers who recall the marketing

have higher awareness of the program (100%) than those who do not recall the marketing (56%). In addition, those who recall marketing tend to have higher familiarity and knowledge of the program. While these findings suggest there is something different between customers who recall and do not recall the marketing, we cannot attribute this difference to BayREN marketing with any certainty.

- **Respondent perception of email marketing varied in terms of clarity.** The marketing was on the whole effective in delivering its intended messaging in that it is generally giving consumers a clear idea of how to take actions, such as attending community events or finding out more about the program. However, some aspects of marketing messaging, such as program benefits, could use improvement.
- **BayREN marketing is one of many factors that may contribute to future program participation, and focuses on moving customers along the path to engaging with more information about the program.** Nearly all survey respondents (96%) reported taking some intermediate action related to participating in the program or planning to take some type of action in the next 12 months (98%), such as discussing the program with a friend, neighbor, or someone in their household, as well as looking for more information online. However, respondents also indicated that the marketing had a moderate influence on their decisions to take these intermediate actions.
- **There are opportunities to improve BayREN's ME&O performance tracking processes.** BayREN set metrics and success criteria for some of their marketing activities, and does not track budgets or expenditures at the marketing activity level. As a result, the evaluation team recommends that BayREN develop goals by activity and track expenditures at an activity level to enable assessment of marketing performance to inform future marketing efforts. Further, we recommend tracking CTRs for email activities.

Additionally, this assessment should be interpreted in light of three limitations.

- First, our analysis focuses on short-term outcomes from the marketing and comments on the effectiveness of one key activity, and email newsletter, targeted to homeowners only. We recommend that the CPUC interpret our findings as only one of several important indicators of the broader campaign's success in marketing the Energy Upgrade California Home Upgrade Program. To address this limitation, future research should consider conducting a longitudinal study of awareness over time, such as before and after receipt of marketing materials. Further, we recommend comparing program enrollment rates 12 months after the receipt of materials to explore the degree of correspondence between the survey respondents' reported intentions to participate in the program (within a month of receiving marketing materials) relative to their actual participation.
- Second, we fielded a customer survey among a specific subset of the BayREN customer base that does not represent all customers who might be exposed to BayREN's Energy Upgrade California Home Upgrade Program marketing. At best, the responsiveness of customers who opt in to receiving the marketing may be considered an upper-bound approximation of the responsiveness of all customers on average.
- Third, marketing is one of many influences that can support a customer decision to participate in a program. Given the limited number of participants we surveyed, we were unable to assess the role of marketing compared to other factors in terms of driving participation.

Notably, according to BayREN, several of the BayREN counties were not yet under contract until late into the first quarter in 2016, which limits the marketing that can occur during this time frame.

A.4 Detailed Findings

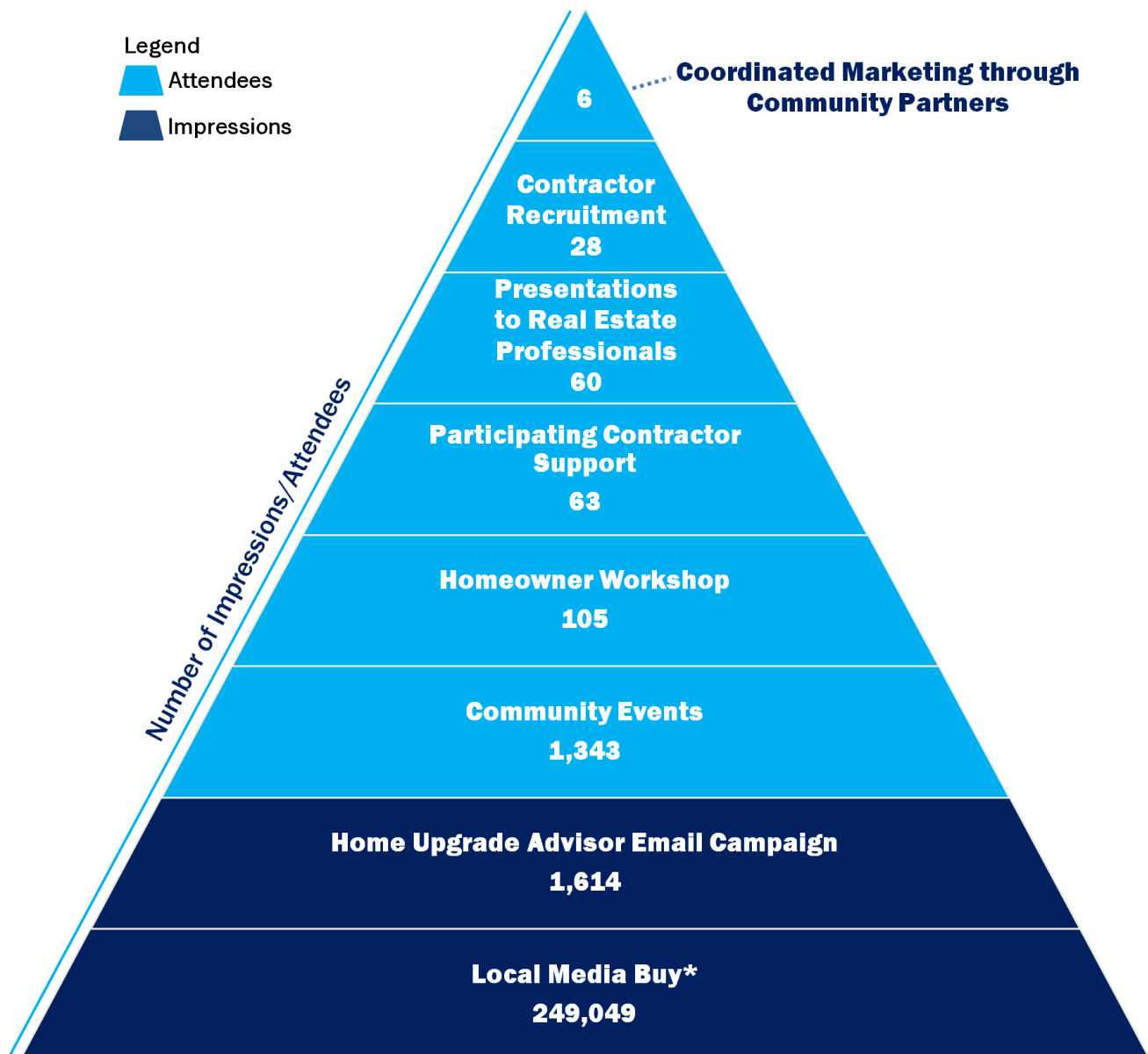
In this section, we present a detailed assessment of the effectiveness of BayREN's Q1 2016 Energy Upgrade California Home Upgrade Program marketing campaign.

Campaign Reach

As shown in Figure 8, BayREN reached the greatest number of consumers with radio advertisements and an email campaign. The “impressions” in Figure 8 represent the maximum number of customers the campaign could have reached through each activity. Customers do not click on every internet search result; nor do they read every email that they are sent or every article in the newspaper to which they subscribe. BayREN did not track impressions for their website activities.

Notably, most tactics involved in-person events with homeowners and strategic partners, and reach is tracked through attendees at these events. These in-person activities typically reached far fewer customers or partners but offered opportunities for face-to-face, in-depth engagements. In the case of Energy Upgrade California Home Upgrade Program marketing efforts, despite efforts focusing on high-propensity customers, many of the customers reached may not be eligible for the programs — especially for the mass marketing tactics, such as television and print ads, as compared to direct marketing efforts, such as direct mail and email. In the next section, we explore the extent to which the different marketing activities connected with the target audience and met the metrics that BayREN set.

Figure 8. Q1 2016 BayREN Energy Upgrade California Home Upgrade Program Marketing Campaign Reach, by Activity



* The local media buy activity was limited to radio and digital media activities in Q1 2016. The web analytics activity is not included because it does not track impressions or attendees. Source: Data provided by BayREN.

Achievement of Campaign Metrics

While BayREN conducts similar marketing efforts across its territory, it works with each Bay Area county (the “member agencies”) to tailor marketing strategies to suit local needs. ME&O is overseen region-wide by a “lead county” and an ME&O subcontractor. During the planning stage, the lead county works with the other BayREN counties to set county-level marketing budgets and then asks the counties to develop activities and annual goals based on that budget. The BayREN counties commonly use a mix of historical trends analysis,

secondary research, and analyses of media consumption patterns to set goals. While the lead county may assist each county in developing its goals, BayREN staff mention that they often defer to local county expertise. Thus, the exact approach may vary from county to county. While we recognize the importance of tailoring local efforts, we recommend creating and documenting a standard approach by which the counties set their ME&O goals.

BayREN set annual goals, established success criteria, and tracked performance for seven of nine marketing activities. As shown in Table 40, for those activities with success criteria, activities appear to be on track to meet their year-end goals. Specifically, BayREN has spent 14% of its ME&O budget to date and in most cases has achieved at least 14% of its goal. In several cases, such as participating contractor support, BayREN has already exceeded its goals. However, most of BayREN's ME&O activities are episodic (e.g., events and ad hoc email campaigns) rather than constant throughout the year (e.g., web analytics, monthly newsletters, and call centers). Thus, we cannot conclude with confidence whether BayREN will maintain its current pace of activities and progress toward its goals.

While BayREN tracks metrics and associated success criteria for many of its activities, there are opportunities to improve performance tracking. Because BayREN did not typically set specific success criteria by quarter, it is difficult to assess how these activities will ultimately perform. Further, tracking CTRs for email activities will help determine how effective those activities are in encouraging customers to learn more.

Table 40. BayREN Q1 2016 Energy Upgrade California Home Upgrade Program Marketing Activities, Goals, and Achievements

Activity	Metrics	Annual Success Criteria	Quarterly Result	Achievement
Local Media Buy	Impressions	Not provided	249,049	Not applicable
	CTR (internet/banner ads)	Not provided	0.27%	Not applicable
	Clicks (internet/banner ads)	Not provided	653	Not applicable
	Cost per Click (internet/banner ads)	Not provided	\$3.99	Not applicable
	Reach* (radio)	Not provided	20	Not applicable
Home Upgrade Advisor Email Campaign	Email Campaigns	Not provided	3	Not applicable
	Impressions	Not provided	1,614	Not applicable
Community Events	Events	59	11	19% of annual goal
	Attendees at Tabling Events	None	1,200	Not applicable
	Attendees at Presentations	440	143	33% of annual goal
	Impressions	4,700	648	14% of annual goal
	Direct Interactions	1,820	246	19% of annual goal
	Number of Registrations/Sign-Ups/Emails Collected	Not provided	24	Not applicable
Homeowner Workshop	Events	32	4	13% of annual goal
	Attendees	1,245	105	8% of annual goal
	Impressions	Not provided	25	Not applicable
	Direct Interactions	Not provided	14	Not applicable
	Number of Registrations/Sign-Ups/Emails Collected	Not provided	14	Not applicable
Participating Contractor Support	Events	8	4	50% of annual goal
	Attendees	59	63	107% of annual goal
	Impressions	210	232	110% of annual goal
Presentations to Real Estate Professionals	Events	14	1	7% of annual goal
	Attendees	395	60	15% of annual goal
	Impressions	575	70	12% of annual goal
	Direct Interactions	300	5	2% of annual goal
Contractor Recruitment	Events	16	2	13% of annual goal
	Impressions	691	450	65% of annual goal
	Attendees	73	28	38% of annual goal
	Direct Interactions	76	15	20% of annual goal
Coordinated Marketing through Community Partners	Number of Pieces of Collateral Provided to City Staff	10	6	60% of annual goal
	Number of Cities Provided Collateral	Not provided	2	Not applicable
	Number of Cities Engaged	11	3	27% of annual goal
Website Analytics	Regional Page Views	Not provided	115	Not applicable
	Local Page Views	300	336	112% of annual goal
	Unique Local Page Views	250	151	60% of annual goal

* While it is not explicitly defined in BayREN's tracking data, it is likely that "reach" represents the number of times the radio ad was aired.

Marketing Budget and Expenditures

BayREN conducted nine different types of marketing activities for the Energy Upgrade California Home Upgrade Program in Q1 2016 (Table 41). BayREN did not track budgets and expenditures at the activity level for most activities, but grouped them under a single category. Overall, the program spent less than a sixth of its budget in Q1. According to BayREN staff, this reflects a significant level of planning that occurs at the beginning of any year before any implementation occurs.

Table 41. BayREN Q1 2016 Energy Upgrade California Home Upgrade Program Marketing Budget and Expenditures

Activity	Annual Budget 2016	Expenditures through March 2016	% of 2016 Budget Spent
All Marketing Activities	\$870,263	\$125,402	14%

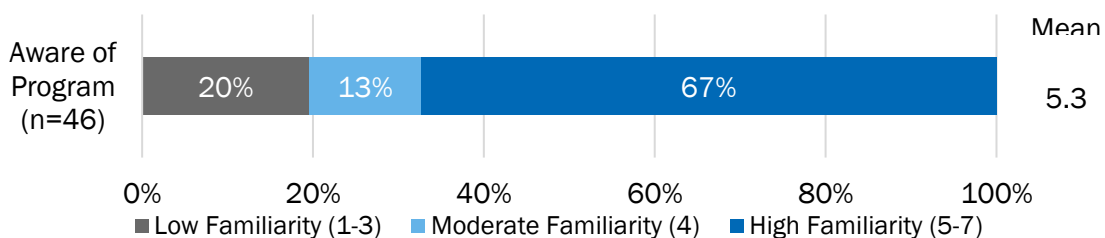
Source: BayREN Response to Data Request.

Awareness of Program and Marketing Campaign

Survey results suggest that BayREN’s marketing efforts helped drive awareness of the Energy Upgrade California Home Upgrade Program and that consumers who previously engaged with the program are highly knowledgeable about it. Almost all respondents are aware of the program (46 of 50, or 92%), but respondents who recall being exposed to BayREN marketing (n=41) are much more likely to recall the program (100%) than those who do not recall any of the marketing (56%, n=9). This high level of awareness makes sense, considering all respondents have engaged with the program at least enough to share their contact information with BayREN.

The 46 respondents who were aware of the program were also very knowledgeable about the nature of it, as indicated by high average familiarity scores (Figure 9). To further test respondents’ comprehension of the program, we asked those who were aware of the program to identify which of five statements best described the Energy Upgrade California Home Upgrade Program⁷⁹ and almost all (94%) selected the correct program description, including those who reported low or moderate familiarity with the program. This suggests that many respondents generally understand what the program is, but have limited familiarity with the details (e.g., eligible measures, the participation process).

Figure 9. Familiarity with the BayREN Energy Upgrade California Home Upgrade Program among Those Aware of the Program



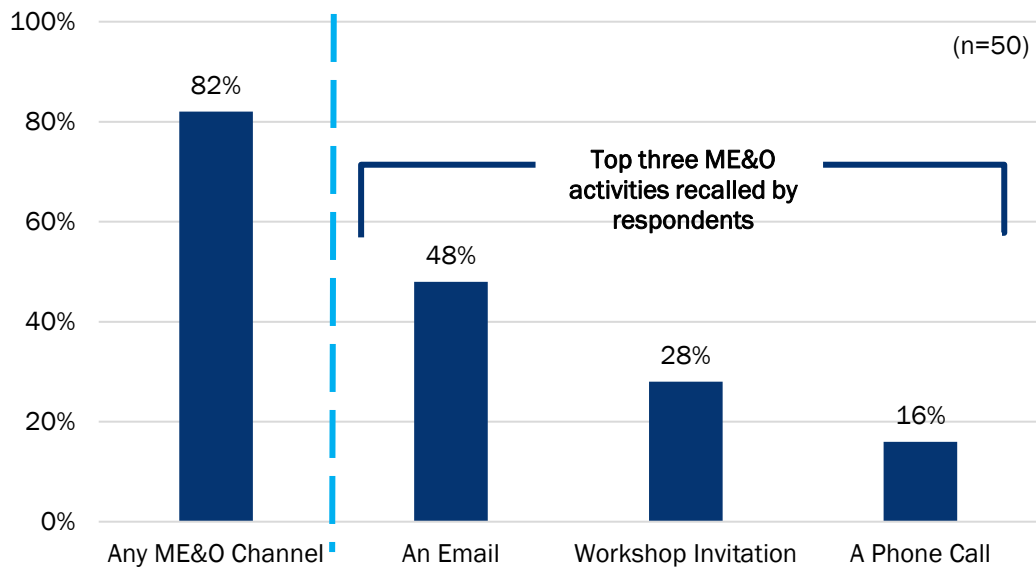
Scale of 1 to 7, where 1 indicates “I have only heard the name” and 7 is “I know a lot about it.”

Source: BayREN Consumer Survey.

⁷⁹ The statements were: “A program that provides rebates and incentives for home improvements that include air sealing, duct sealing, attic insulation, and more” (the correct response), “A program that specifically incentivizes solar panels and solar hot water heaters,” “A program that provides homeowners and renters with a free kit containing energy efficient light bulbs, faucet aerators, and low-flow shower heads to install in their home,” “None of the above,” and “Don’t know.”

Respondents often recalled seeing some marketing from BayREN regarding the program. When we provided them with a list of different marketing they might have seen, 82% of respondents recalled seeing at least one item between 2015 and Q1 2016.

Figure 10. Aided Recall of BayREN 2015 and Q1 2016 Marketing Campaign Activities



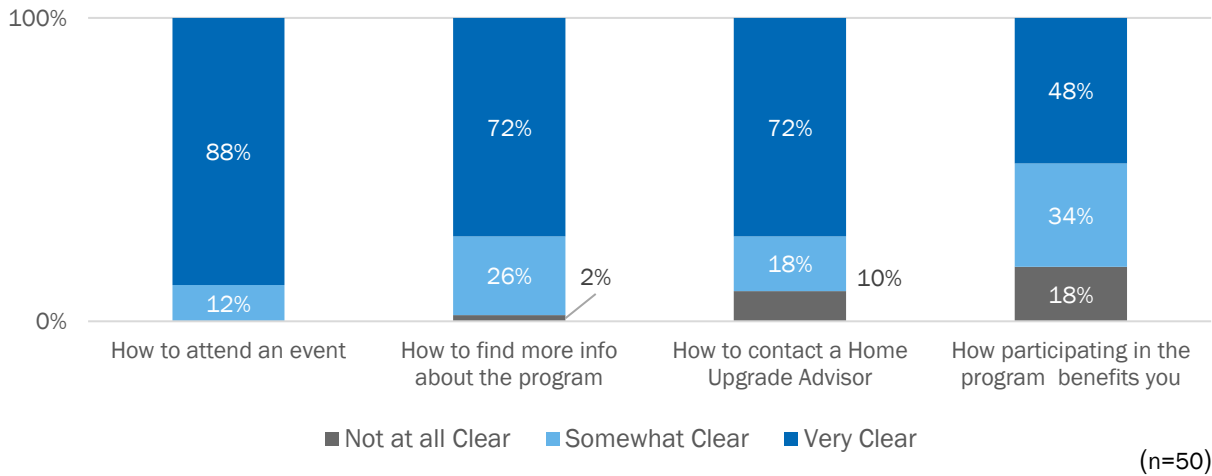
Source: BayREN Consumer Survey.

Campaign Messaging Clarity and Usefulness

As part of the survey, we presented respondents with collateral from a Q1 homeowner workshop email invitation to explore clarity of the marketing messaging.⁸⁰ The email invitation covered how to attend a BayREN event, how to learn more about the program, and program benefits such as comfort issues or high utility bills. Respondents indicated that BayREN’s marketing messaging is clear. Most respondents indicated that it was very clear how to attend a BayREN event and learn more about the program. They also clearly understood how to contact a Home Upgrade Advisor, which makes sense given that they had originally received this email from a Home Upgrade Advisor. However, respondents gave mixed responses on how clearly the email communicated the benefits of the program.

⁸⁰ In cases where respondents did not recall the newsletter, we provided them an example during the survey.

Figure 11. Clarity of Information Provided in the BayREN Email Invitation



Source: BayREN Consumer Survey.

To put marketing usefulness in the context of customers’ relative need for the program, we developed an index of each customer’s relative need for home upgrades. We developed the index using six survey questions about participants’ recent and planned home improvement projects, behavior changes, and energy assessment history.⁸¹ We interpret high index scores as an indication that a respondent would be more interested in making major home upgrades and believes that there are additional opportunities for upgrades to his or her home or behavior changes to use less energy. Nearly all respondents (92%) had a “high” or “medium high” need for home upgrades (12% and 80%, respectively), suggesting that BayREN may be reaching the right customers with its marketing. However, because our survey sample is entirely composed of customers who have engaged with the program in some way, we cannot conclude whether those who have not engaged with the program have similar needs.

Campaign Influence on Behaviors and Actions

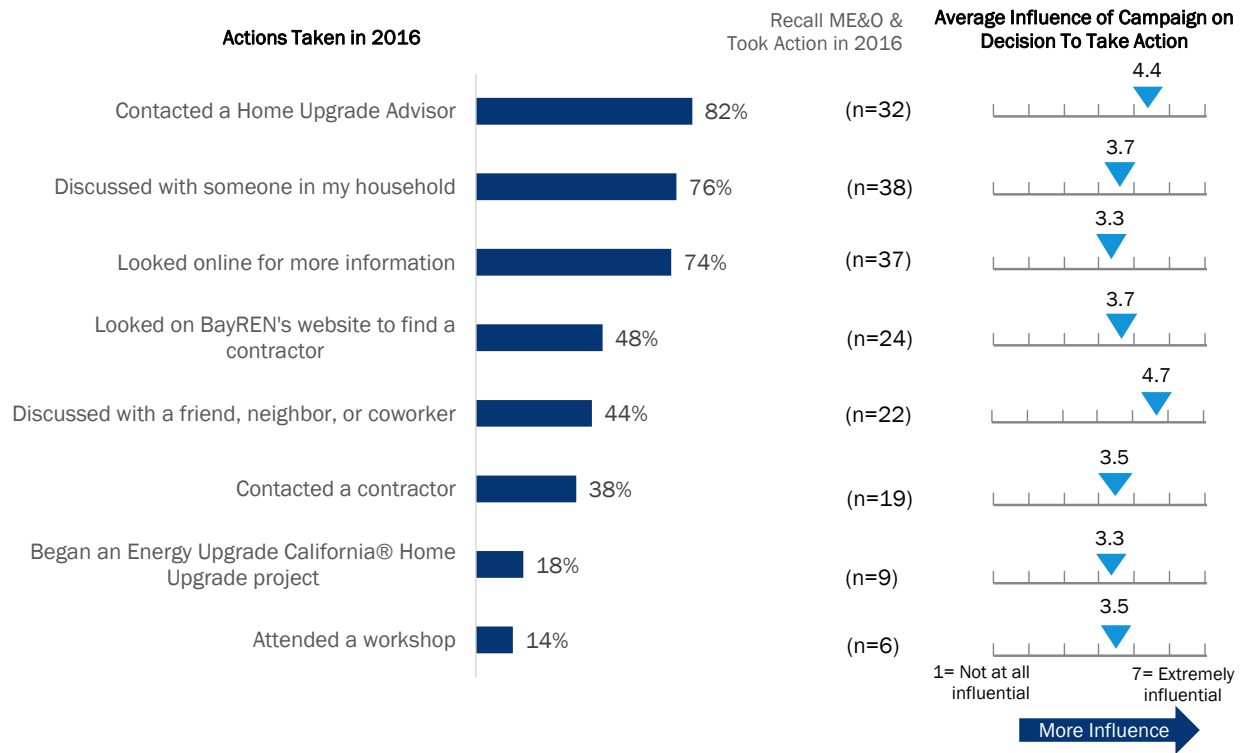
Almost all (96%) respondents reported taking some action related to participating in the program. These actions include discussing the program with a friend, neighbor, or someone in their household, as well as looking for more information online (Figure 12). Given that the participation process for the Energy Upgrade California Home Upgrade Program can take a long time and requires both a large financial and time commitment, these intermediate actions reflect improved awareness of the program, a growing interest in participating, and initial steps to determine if the program is a good fit for their needs.

However, BayREN’s marketing has had only a moderate influence on customers’ decisions to take action. We asked respondents who recalled the marketing and took action how influential the marketing was on their decision to take those actions. On a scale of 1 to 7, with 1 meaning “not at all influential” and 7 meaning

⁸¹ We grouped respondents into one of four categories that indicate their relative need for energy efficiency information based on their responses to a series of questions about current, past, and planned energy efficiency upgrades that they have made to their home, as well as their beliefs about additional opportunities for upgrades or behavioral changes that they could make to save energy. At the “high” end of the need scale, we placed respondents who had made upgrades in the past, were currently working on a project, had future plans for more projects, and still believed that additional opportunities existed. At the “low” end of the need scale, we placed respondents who had never completed upgrades, had no plans to do so, and didn’t believe there were any energy-saving opportunities. We placed respondents in the middle who gave a combination of responses within the particular category based on the number of questions that indicated the respondent had a history of taking action and a strong belief that opportunities for saving existed.

“highly influential,” respondents gave moderate average influence scores between 3.3 and 4.7 depending on the action (Figure 12, right side).

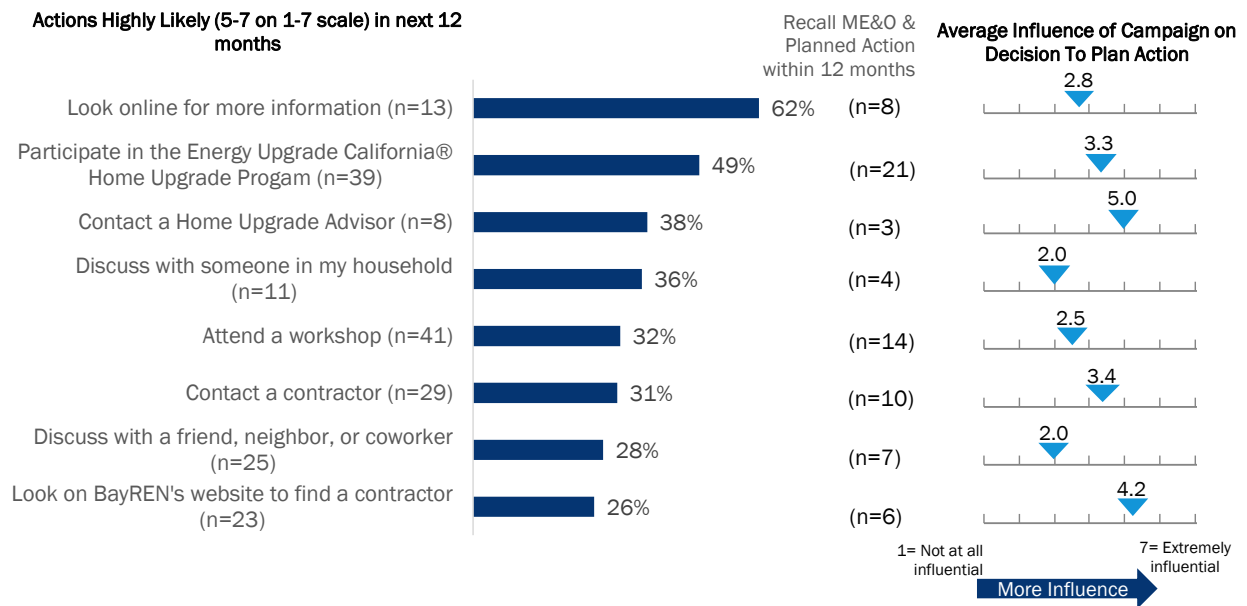
Figure 12. Influence of BayREN Campaign Information on Actions Taken in the Past Few Months



Source: BayREN Consumer Survey.

We also asked respondents about actions that they are likely to take in the next 12 months, as the participation process for Energy Upgrade California Home Upgrade Program can take that long. In particular, we asked these questions of those who had not taken one or more actions in the past few months. Overall, we found that almost all (98%) respondents plan to take some type of action in next 12 months that will help them decide whether to participate, though this varies by specific action (Figure 13). However, the influence of BayREN’s marketing continues to be on average moderate among those who plan an action and recall the marketing. Notably, the total number of survey respondents is small and may not represent the influence over these actions.

Figure 13. Influence of BayREN Campaign Information on Actions Planned



Source: BayREN Consumer Survey.

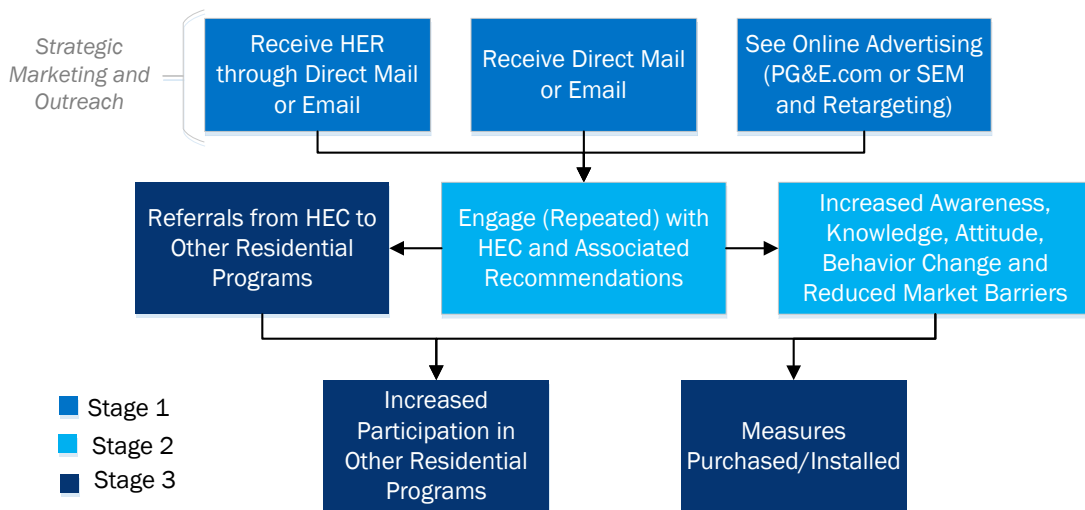
However, it is important to put these findings into context. While marketing is certainly useful in driving program awareness, or providing compelling information on the program (e.g., about the rebates), there are multiple factors that drive consumers’ decisions to participate, and marketing efforts are often not top-of-mind drivers, but seed decision making.

B. PG&E’s Residential Energy Advisor (REA) Program

B.1 Marketing Campaign Overview

PG&E’s REA program provides customers with a suite of products and services designed to improve their understanding of their energy use, their ability to manage it, and the energy efficiency of their homes, and, where appropriate, to encourage customer enrollment in whole-house energy efficiency programs. The program uses behavioral outreach initiatives and interactive tools to meet these objectives. A key program component and the focus of this evaluation is the HEC, a self-guided online assessment and toolbox of energy-saving tips accessible from the PG&E website and hosted by OPower. Additionally, the REA program includes HERs, which are customer energy usage reports sent to more than 1 million customers on an ongoing basis. PG&E markets the HEC using a variety of activities each year. Figure 14 displays the pathway from a customer’s exposure to marketing to completion of the HEC.

Figure 14. Theoretical Homeowner Path from Marketing Exposure to Completion of the HEC



PG&E staff note that customers are more likely to engage with the REA program after having been exposed to several marketing activities. In other words, PG&E does not expect that a single marketing activity will spur customer action on its own; rather, customers take action after having seen several marketing pieces. As such, PG&E markets the REA program using multi-channel, multi-touch campaigns that include multiple simultaneous marketing activities. Meanwhile, PG&E’s current tracking systems do not enable marketing staff to follow a single customer’s journey directly from a single marketing activity through to HEC completion. For the tool to recognize the customer and pull in their account data, the customer must provide their PG&E login credentials. Once a customer logs into their account, PG&E does track customer engagement with the HEC, and reports that 77% of those who start the HEC end up completing it (based on PG&E data since January 2016). Even so, the transition from HEC landing page to HEC completion creates a “dead zone” in terms of a customer’s journey from engagement with a marketing activity to HEC completion, and PG&E notes that it is not currently possible to know who attempts to access the tool until they have logged in.⁸² Given the theory that PG&E’s REA marketing activities are designed to work together to drive increased awareness and action,

⁸² PG&E does implement customer tagging that tracks customers’ activities once logged into the PG&E website.

as well as the current gulf in the customer's journey between (repeated) marketing exposure before account log-in, to HEC completion after account log-in, PG&E evaluates marketing success at the level of the campaign rather than by activity. This approach provides insights as to the effectiveness of the campaign against programmatic goals and against goals set for individual marketing activities, but is not set up with the purpose of assessing the effectiveness of individual activities relative to one another. Similarly, PG&E assigns budgets and evaluates costs at the campaign level rather than at the activity level. Despite this, PG&E has developed metrics for many marketing activities.

During the first quarter of 2016, PG&E used seven marketing activities to promote the REA program with a specific focus on the HEC. The primary goal of the Q1 campaign was to build awareness of the HEC and to encourage completion of the HEC. PG&E's mass marketing tactics included internet search engine marketing and retargeting, an ad marketing the program on the PG&E website, and messaging on billing remittance envelopes. PG&E also used more-targeted marketing by placing an HEC article in the Energy Advisor email newsletter.⁸³ Additionally, PG&E integrated HEC messaging into PG&E's Opower HER, communications with customers interested in solar, and mailings about upcoming rate reforms. PG&E deployed these activities between January and March 2016 with an emphasis on the month of January, when it could promote the HEC in the context of setting goals for the new year. Table 42 provides additional detail about each marketing activity.

⁸³ The Energy Advisor email newsletter provides multiple graphic articles tailored to the customer. The newsletter articles are clickable pods of information comprised of a graphic, headline, and short call to action. Clicking the article brings the customer to a web resource on energy savings, such as a PG&E YouTube video, a landing page on the PG&E website, an online article with energy-saving tips, or other content.

Table 42. PG&E’s Q1 2016 Residential Energy Advisor Program Marketing Activities

Marketing Activity	Deployment Time Frame	Description	Channel	Audience
Ad on PG&E Website	January 2016	An ad promoting HEC on the first page of the PG&E website	<ul style="list-style-type: none"> Website 	All residential customers
Search Engine Marketing (SEM) and Retargeting	Q1 2016	Improve visibility of HEC in internet search results; uses a targeted approach, targets additional ads based on previous internet searches	<ul style="list-style-type: none"> Internet 	All residential customers; retargeting is developed to reach specific segments through contextual relevance
Billing Remittance Envelope	March 2016	Message promoting HEC on the envelopes of customer bills	<ul style="list-style-type: none"> Direct Mail 	All residential customers receiving paper billing statements
Energy Advisor Monthly Email Newsletter	January 2016	HEC was featured in the monthly email newsletter	<ul style="list-style-type: none"> Email 	Residential customers who provided their email address and permission to receive marketing; content varies based on customer propensity to participate in different programs
HERs	January 2016	HEC was featured in the electronic report sent to customers comparing their usage to that of similar homes	<ul style="list-style-type: none"> Email 	Residential customers who receive HERs as part of PG&E’s randomly controlled trial
Integration into Solar Marketing Materials	Q1 2016	Promotion of HEC on solar portion of PG&E website and mailings and email to existing solar customers	<ul style="list-style-type: none"> Website Direct Mail Email 	Customers considering solar and existing solar customers
Integration into Rate Reform Information	Q1 2016	Promotion of HEC in information sent to customers about upcoming rate changes	<ul style="list-style-type: none"> Direct Mail Email 	Residential customers who were expected to be affected by changes to their rates

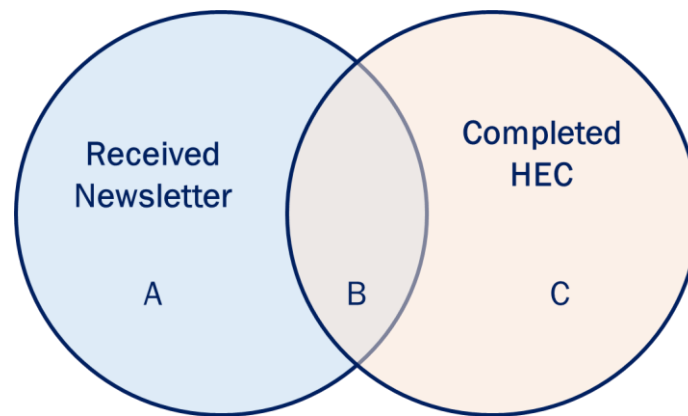
B.2 Evaluation Objectives and Approach

Our research addressed two overarching objectives. The first objective was to document the core marketing activities PG&E completed during Q1 2016 campaign to examine how well these activities align with the campaign theory and stated campaign goals, as well as to assess campaign performance associated with these goals. Second, we assessed the effectiveness of one or more specific marketing activities within the campaign by fielding a survey with targeted customers. To meet the first objective, we reviewed program materials that PG&E provided, including communications plans, budgets, metrics, success criteria, and outcomes for all activities. To assess the second objective, we completed a survey with 1,505 customers who received the Q1 2016 Energy Advisor digital newsletter in January 2016 and/or completed the HEC in Q1 2016.

We utilized the survey to assess customer recall of the newsletter and awareness of the HEC and to assess the influence of the email content on the likelihood of taking actions related to the program. Understanding that the program theory uses a multi-touch approach to encourage customer action, surveyed actions included but were not limited to completion of the HEC.

We oversampled customers who had interacted with the newsletter (i.e., opened it or clicked on the HEC advertisement within the newsletter) and/or who had completed the HEC during Q1 2016 to ensure that we completed enough interviews to assess customer experiences with the newsletter and the HEC. PG&E provided the sample using tracking data maintained by its marketing team. As Figure 15 shows, we spoke with a sample of customers who either were exposed to ME&O during Q1 2016 by receiving the January 2016 Energy Advisor email newsletter (groups A and B) or had direct experience with the HEC by completing it during Q1 (groups B and C). The intersection of these groups produces three types of customers responding to the survey. Group A is composed of customers who received the newsletter but did not complete the HEC; Group B is composed of those who both received the newsletter and completed the HEC; and Group C is composed of those who did not receive the newsletter but completed the HEC.

Figure 15. PG&E Home Energy Advisor Campaign Assessment Sample

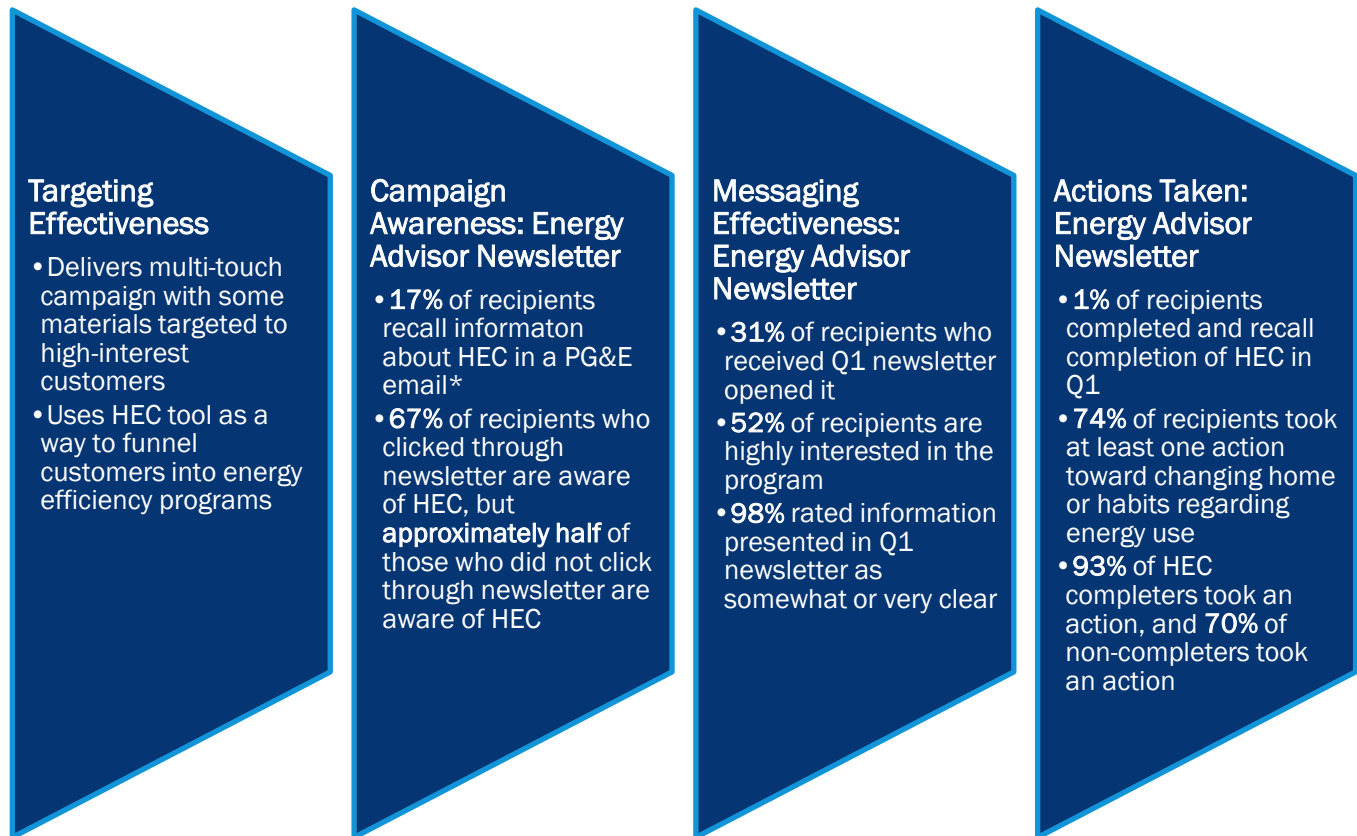


In the pages that follow, for each graphic that presents survey results, we include figure notes that describe which group(s) of respondents are included in each graphic and the weighting scheme we applied to the data. All sample sizes presented in the graphics are unweighted means. To account for the oversampling scheme, we developed survey weights for customer groups A, B, and C to use when we examine combinations of the three groups. Based on the data available to us at the time of fielding, we did not know whether one subset of customers in our sample who completed the HEC tool had received the newsletter and did not know whether another subset of customers in our sample who received the newsletter had completed the HEC tool. Table 11–18 in Section 3 list the methods we used to develop weights and provide the weights we applied to the survey data. In the figures and tables throughout this section, we refer to the weights applied to the graphics using the naming scheme outlined in Section 3.

B.3 Key Findings and Conclusions

PG&E’s goals in promoting HEC tool were to increase awareness of the HEC and use of the HEC as the gateway into energy management. Figure 16 presents research findings related to targeting, messaging, and resulting awareness in a conceptual model of how the marketing campaign supports customers taking action with respect to the program. Below the figure, we expand on our conclusions about campaign effectiveness and discuss several limitations of the assessment.

Figure 16. PG&E Residential Energy Advisor Program Marketing Campaign Summary of Results



* We did not ask respondents specifically about the Q1 newsletter.

Results of our secondary data review and of our customer survey suggest that this program’s marketing campaign is achieving success in several dimensions. Key findings and recommendations include:

- **Overall, PG&E appears on track to achieve its marketing goals.** PG&E’s marketing efforts performed well compared to their metrics, with most marketing channels achieving or surpassing the planned goal for impressions and CTRs and showed progress toward meeting annual aggregate goals for participation. As an overall aggregate indicator of marketing success, PG&E achieved almost half of its goal for HEC completions (approximately 47% of the goal) by the end of the first quarter.
- **The campaign’s organizing framework appears appropriate in the context of the HEC description.** The product’s theory of change has three main stages: marketing, engagement with the HEC tool as the gateway to energy saving actions, and energy-saving actions. Two main “jumps” link the stages to form a customer’s “journey” (see Figure 14). First, PG&E uses multi-touch marketing to prompt customer use of interactive tools (i.e., HEC), such as leveraging behavioral outreach initiatives in the REA umbrella (i.e., HERs), digital ads, newsletters, and other activities to promote the HEC tool. In turn, engagement with the tools encourages customers to save energy through behavior change or PG&E’s energy efficiency programs that are relevant to the specific customer (e.g., whole-house retrofit programs). In the first stage, PG&E’s use of multiple, frequent marketing activities is an appropriate way to reach a cross-section of potential participants at relatively low cost, and in a sense, little targeting is needed because the HEC tool also serves as a way to screen probable participants.

However, PG&E delivers its targeted marketing to groups of customers whose interests reveal a relatively higher propensity to engage with utility energy efficiency programs. And, in the second stage, because participating in the HEC requires relatively little customer commitment (it is free, and relatively quick to complete), it is a valuable way to capture the interest of customers likely to participate in energy efficiency programs. In concept, we found that this strategy is strong and seems to work well within the overall goals of the REA program.

- **PG&E is implementing its multi-touch campaign in a way that both reaches a cross-section of PG&E customers to generate and maintain program awareness and provides higher-propensity customers with additional nudges to participate in the program.** This strategy – implemented with a mix of broader awareness tactics (such as bill inserts and digital media) and targeted tactics (such as e-mail)— aligns well with the relatively low level of commitment that customers would need to make when deciding to engage with the program.
- **Key content in the email newsletter is clear.** Nearly all respondents (98%) indicated that the email provided a clear sense of HEC tool details, including why someone would want to complete the HEC tool, how they could complete the tool, and what it would cost to do so (i.e., free).
- **The second “jump” in the customer journey appears to work as designed.** Specifically, the HEC appears to be an effective informational and motivational tool. Respondents who completed the HEC were more likely to report taking energy-related actions since completing the HEC than respondents who did not complete the HEC. Although it is possible that the respondents who completed the HEC were already predisposed to take these actions, it is still likely that the HEC was influential. This supports PG&E’s program theory of change, which uses the HEC as a way to channel customers toward other energy-saving actions.
- **However, promoting the HEC tool through the newsletter may not be as effective as needed.** Just 0.36% of customers who received the email newsletter clicked on the HEC link, which is close to the goal of 0.39%. Most email recipients who opened the email did not engage with HEC content – and these recipients did not exhibit increased awareness of the HEC tool. The purpose of PG&E’s monthly email newsletter is to deliver awareness-building messages on multiple products and programs to a sizeable segment of the customer population. In this context, HEC messaging competes for customer attention with other marketing content. As a result, some of the customers who did not click on the HEC article may have instead focused on one of the other messages in the newsletter. Those who do click the HEC link – and presumably visited the HEC landing page – are more aware of the tool and express deeper knowledge of it. In short, PG&E is successful in getting customers to open its monthly email newsletter, but a bigger challenge appears to be using this multi-message activity to get customers to engage with the HEC article in a way that builds awareness. This finding should be interpreted in the context of PG&E’s multi-tactic campaign, which assumes that awareness is built slowly over time and after multiple marketing interactions.
- **PG&E may be able to boost newsletter conversion rates by developing content that showcases aspects of the HEC tool that customers value.** The HEC article in the marketing email presented a pie chart of home energy usage and noted a clear, simple call to action: “Get customized savings ideas in just 5 minutes. All for free!” By taking the call to action by clicking on the article, customers are taken to the HEC landing page. However, customers unlikely to click on this pod still believe that they already know what to do to save energy (39%), that they don’t have time to take the check-up (21%), and that their home is already efficient enough (15%). Overcoming misconceptions about time and savings potential may be challenging, as the marketing messages already clearly display this content. However, some of these customers may be convinced to

engage with the tool if PG&E can adjust images or messaging to highlight non-energy benefits of the tool, like helping the environment, benefitting the household, and improving the comfort of the home.

Additionally, this assessment should be interpreted in light of three limitations.

- We provided an example of marketing collateral in the survey to assess respondent reactions to the collateral in terms of its clarity and its impact on the likelihood to take the actions suggested in the collateral. Results from these specific questions may face challenges to external validity. Without displaying a copy of the newsletter during the survey to aid in recall, the chances of a customer recalling the newsletter six months after receiving it would have been slim. On one hand, using a marketing simulation enhanced our ability to elicit customer experiences with PG&E's marketing email. On the other, asking participants to spend time reviewing the materials may have increased self-reported interest in the HEC. By design of the simulation, survey participants gave more time and attention to the HEC than might be expected of the average customer who opens PG&E's newsletters, possibly priming them to provide the strong intentions that we observed (an external validity challenge). Results may also reflect the inherent divergence between stated intentions and actual behavior, which is a challenge shared by most survey research studies. Overall, the comparisons stem from the broader challenge of conducting marketing evaluations that meet multiple forms of research validity.
- We focused our customer survey on the effectiveness of one of PG&E's Q1 2016 marketing activities. CTRs, recall, and other indicators of marketing effectiveness based on the emailed newsletter may not be reflective of marketing pieces that customers see in other contexts, such as when they are already logged into their PG&E account, are paying their bills, or have been searching on the web for ways to save energy. We recommend that the CPUC interpret our findings as only one of several important indicators of the broader campaign's success in marketing the HEC Tool. To address this limitation, future research should consider leveraging the direct tracking data that PG&E collects for other digital marketing activities to conduct a longitudinal study of awareness over time, such as before and after receipt of marketing materials.
- We fielded a customer survey among a specific subset of the PG&E customers that does not represent all customers who might be exposed to PG&E's HEC marketing. At best, the responsiveness of customers who opt in to receiving the marketing may be considered an upper-bound approximation of the responsiveness of all customers on average.

B.4 Detailed Findings

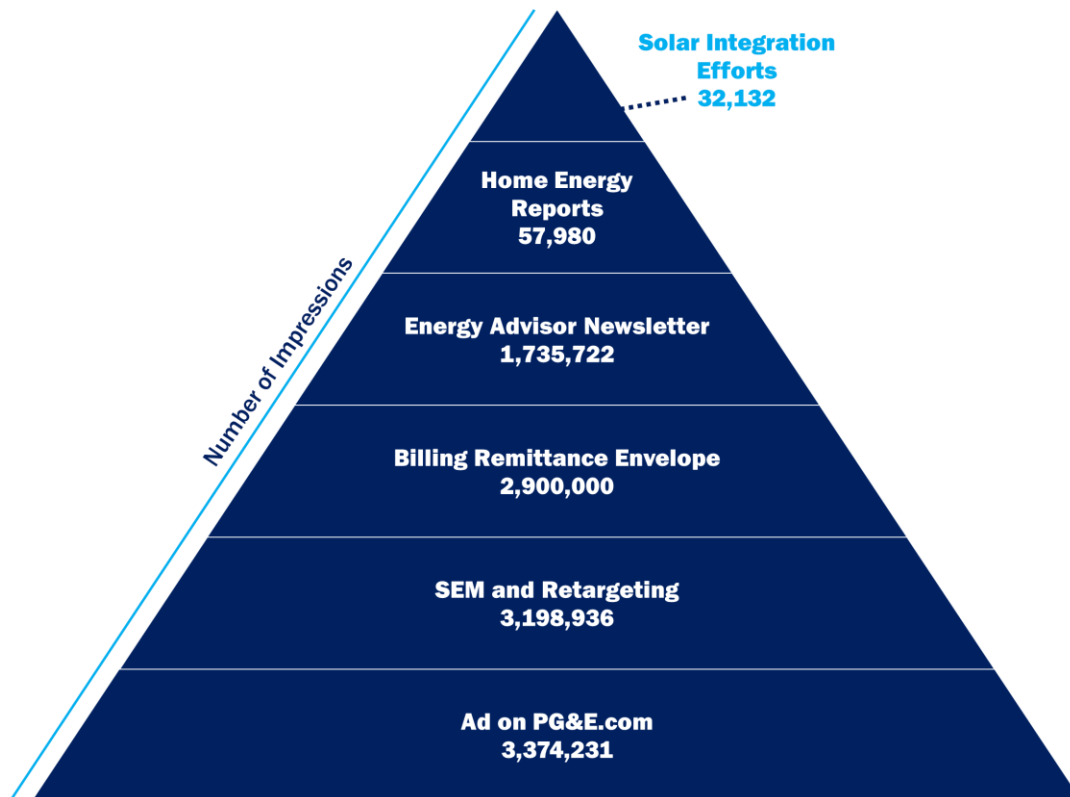
In this section, we present a detailed assessment of the effectiveness of PG&E's Q1 2016 HEC marketing campaign.

Campaign Reach

As shown in Figure 17, PG&E reached a large number of customers, as well as a range of audiences, using the seven ME&O activities, reflecting PG&E's stated multi-touch approach to marketing. The "impressions" in Figure 17 represent the maximum number of customers the campaign could have reached with each activity. Customers do not click on every internet search result; nor do they read every email that they are sent or every article in the newspaper to which they subscribe. Two of the activities with the broadest customer reach — HEC ads on bill remittance envelopes and the PG&E website — did not have any additional cost to the PG&E marketing team because they leveraged existing assets. While the activities with less-extensive reach tended

to incur direct marketing costs, these activities were targeted toward groups of customers expected to be more interested in the program (e.g., solar integration efforts targeted at existing solar prospects; customers who signed up to receive the PG&E Energy Advisor newsletter). In the next section, we explore the extent to which the different marketing activities connected with the target audience and met the metrics that PG&E set.

Figure 17. Q1 2016 PG&E HEC Marketing Campaign Reach, by Activity



Note: The chart excludes Rate Reform Integration because information is unavailable.
 Source: Data provided by PG&E.

Achievement of Campaign Metrics

According to PG&E, a primary objective of all seven marketing activities is to increase awareness of the program. For SEM and retargeting, program participation is an additional primary objective, whereas participation is a secondary objective for all other activities with the exception of the bill remittance envelope, which has only awareness as an objective.

Overall, PG&E’s participation goal is for 50,000 customers to complete an HEC by the end of 2016, a 25% increase over 2015’s goal of 40,000 customers. PG&E estimated that about 23,800 customers, or close to half of the annual goal for 2016, had completed an HEC by the end of Q1 2016. In 2015, PG&E far exceeded its annual goal with more than 100,000 customers completing an HEC.

Although PG&E evaluates marketing success at the level of the campaign rather than by activity, PG&E does have metrics for many marketing activities. For the most part, the metrics are based on the 2015 performance of the same activity. To facilitate assessment of these metrics, PG&E tracks the program reach for all activities and, for digital marketing, has information on page visits, open rates, and CTRs. In addition, PG&E’s marketing vendor maintains a database that tracks individual customer responses to certain digital marketing activities.

For the Q1 activities, the database tracked the customers who opened newsletters, clicked on certain links in a newsletter, and clicked on a PG&E website ad if they had logged onto pge.com.

PG&E’s marketing efforts performed well compared to its metrics, with most marketing channels achieving or surpassing the planned goal for impressions and CTRs (Table 43). The ad on the PG&E website and the SEM performed particularly well relative to the goals.

PG&E sent the January Energy Advisor newsletter to 1,733,389 customers. While PG&E did not set a metric for the open rate of the newsletter, the 23% of customers who opened the email newsletter slightly exceeds utility industry benchmarks for IOU newsletters sent to residential customers, which show an average open rate of 21%.⁸⁴ Far fewer customers clicked on the HEC link in the email newsletter. Just 0.36% of customers who were sent the newsletter clicked on the HEC link, which is close to meeting PG&E’s success criterion of 0.39%. Looking just at those customers who opened the newsletter, 1.6% clicked the specific HEC link, which was one of five articles in the Q1 newsletter. Industry benchmarks suggest that 9.5% of customers who open newsletters click on at least one link in the newsletter (click-to-open rates, or CTOR). If we assume that customers are equally likely to click on any of the individual articles in a newsletter, the industry benchmark of 9.5% CTOR suggests that PG&E might have expected to achieve about a 1.9% CTOR for each of the five individual articles in its January newsletter. The PG&E newsletter’s 1.6% CTOR for the HEC article is just shy of this approximate benchmark, and is a sign of the success of the newsletter marketing activity relative to industry benchmarks.

Although not a metric, another measure of effectiveness of the Energy Advisor newsletter is the percentage of customers who completed the HEC. Out of the 399,119 customers who opened the email, 0.36% clicked the HEC link *and* completed the HEC during Q1.⁸⁵ Of the customers who opened the email and clicked on the HEC link (n=6,190), 23% completed the HEC tool during Q1.

Overall, PG&E does succeed in getting customers to open the email, which is a key first step to increasing customer awareness and use of the HEC. However, HEC completion rates among people who only read, vs. read and click on HEC advertisements, show that it is critical to also get customers who open the email to then click on the HEC link. At least for the Q1 2016 newsletter, HEC click rates fell slightly below their target metric. In general, customers engage with email newsletters by either reading individual articles that interest them (providing a more in-depth exposure to the content) or scanning all of the headlines in the newsletter (a shallower level of exposure). Thus, while getting customers to open the email is key, it is inherently challenging to get all customers who open a marketing newsletter to click on any particular article. As the marketing email is just one of several customer touchpoints that PG&E uses in its marketing campaign, the success of the overall campaign does not depend on this single activity. Still, it is possible that focusing marketing emails on fewer calls to action could result in higher CTORs for this activity.

Table 43. PG&E Q1 2016 HEC Marketing Activities, Goals, and Achievements

Activity	Metrics	Success Criteria*	Result	Achievement
Ad on PG&E Website	Impressions	2,930,141	3,374,231	115% of goal
	Clicks	1,305	1,764	135% of clicks

⁸⁴ Questline, 2015 Energy Utility Email Benchmarks Report. p. 45. Available at: <https://cdn.questline.com/asset/get/47a2f0f7-f0fd-4917-b7b6-2625e84ef911>.

⁸⁵ Two percent of all customers who opened the newsletter completed the HEC in Q1. It is possible that some of these additional customers completed the HEC due to other marketing efforts (e.g. the HER). Or they may have clicked on the link in the newsletter but did not complete the HEC at the time and later went directly back to the HEC website rather than via the newsletter link. The 0.36% completion rate could be considered a lower bound and 2% an upper bound of HEC completion due to the newsletter.

Activity	Metrics	Success Criteria*	Result	Achievement
	CTR	0.05%	0.05%	Met goal
SEM and Retargeting	Impressions	13,338,876/yr	3,198,936	24% of annual goal
	CTR – SEM	0.96%	3.01%	2.05 percentage points higher than goal
	Landing Page Visits – SEM	4,186/yr	3,751	90% of annual goal
	CTR – Retargeting	0.31%	0.25%	0.07 percentage points lower than goal
	Landing Page Visits – Retargeting	18,569/yr	10,272	20% of annual goal
Billing Remittance Envelope	Impressions	2,000,000	2,900,000	145% of goal
	Vanity URL Visits	Not provided	7	Not applicable
Energy Advisor Monthly Email Newsletter	Impressions	Not provided	1,733,380	Not applicable
	Opens Open Rate	Not provided	399,119 23.03%	Not applicable
	Clicks CTR	0.39%	6,190 0.36%	0.02 percentage points lower than goal
	CTOR	Not provided	1.6%	Not applicable
HERs	Impressions	55,000	57,980	105% of goal
Integration into Solar Marketing Materials	Prospect Webpage Visits	Not provided	3,742	Not applicable
	Prospect Checklist Download	Still in development	316	Not applicable
	Existing Customer Email Impressions	Not provided	56,497	Not applicable
	Existing Customer Email Open Rate	40.8%	36.6%	4.2 percentage points lower than goal
	Existing Customer CTR	4.8%	5.4%	0.6 percentage points higher than goal
	Existing Customer Mail Impressions	Not provided	32,132	Not applicable
Integration into Rate Reform Information	Still in development	Still in development	Not provided	Not applicable

* All goals are set per activity unless otherwise specified (i.e., per year).

Marketing Budget and Expenditures

Through March 2016, PG&E spent 40% of its Q1 REA program marketing budget of \$232,000 (Table 44). Solar integration efforts accounted for the largest share of these marketing expenditures (40%), followed by the digital newsletter (36%) and SEM and retargeting (24%). Meanwhile, PG&E integrated HEC ads on the PG&E website, billing remittance envelopes, and HERs at no additional cost (Table 44).

Table 44. PG&E Residential Energy Advisor Program 2016 Marketing Budget and Expenditures

Activity	Q1 Budget (2016)	Expenditures through March 2016	Share of Q1 Expenditures	% of Budget Spent in Q1
Solar Marketing Integration Efforts*	\$50,000	\$37,000	40%	74%
Energy Advisor Monthly Email Newsletter	\$102,000	\$33,043	36%	32%
SEM and Retargeting	\$80,000	\$21,984	24%	27%
Ad on PGE Website**	\$0	\$0	0%	0%
Billing Remittance Envelope**	\$0	\$0	0%	0%
HERs**	\$0	\$0	0%	0%
Rate Reform Integration Efforts***	-	-	-	-
Total	\$232,000	\$92,027	-	40%

Source: Data provided by PG&E.

* PG&E estimates.

** PG&E reports that the activity leverages PG&E’s existing owned assets and other ongoing programs; hence, activities incur no additional marketing costs.

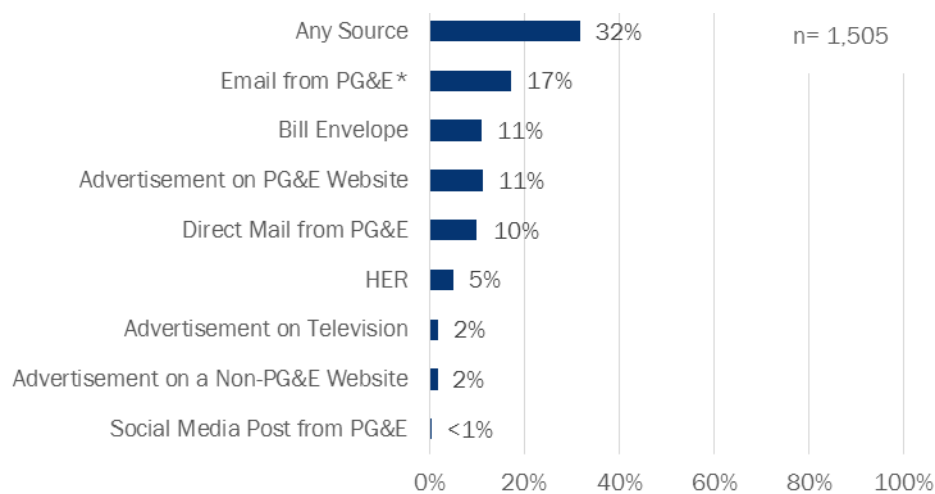
*** Budget was under development at the time of the data request, but PG&E expected the cost to be minimal.

Awareness of the HEC and Marketing Campaign Recall

In the following section, we describe findings from our customer survey that reveal customer awareness of the HEC, customer recall of marketing activities, and the effectiveness of the newsletter in particular.

As shown in Figure 18, about 32% of respondents recall at least one of PG&E’s HEC marketing activities during the past year. The most-frequently recalled items include PG&E emails (17%), followed by inserts in their bill (11%), advertisements on the PG&E website (11%), and mailings from PG&E (10%). Note that PG&E targeted some marketing activities to specific customers, so we would not expect all survey respondents to recall these activities (e.g., direct mail, newsletter, HERs).

Figure 18. Recall of PG&E REA Program Campaign Activities in the Past Year (Aided)



Source: PG&E Campaign Customer Survey.

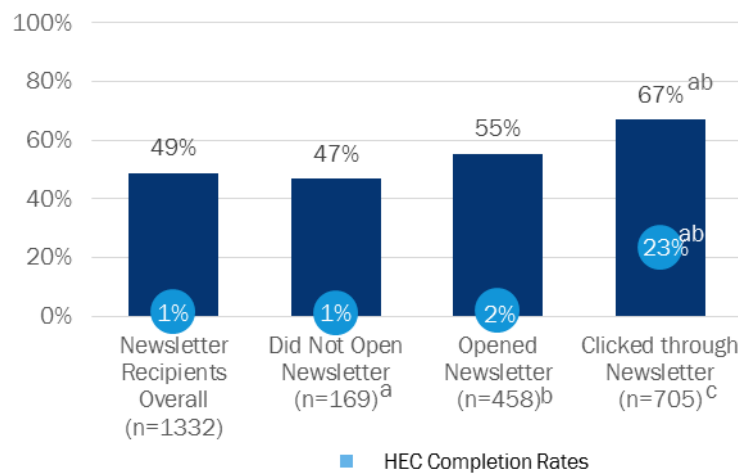
Base: All Survey Respondents.

Weights: B.

* We did not ask respondents specifically about the Q1 newsletter although it falls into this category.

As we noted earlier, PG&E’s tracking data show that 31% of customers who received the Q1 newsletter opened it and 0.36% clicked on links in the newsletter (CTR). As a proportion of PG&E’s customer base, this CTR implies that relatively few customers interacted with the newsletter’s HEC advertisement. However, results from our survey of customers who received the newsletter suggest that the newsletter had positive results among those that did interact with it. Specifically, among respondents who received the Q1 newsletter, customers who opened it were more likely to be aware of the HEC than those who did not open it (55% compared to 47%) and twice as likely to complete the HEC (2% compared to 1%). The HEC advertisement was one of several advertisements in the newsletter, which might explain why awareness levels were not higher. Clicking on the HEC advertisement link, which brings customers to the HEC website, had greater impact. Approximately two-thirds of customers who clicked the HEC link were aware of the HEC (67%), and 23% completed the HEC in Q1 2016 (Figure 19). Together, these survey results also confirm what we concluded when reviewing the tracking data. The greatest challenge for PG&E is to make the marketing content interesting enough so that more customers click the links to learn more about the program.

Figure 19. Awareness of the HEC (Newsletter Recipients Only)



Source: PG&E Campaign Customer Survey.
 Base: Newsletter Recipients (includes customers who completed and did not complete the HEC).
 Weights: Newsletter Recipients Overall (A), Did Not Open Newsletter (C), Opened Newsletter (D), Clicked through Newsletter (E).
 Letters next to responses indicate that the percentage is significantly different from the indicated group at the 95% level.

Completion of the HEC does not guarantee persistent awareness of the tool. We found that 74% of customers who completed the HEC between January and March 2016 according to PG&E records were aware of the HEC when asked about it during the survey.⁸⁶ For the one-quarter who do not recall completing the HEC, it is unlikely to be a source of information that they return to when they want to make energy-saving improvements to their home.⁸⁷

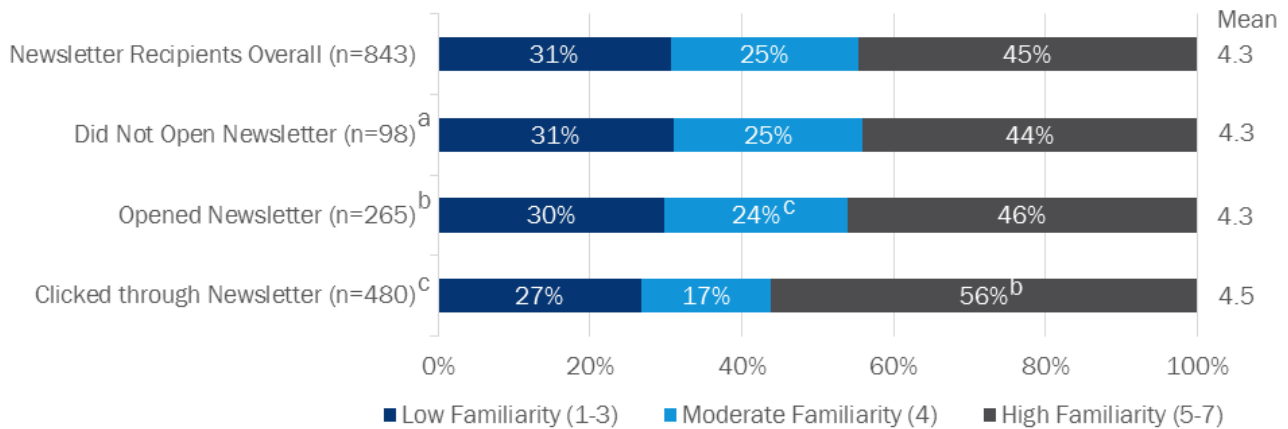
To assess depth of knowledge, we asked respondents who were aware of the HEC how familiar they were with it on a seven-point scale where 1 indicates having “only heard the name” and 7 indicates “knows a lot about

⁸⁶ Base of newsletter recipients who completed the HEC according to PG&E record consists of 381 respondents (Weight F).

⁸⁷ The lack of recall might be because one household member completed the HEC and another completed our survey, though this difference seems unlikely to account for more than a few percent.

it.” Opening the newsletter does not increase familiarity, but clicking on the HEC link does. Respondents who opened the email newsletter were no more familiar with the HEC than those who did not (46% compared to 44% highly aware) (Figure 20). However, those who clicked the link did report greater familiarity (56% highly aware). This result is not surprising, as the newsletter contained little detail about the HEC. As would be expected, a larger share of customers who completed the HEC are highly familiar it (61%).⁸⁸

Figure 20. Familiarity with the HEC by Level of Engagement with the Q1 Newsletter (Newsletter Recipients Only)



Source: PG&E Campaign Customer Survey.

Base: Newsletter Recipients (includes customers who completed and did not complete the HEC).

Weights: Newsletter Recipients Overall (A), Did Not Open Newsletter (C), Opened Newsletter (D), Clicked through Newsletter (E).

Letters next to responses indicate that the percentage is significantly different from the indicated group at the 95% level.

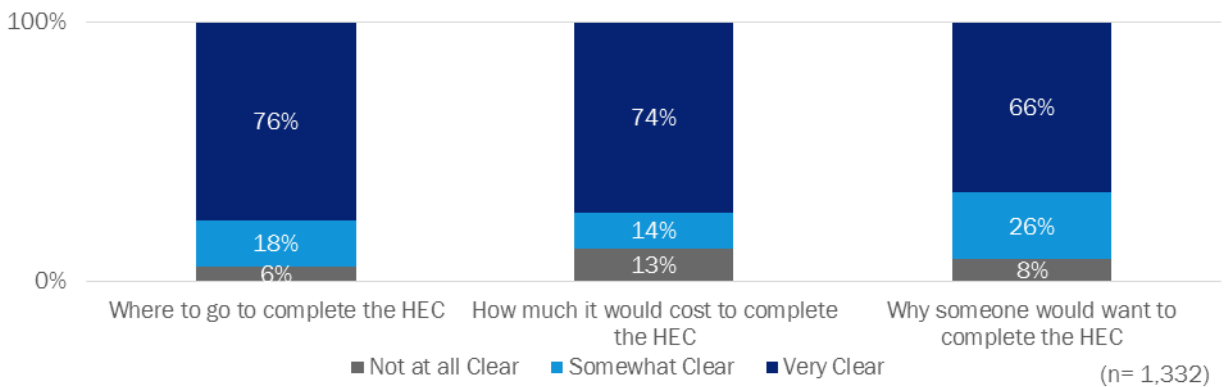
Campaign Messaging Clarity and Usefulness

As part of the customer survey, we asked respondents to review a copy of the newsletter. After reviewing the material, most customers felt that the newsletter provided clear information about where to go to complete the HEC and how much it would cost to complete the HEC (i.e., free) and had an understanding of why someone would want to complete the HEC (Figure 21). Nearly all respondents (98%) indicated that at least one of the three key pieces of program-related information provided in the newsletter was “somewhat” or “very clear” using a three-point scale where 1 indicates “not at all clear” and 3 indicates “very clear.”⁸⁹

⁸⁸ Base of newsletter recipients who completed the HEC consists of 381 respondents (Weight F).

⁸⁹ Source: PG&E Campaign Customer Survey Base: Survey Respondents Who Received Newsletter. Weights: (A).

Figure 21. Clarity of Information (PG&E HEC Newsletter Recipients Only)



Source: PG&E Campaign Customer Survey.

Base: Newsletter Recipients (Includes customers who completed and did not complete the HEC).

Weights: Newsletter Recipients Overall (A), which includes people who did or did not complete the HEC.

Note: Excludes those who completed the HEC, but did not receive the newsletter.

After we asked respondents to view the newsletter during the survey, about half of respondents who received the newsletter indicated that they would be highly likely to click on the HEC link (52%), including those who already completed the HEC.^{90,91} We interpret likelihood to click on the link as a proxy for level of interest in the program. This percentage is considerably higher than indicated by the tracking data for the January Energy Advisor newsletter that showed that 1.6% of those who opened the newsletter clicked on the HES link (see Table 43). Respondents who stated that they would be highly likely to click on the newsletter’s HES advertisement in particular are most commonly drawn to the link because they would like to learn how to save money (82%) and believe doing so would benefit the environment (61%). To a lesser extent, they think that it will be a benefit to their household (49%) and/or it would help them make their home more comfortable (37%).⁹² Respondents who stated that they would not be very likely to click on the HEC advertisement, and who had not already taken the HEC, reported that they would not click because they already know what to do to save energy (39%), that they don’t have time (21%), or that they believe their home is already efficient enough (15%) (Table 45). Interestingly, a number of these respondents (12%) did not think that the HEC was applicable to them because they do not own their home. Overall, participant rationale for not clicking on the HEC link suggests that some customers have misconceptions that the HEC will not provide value to them, which PG&E can address through adjustments to marketing messaging.

⁹⁰ Source: PG&E Campaign Customer Survey. Base: Survey Respondents Who Received Newsletter. Weights: (A).

⁹¹ A larger share of people reported a high likelihood to click on the HEC link than reported a high likelihood to click on other links in the newsletter, including links advertising “Money Saving Tips” (40%), “Happy New Year! 7 energy-saving resolutions for 2016” (32%), “Tips for a Toasty Home” (32%), and “How to Stay Safe During/After Storms” (28%). Part of the relative difference may be due to the seasonal nature of some of these links.

⁹² Source: PG&E Campaign Customer Survey. Base: Survey Respondents Who Received Newsletter. Weights: (A)

Table 45. Reasons Respondents Are Unlikely to Click on HEC Link in Email Newsletter

Reason Unlikely to Click on Link	Overall (n=563)	Completed HEC?	
		Yes (n=52)	No (n=373)
I already know what to do to save energy	37%	39%	39%
I don't have the time to "take the check-up"	19%	1%	21%
My home is already efficient enough	14%	3%	15%
Other: Rent/Don't own home	11%	9%	12%
I already completed the HEC tool	10%	47%	2%
I don't trust the information or guidance PG&E would provide	7%	1%	8%
I'm not interested in changing the way I use energy at home	6%	<1%	6%
Other: Advertisement looked boring or too technical	6%	6%	6%
I'm not that interested in money-saving tips	3%	<1%	3%
Other: Specify	7%	7%	7%
Don't know	<1%	0%	<1%

Source: PG&E Campaign Customer Survey. Base: Survey Respondents Who Received Newsletter. Weights: Newsletter Recipients Overall (A), Completed HEC (F), Did Not Complete HEC (G).

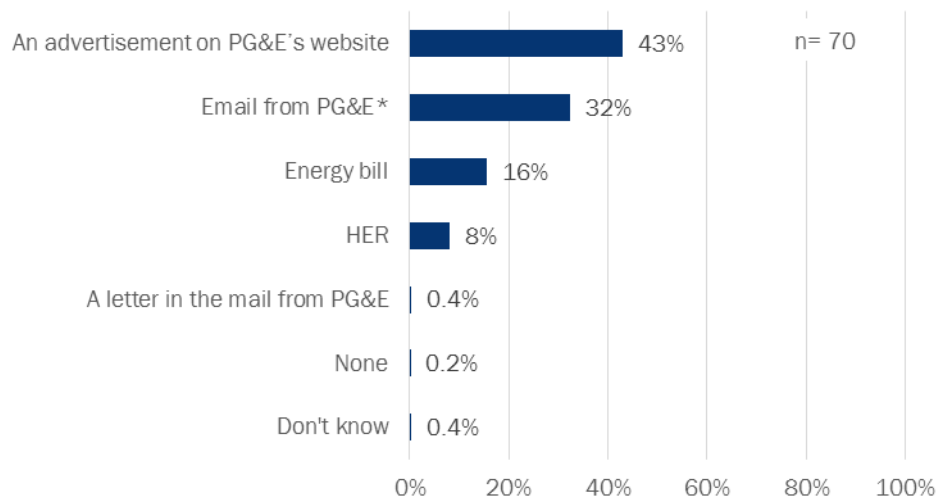
Campaign Influence on Behaviors and Actions

Few respondents (1%) actually completed the HEC during Q1 2016 (n=1,046).⁹³ Among the respondents who completed the HEC and recalled marketing (n=177), respondents indicated that the marketing that they had been exposed to had a low to moderate influence in motivating them to complete the HEC (3.8 on a scale of 1 to 7, where 1 means "not at all influential" and 7 means "very influential").⁹⁴ Respondents indicated the most influential items in terms of completing the HEC were advertisements on PG&E's website (43%) and emails they received from PG&E (32%) (Figure 22).

⁹³ Source: PG&E Campaign Customer Survey. Base: All Survey Respondents. Weights: (B).

⁹⁴ Source: PG&E Campaign Customer Survey. Base: All Survey Respondents. Weights: Recall ME&O & Completed HEC (B).

Figure 22. Most Influential Marketing Items for Respondents Who Completed the HEC and Recall Marketing



Source: PG&E Campaign Customer Survey.

Base: All Survey Respondents (limited to respondents who recalled ME&O, completed the HEC in Q1, and, when asked about their likelihood to have completed the HEC if they had not received information from the ME&O, provided a score of 1, 2, or 3 on a scale of 1 meaning “not at all likely” to 7 meaning “very likely”).

Weights: B.

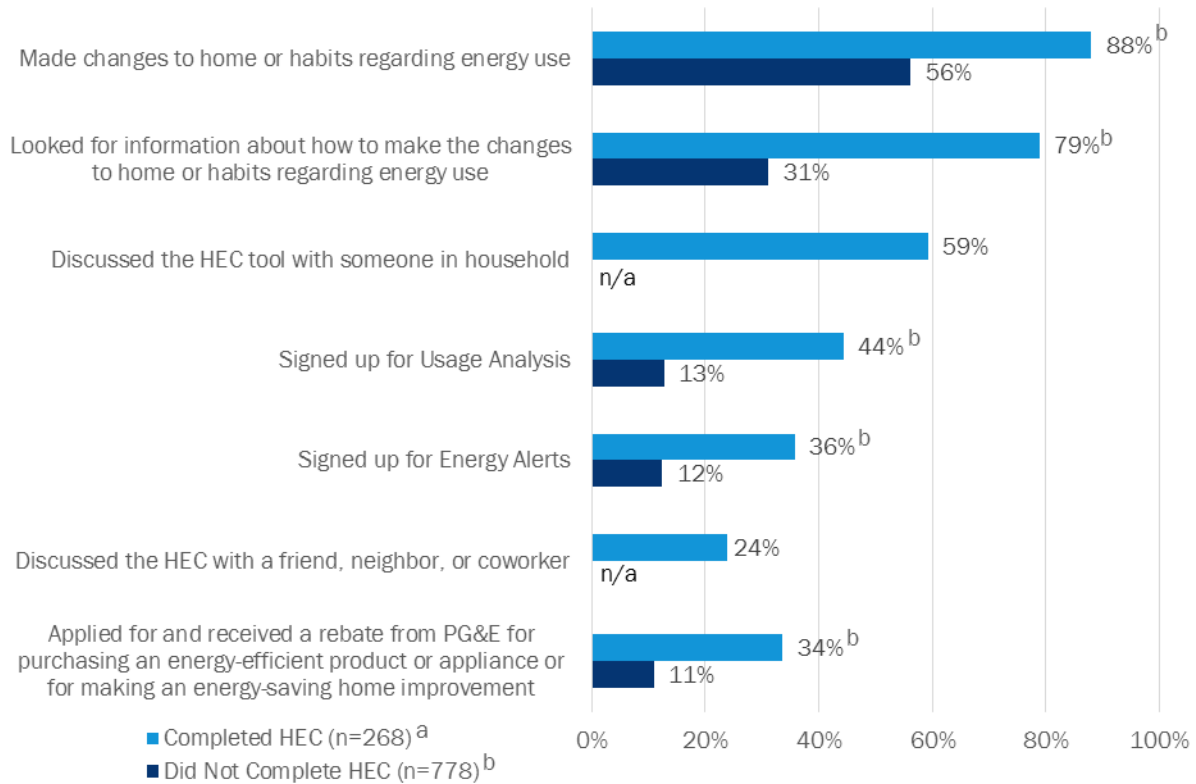
* We did not ask respondents specifically about the Q1 newsletter although it falls into this category.

After having reviewed the newsletter and screen shots of the HEC during the survey, we asked respondents who had not yet completed the HEC how likely they would be to complete it in the future. Just under one-third (30%) of these respondents said that they were highly likely to complete the HEC.⁹⁵ Respondents said that the marketing we showed them was moderately influential (4.3 on a scale of 1 to 7, where 1 means “not at all influential” and 7 means “extremely influential”).

Beyond helping customers learn about their energy use, PG&E values the HEC as a way to funnel customers toward energy-saving opportunities, including behavioral modifications (e.g., choosing efficient thermostat set-points) and PG&E's incentive programs. We asked respondents who had completed the HEC whether they had taken a variety of energy efficiency-related actions since completing the HEC. For comparison purposes, we asked respondents who had not completed the HEC whether they had taken the same actions during the same time (since January 2016). As Figure 23 shows, respondents who completed the HEC were more likely to report taking energy efficiency-related actions since completing the HEC than respondents who did not complete the HEC. Although it is possible that the respondents who completed the HEC were already predisposed to take these actions, it is likely that the HEC was influential. This supports PG&E's program theory of change, which uses the HEC as a way to channel customers toward other energy-saving actions.

⁹⁵ Source: PG&E Campaign Customer Survey. Base: Newsletter Recipients (customers who did not complete the HEC – weights: (G); customers who recall ME&O and were highly likely to complete the HEC – weights: (G)).

Figure 23. Respondent Reported Actions Taken in 2016 among Those Who Did and Did Not Complete HEC



Source: PG&E Campaign Customer Survey.

Base: All respondents, including people who did not receive the newsletter.

Weights: Completed HEC Tool (H), Did Not Complete HEC Tool (G).

Note: HEC completers were asked this question in reference to the time “since completing the HEC,” whereas non-completers were asked in reference to 2016. Letters next to percentages indicate that the percentage is significantly different from the indicated group at the 95% level.

C. SDG&E's CARE and ESA Programs

C.1 Marketing Campaign Overview

SDG&E promotes two programs that assist low-income households with managing their energy use and costs. The CARE program provides income-qualified households with a 35% discount off their monthly utility bill. The ESA program provides eligible customers with free energy efficiency upgrades to their home to reduce energy costs while increasing the comfort of their home. Eligibility for the programs is determined by household size and annual income. The most recent data available show that 28% of SDG&E households qualify for these programs.⁹⁶

The CARE and ESA programs are often marketed jointly, as the eligibility requirements for participation are the same. SDG&E utilizes a multi-tactic approach that combines mass and direct marketing and community engagement. SDG&E believes that it is necessary to use all three methods to connect with low-income customers. These varied tactics and channels are listed in Table 46, which displays the activities that SDG&E used to market CARE and ESA in Q1 2016. SDG&E used mass marketing activities, such as television commercials, print advertisements, and online advertising. SDG&E also made use of direct marketing tactics, such as canvassing, telemarketing, email, and direct mail. SDG&E partnered with more than 250 community organizations that also promote the programs. In addition, social service agencies that encounter eligible customers as part of their work will enroll customers in CARE and pass on ESA leads.

⁹⁶ Needs Assessment for the Energy Savings Assistance and the California Alternate Rates for Energy Programs, Final Report (2013). Evergreen Economics.

Table 46. SDG&E's CARE and ESA Q1 2016 Marketing Activities

Marketing Activity	Deployment Time Frame	Description	Channel	Audience
Mass Marketing				
Bill Inserts and Bill Messages	March 2016	English and Spanish insert into paper bills and messaging with electronic bills promoting CARE and ESA	<ul style="list-style-type: none"> Direct Mail Email 	Low-income residential customers identified through Nielsen PRIZM codes and census data
Online Advertising	Q1 2016	Improve visibility of CARE and ESA in internet search results	<ul style="list-style-type: none"> Internet 	All residential customers
Print	February and March 2016	Multilingual newspaper ads promoting CARE and ESA	<ul style="list-style-type: none"> Newspaper 	Readers of ethnic and rural newspapers
TV	March 2016	Ads featuring CARE and ESA participants	<ul style="list-style-type: none"> TV 	All residential customers
Social Media	Q1 2016	Promotion of CARE and ESA on Facebook, Twitter, and YouTube	<ul style="list-style-type: none"> Social Media 	All residential customers
Direct Marketing				
Email	Q1 2016	Emails promoting CARE and ESA	<ul style="list-style-type: none"> Email 	Non-CARE customers living in lower-income zip codes with low participation rates and recent CARE enrollees who have not participated in ESA
Direct Mail	February and March 2016	Postcards promoting CARE and ESA	<ul style="list-style-type: none"> Direct Mail 	Non-CARE customers living in lower-income zip codes with low participation rates and recent CARE enrollees who have not participated in ESA
Canvassing and Telemarketing	Q1 2016	Door-to-door canvassing and telemarketing to locate customers eligible for CARE and ESA	<ul style="list-style-type: none"> Community Outreach Telemarketing 	Non-CARE customers living in lower-income zip codes with low participation rates
Community Outreach and Engagement				
Community Events, Presentations, and Special Campaigns	Q1 2016	Promote CARE and ESA at community events	<ul style="list-style-type: none"> Community Outreach 	Multicultural fairs, ethnic markets, churches, schools, senior and community centers, health care and health clinics, and safety agencies
Energy Solutions Partner Network	Q1 2016	Nonprofit community organizations promote CARE and ESA using a variety of tactics, including emails, social media, attendance at community events, and presentations.	<ul style="list-style-type: none"> Variety 	Low-income residential customers
San Diego 211	Q1 2016	Nonprofit that connects San Diegans in need of assistance with available resources, including CARE and ESA	<ul style="list-style-type: none"> Inbound Calls Website 	Low-income residential customers
CARE Partners	Q1 2016	Select social service agencies that enroll eligible San Diegans in public assistance programs, including CARE and ESA	<ul style="list-style-type: none"> Office visits 	Low-income residential customers

Source: Data provided by SDG&E.

C.2 Evaluation Objectives and Approach

Our research addressed two overarching objectives. The first objective was to document the core marketing activities SDG&E completed during the Q1 2016 campaign to examine how well these activities align with the campaign theory and stated campaign goals, as well as to assess campaign performance associated with these goals. Second, we assessed the effectiveness of one or more specific marketing activities within the campaign by fielding a survey with targeted customers. To meet the first objective, we reviewed program materials that SDG&E provided, including communications plans, budgets, metrics, success criteria, and outcomes for all activities. To meet the second objective, we fielded a survey with a sample of CARE and ESA customers to measure their exposure to and recall of the marketing materials, as well as the clarity and usefulness of the materials. Where possible, we incorporated the results from SDG&E's Q4 2015 Quarterly Residential Customer Opinion Survey.

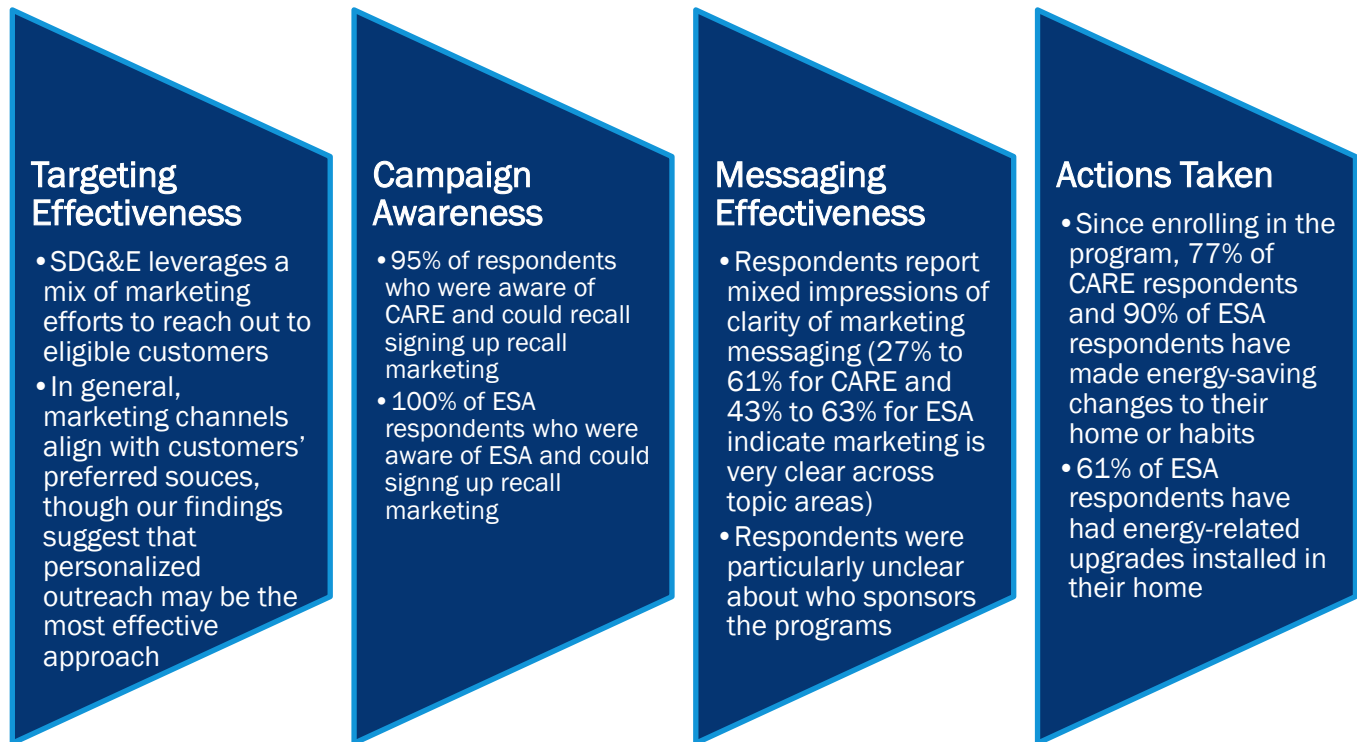
In terms of data collection, Opinion Dynamics contacted customers who had applied to and qualified for these programs during Q1 2016. We used a multi-mode survey approach to reach a broad range of customers. For customers with email addresses, we sent an invitation to complete the survey online. For customers without email addresses, we mailed an invitation to complete the survey. The mailing included instructions for completing the survey online or over the telephone through our call center. All respondents could choose to complete the survey in either English or Spanish.

Our sample frame included customers with valid contact information who had applied for either program. Our sample frame included customers with valid contact information who had applied for either program during Q1 2016 and were deemed eligible. Of the 11,494 customers with valid contact information, we completed interviews with 730 customers (679 CARE, 43 ESA, and 8 both CARE and ESA). For more details on the survey fielding see Chapter 3.

C.3 Key Findings and Conclusions

Figure 24 presents research findings related to targeting, messaging, and resulting awareness in a conceptual model of how the marketing campaign supports customers taking action with respect to the programs. Below the figure, we expand on our conclusions about campaign effectiveness and discuss several limitations of the assessment.

Figure 24. SDG&E CARE/ESA Program Marketing Campaign Summary of Results



Overall, the results of our study suggest that SDG&E's approach has been effective in conveying information about these two programs. Key findings and recommendations include:

- **SDG&E markets the programs through a wide range of mass marketing, direct marketing, and community engagement efforts.** PAs believe that a multi-tactic approach is most effective at moving customers from awareness of the programs to enrollment. One area for improvement is in the clarity of the messaging.
- **Despite enrolling 18,478 customers in CARE and 2,305 in ESA in Q1 2016, SDG&E was lagging in meeting its 6-month participation goals for each program at the end of March.** SDG&E is losing more CARE customers than it is enrolling each month and needs to increase the number of enrollments to meet its overall participation goals. ESA got a slow start in January and February and enrolled few customers. Enrollments picked up in March, but would need to keep a similar pace to come close to the 6-month goal. Our survey results suggest that CARE participants have a desire to learn more about ways to save energy. With nine times as many customers enrolling in CARE than ESA, SDG&E should ensure that ESA is also promoted when customers sign up for CARE.
- **Respondents felt the CARE and ESA marketing provided clear information about program eligibility and benefits, with some opportunities for improvement.** Customers who recalled program marketing and viewed an example of marketing collateral felt it was clear. However, respondents felt that the marketing was less clear communicating who sponsored the programs, particularly for CARE. Broadly speaking, about two-thirds of the respondents found the marketing of the two programs was very clear (aside from messaging about program sponsorship, which respondents found less clear). This finding was true for respondents recalling the marketing that they had previously encountered, as well as for

respondents' real-time impressions of marketing presented to them as part of the survey. Although the majority of respondents found the messaging clear, there is room for improvement, as approximately one-third of respondents reported feeling unclear about some of the key marketing messages.

- **Information on the SDG&E website, direct marketing, and personal outreach were the most memorable and motivating marketing tactics.** CARE and ESA respondents were most likely to recall the program marketing on the SDG&E website. Targeted marketing, such as canvassing, mailings, email, and bill inserts, were also memorable. CARE respondents were motivated to sign up for the program by the personal connection provided by information provided by friends or family or an SDG&E representative. Few respondents could recall television and print ads, which were also some of the costlier tactics used to promote CARE and ESA.
- **Survey results indicate that most CARE and ESA participants can recall only one source of program marketing despite SDG&E's multi-tactic, multi-touch marketing strategy. Given the challenges of reaching the target population, we still endorse this marketing approach.** Customers were most likely to recall CARE marketing on the SDG&E website and contact an SDG&E representative. Customers also recalled ESA marketing on the SDG&E website and mailings from SDG&E. It is possible that survey respondents were exposed to and influenced by more than one marketing tactic but recall only one. Because low-income customers can be more difficult to reach and can have trust issues, it may require multiple tactics to reach the remaining eligible customers. However, some marketing tactics are likely more effective than others. To make it easier to determine the most effective marketing tactics, SDG&E should consider asking customers about all of the ways that they learned about the programs when they enroll. In addition, SDG&E should establish metrics and success criteria for each marketing tactic based on industry standards. Even if the tactics collectively contribute to the overall goal of increased CARE and ESA enrollments, many tactics, particularly digital marketing, can be assessed in terms of indicators, such as open rates and CTRs. SDG&E can use the results to modify the activities on an ongoing basis.

Additionally, the results of this evaluation should be interpreted in light of these limitations:

- Our survey sample frame was composed of CARE and ESA participants for whom the marketing was presumably effective. For SDG&E to reach its CARE participation target of 90% of eligible customers, non-participant research may be necessary to identify the barriers to participation for these remaining customers, which may be different from the barriers of current participants.
- Our survey respondents all signed up for CARE and ESA during Q1 2016. We interviewed the most recent participants to maximize respondent recall of marketing exposure. The results may not extrapolate to other participants if the marketing strategy used is significantly different.

C.4 Detailed Findings

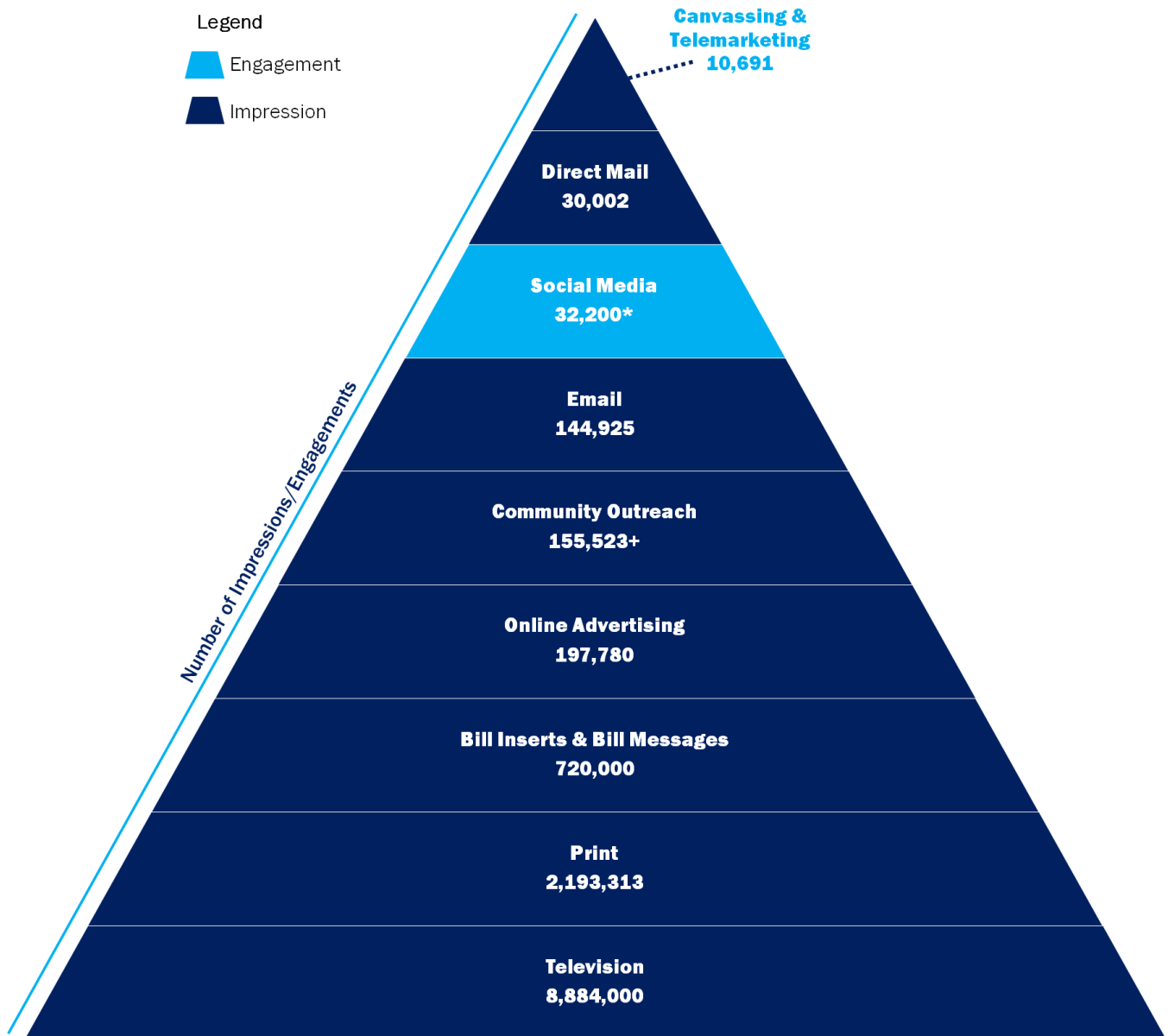
In this section, we summarize findings about the campaign based on our review of secondary materials, including a review of marketing reach, achievements relative to targets, and expenditures. We also report survey-based findings about the effectiveness of marketing activities.

Campaign Reach

SDG&E reached a large number of customers, as well as a range of audiences, through its varied marketing approach (Figure 25). The "impressions" in Figure 25 represent the maximum number of customers the

campaign could have reached through each activity. Customers do not click on every internet search result; nor do they read every email that they are sent or every article in the newspaper to which they subscribe. In the case of CARE and ESA, many of the customers reached may not be eligible for the programs, which is more true of mass marketing tactics, such as television and print ads, than of direct marketing efforts, such as direct mail and email. In the next section, we explore the extent to which the different marketing activities connected with the target audience and met the metrics that SDG&E set.

Figure 25. Customer Reach of CARE and ESA Marketing Activities



Note:
* Number of Followers

Source: Data provided by SDG&E.

Achievement of Campaign Metrics

SDG&E’s goal is to enroll 90% of eligible customers in CARE in 2016. According to SDG&E’s April 2016 monthly low-income report, 77% of the estimated 350,715 eligible customers were enrolled in CARE at the end of March (Table 47).⁹⁷ During Q1 2016, SDG&E enrolled 18,479 customers in the CARE program. For ESA, SDG&E’s goal is for 10,158 customers to participate in the program in between January and June 2016. At the end of March, 2,305 households had participated, 23% of the 6-month goal.

Table 47. SDG&E CARE and ESA Participation Goals January–June 2016

Program	Metrics	Success Criteria*	Result**	Achievement
CARE	Participation rate among eligible population	90%	77%	13 percentage points below goal
ESA	Enrollments	10,158	2,305	23% of goal

* The CARE and ESA programs have budget approval for January–June 2016 and have 6-month goals, with associated success criteria.

** Results reflect performance through the first quarter of 2016.

Source: Data provided by SDG&E.

Given the multi-tactic approach used to market CARE and ESA, SDG&E does not attribute specific enrollments to its mass or direct marketing activities. SDG&E believes that these activities collectively contribute to program enrollments. SDG&E did provide measures of metrics for each activity, but provided success criteria only for canvassing and telemarketing. For community outreach efforts, SDG&E is able to track the leads generated and successful enrollments. SDG&E provided success criteria based on the rate of leads that produced program enrollments.

The lack of success criteria makes it difficult to assess the performance of the mass and direct marketing activities. For canvassing and telemarketing, SDG&E fell below its goals for CARE enrollments and ESA leads (Table 48). SDG&E had intended to make 52 Facebook and Twitter postings about CARE but only posted 10 times due to the volume of other posts and the lack of interest indicated by likes and retweets. The community outreach and engagement efforts performed well based on their metrics. Efforts either exceeded their goal conversion rate or fell just below it.

⁹⁷ The SDG&E April 2016 Low Income Monthly Report tables can be found at: <http://eestats.cpuc.ca.gov/EEGA2010Files/SDGE/ESARreport/SDGE%20Apr16%20Low%20Income%20Monthly%20Report%20Tables.1.xlsx>.

Table 48. SDG&E Q1 2016 CARE and ESA Marketing Activities, Metrics, and Achievements

Activity	Metrics	Q1 Success Criteria	Q1 Result	Achievement
Mass Marketing				
Bill Inserts and Bill Messages	Impressions	Not provided	720,000	Not applicable
Online Advertising	Click-Throughs CTR		18,107 9.16%	
Print	Impressions		2,193,313	
TV	Impressions		8,884,000	
Social Media	52 Posts (assumes 2 posts/week on 2 platforms)		10	
Direct Marketing				
Email	Impressions	Not provided	144,952*	Not applicable
Direct Mail	Impressions		30,002	
Canvassing and Telemarketing (CARE)	Enrollments	10,000	4,780	48% of goal
Canvassing and Telemarketing (ESA)	Enrollments Leads	5,000 Leads	1,418 Leads 52 enrollments	28% of leads goal
Community Outreach and Engagement				
Community Events, Presentations, and Special Campaigns (CARE)	Conversion Rate of Leads to Enrollment**	20%	35%	15 percentage points higher than goal
Community Events, Presentations, and Special Campaigns (ESA)		20%	19%	1 percentage point lower than goal
Energy Solutions Partner Network (CARE)		35%	32%	3 percentage points lower than goal
Energy Solutions Partner Network (ESA)		20%	30%	10 percentage points higher than goal
San Diego 211 (CARE)		35%	50%	15 percentage points higher than goal
San Diego 211 (ESA)		20%	17%	3 percentage points lower than goal
Care Partners: Community Action Partnership Agencies (CARE)		35%	44%	9 percentage points higher than goal

* Does not contain March email recipients.

** We calculated conversion rates by dividing the number of enrollments by the number of leads in the data provided by SDG&E. In some cases, these data also provided an overall conversion rate that included recertifications. We did not include these recertifications in the calculation of the conversion rates.

Source: Data provided by SDG&E.

Marketing Budget and Expenditures

SDG&E spread its marketing budget nearly equally across mass marketing, directing marketing, and community outreach and engagement activities (Table 49). Direct marketing activities comprised 36% of marketing dollars spent for CARE and ESA compared to 34% for mass marketing and 30% for community

outreach and engagement activities. Within the larger marketing categories, SDG&E spent more on TV advertising than all other mass marketing activities combined. The same was true for canvassing and telemarketing for CARE relative to all other direct marketing activities. Community events for CARE cost more than any other community outreach and engagement activity.

We estimated the cost per program enrollment of each marketing activity. We chose to estimate cost per enrollment rather than cost per impression because, as noted above, the estimated impressions for each activity are the maximum potential number of customers reached through each activity. It is likely that many of the activities reached far fewer customers. Enrollments are a better measure of program success. However, because of SDG&E's multi-tactic marketing approach, it is not possible to attribute any single enrollment to a particular marketing activity (e.g., customers could be exposed to multiple marketing activities). A customer may sign up for CARE when a canvasser comes to her door, but she may have already heard about the program through a television ad or a bill insert or at a community event, making her more open to the canvasser's pitch. For many activities, SDG&E also promotes both CARE and ESA and does not have separate expenditures by program. Therefore, we "credited" each mass marketing, direct marketing, and community engagement activity with an equal number of enrollees based on the combined ESA and CARE enrollment in Q1, with the exception of enrollments from San Diego 211 and CAP agencies.⁹⁸ This method assumes that the activities that SDG&E viewed as being part of the multi-tactic marketing strategy are equally responsible for each enrollment. While this assumption is likely not totally accurate, it is a reasonable approach given the program theory and tracking data available. Our survey results also provide some additional insight into the relative importance of the different marketing tactics that are discussed below.

We used a different approach to estimate per enrollment costs for San Diego 211 and CAP agencies. These two organizations are intake agencies that enroll San Diegans in any program for which they are eligible and do not conduct marketing activities promoting CARE and ESA. The programs track the number of customers that they enroll, making it possible to calculate a cost per enrollment.

The average cost per enrollment of all the marketing activities that are part of the multi-tactic strategy is \$12.97. Costs per enrollment varied greatly, from \$1.14 for email to \$35.90 for canvassing and telemarketing. The cost per enrollment was greatest for direct marketing, with an estimated cost of \$14.53 per enrollment. TV ads, the most expensive mass marketing activity at \$27.53 per enrollment, cost 12 times that of bill inserts, the least costly activity at \$2.29 per enrollment.

The intake agencies had varied costs but were on the high end of costs per enrollment compared to some of the lower cost mass and direct marketing activities. Costs ranged from \$17.12 per CARE enrollment for CAP agencies to \$38.57 per ESA enrollment for San Diego 211.⁹⁹

⁹⁸ SDG&E did separate the CARE and ESA costs and enrollments for canvassing, community events, and Energy Solutions partners. The resulting enrollments could have been influenced by other activities that did not separate costs and enrollments due to the multi-touch marketing strategy. Therefore, we chose to combine the CARE and ESA costs and enrollments for canvassing, community events, and Energy Solutions partners.

⁹⁹ SDG&E pays CAP agencies \$20 per enrollee. The difference between our estimated cost and the contractual cost is likely because SDG&E had not processed all March expenditures when they responded to our data request. As a result, our estimated costs per enrollee are likely underestimated across all activities.

Table 49. SDG&E Q1 and Q2 Budget and Expenditures for SDG&E's CARE & ESA Programs

Activity	Q1 & Q2 2016 Budget *	Expenditures through March 2016**	% of Total Q1 and Q2 Expenditures	Cost per Enrollment***
Mass Marketing	\$368,527	\$124,852	34%	\$10.20
Bill Inserts and Bill Messages	\$7,000	\$7,000	2%	\$2.29
Online Advertising	\$21,124	\$10,562	3%	\$3.45
Print	\$71,537	\$23,034	6%	\$7.53
TV	\$268,866	\$84,256	23%	\$27.53
Social Media****	-	-	-	-
Direct Marketing	\$316,000	\$133,380	36%	\$14.53
Email	\$7,000	\$3,500	1%	\$1.14
Direct Mail	\$60,000	\$20,000	5%	\$6.53
Canvassing and Telemarketing	\$249,000	\$109,880	30%	\$35.90
Community Outreach and Engagement	\$171,000	\$113,087	30%	\$14.21
Community Events, Presentations & Special Campaigns	\$115,000	\$66,040	18%	\$21.58
Energy Solutions Partner Network		\$20,977	6%	\$6.85
Intake Agencies		\$26,070	7%	\$23.94
San Diego 211 (CARE)	\$55,500	\$18,100	5%	\$23.97
San Diego 211 (ESA)		\$4,050	1%	\$38.57
CARE Partners: CAP Agencies (CARE)		\$3,920	1%	\$17.12
Total		\$855,527	\$371,319	43%

* The CARE and ESA programs have budget approval for January–June 2016. Costs reflect this 6-month budget.

** Expenditures do not reflect all of March, as invoices were still being processed and reconciled.

*** Mass marketing, direct marketing, and community outreach enrollments are total CARE and ESA Q1 enrollments minus those from San Diego 211 and CAP Agencies. Each of the nine marketing tactics falling under mass marketing, direct marketing and community engagement are credited with an equal number of Q1 enrollments to use in estimating cost per enrollment.

**** Budget and expenditures for Social Media not provided.

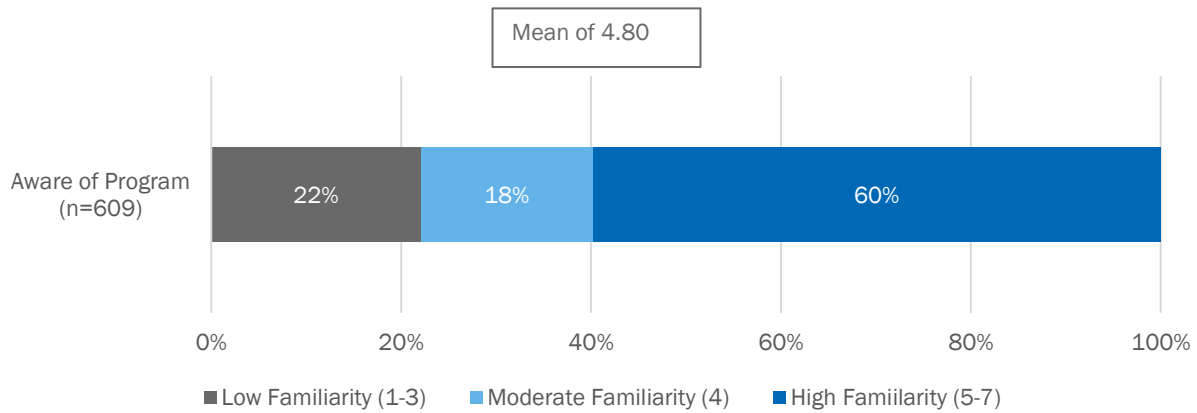
Source: Data provided by SDG&E.

Customer Recall of Campaign Marketing

CARE

The CARE survey sample included customers who had signed up and were deemed eligible during Q1. Not surprisingly, nearly all respondents had heard of CARE prior to taking the survey (92%). It is possible that the 8% of CARE participants who were unaware of the program either forgot that they had signed up for the program or another member of the household may have signed up for the program without the respondent's knowledge. Just over three-quarters of respondents (78%) who were aware of CARE said that they had a moderate or high level of familiarity with the program. The respondents who were aware of the program were also very knowledgeable about the nature of it, as indicated by high average familiarity scores (Figure 26).

Figure 26. SDG&E CARE Customer Familiarity with the CARE Program



Among those aware of the CARE program.

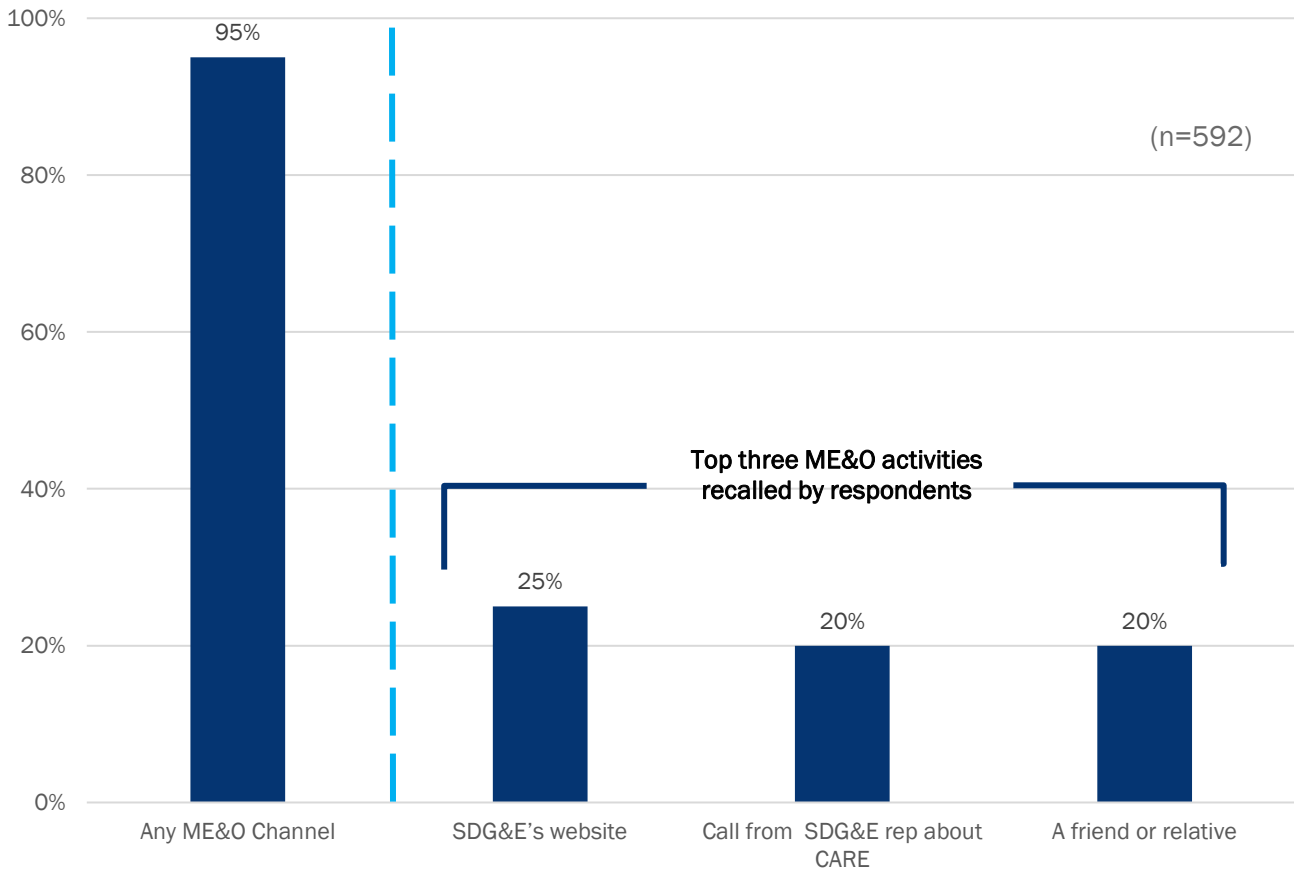
Scale of 1 to 7, where 1 indicates "I have only heard the name" and 7 indicates "I know a lot about it."

Source: SDG&E Campaign Customer Survey.

Of the respondents who were aware of the CARE program and recall signing up, 95% recalled encountering at least one source of CARE marketing and outreach (Figure 27). The most commonly recalled channel was SDG&E's website (25%), followed by a phone call from an SDG&E representative (20%) and a family member or friend (20%). Bill inserts and mailings from SDG&E that were non-bill related were also top channels (12% each).¹⁰⁰

¹⁰⁰ Results from the Fall 2015 SDG&E CARE Customer Satisfaction Survey show a different pattern of results. Respondents recalled having *first* heard of the CARE program primarily through messages on the bill (20%), closely followed by bill inserts (19%), word of mouth (18%), and phone calls from SDG&E representatives (13%).

Figure 27. Recall of SDG&E CARE Marketing Campaign Activities (Aided)



Source: SDG&E Campaign Customer Survey.

Approximately one in five CARE respondents recall learning about CARE from more than one source (19%). SDG&E used a multi-tactic marketing strategy that is based on the theory that customers need multiple marketing exposures to enroll in the program. With just one in five respondents recalling multiple marketing channels, one could conclude that multiple campaign touches are unnecessary. However, it is difficult for customers to recall marketing, and it is possible that respondents tend to recall the most important or most recent marketing exposure even if they were exposed to more than one. Among the 19% of CARE respondents who recalled more than one source of marketing (n=112), the SDG&E website was cited as the most influential for motivating them to join the CARE program (28%), followed by word of mouth (18%) and an SDG&E representative who called specifically about CARE (14%). Because questions asking respondents to rank different marketing sources could be asked only of respondents who recalled more than one source, all respondents were asked an open-ended question about what information sources motivated them the most to sign up for CARE. These responses suggested that word of mouth and direct outreach from an SDG&E representative were among the most influential sources for SDG&E customers, partially confirming the quantitative results. Taken together, these findings show that personalized outreach, either through friends and family or from an SDG&E representative, is effective at encouraging eligible SDG&E customers to enroll in CARE.

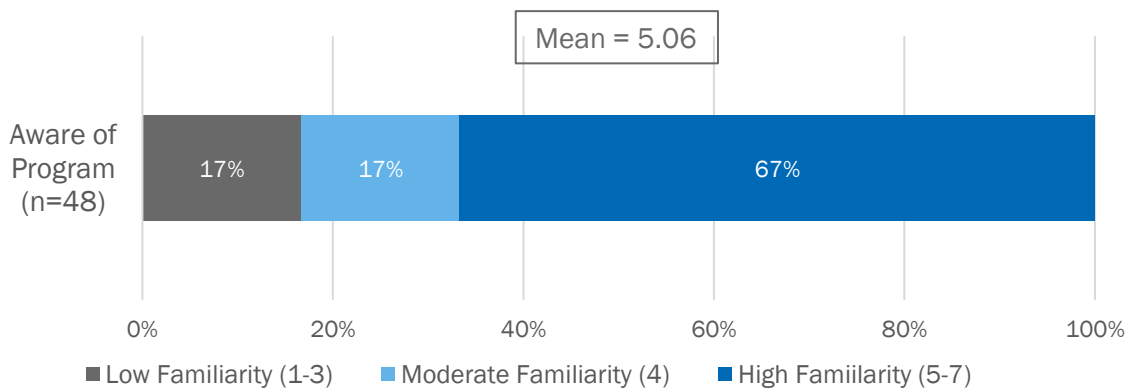
When asked which channels they would prefer to receive information through in the future, the top three answers provided by CARE respondents were SDG&E's website (46%), an email from SDG&E (45%), and a

mailing from SDG&E (32%). Respondents were least likely to endorse newspaper advertisements (7%), community events/groups (7%), and contractors (3%) as their preferred means of receiving information in the future. When compared to the findings presented in Figure 26, these results show that SDG&E is doing reasonably well at reaching its target audience through its preferred channels. However, respondents also indicated that the most motivating information sources involved personal contact, be it with an SDG&E representative or a friend or family member. Combined, these results suggest that SDG&E’s multi-tactic approach marketing strategy is a good one, though greater emphasis on direct marketing and less on mass marketing may be warranted. This is particularly true given the greater costs per enrollment that we showed earlier for mass media.

ESA

Nearly all respondents who were flagged as ESA participants said that they were aware of the program prior to taking the survey (94%). Like CARE, it is possible that the handful participants who were unaware of the program either forgot that they had signed up for the program or another member of the household may have signed up for the program without the respondent’s knowledge. As expected, respondents were fairly knowledgeable about the program, with 84% indicating a moderate or high level of familiarity with it (Figure 28).

Figure 28. SDG&E ESA Customer Respondent Familiarity with the ESA Program by ME&O Recall

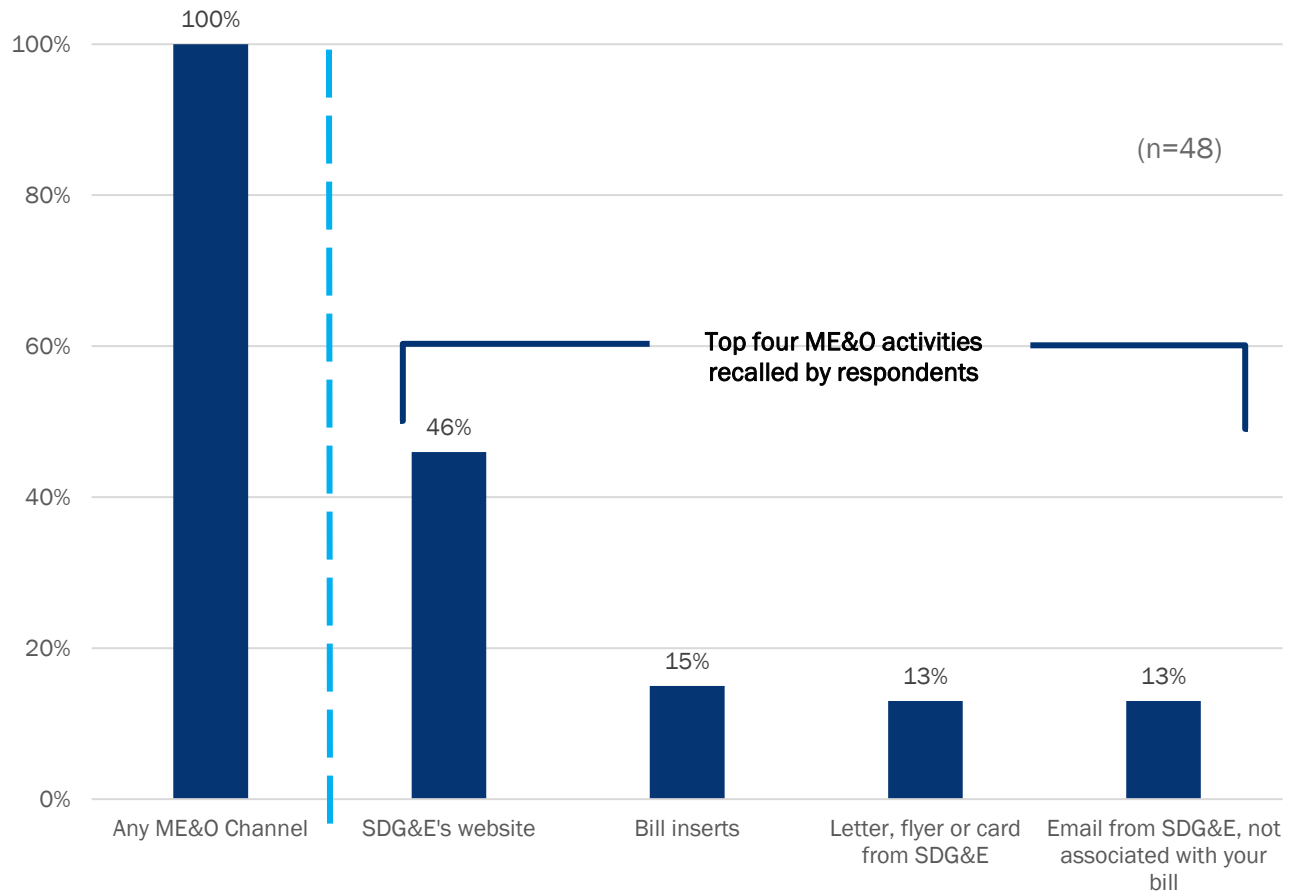


Among those aware of the ESA program.
 Scale of 1 to 7, where 1 indicates “I have only heard the name” and 7 is “I know a lot about it.”
 Source: SDG&E Campaign Customer Survey.

All ESA respondents who were aware of the program recalled encountering at least one source of ESA marketing (Figure 29). The most commonly cited channel was SDG&E’s website (46%), followed by bill inserts (13%), mailings (13%), and an email from SDG&E not associated with a utility bill (13%).¹⁰¹

¹⁰¹ These results do not correspond with the results from SDG&E’s Fall 2015 CARE Customer Satisfaction Survey, which showed that the most cited sources for people initially learning about ESA were “someone coming to home” (38%) followed by “friend, relative, neighbor” (19%).

Figure 29. Recall of SDG&E ESA ME&O Campaign Activities (Aided)



Source: SDG&E Campaign Customer Survey.

About 27% of ESA respondents recalled hearing about ESA through more than one source (n=13). Of those who did, the SDG&E website was cited as most influential for motivating them to join the ESA program (n=6), followed by bill inserts (n=3) and word of mouth (n=2).

When asked which channels they would prefer to receive information through in the future, the top three answers provided by ESA respondents were SDG&E’s website (53%), an email from SDG&E (53%), and a mailing from SDG&E (27%). Respondents were least likely to endorse contractors (6%) and newspaper advertisements (4%) as their preferred means of learning more information in the future. When compared to the information presented in Figure 29, these results show that SDG&E is doing well at reaching customers through their preferred means, as all the preferred channels align with the recalled channels.

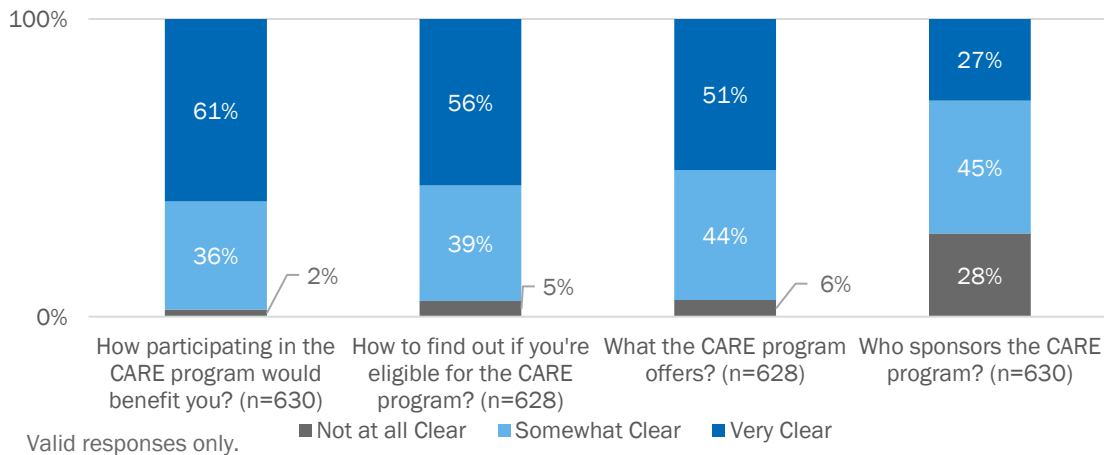
Campaign Messaging Effectiveness

To assess the clarity and usefulness of CARE and ESA marketing, we used a two-pronged approach. First, within both the CARE and ESA surveys, we asked respondents who recalled previously seeing marketing to provide their perceptions of the clarity of the material based on their memory. Second, we presented all respondents (irrespective of whether they previously recalled seeing the ME&O) a piece of joint CARE and ESA marketing collateral and asked them to provide their real-time reactions about its effectiveness.

CARE and ESA – Unaided Recall of ME&O Effectiveness

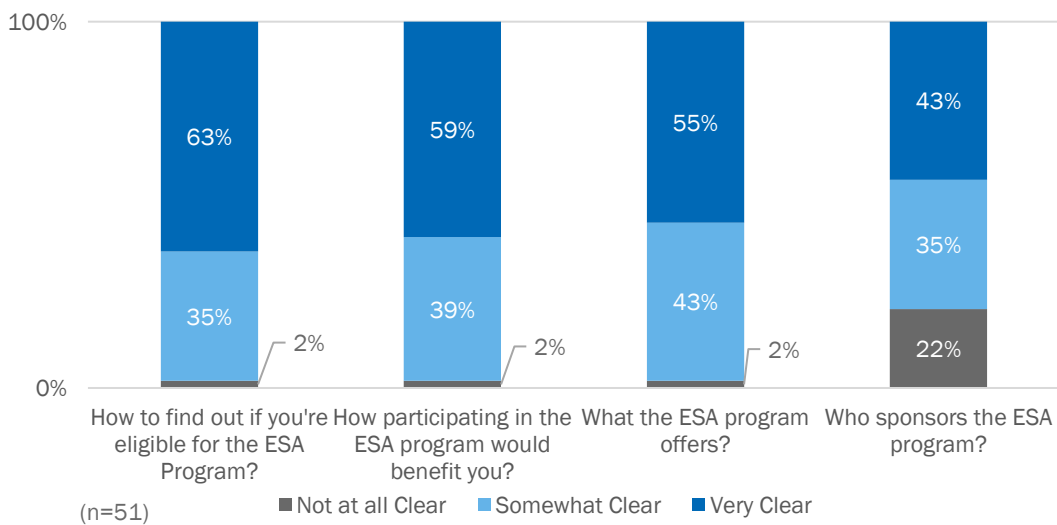
Respondents to both surveys remembered the CARE and ESA marketing as being easy to understand. As shown in Figure 30 and Figure 31, just under two-thirds of customers reported that the marketing was very clear about how participating in each respective program would benefit them. More than half of respondents reported that the eligibility requirements for CARE and ESA, and what the two programs offer, were presented very clearly in the marketing. Respondents were less sure about who sponsored the programs based on their memory of the marketing, though they were more likely to associate SDG&E with ESA than with CARE. This may be due to additional interactions that are part of ESA, such as the home visit.

Figure 30. SDG&E CARE ME&O Clarity by Topic



Source: SDG&E Campaign Customer Survey.

Figure 31. SDG&E ESA ME&O Clarity by Topic



Source: SDG&E Campaign Customer Survey.

CARE and ESA – Real-Time Assessment of ME&O Effectiveness

We presented respondents who completed the survey online with an example of the joint CARE and ESA marketing collateral (Figure 32). We asked respondents the same clarity questions about the joint collateral as we asked about the marketing that respondents recalled seeing, excluding the question about who sponsors the program since the SDG&E logo is plainly visible on the collateral.

Figure 32. SDG&E Combined CARE/ESA Collateral



You may qualify for home upgrades and a monthly bill discount

75

Are you on a limited income or have you recently lost your job? If so, you may be eligible for no-cost energy-efficient home improvements* or an energy bill discount, or both.

Toni from La Mesa qualified and received approximately \$1,000 worth of home improvements which included weather stripping, lighting, faucet aerators and a new door. Additionally, she also qualified to receive a discount on her monthly bill.

To see if you qualify, visit us at sdge.com/assistance

SDGE
A **Sereno Energy** company

*As long as the residence was not previously served by the program. Existing appliances must meet age requirements to qualify for replacement. Copies may be required for landlords to own appliances and pay lowest utility bill. These programs are funded by the utility customers and administered by San Diego Gas & Electric under the auspices of the California Public Utilities Commission. SDG&E makes no representation as to the safety, reliability or efficiency of goods and services selected. SDG&E makes no warranty whether express or implied, including warranty of merchantability or fitness for any particular purpose, use or application of selected goods and services. Digital requirements apply.

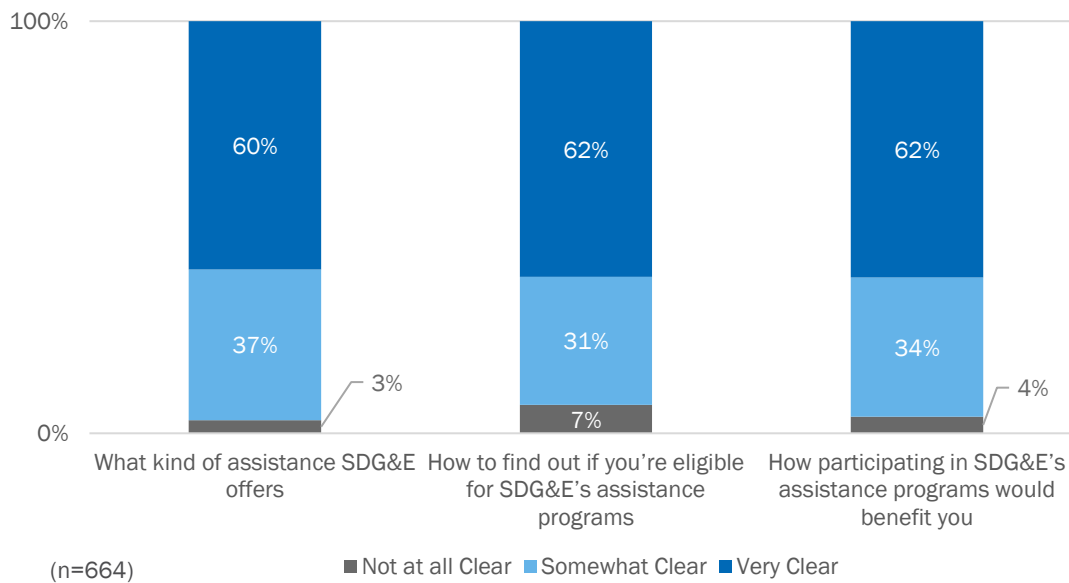
© 2016 San Diego Gas & Electric Company. All copyright and trademark rights reserved. Printed on recycled paper. 016023 5/16/2016 03:56:19 PM

Source: Data provided by SDG&E.

As shown in Figure 33, slightly under two-thirds of respondents felt that the collateral very clearly communicated the type of assistance offered by SDG&E, where to go to determine their eligibility for assistance, and the benefits of participating in the programs. This pattern of results was the same whether respondents recalled previously seeing marketing about the program or not.¹⁰²

¹⁰² All ESA survey respondents recalled encountering marketing prior to taking the survey, so we were unable to test for differences in responses to these questions by recall of marketing.

Figure 33. SDG&E CARE and ESA Bill Insert Effectiveness



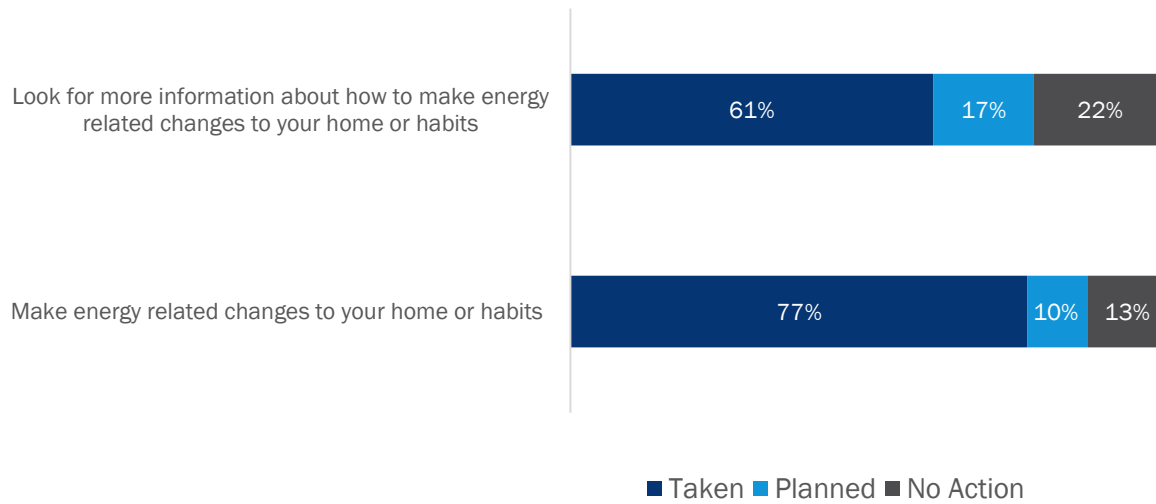
Source: SDG&E Campaign Customer Survey.

These results mirror the findings when we asked respondents about marketing that they recalled for CARE and ESA. In both cases, more than half of the respondents found the key messages to have been conveyed very clearly. Although respondents found the marketing that they viewed as part of the survey to be slightly clearer, this could be because respondents had just viewed the collateral, as opposed to providing a response based on memory. While a majority of respondents found the messaging very clear, there is room for improvement in this regard; particularly when it comes to respondents' awareness of who sponsors the program.

Campaign Influence on Behaviors and Actions

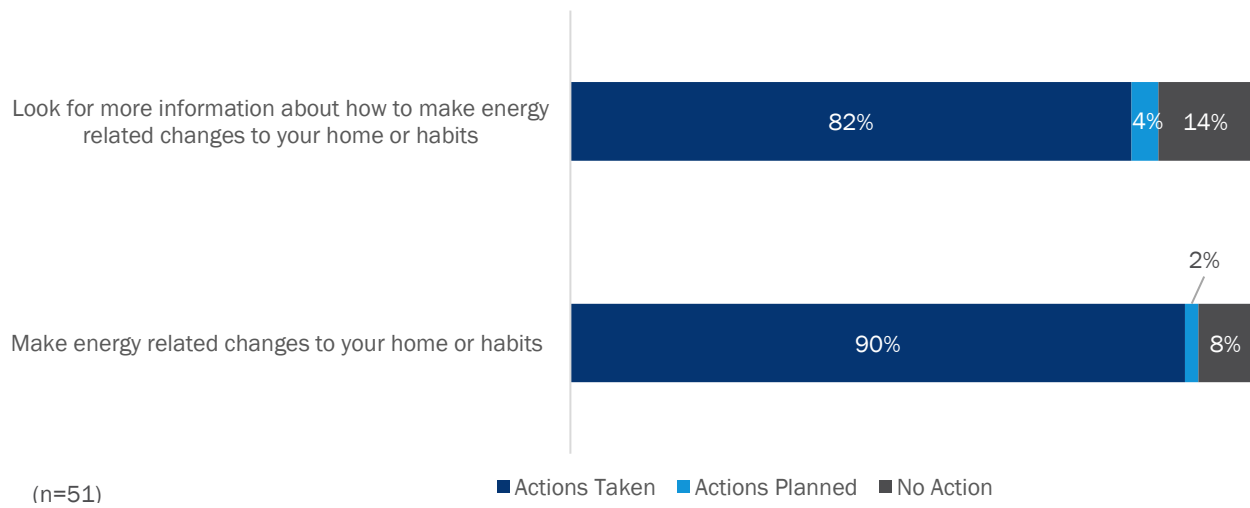
Participation in the CARE program involves a single action, which is to apply for the program. It is possible that through participation, customers become more aware of their energy use and look for opportunities to use less. The program objective of ESA is to help low-income customers use less energy through home upgrades and by providing suggestions on how customers can use less energy. We asked CARE and ESA respondents if they had looked for information about ways to make energy-saving changes to their home or habits or had done so since enrolling in the programs. Not surprisingly, given the program focus of ESA, a greater percentage of ESA respondents than CARE respondents had looked for information (82% compared to 61%) or had made changes (90% to 77%) (Figure 34 and Figure 35). However, a surprisingly high percentage of CARE respondents showed an interest in using less energy that SDG&E may want to capitalize on by sending customers information when they enroll in CARE about ESA and behavioral changes that they could make to save energy.

Figure 34. Energy-Related Actions Taken or Planned for the Next Year (CARE)



Source: SDG&E Campaign Customer Survey.

Figure 35. Energy-Related Actions Taken or Planned for the Next Year (ESA)



Source: SDG&E Campaign Customer Survey.

D. SCE's Energy Upgrade California Home Upgrade Program

D.1 Marketing Campaign Overview

SCE's Energy Upgrade California Home Upgrade Program offers up to \$6,500 in incentives to residential customers for completing comprehensive home retrofits through a participating contractor.¹⁰³ Participation involves a relatively high level of customer commitment in the form of time and money invested to research the program and complete qualifying upgrades. SCE's marketing team found that it takes between 3 to 12 months to "incubate" this level of customer investment; they therefore designed a multi-touch marketing campaign to repeatedly contact customers in multiple settings that encourages them as they progress toward participation. SCE has also recently completed a propensity scoring model to predict which customers are more likely to participate in the program based on their demographic, housing, and energy usage characteristics, and targets some of its marketing to these customers in particular.

As part of this overarching marketing approach, SCE's Q2 2016 Energy Upgrade California Home Upgrade marketing campaign included five activities: direct mail, email, customer bill messaging, integrated Energy Upgrade California Home Upgrade Program messaging in SCE's OPower Energy Report, and collateral for contractor outreach. SCE deployed four of the five activities in May 2016 (except for ongoing contractor outreach, which began in January 2016), which means customers were exposed to SCE-delivered Q2 campaign materials within roughly the same time frame. In addition, SCE continued to provide contractors with marketing materials to distribute to customers who complete upgrades through the program. Table 50 describes the marketing activity, the channel employed, and the intended audience for each marketing activity.

¹⁰³ SCE's Energy Upgrade California Home Upgrade Program offers two program options. The Home Upgrade option provides up to \$3,000 in incentives for improving energy efficiency by at least 10%. The Advanced Home Upgrade option provides up to \$6,500 in incentives for improvements that achieve up to 45% savings.

Table 50. SCE's Q2 2016 Energy Upgrade California Home Upgrade Program Marketing Activities

Marketing Activity	Deployment Time Frame	Description	Channel	Audience
SCE/SCG Co-Branded Energy Upgrade California Home Upgrade Program Letter	May 4, 2016	Direct mail letter promoting Energy Upgrade California Home Upgrade Program, as well as GoGreenFinancing.org	• Direct Mail	Residential customers that SCE believes have a relatively high likelihood of engaging with the program, based on results of a propensity scoring model
SCE/SCG Co-Branded Energy Upgrade California Home Upgrade Program Email	May 4–May 6, 2016	Email promoting Energy Upgrade California Home Upgrade Program, as well as GoGreenFinancing.org	• Email	
Energy Upgrade California Home Upgrade Program on SCE Bill	May 5–June 3, 2016	Customer bill messaging promoting Energy Upgrade California Home Upgrade Program	• Direct Mail • Email (e-bill)	All residential customers
Energy Upgrade California Home Upgrade Program Message Integration in SCE OPower Energy Report	May 2016	Energy Upgrade California Home Upgrade Program promotion within SCE's OPower Energy Report	• Email	Residential customers who receive OPower reports as part of SCE's randomly controlled trial
Co-Branded Energy Upgrade California Home Upgrade Program Collateral	Since January 2015	Develop collateral, including trifold, information sheets, infographics, welcome postcards, and lawn signs	• Contractor	Residential customers interacting with contractors; all residential customers who may see marketing materials in participants' yards

Source: SCE Data Request Response.

In line with the longer-term campaign goals, the primary goals of the Q2 2016 activities included:

- Building awareness of the Energy Upgrade California Home Upgrade Program
- Educating homeowners to overcome program participation barriers
- Targeting customers with the highest propensity to participate
- Helping build support for program participation goals in the following 3–12 months by enticing customers to seek out more information about the program and ultimately to contact a participating contractor to begin a qualifying project¹⁰⁴
- Launching new messaging about financing through a partnership with GoGreenFinancing.org

In the remainder of this section, we summarize our approach to evaluating this campaign, report on our findings, and provide conclusions about the campaign's effectiveness relative to the campaign's goals.

D.2 Evaluation Objectives and Approach

¹⁰⁴ As this action requires significant investment on the customer's part (e.g., time and capital to plan a major renovation, including securing financing), SCE estimates that the action follows roughly 3–12 months after an interested customer becomes aware of the program.

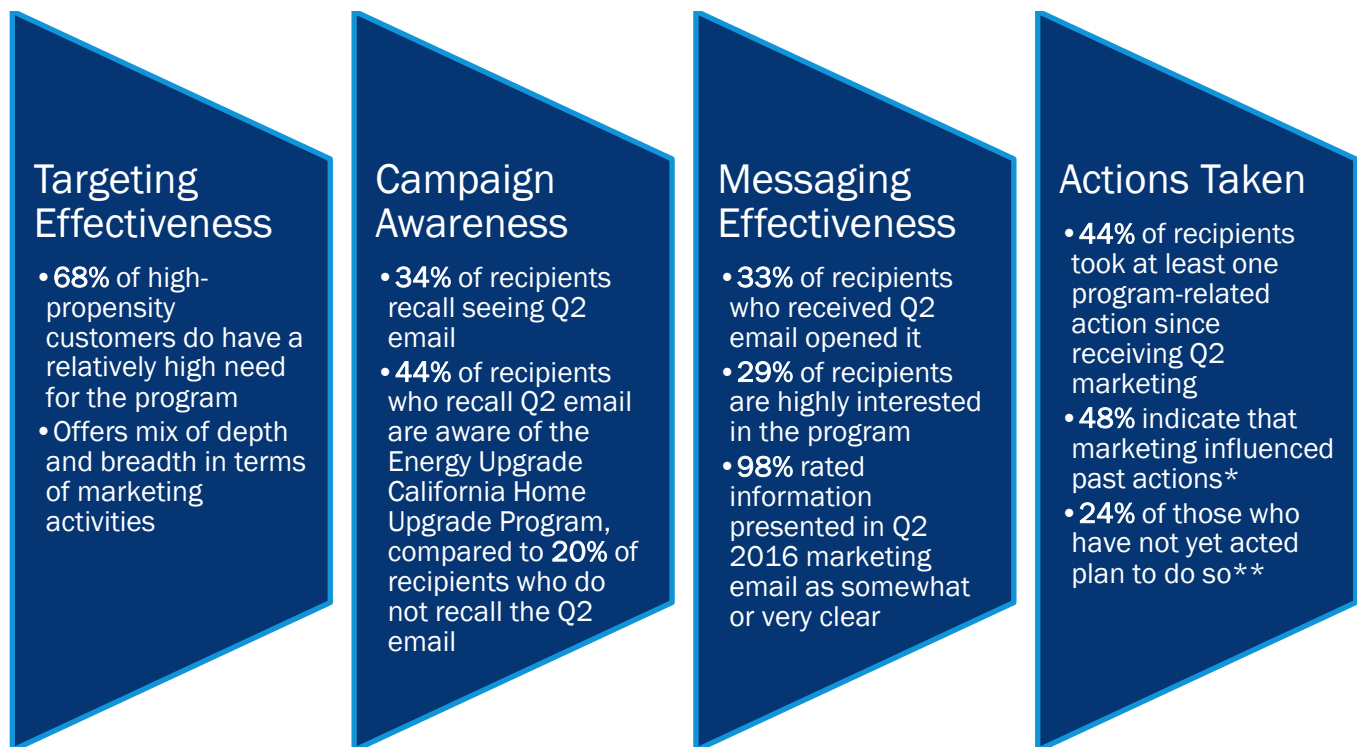
Our research addressed two overarching objectives. The first objective was to document the core activities SCE completed during the Q2 2016 campaign to examine how well these activities align with the campaign theory and stated campaign goals, as well as to assess campaign performance associated with these goals. Second, we assessed the effectiveness of one or more specific marketing activities within the campaign by fielding a survey with targeted customers. To meet the first objective, we reviewed program materials that SCE provided, including communications plans, budgets, metrics, success criteria, and outcomes for all activities. To address the second objective, we fielded a web survey with 1,128 “high-propensity” customers who received the Q2 2016 Energy Upgrade California Home Upgrade Program marketing email to explore the effectiveness of specific activities from the customer point of view.

The main objectives of the survey of marketing recipients were to assess customer recall of any of the Q2 program marketing activities and to assess the effectiveness and influence of the Q2 email on customer actions related to the program. Because we fielded the survey less than 2 months after the Q2 marketing drop date, we expected that customers would be able to recall marketing but that most would not have started to make significant investments in program participation. We therefore focused the survey on customer marketing recall and the email’s effectiveness in conveying information, rather than the long-term influence of marketing on program enrollment.

D.3 Key Findings and Conclusions

Figure 36 combines our findings about targeting, messaging, and resulting awareness into a conceptual model of how the marketing campaign effectively supports *high-propensity* customers taking action with respect to the program. Below the figure, we expand on our conclusions about campaign effectiveness and discuss several limitations of the assessment.

Figure 36. SCE Energy Upgrade California Home Upgrade Program Marketing Summary of Results



* Percent who indicate that marketing influenced past actions is based on the percent of respondents who recalled marketing, took at least one action in the past few months, and, when asked about their likelihood to have taken action if they had not received information from the marketing, provided a score of 1, 2, or 3 on a scale of 1 “not at all likely” to 7 “very likely.”

** Percent represents respondents who have not taken any action in the past few months, providing scores of 5, 6, or 7 on a scale of 1 indicating “not at all likely” to 7 indicating “very likely” to take action in the next 12 months.

Results of our study suggest that SCE’s marketing campaign has achieved success in several dimensions. In particular, the customer targeting and marketing materials are individually successful, and together appear to support the campaign’s longer-term marketing plan and program objectives. Specifically:

- **SCE provided metrics and success criteria for one of five marketing activities conducted in Q2 2016.** We acknowledge that measuring program outcomes is a challenge for marketing efforts. Much of the challenge is due to difficulty tracking program objectives (such as enrollment or project completion) based on specific marketing tasks due to lack of data on lead generation and large gaps in time between marketing activities and when customers complete program participation. However, in some cases, goals and success criteria associated with email activities could be developed and tracked to support campaign enhancements.
- **Overall, the campaign’s targeting strategy appears appropriate in context of the Energy Upgrade California Home Upgrade Program description.** SCE’s campaign reaches customers at multiple points on the conceptual “journey” to program participation. SCE reaches customers early in their journey (low awareness) by leveraging existing customer contact points like bills and Home Energy Reports. This inexpensive tactic reaches a broad base of customers and, through a brief interaction, introduces customers to the program or reminds them of its existence. SCE uses customer targeting for its costlier, but more in-depth tactics (personalized emails and letters) in an attempt to reach “high-propensity” customers who may be closer to participation and therefore already primed to receive a nudge toward the program. Our survey confirmed that the majority of customers tagged as “high propensity” are in fact relatively likely to find value in the Energy Upgrade California Home Upgrade Program marketing materials, supporting SCE’s propensity scores. Broadly, we find that a campaign using a mix of tactics is a reasonable way to cost-effectively maintain brand awareness among a broad group of customers, while also investing in targeted marketing for customers most likely to complete the “journey” to participation.
- **Marketing materials deliver messages that are clear and actionable.** A critical function of the marketing email was to educate customers about where they could learn more about the program. One-third of respondents who received the Q2 marketing email opened it, and 11% of those who opened the email clicked on a link in the email. Based on survey responses, it seems likely that most high-propensity customers who opened the email came away with a clear understanding of several key calls to action. First, respondents who recalled the Q2 marketing email were more often aware of the program than those who did not recall the email. Second, based on simulated exposure to the email, the average respondent felt that the email presented information that was easy to understand and provided a clear description of how to find more information.
- **As a whole, campaign activities entice customers to seek out more information about the program.** In the months when SCE ran Energy Upgrade California Home Upgrade Program marketing campaign, SCE experienced a threefold increase in the number of visits to SCE’s Energy Upgrade California Home Upgrade Program website and the number of calls to an SCE customer call center maintained by ICF. A plausible interpretation of this correlation is that SCE’s marketing campaigns are effective in prompting customers to seek more information about the program than they otherwise would. Results of our high-propensity customer survey support this interpretation. Specifically, not only did 44% of high-propensity customers who were aware of the program take at least one program-related action

within the months following Q2 campaign launch, but, on average, respondents also reported that the marketing played a moderate role in encouraging them to take these actions. In summary, the marketing materials are effective in generating short-term interest in the program.

While we conclude that the campaign is effective as a whole, this assessment should be interpreted in light of two limitations.

- First, our analysis focuses on short-term outcomes from the marketing, and comments on the effectiveness of one key activity. We recommend that the CPUC interpret our findings as only one of several important indicators of the broader campaign's success in marketing the Energy Upgrade California Home Upgrade Program. To address this limitation, future research should consider conducting a longitudinal study of awareness over time, such as before and after receipt of marketing materials. Further, we recommend comparing program enrollment rates 12 months after the receipt of materials to explore the degree of correspondence between the survey respondents' reported intentions to participate in the program (within a month of receiving marketing materials) relative to their actual participation.
- Second, we fielded a customer survey among a specific subset of the SCE customer base that does not represent all customers who might see SCE's Energy Upgrade California Home Upgrade Program marketing. By definition, "high-propensity" customers are more likely to participate in the program, and based on this are likely to pay more attention to program materials and perceive the marketing more favorably than the average customer. Moreover, for survey convenience and budgetary concerns, we fielded an online survey of those high-propensity customers with email addresses. Thus, the surveyed population is likely to differ both from high-propensity customers who do not share their email address with SCE and from SCE customers who do not have a high propensity to participate in the Energy Upgrade California Home Upgrade Program. At best, the responsiveness of high-propensity customers to the marketing may be considered an upper-bound approximation of the responsiveness of all customers on average. Despite these limitations, findings based on the secondary review of marketing materials and gathered from program staff interviews still support our findings that the overall campaign approach is sound.

D.4 Detailed Findings

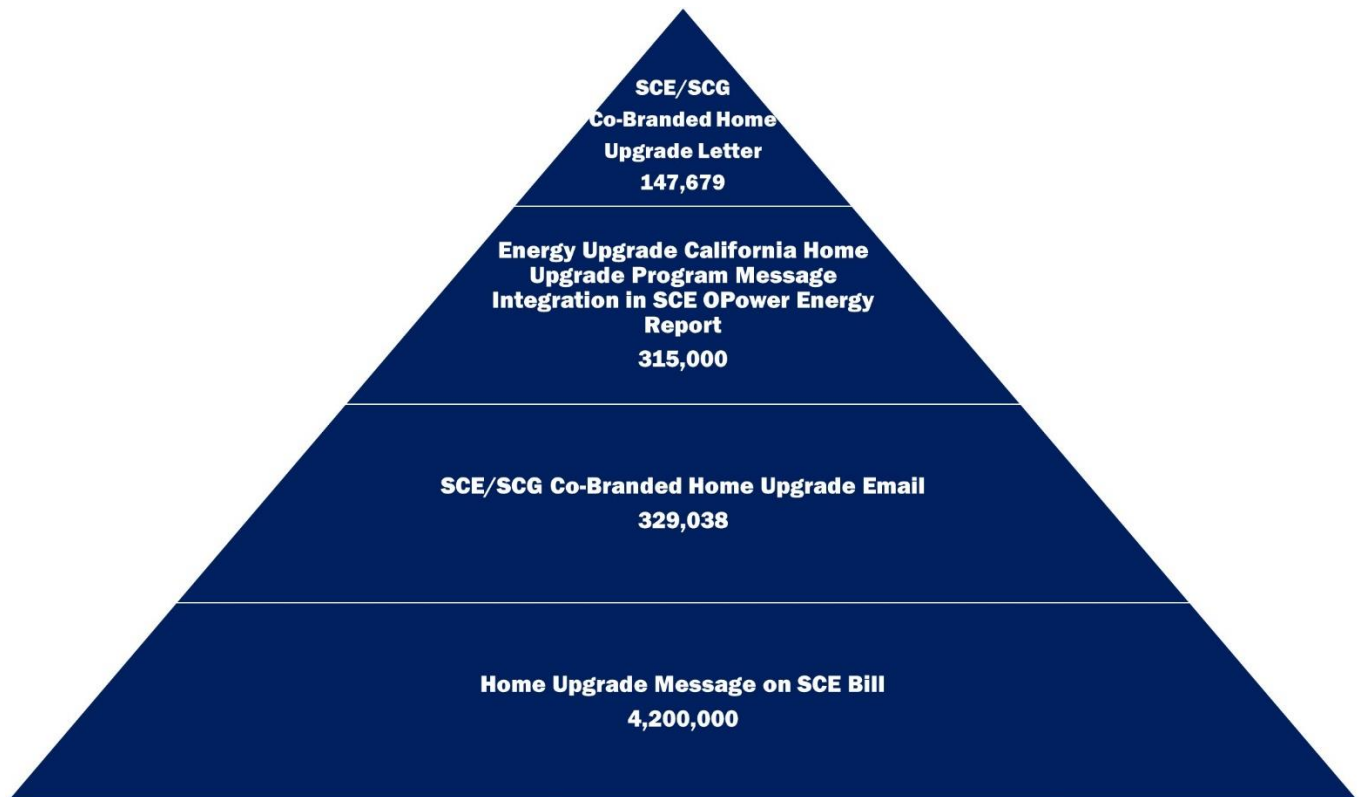
In this section, we present a detailed assessment of the effectiveness of SCE's Q2 2016 Energy Upgrade California Home Upgrade Program marketing campaign.

Campaign Reach

SCE generated the largest share of impressions through messaging on residential customers' bills. Per SCE, these activities are designed to generate program awareness among a broad base of customers, some of whom may be learning about the program for the first time. These small advertisements serve to boost awareness of the program among a broad group of customers, but given their format are likely to produce relatively fleeting impressions. The "impressions" in Figure 37 represent the maximum number of customers the campaign could have reached through each activity. Customers do not click on every internet search result; nor do they read every email that they are sent or every article in the newspaper to which they subscribe. In the case of the Energy Upgrade California Home Upgrade Program, customers reached may not be eligible for the programs. This is truer of the mass marketing tactics, such as television and print ads, than the direct marketing efforts, such as direct mail and email.

On the other hand, SCE sent its Q2 direct mail and emails to a smaller, but strategically selected set of customers (i.e., high-propensity customers). The emails and letters provide information solely about Energy Upgrade California Home Upgrade Program opportunities and more-extensive information about how to participate, whereas the OPower reports and on-bill messaging also provide information related to other programs and energy-related topics (Figure 37). In the next section, we explore the extent to which the different marketing activities connected with the target audience and met the metrics that SCE set.

Figure 37. Q2 2016 SCE’s Energy Upgrade California Home Upgrade Program Marketing Campaign Reach, by Activity



Note: Counts are the number of mailings or emails sent. Contractor outreach information not provided.
 Source: SCE Response to Data Request.

Achievement of Campaign Metrics

One of SCE’s marketing campaign goals is to drive increased Energy Upgrade California Home Upgrade Program participation. According to SCE, as of June 2016, SCE had already achieved 100% of its 2016 Energy Upgrade California Home Upgrade Program participation goal, with more than 1,325 Home Upgrade projects completed to date. This review takes a closer look at SCE’s Q2 marketing campaign goals, and whether they were achieved for the selected marketing campaign.

SCE takes a varied approach to developing metrics and related success criteria for its marketing activities. For some specific marketing activities, SCE sets success criteria based on results from similar campaigns in prior years, non-Home Upgrade email campaigns, and industry benchmarks, where available. In other cases, SCE noted that some activities have no associated success criteria given the difficulties of attributing marketing efforts to program enrollments/leads given the type of marketing channel and of ascertaining effects of marketing efforts due to the amount of time it may take between receiving marketing and deciding to

participate in the program. Table 51 provides SCE’s approach to developing success criteria for each campaign activity.

Table 51. SCE Q2 2016 Energy Upgrade California Home Upgrade Program Development of Metrics and Success Criteria

Activity	Approach to Developing Metrics
SCE/SCG Co-Branded Home Upgrade Email	SCE chose to benchmark email activities against the 2015 Home Upgrade campaign, as well as other SCE email campaigns. Further, they cross-reference results to industry benchmarks and standards.
SCE/SCG Co-Branded Home Upgrade Letter Home Upgrade Message on SCE Bill	According to SCE, RR goals or metrics were not established for its direct mail campaign and bill messaging tactics due to the difficulty associated with predicting the manner and time frame by which a customer might respond once exposed to Home Upgrade messaging. The inclusion of multiple calls to action also made it impossible for SCE to establish upfront metrics related to the number of visits to its corporate sce.com/upgrade landing page that could be expected to result from the individual marketing tactics that SCE undertook to promote the Home Upgrade Program.
Energy Upgrade California Home Upgrade Program Message Integration in SCE OPower Energy Report	According to SCE, no metrics were established for this tactic and there is no post-deployment reporting available. Overall, for most activities, SCE tracked webpage hits and call volume at an SCE customer call center (maintained by SCE’s contractor, ICF) that occurred during this time frame, both of which likely include those customers who responded to Home Upgrade messaging that was included in the SCE OPower Energy Report.
Contractor outreach	According to SCE, no goals were developed for this effort.

Source: SCE Response to Data Request.

SCE tracks the effects of its marketing activities using a mix of activity-specific and campaign-wide indicators. For example, SCE tracks program enrollment as an annual total that is supported generally by all marketing activities. In Q2 2016, SCE set activity-specific metrics for one of the five marketing activities and used marketing vendor reports to track achievements. These reports track which customers receive specific pieces of marketing, but do not track customer-level actions with respect to the activity (e.g., which customers opened an email). In general, SCE receives a post-deployment report from its marketing vendor that tracks aggregate CTRs and open rates for email campaigns, but this type of report was not available for either the Home Upgrade Message on SCE e-Bills or for the Energy Upgrade California Home Upgrade Program message integration in SCE OPower Energy Report at the time of our assessment. Further, SCE did not establish goals for these specific activities with email components.

As shown in Table 52, the SCE/SCG Co-Branded Home Upgrade email fell somewhat short of SCE’s goals for the activity, but was well within the range of industry benchmarks.¹⁰⁵

¹⁰⁵ According to SCE’s data request, IOU industry typical open rates are 22% and CTRs are 1.58%. Source: 2015 Email Marketing Metrics Benchmark Study 2015 Silverpop, available at: <http://www.silverpop.com/Documents/Whitepapers/2015/Email-Marketing-Metrics-Benchmark-Study-2015-Silverpop.pdf> and Questline, 2015 Energy Utility Email Benchmarks Report available at: <https://cdn.questline.com/asset/get/47a2f0f7-f0fd-4917-b7b6-2625e84ef911> via SCE response to data request.

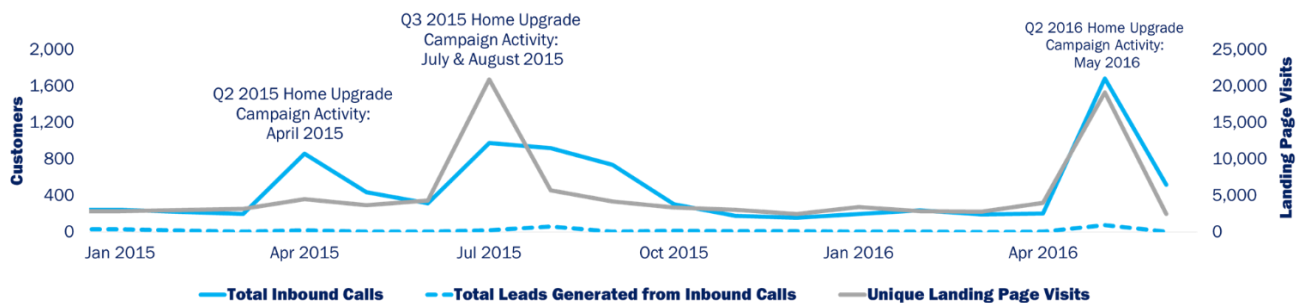
Table 52. SCE Q2 2016 Energy Upgrade California Home Upgrade Program Marketing Activities, Goals and Achievements

Activity	Metrics	Success Criteria	Result	Achievement
SCE/SCG Co-Branded Energy Upgrade California Home Upgrade Program Email	Open Rate	36.48%	33.32%	3 percentage points lower than goal
	CTR	5.18%	3.83%	1 percentage point lower than goal
	CTOR	14.20%	11.21%	3 percentage points lower than goal
SCE/SCG Co-Branded Energy Upgrade California Home Upgrade Program Letter	No metric	Not provided	Not provided	Not applicable
Energy Upgrade California Home Upgrade Program Message on SCE Bill	No metric	Not provided	Not provided	Not applicable
Energy Upgrade California Home Upgrade Program Message Integration in SCE OPower Energy Report	No metric	Not provided	Not provided	Not applicable
Contractor Outreach	No metric	Not provided	Not provided	Not applicable

Source: SCE Response to Data Request.

Despite not being able to tie some specific marketing activities to call volume, our review indicates that as a result of all Q2 marketing activities initiated in early May 2016, SCE’s customer call center (maintained by ICF) and SCE’s Energy Upgrade California Home Upgrade Program landing page saw a threefold increase in activity during that month, relative to the prior 4 months of 2016 when SCE was not running a marketing campaign (Figure 38). This monthly total likely captures most, but not all, of the customer interest generated from the Q2 efforts. SCE delivered the marketing emails and direct mailings within the first week of May 2016, and noted that customers received messaging on their bills and/or OPower reports during their May billing cycle, which extended to early June. Moreover, the Q2 2016 campaign performed well relative to SCE’s 2015 marketing campaigns. This suggests that Q2 activities played a part in nudging customers to investigate the program.

Figure 38. SCE Call Center and Landing Page Activity January 2015–June 2016



Source: SCE Response to Data Request.

Notably, SCE cannot completely account for inbound calls and lead generation generated by many of their marketing activities. Per SCE, ICF uses a single tracking category reports the number of calls resulting both from Home Upgrade Message on SCE bills and from the Home Upgrade Message integrated into SCE’s OPower Energy Report.

Marketing Budget and Expenditures

In Q2 2016, SCE spent roughly one-third of its annual Energy Upgrade California Home Upgrade Program marketing budget implementing the marketing activities. SCE did not predefine marketing budgets for each activity during this period, although SCE did track expenditures in this way. As Table 53 shows, direct mail accounted for the largest share of SCE's Q2 2016 marketing expenditures (91%), while all other activities received a minor share of the total (<5% each).

Table 53. SCE Q2 2016 Energy Upgrade California Home Upgrade Program Marketing Budget and Expenditures

Activity	Annual Budget (2016)	Q2 Expenditures through June 10, 2016	Share of Q2 Expenditures	% of 2016 Budget Spent
SCE/SCG Co-Branded Home Upgrade Letter	\$200,000	\$64,457	91.3%	32.0%
SCE/SCG Co-Branded Home Upgrade Email		\$2,959	4.2%	1.5%
Home Upgrade Message on SCE Bill		\$1,680	2.4%	0.8%
Co-Branded Home Upgrade Collateral*		\$1,514	2.1%	0.8%
Energy Upgrade California Home Upgrade Program message integration in SCE OPower Energy Report**	\$0	\$0	0.0%	Not Applicable
Total	\$200,000	\$70,610	-	35.0%

* All contractor outreach materials are materials that contractors provide to customers.

** No-cost opportunity to include messaging in OPower Energy Reports.

Source: SCE Response to Data Request.

Awareness of the Campaign and Program and Marketing Recall

Our survey with SCE's "high-propensity" customers who received the Q2 marketing email provides an in-depth examination of this particular marketing activity. The email was intended to contribute to SCE's multi-touch Q2 marketing campaign strategy, designed to boost precursors of program enrollment, such as awareness and knowledge, which, in the long term, contribute to customers' decisions to begin a qualifying project. Following this design theory, SCE sends marketing emails to customers. Then, among customers who open the email, customers digest the information and gain a deeper awareness of the program.

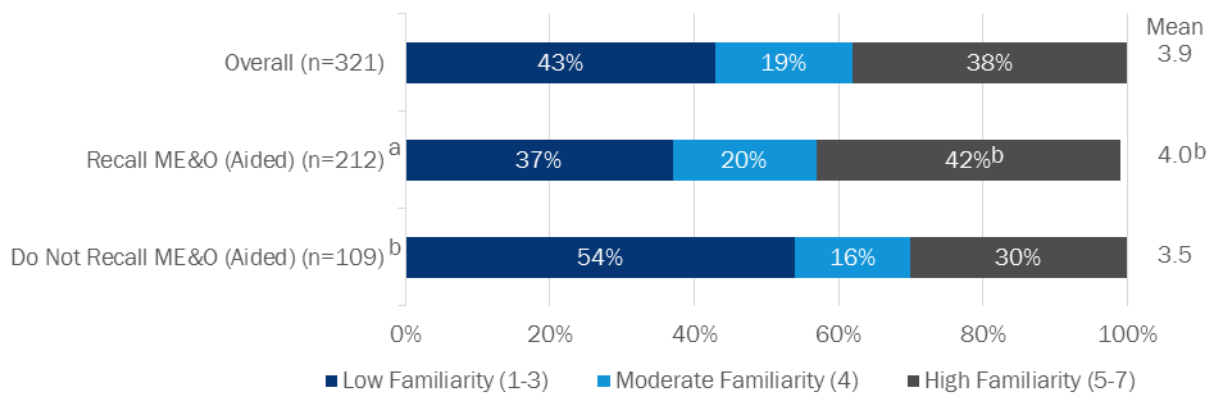
While SCE staff noted that they do not track marketing data in a way that would allow us to identify which survey respondents opened the email, about a third of survey respondents (34%; n=1,128) recall seeing it. Assuming that respondents who open a marketing email are likely to recall it, the self-reported rate of recall for the email appears reasonable given that 33% of customers opened the marketing email (Source: SCE). Among those who recall receiving the email, we expect that respondents would remember content from the email and therefore would also have a higher awareness of the program than those who do not recall the email. In fact, survey respondents who recalled the email do have a significantly higher awareness of the program (44%) than those who do not recall the email (20%). While this finding suggests that there is something different between these two subsets of respondents causing one to have a higher awareness of the program than the other, we cannot attribute this difference to the Q2 email with any certainty. Overall aided awareness of the Energy Upgrade California Home Upgrade Program was 28%.

By design, the Q2 marketing campaign included multiple marketing activities that launched concurrently with the email. At the same time that they received the email, all respondents received messaging about the program on their May SCE bill, and those who receive Energy Reports received messaging about the program

on their May report. We asked respondents who were aware of the Energy Upgrade California Home Upgrade Program (n=321) about these other two sources of information to get a sense of what other Q2 activities may have contributed to their initial or continued program awareness. Just under a third of respondents who are aware of the Energy Upgrade California Home Upgrade Program recall seeing the information on their bill (32%) or on an Energy Report (32%).

Respondents who are aware of the Energy Upgrade California Home Upgrade Program expressed mixed levels of familiarity with the program, but those who recall Q2 marketing appear to have a greater depth of knowledge about the program than those who do not. As Figure 39 shows, respondents who recall the marketing tended to rate themselves as more familiar with the program (4.0 on a 1 to 7 scale) than those who do not recall the marketing (3.5 on a 1 to 7 scale).¹⁰⁶ The trend is reiterated in terms of respondents' demonstrated comprehension of the program offering. When we asked respondents to identify which of three statements best describes the Energy Upgrade California Home Upgrade Program,¹⁰⁷ 70% of respondents who recalled the marketing could correctly identify the program description, while only 60% of those who did not recall the marketing could do so.

Figure 39. SCE Customers' Familiarity with the Energy Upgrade California Home Upgrade Program among Those Aware



Note: Among those aware of the Energy Upgrade California Home Upgrade Program. Letters are assigned to each recall level group. Letters next to percentage indicate the percentage is significantly different from the indicated recall level group at the 95% level.

Source: SCE Campaign Customer Survey.

Campaign Messaging Clarity and Usefulness

SCE targeted the Q2 email to customers believed to have a relatively high propensity to participate in the Energy Upgrade California Home Upgrade Program given their demographic, housing, and energy usage characteristics. Nonetheless, it is still possible that some members of the high-propensity target population are not interested in making comprehensive home upgrades through the program (e.g., if they just recently completed home upgrades or simply have little interest in energy efficiency). Assuming that some respondents

¹⁰⁶ These values are based on a scale from 1 to 7, where 1 is "I have only heard the name" and 7 is "I know a lot about it."

¹⁰⁷ The statements were: "A program that provides rebates and incentives for home improvements that include air sealing, duct sealing, attic insulation, and more" (the correct response); "A program that specifically incentivizes solar panels and solar hot water heaters"; "A program that provides homeowners and renters with a free kit containing energy efficient light bulbs, faucet aerators, and low-flow shower heads to install in their home"; "None of the above"; and "Don't know."

to our survey would hold this type of belief or attitude, we hypothesized that respondents with a lower relative need for the program would rate the marketing as less useful.

To put marketing usefulness in context of participants’ relative need for the program, we developed an index of each customer’s relative need for home upgrades. We developed the index using six survey questions about participants’ recent and planned home improvement projects, behavior changes, and energy assessment history.¹⁰⁸ We interpret high index scores as an indication that a respondent would be more interested in making major home upgrades and believes there are additional opportunities for upgrades to their home or behavior changes to use less energy. Over two-thirds (68%) of the believed “high-propensity” respondents do have either a medium high (64%) or a high (4%) relative need for the program.

We then compared respondents’ level of interest in the Energy Upgrade California Home Upgrade Program after they reviewed the Q2 marketing email across customers with different relative needs. Comparisons across groups (Table 54) reveal that, although the average respondent expressed only low to moderate interest in the Energy Upgrade California Home Upgrade Program, respondents with higher relative need for comprehensive home upgrades exhibit a significantly higher level of interest in the program.

Table 54. Average Level of Interest in the Energy Upgrade California Home Upgrade Program, by Relative Need for the Program

Self-Reported Level of Interest in program	Relative Need for Energy Upgrade California Program Index				
	Overall (n=1,128)	Low ^a (n=65)	Low Medium ^b (n=293)	Medium High ^c (n=724)	High ^d (n=46)
Low Interest (1–3)	55%	88%	68%	49%	28%
Moderate Interest (4)	16%	6%	13%	18%	22%
High Interest (5–7)	29%	6%	19% ^a	34% ^{ab}	50% ^{abc}
Total	100%	100%	100%	100%	100%
Mean	3.3	1.9	2.7^a	3.6^{ab}	4.4^{abc}

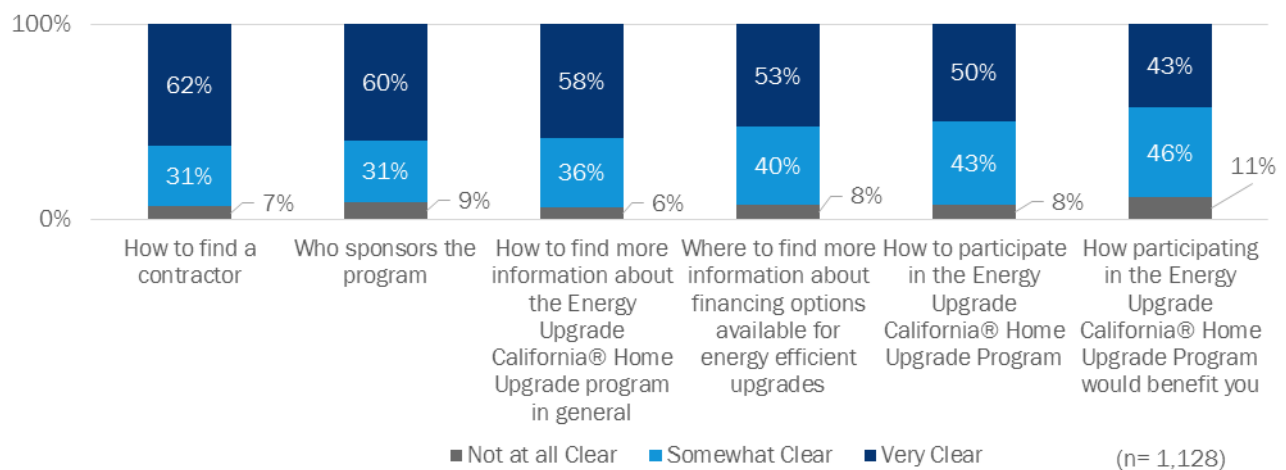
Note: Letters are assigned to each level of relative need group. Letters next to percentages indicate the percentage is significantly different from the indicated level of relative need group at the 95% level.
Source: SCE Campaign Customer Survey.

Customer perceptions of information clarity and newness represent one indicator of marketing effectiveness. In short, if customers exposed to SCE marketing do not understand the call to action or do not learn anything new, the marketing would be less likely to encourage participation in the program. Overall, some of the information in the marketing appears to have been new to respondents (an average rating of 3, on a scale of 1 to 5, where 1 indicates “none of the information was new” and 5 indicates that “all of the information was new”).

¹⁰⁸ We grouped respondents into one of four categories that indicate their relative need for energy efficiency information based on their responses to a series of questions about current, past, and planned energy efficiency upgrades that they have made to their home, as well as their beliefs about additional opportunities for upgrades or behavioral changes that they could make to save energy. At the “high” end of the need scale, we placed respondents who had made upgrades in the past, were currently working on a project, had future plans for more projects, and still believed that additional opportunities existed. At the “low” end of the need scale, we placed respondents who had never completed upgrades, had no plans to do so, and didn’t believe that there were any energy-saving opportunities. We placed respondents in the middle who gave a combination of responses within the particular category based on the number of questions that indicated the respondent had a history of taking action and a strong belief that opportunities for saving existed.

We also tested the clarity of six key pieces of program-related information provided in the email using a three-point scale where 1 indicates “not at all clear” and 3 indicates “very clear.” In general, respondents felt the email provided clear information about each component (Figure 40). Nearly all respondents (98%) indicated that at least one of the email’s key content areas was “somewhat” or “very” clear. Specifically, respondent data indicate that the email provided customers with a clear understanding of where to get additional information about the program (58% “very clear”) and financing options available for energy efficiency upgrades (53% “very clear”). It also provided clear information to those who wish to participate, such as how to find a contractor (62% “very clear”) and how to participate in general (50% “very clear”).

Figure 40. Clarity of Information Provided in SCE’s Energy Upgrade California Home Upgrade Program Marketing Email



Source: SCE Campaign Survey.

Campaign Influence on Behaviors and Actions

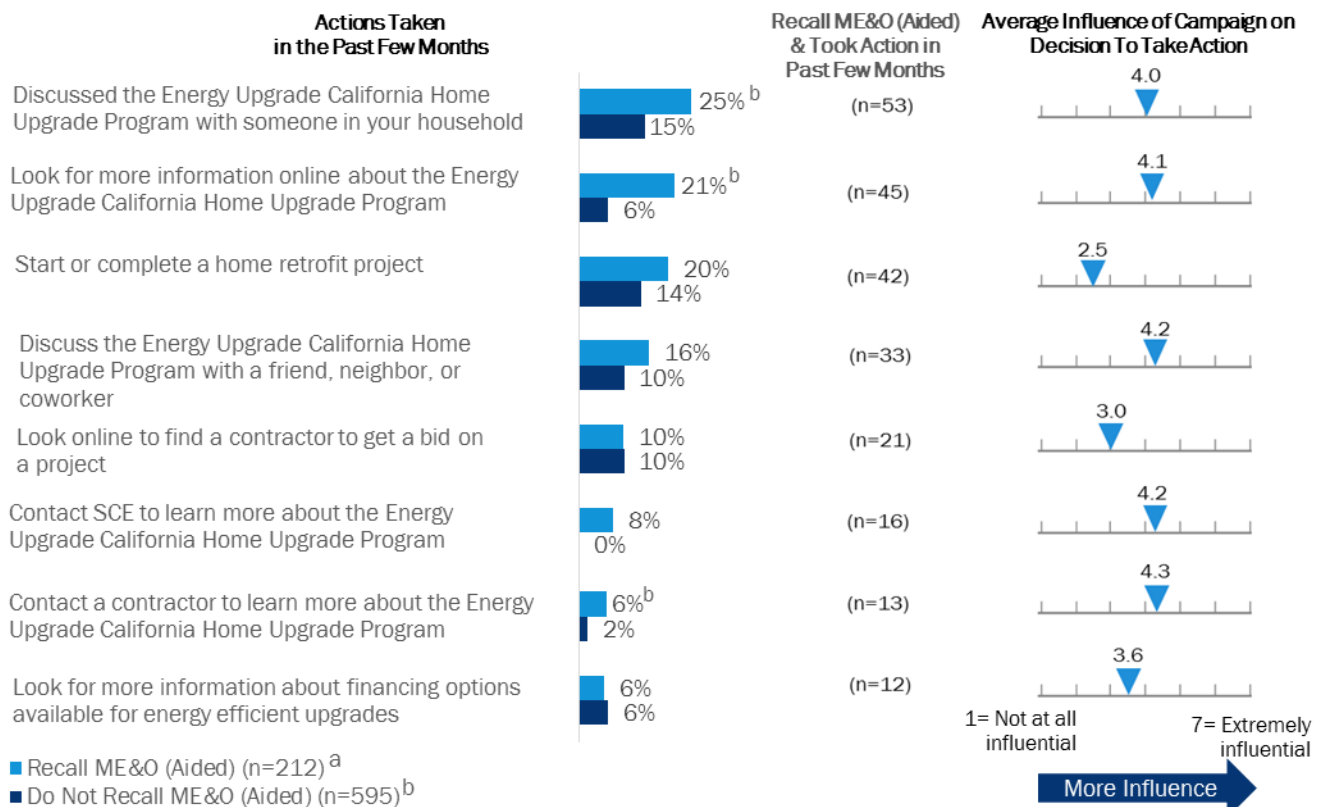
Given that an indirect goal of SCE’s marketing efforts is to generate participation in the program, we looked at a mix of direct and indirect steps that customers could take as they move toward participation. Examples include:

- Discussing the program with a household member or with an acquaintance
- Seeking out more information about the program or financing option
- Getting a bid for projects, looking for specific contractors, and ultimately initiating an upgrade

In the 2 months since respondents were exposed to the marketing, 44% of respondents who were aware of the Energy Upgrade California Home Upgrade Program have taken at least one intermediate step toward participation. Respondents who recalled the marketing were more likely than those who did not recall the marketing to have taken some of these steps (Figure 41). Compared to customers who did not recall marketing, customers who recalled marketing were significantly more likely to have recently looked for more information online about the program (21% vs. 6%), to have discussed the program with someone in their household (25% vs. 14%), and to have contacted a contractor to learn more about the program (6% vs. 2%). In addition, customers who remember the marketing state that, on average, it had moderate influence in their

action taking (Figure 41). Overall, 48% of the respondents who recall the marketing and took at least one action in the past month (n=103) noted that the marketing had some influence on their action.

Figure 41. Influence of SCE Campaign Information on Actions Taken in the Past Few Months

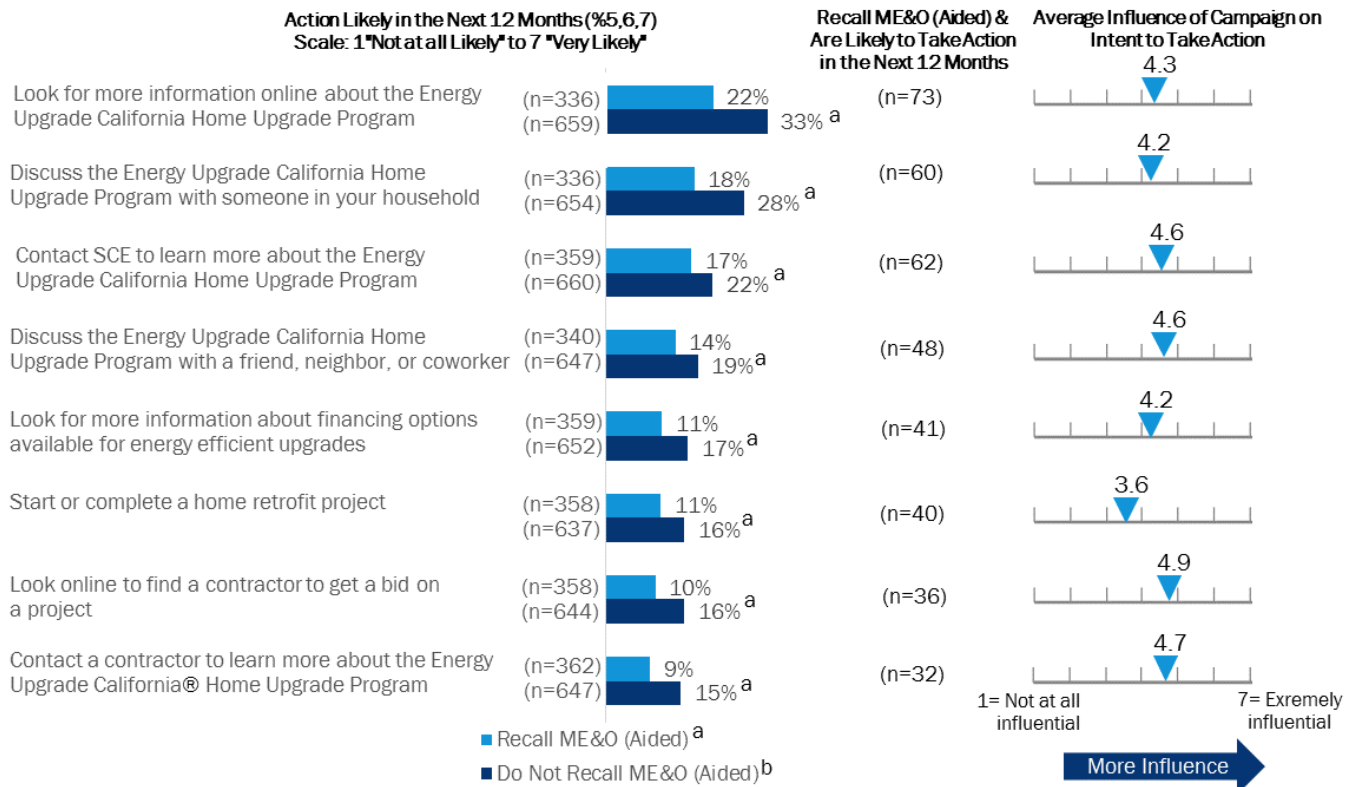


Note: Average influence of campaign on decision to take action is based on responses from customers who recalled at least one of SCE's Q2 marketing activities and completed action in past few months (i.e., excludes customers who did not recall marketing and customers who did not take action). Letters are assigned to each recall level group. Letters next to percentages indicate that the percentage is significantly different from the indicated recall level group at the 95% level.
 Source: SCE Campaign Customer Survey.

We also asked respondents about actions that they are likely to take in the next 12 months, as the participation process for the program can take that long. We asked these questions of those who had not taken certain actions in the past few months, as well as of those who had not heard about the Energy Upgrade California Home Upgrade Program before taking the survey. Overall, 24% respondents who had not taken any of the program-related actions in the past few months (n=180) stated that they plan to take at least one of the actions during the next 12 months.

Interestingly, Figure 42 shows that respondents who did not recall the marketing (including those who had not been aware of the program prior to the survey) are more likely to plan to take action than those who do recall the marketing. It is possible that this finding is a product of simulation effect. For example, people who are just seeing the marketing for the first time have had less time to consider the benefits and costs of taking action, and may be more optimistic about future actions that they can take. People who recalled the marketing already had a chance to consider the action in the interim; thus, in responding, they may have more carefully accounted for barriers that they would face in taking action (e.g., lack of time or money).

Figure 42. Influence of SCE Campaign Information on Actions Planned



Note: Average influence of campaign on decision to take action is based on responses from customers who recalled at least one of SCE's Q2 marketing activities and plan to complete action in the next 12 months (i.e., excludes customers who did not recall marketing and customers who did not take action). Letters are assigned to each recall level group. Letters next to percentages indicate that the percentage is significantly different from the indicated recall level group at the 95% level.

Source: SCE Campaign Customer Survey.

E. SCG’s Energy Hero Campaign

E.1 Marketing Campaign Overview

As a smaller organization, SCG staff indicate that they prioritize being as efficient and cost-effective as possible when developing a marketing strategy and selecting marketing channels. As a result, SCG often markets several programs or offerings at once and frequently reviews performance to prioritize efforts on the most effective channels. Further, SCG does not market every program. Rather, they prioritize marketing programs that are larger, more visible to the customer, and easier to understand.

Energy Hero is a marketing campaign that promotes general awareness of energy management, and provides information to customers about three energy-related programs:

- Energy Upgrade California Home Upgrade, which offers incentives to residential customers for making comprehensive energy efficiency upgrades to their homes.
- Energy Efficiency Rebate and Cold Water Washer programs, both of which provide rebates to residential customers for purchasing energy-efficient appliances.
- Energy Efficiency Starter Kit program, which provides SCG residential customers with faucet aerators and a low-flow shower head free of charge.

According to SCG, the “Energy Hero” theme empowers customers to take proactive steps to reduce energy consumption. Messaging execution includes messaging for all three programs under the residential energy efficiency umbrella. Further, according to SCG, the main goal for the paid media campaign is to create general awareness for the program portfolio. Other efforts throughout the year for Energy Efficiency Rebates at the Point of Sale (POS) level and Energy Efficiency Starter Kits at the community outreach level will also help increase awareness and/or participation for those respective programs. Further, SCG seeks to drive traffic to socialgas.com’s “Energy Hero” campaign landing page, which branches off to the three program pillars—Energy Upgrade California Home Upgrade, Residential Plug Load, and Energy Efficiency Starter Kits—or to socialgas.com’s Cold Water Washer campaign landing page. POS marketing seeks to increase the number of rebates being processed.

SCG views the Energy Hero campaign as an effective way to reach customers with a limited marketing budget. This evaluation covered Energy Hero campaign activities from November 2015 to January 2016. During this time, SCG used a variety of marketing channels to promote the campaign, including television and radio commercials, out-of-home advertising (e.g., billboards), digital and print advertisements, social media promotion, paid advertisements on search engine webpages, and POS promotion.

Table 55. SCG’s 2015 Energy Hero Winter Campaign Marketing Activities

Associated Program	Marketing Activity	Deployment Time Frame	Description	Channel	Audience
Energy Hero: Energy Upgrade California Home Upgrade	Television	Mid-November 2015 – mid-January 2016	Television advertisements promoting Energy Hero and related programs	• Television	Single-family homeowners
	Radio	Mid-November 2015 – mid-January 2016	Radio advertisements promoting Energy Hero and related programs	• Radio	Single-family homeowners

Associated Program	Marketing Activity	Deployment Time Frame	Description	Channel	Audience
	Out of Home	Mid-November 2015 – mid-January 2016	Outdoor bulletins/ billboards	<ul style="list-style-type: none"> Out of Home 	Single-family homeowners, geo-targeted to areas with higher household income and with older home, such as Pasadena, Monrovia, Highland Park, Burbank
	Online Advertising (Digital)	Mid-November 2015 – mid-January 2016	Facebook newsfeeds promoting programs	<ul style="list-style-type: none"> Internet 	Single-Family homeowners
	Print	Mid-November 2015 – mid-January 2016	Advertisements in local news publications	<ul style="list-style-type: none"> Newspapers 	Single-Family homeowners
Energy Hero: Energy Efficiency Starter Kits	Social Media (Paid Social)	Year-round effort	Banner ads	<ul style="list-style-type: none"> Social media 	Single-family residential customers who use a washer at home and currently in the market for a new washer
	Paid Search	Year-round effort	Google paid search on desktop and mobile promoting programs	<ul style="list-style-type: none"> Internet 	
Energy Hero: PLA	POS	Year-round effort	Continued promotion of single-family appliance rebates at the retail level, in such stores as Sears, Home Depot, Howard’s, Lowes, Warehouse Discount Center	<ul style="list-style-type: none"> Retail 	Homeowners who are in the market for new household appliances, such as water heaters, washers

Source: SCG Response to Data Request.

E.2 Evaluation Objectives and Approach

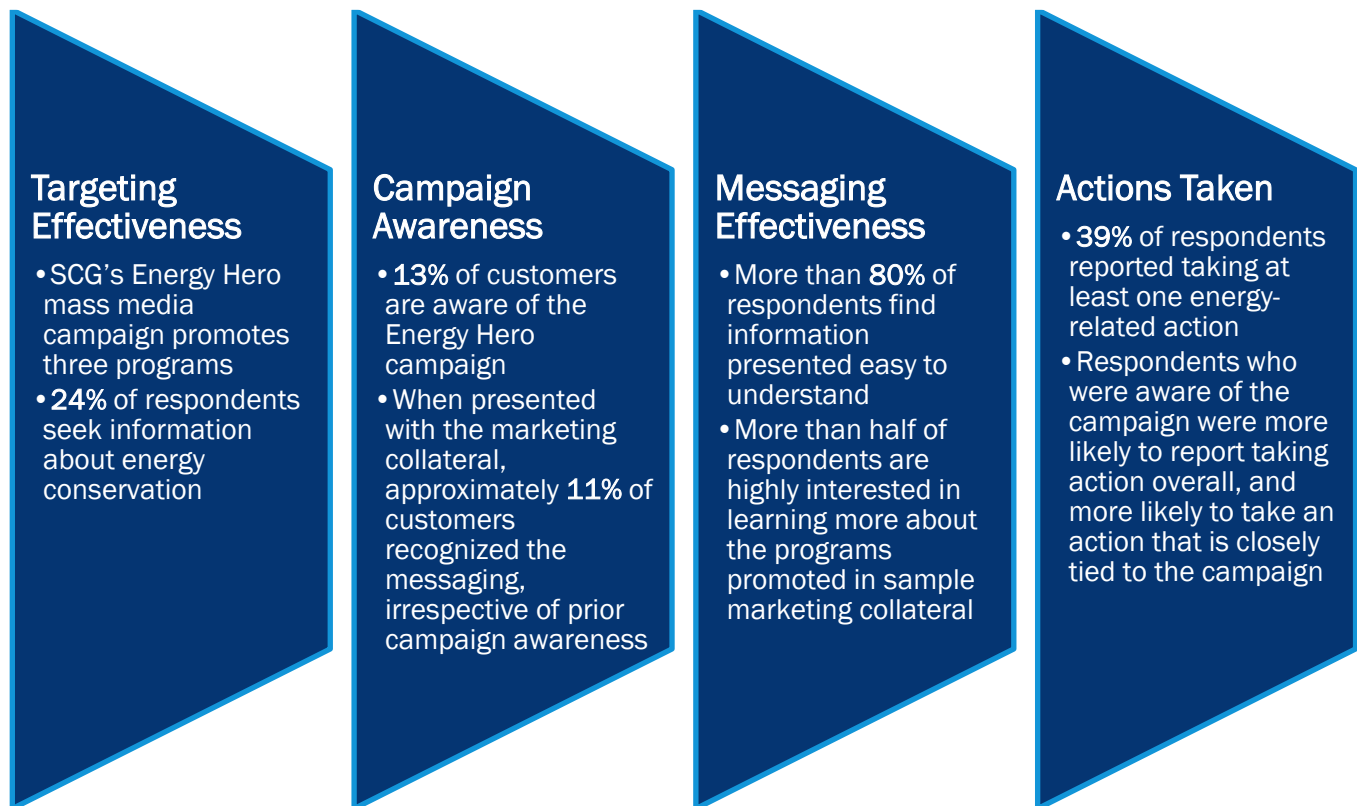
Our research addressed two overarching objectives. The first objective was to document the core activities SCG completed during the Energy Hero Winter Campaign deployed from November 2015 to January 2016 to examine how well these activities align with the campaign theory and stated campaign goals, as well as to assess campaign performance associated with these goals. Second, we assessed the effectiveness of one or more specific marketing activities within the campaign by fielding a survey with general population customers. Notably, this covered a broader time frame than our assessment of achievement of goals, as our survey was fielded in July 2016. To meet the first objective, we reviewed program materials that SCG provided, including communications plans, budgets, metrics, success criteria, and outcomes for all activities. The Energy Hero campaign primarily used mass media marketing techniques and, as a result, we conducted a general population survey to match the target audience. For this survey, we used an internet panel of residential consumers from YouGov based in SCG service territory zip codes. We completed interviews with 250 respondents. Prior to analysis, these data were weighted to reflect the SCG population in terms of age, gender, race, education, and geographic location.¹⁰⁹

¹⁰⁹ Weights were based on the 2013 American Community survey and weights larger than 4 were trimmed.

E.3 Key Findings and Conclusions

Figure 43 combines our findings about targeting, messaging, and resulting awareness in a conceptual model of how the marketing campaign supports customers taking action with respect to the programs. Below the figure, we expand on our conclusions about campaign effectiveness and discuss several limitations of the assessment.

Figure 43. SCG Energy Hero Campaign Marketing Summary of Results



The results of our study suggest that some aspects of SCG’s marketing campaign were more successful than others. In all, it appears that SCG’s Energy Hero campaign is reaching its target audience, has messaging that is clear and informative, and may have an influence on the energy-related actions of the customers who are exposed to it. Specifically:

- **Mass media efforts for the SCG campaign had mixed results in terms of achieving metrics for the Energy Hero Campaign.** With the exception of POS activities, SCG tracks impressions associated with each of the marketing activities. Additionally, for digital marketing activities, they also track CTRs and site visits. SCG developed success criteria associated with each of its metrics for the 2015 Energy Hero Winter Campaign by benchmarking against results from their 2015 Energy Hero Summer Campaign. SCG met three of seven metrics for the campaign promoting the Energy Upgrade Home Upgrade program. It is important to note that the budgets associated with the 2015 Winter Campaign for some activities were lower than for the 2015 Summer Campaign, which may explain some of the differences in performance. Notably, no success criteria were provided for the Energy Efficiency Starter Kit or Retail Marketing efforts. In the future, SCG may want to consider setting goals and tracking

performance for all program marketing efforts. Doing so would allow SCG to evaluate the success of its marketing in the future, and would also allow it to draw comparisons about marketing performance across multiple programs.

- **Overall levels of awareness for the Energy Hero Campaign are roughly the same as other similar campaigns.** 13% of respondents indicated that they were aware of the campaign prior to taking the survey. This awareness level is similar to awareness levels for comparable campaigns we have evaluated in the past (namely SW ME&O awareness for the Energy Upgrade California Home Upgrade Program).
- **Respondents indicated that the campaign messaging was clear and easy to understand.** The campaign performed well in terms of messaging effectiveness, as most respondents found the information presented in campaign materials to be effective and clear.
- **There seems to be a relationship between exposure to the Energy Hero campaign and customer action.** Overall, respondents who were aware of the Energy Hero campaign reported that they were more likely to take an action related to it. Although we cannot say with certainty that there is a causal link between campaign exposure and these actions, these results suggest that there may be a relationship. One could also argue that the respondents who have a history of taking energy-savings actions may be more likely to notice and recall the Energy Hero campaign.
- **Results from this evaluation should be considered in light of the limitations inherent in tracking and assessing performance of mass media campaigns.** Because the Energy Hero campaign was promoted through mass media, we are limited in the conclusions we can make about the effectiveness of the campaign. First, it is difficult to measure the influence of the campaign, because multiple marketing efforts (rather than a single source) could have motivated customers to take action. Therefore, isolating which campaign efforts were most effective is not possible. Second, our survey took place at one point in time, which prevents us from identifying whether exposure to the marketing occurred before or after the reported actions were taken.

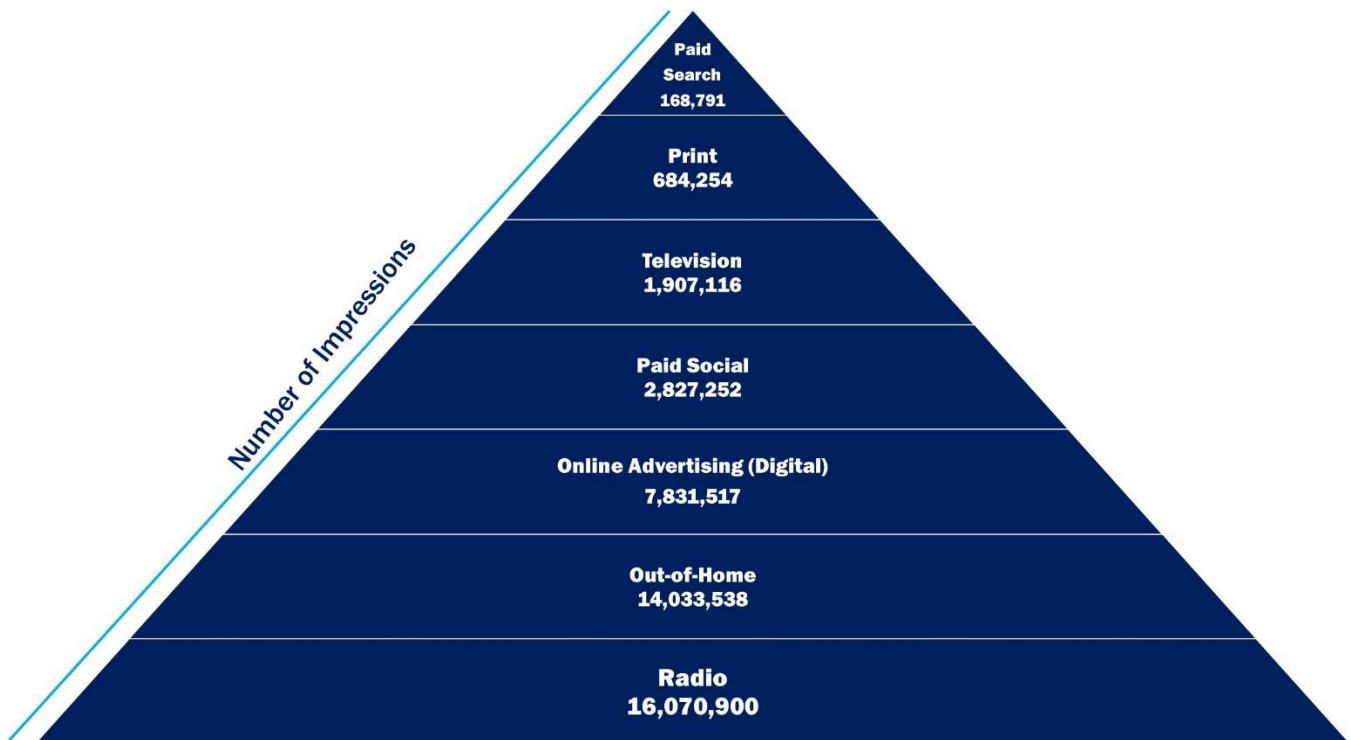
E.4 Detailed Findings

In this section, we present a detailed assessment of the effectiveness of SCG's 2015 Energy Hero Winter Campaign.

Campaign Reach

As shown in Figure 44, SCG generated the largest share of impressions through radio and out-of-home advertising with 16 million and 14 million impressions, respectively. According to SCG, the main goal of the paid media campaign is to create general awareness for the program portfolio. The "impressions" in Figure 44 represent the maximum number of customers the campaign could have reached through each activity. Customers do not click on every internet search result; nor do they read every email that they are sent or every article in the newspaper to which they subscribe. In the case of the program promoted through the Energy Hero campaign, customers reached may not be eligible for the programs. This is generally true of mass marketing tactics, such as television and print ads. In the next section, we explore the extent to which the different marketing activities connected with the target audience and met the metrics that SCG set.

Figure 44. SCG 2015 Energy Hero Winter Campaign Reach



Note: POS activities do not track impression.
 Source: SCG Response to Data Request.

Achievement of Metrics

According to SCG, the main goal for the paid media campaign is to create general awareness for the program portfolio. Other efforts throughout the year for Energy Efficiency Rebates at the POS level and Energy Efficiency Starter Kits at the community outreach level will also help increase awareness and/or participation for those respective programs.

According to interviews with SCG program staff, when developing the campaign in 2014, SCG did not set quantitative goals for its marketing activities, though it did share high-level qualitative goals for its efforts. SCG tracked performance by activity using metrics and reported that it accomplished its goals. For the 2015 Energy Hero Winter Campaign, SCG tracked a variety of marketing metrics. With the exception of POS activities, SCG tracked impressions associated with each of the marketing activities. Additionally, for digital marketing activities, they tracked CTRs and site visits. Notably, success criteria are based on 2015 results for the Energy Hero Summer Campaign. Notably, no success criteria were provided for Cold Water Washer or Retail Marketing efforts.

Table 56. SCG 2015 Energy Hero Winter Campaign Metric Development by Activity

Associated Program	Activity	Approach to Developing Metrics
Energy Hero: Energy Upgrade California Home Upgrade	Television	Compare to total impressions from 2015 Summer Campaign
	Radio	
	Out of Home	

Associated Program	Activity	Approach to Developing Metrics
	Online Advertising (Digital)	Compare to total impressions, CTR, and site visits from 2015 Summer Campaign
	Print	Compare to total impressions from 2015 Summer Campaign
Energy Hero: Energy Efficiency Starter Kits	Social Media (Paid Social)	Capture total impressions, CTR, and site visits
	Paid Search	
Energy Hero: PLA	POS	Capture number of stores and rebates processed, no success criteria provided

Source: SCG Data Request Response.

The evaluation team compared 2015 Winter Campaign results to 2015 Summer Campaign results, where available (Table 57). Overall, there were mixed results in terms of achieving total impressions when compared to the 2015 Energy Hero Summer Campaign. Importantly, when comparing to prior campaigns, it is important to note that delivery of these campaigns and budgets associated with them could affect performance of the campaign. For example, out of home and digital marketing activities budgets decreased by 18% and 40%, respectively, from Summer 2015 to Winter 2015 campaigns. Notably, CTRs for the online advertising activities appear to be lower than typical IOU industry metrics.¹¹⁰

From this vantage point, print media marketing was the most successful channel relative to the prior campaign results, achieving 224% of its impression performance indicator (Table 57). However, it is worth noting that the criterion for success for print media was relatively low compared to other channels. Thus, while print media marketing was the most successful compared to the prior campaign, it had the smallest reach overall of all the marketing channels.

Importantly, impressions do not necessarily indicate that customers will take a next step toward fulfilling the action promoted by the campaign, which in this case is to visit socialgas.com to learn more about the promoted program. As such, it is important to consider impressions as an estimate of the potential reach of the marketing activity. Conversely, CTRs provide actual, rather than potential, engagement with the campaign. CTRs for the digital campaign promoting the Energy Upgrade California Home Upgrade Program were lower than for the paid search CTRs for the Energy Efficiency Starter Kits (0.43% vs. 11.46%). This may suggest that the effectiveness of a campaign in terms of channeling customers to a particular action may be dependent on the action promoted: The Energy Upgrade California Home Upgrade Program is a considerably larger time and financial investment for a participant than is an Energy Efficiency Starter Kit. This may help explain some of the variation in rates seen from the campaign. We also calculated the cost-per-click associated with each digital campaign activity, where results were provided. Cost-per-click rates ranged from \$0.49 for the Energy Efficiency Starter Kits paid search activity to \$1.06 for Energy Efficiency Starter Kits social media activity to \$5.54 for the Energy Upgrade California Home Upgrade Program.

There were no marketing success criteria for the Cold Water Washer and Energy Efficient Appliance Rebate programs. However, for the Energy Efficiency Starter Kits program, paid social media had a greater reach than paid searches (2.8 million impressions vs. nearly 170,000 impressions), though paid searches were better able to attract customers' attention with a CTR of 11.46% vs. 0.60% for paid social media. For the Energy

¹¹⁰ According to SCE's data request, IOU industry typical open rates are 22% and CTRs are 1.58%. Source: 2015 Email Marketing Metrics Benchmark Study 2015 Silverpop, available at: <http://www.silverpop.com/Documents/Whitepapers/2015/Email-Marketing-Metrics-Benchmark-Study-2015-Silverpop.pdf> and Questline, 2015 Energy Utility Email Benchmarks Report available at: <https://cdn.questline.com/asset/get/47a2f0f7-f0fd-4917-b7b6-2625e84ef911> via SCE response to data request.

Efficient Appliance Rebate program, we do not have data regarding individual impressions; however, we do know that this marketing effort took place in nearly 400 retail locations and that more than 6,000 rebates were processed.

Table 57. SCG 2015 Energy Hero Winter Campaign Achievement of Metrics

Associated Program	Activity	Metric	Success Criteria	Result	Achievement
Energy Hero: Energy Upgrade California Home Upgrade	Television	Impressions	1,836,786	1,907,116	104% of goal
	Radio	Impressions	18,173,200	16,070,900	88% of goal
	Out of Home	Impressions	27,216,840	14,033,538	52% of goal
	Online Advertising (Digital)	Impressions	11,374,943	7,831,517	69% of goal
		CTR	0.42%	0.43%	0.01 percentage points higher than goal
		Site visits	48,024	33,624	70% of goal
Print	Impressions	305,977	684,254	224% of goal	
Energy Hero: Energy Efficiency Starter Kits	Social Media (Paid Social)	Impressions	Not provided	2,827,252	Not applicable
		CTR	Not provided	0.60%	Not applicable
		Site visits	Not provided	11,334	Not applicable
	Paid Search	Impressions	Not provided	168,791	Not applicable
		CTR	Not provided	11.46%	Not applicable
		Site visits	Not provided	19,343	Not applicable
Energy Hero: PLA	POS	Number of stores	Not provided	399	Not applicable
		Number of rebates processed	Not provided	6,676	Not applicable

Source: SCG Response to Data Request.

Marketing Budget and Expenditures

The Energy Hero campaign utilized five mass media marketing channels: radio, billboards, digital media, television, and print ads. SCG provided the evaluation team with budgets and expenditures across each of the campaign time frames. Overall, for both the Energy Hero campaign and the Cold Water Washer campaign, SCG spent their entire budget across the various mix of marketing activities. SCG provided their first quarter expenditures across their 2016 annual budget for the POS efforts for the Energy Efficient Appliance Rebate program, and spent one quarter of their annual budget. Marketing efforts for this program received the greatest share of the budget (56%) for point-of sale promotion (Table 58). This activity promotes appliance point-of-sale rebates at various retailers via in-store signage as well as through educating/updating the sales representatives on SCG's available rebates on a monthly basis.

For the Energy Hero campaigns, the largest share of budget went to television marketing (Table 58). The Cold Water Washer program used paid social media and paid web search promotion: these marketing activities accounted for a small portion of the overall budget (3%).

Table 58. SCG 2016 Energy Hero Budget & Expenditures

Activity	Campaign Timeframe	Campaign Budget	Campaign Expenditures	Share of Expenditures	% of Budget Spent
Energy Hero Campaign Budget		\$288,330	\$288,330	71%	100%
Television	Mid-November 2015 through Mid-January 2016	\$94,841	\$94,841	23%	100%
Radio		\$65,076	\$65,076	16%	100%
Out of Home (OOH)		\$56,750	\$56,750	14%	100%
Online Advertising (Digital)		\$43,423	\$43,423	11%	100%
Print		\$28,243	\$28,243	7%	100%
Cold Water Washer Program Budget		\$19,632	\$19,632	5%	100%
Social Media (Paid Social)	March - April 2016	\$12,000	\$12,000	3%	100%
Paid Search		\$7,632	\$7,632	2%	100%
Point-of-Sale (POS) for Energy Efficient Appliance Rebate Budget	January 2016- December 2016	\$385,000	\$96,250	24%	25%

Source: SCG Response to Data Request. Note: All budgets and expenditures reflect media buys and exclude agency fees.

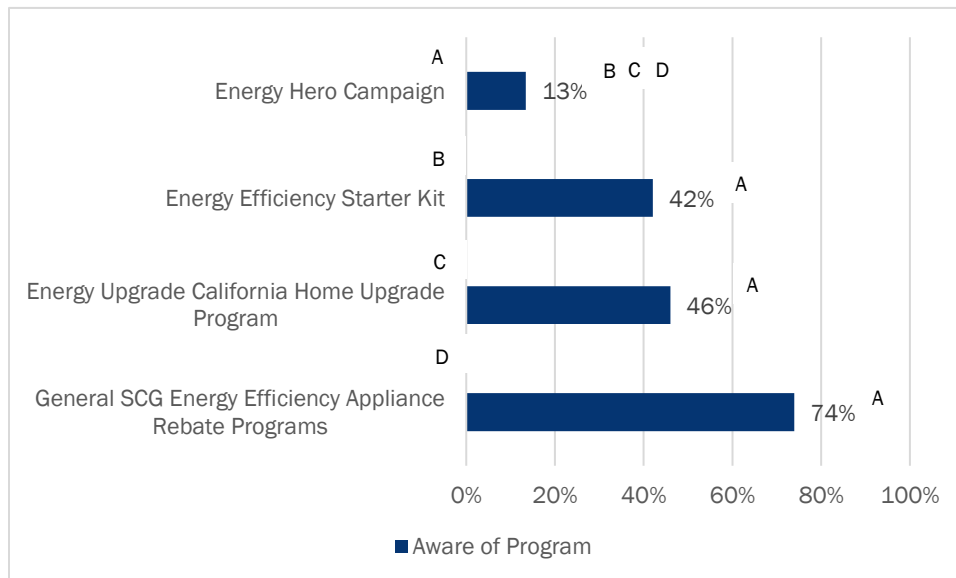
Awareness of the Energy Hero Campaign and Promoted Programs and Marketing Recall

Overall, survey respondents had a moderate level of awareness of the Energy Hero campaign: 13% of respondents indicated that they had heard of the campaign before completing the survey (Figure 45).¹¹¹ Respondents' level of awareness of the Energy Hero campaign was relatively low compared to their awareness of other SCG programs. As shown in Figure 45, a significantly higher percentage of SCG residential customers were aware of the energy efficiency Appliance Rebate program (76%), Energy Upgrade California Home Upgrade Program (46%), and Energy Efficiency Starter Kit program (42%) than the Energy Hero campaign. However, Energy Hero is a brand, rather than a program, and we would expect program awareness to be higher than brand awareness given that these programs have been offered for many years and are marketed through other sources, while the Energy Hero brand campaign began just 2 years ago. Awareness levels for the Energy Hero brand are consistent with the general population statewide panel survey that Opinion Dynamics conducted to understand customer awareness of the Energy Upgrade California Campaign, as 15%-20% of respondents to that survey were aware of the Energy Upgrade California brand.¹¹²

¹¹¹ Importantly, there is a similarly named financing campaign promoted in the same territory (PACE's Hero program). We did not ask about this program in our survey in an effort to limit respondent confusion. However, because we opted to exclude it, we cannot say with utter certainty that people who reported being aware of Energy Hero were not reporting awareness of the Hero campaign.

¹¹² Opinion Dynamics. April 2016. PY2013-2015 California Statewide Marketing, Education, and Outreach Program: Verification and Integrated Effectiveness Study. CALMAC Study ID: CPU0110.02. Prepared for the California Public Utilities Commission.

Figure 45. SCG’s Energy Hero Campaign and Promoted Program Awareness



Note: Letters next to percentages indicate the percentage is significantly different from the indicated group at the 95% level. Source: SCG Energy Hero Campaign Survey.

The primary goal of the Energy Hero campaign is to create general awareness for SCG’s energy efficiency program portfolio, including appliance rebates, the Energy Upgrade California Home Upgrade Program, and Energy Efficiency Starter Kits. We asked respondents who were aware of each of these programs where they learned about them to understand if Energy Hero’s marketing channels were effective relative to other channels. Table 59 shows that information sources not associated with the Energy Hero campaign, such as bill inserts and SCG’s website, were the channels that customers most commonly recalled about how they learned about SCG’s energy efficiency programs. TV commercials were the most commonly cited sources of the media channels that the Energy Hero Marketing campaign (19%) leveraged, followed by print or newspaper advertisements (16%) and radio commercials (12%).

Table 59. Aided Recall of Sources of Information about SCG Programs

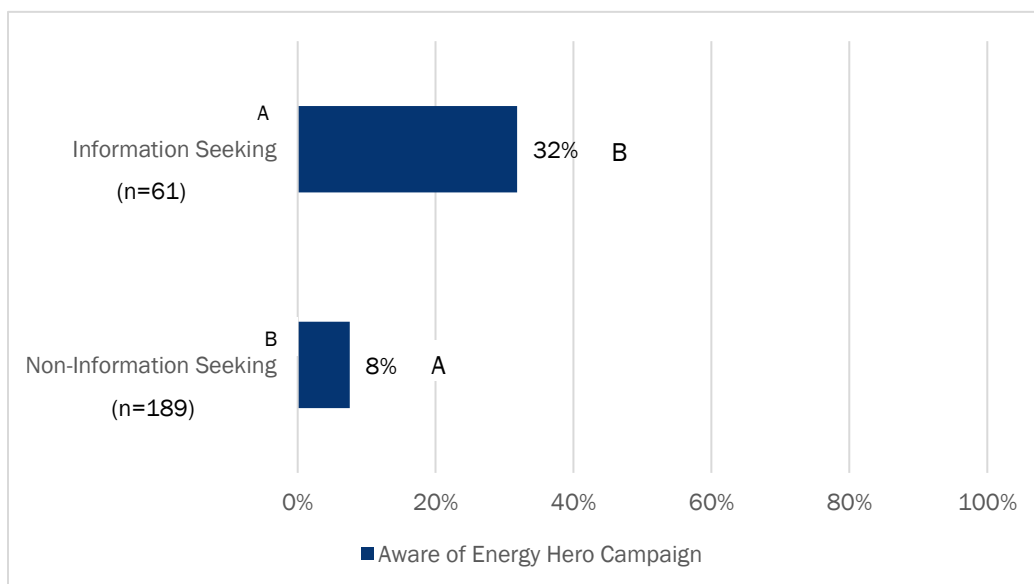
Media Type	Information Source	SCG programs that provide rebates for energy efficiency appliances (n=185)	Energy Upgrade California Home Upgrade (n=115)	Energy Efficiency Starter Kits (n=105)	Energy Hero Campaign Channel?
Mass Media	SCG’s website	25%	16%	14%	No
	TV commercials	19%	12%	10%	Yes
	Print or newspaper advertisements	16%	15%	6%	Yes
	Radio commercials	12%	8%	4%	Yes
	Social media (Facebook, Twitter, etc.)	10%	7%	8%	Yes
	Online advertisements that appeared on Google or Facebook	6%	6%	4%	Yes
	Bill inserts	35%	36%	31%	No

Media Type	Information Source	SCG programs that provide rebates for energy efficiency appliances (n=185)	Energy Upgrade California Home Upgrade (n=115)	Energy Efficiency Starter Kits (n=105)	Energy Hero Campaign Channel?
Direct Marketing	Letter, flyer, or card from SCG, not associated with your bill	19%	15%	25%	No
	Email from SCG, not associated with your bill	16%	12%	10%	No
	Email about your bill	15%	16%	14%	No
	Retail store	10%	8%	3%	Yes
Community Outreach	Heard about it from a friend, relative, or neighbor	14%	21%	17%	No
	A community group or nonprofit agency in your community	5%	4%	7%	No
Other	Contractor, SCG representative, community event, church group, billboard	11%	14%	12%	No

Source: SCG Energy Hero Campaign Survey.

One factor that may affect people’s awareness of the Energy Hero campaign is the extent to which they seek information about energy-saving actions on their own, that is, people who are already interested in the topic of saving energy might be more inclined to pay attention to this type of marketing. As such, we asked respondents whether they had looked for information on how to save energy in the 6 months prior to taking the survey, and 24% of respondents stated that they had looked for information. As shown in Figure 46, a significantly higher percentage of respondents who were “information-seeking” were aware of the marketing than those respondents who were not “information-seeking” (32% vs. 8%).

Figure 46. Energy Hero Campaign Awareness among Those Seeking Information about Saving Energy

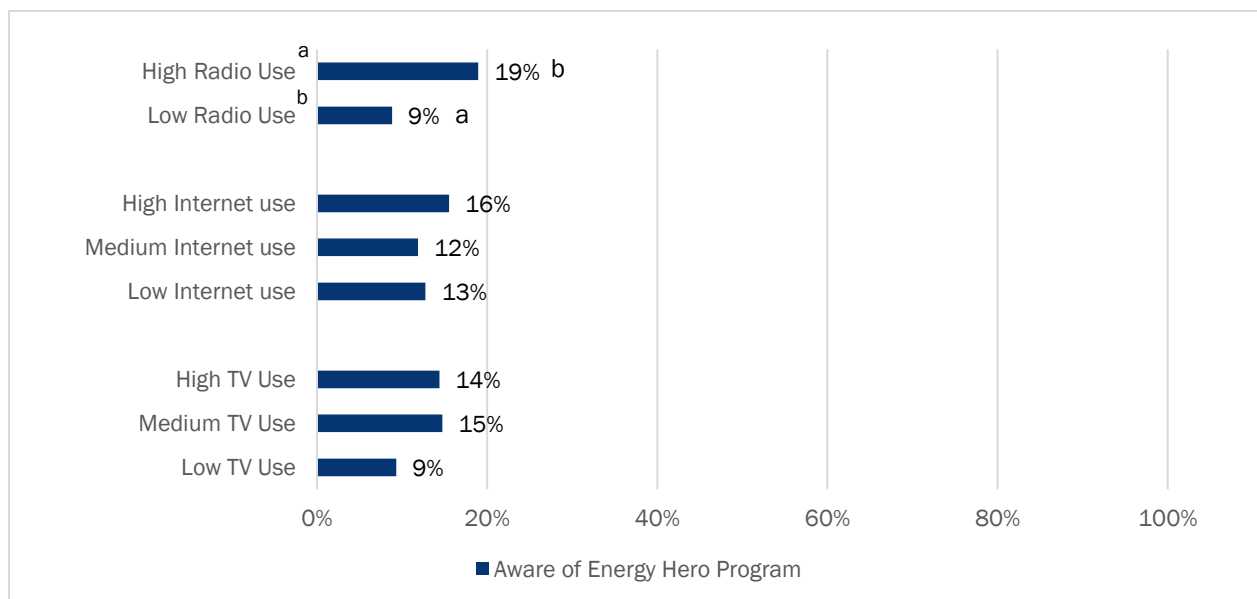


Note: Letters next to percentages indicate the percentage is significantly different from the indicated group at the 95% level.

Source: SCG Energy Hero Campaign Survey.

Another factor that might influence respondents’ familiarity with the Energy Hero mass media marketing campaign is how much mass media they consume. As such, we asked respondents several questions about their engagement with different types of media to understand whether increased media use was associated with increased awareness of the Energy Hero campaign. As shown in Figure 47, there was no relationship between the level of respondents’ television and internet use and awareness of the Energy Hero campaign. However, there was a relationship between radio listening and campaign awareness. Customers categorized as “high radio users” (1 or more hours per week) were somewhat more likely to be aware of the Energy Hero program than customers categorized as “low radio users” (less than 1 hour per week). This finding may suggest that, of the mass media approaches, radio may be more effective at capturing customers’ attention than other approaches.

Figure 47. Energy Hero Campaign Awareness by Media Use



Note: High television use=4+ hours/week, medium television use=2-4 hours/week, low television use=less than 2 hours/week.

High internet use=6+ hours/week, medium internet use=3-6 hours/week, low internet use=less than 3 hours/week

High radio use=1+ hours/week, low radio use=less than 1 hour/week.

A and B indicate significant differences between the levels of usage for the specified media type at the 0.10 significance level (Z-test).

Source: SCG Energy Hero Campaign Survey.

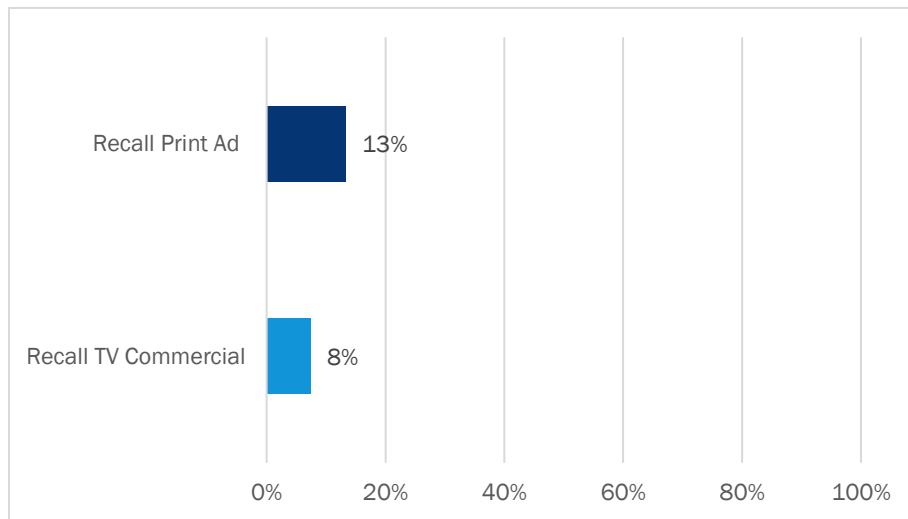
Given that this was a survey of the general population (as opposed to a program participant list), we expected relatively low levels of awareness of the campaign. Given this expected lack of familiarity, we presented respondents with the two pieces of marketing collateral to get their initial impressions of the campaign. All respondents, irrespective of previous campaign awareness, were shown an Energy Hero television commercial (<https://www.youtube.com/watch?v=i-jvnIme4FM>) and print advertisement (Figure 48) and asked a series of questions about the ads.

Figure 48. Energy Hero Campaign Print Advertisement Survey Collateral



We probed respondents regarding their familiarity with the collateral after having seen it (aided recall). Unsurprisingly, respondents who were familiar with the Energy Hero campaign prior to seeing the collateral were more likely to report seeing both the Energy Hero print ad and television commercial. Overall, 11% of respondents recalled seeing either the print or television advertisement after being presented with it. With regard to specific medium, respondents tended to have lower recognition for the television commercial (8%) compared to the print advertisement (13%) (Figure 49). However, respondents who reported being previously aware of the Energy Hero Campaign were more likely to recall seeing the marketing: 52% of these respondents recalled the television commercial and 37% recalled the print ad, compared to 9% who did not recall the television commercial and 10% who did not recall the print ad.

Figure 49. Aided Recall of the Energy Hero Campaign Print and Television Advertisements

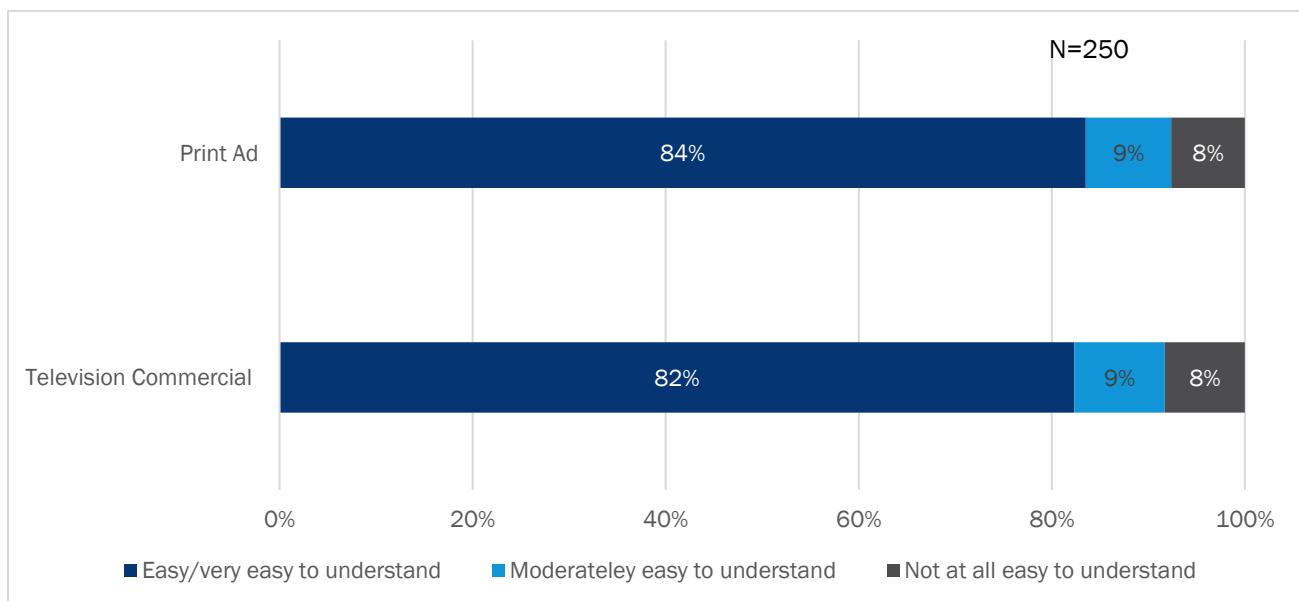


Source: SCG Energy Hero Campaign Survey.

Campaign Messaging Clarity

We also asked respondents how easy the collateral was to understand (clarity), and how new the information presented in the collateral was (novelty) when presenting respondents with the pieces of marketing collateral. Irrespective of their campaign awareness, respondents found the information presented in the marketing materials to be clear. Most respondents found the information provided in both the print ad and the television commercial to be easy or very easy to understand (84% and 82%, respectively) (Figure 50).

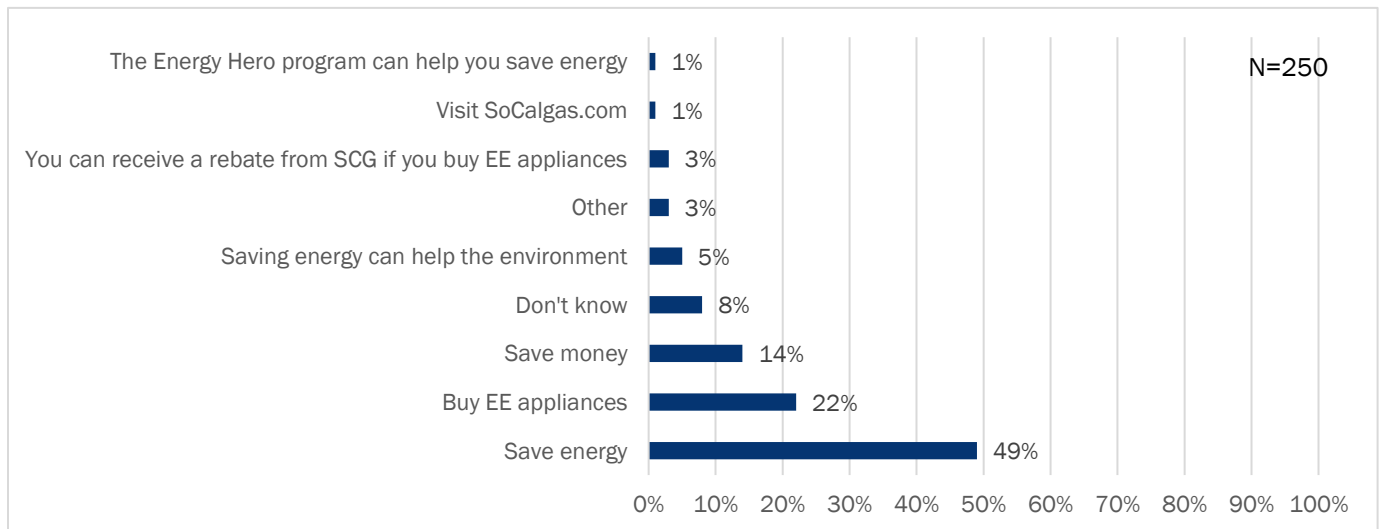
Figure 50. Clarity of Information Provided in Energy Hero Campaign Print Ad and Television Commercial



Source: SCG Energy Hero Campaign Survey.

As an additional measure of the clarity of the marketing messaging, we asked respondents to explain the main message of the commercial in their own words. As shown in Figure 51, nearly three-quarters (71%) of respondents were able to correctly identify the messages conveyed in the commercial, with nearly half saying the main message was to “save energy” followed by 22% who claimed that the main message was to buy energy-efficient appliances.

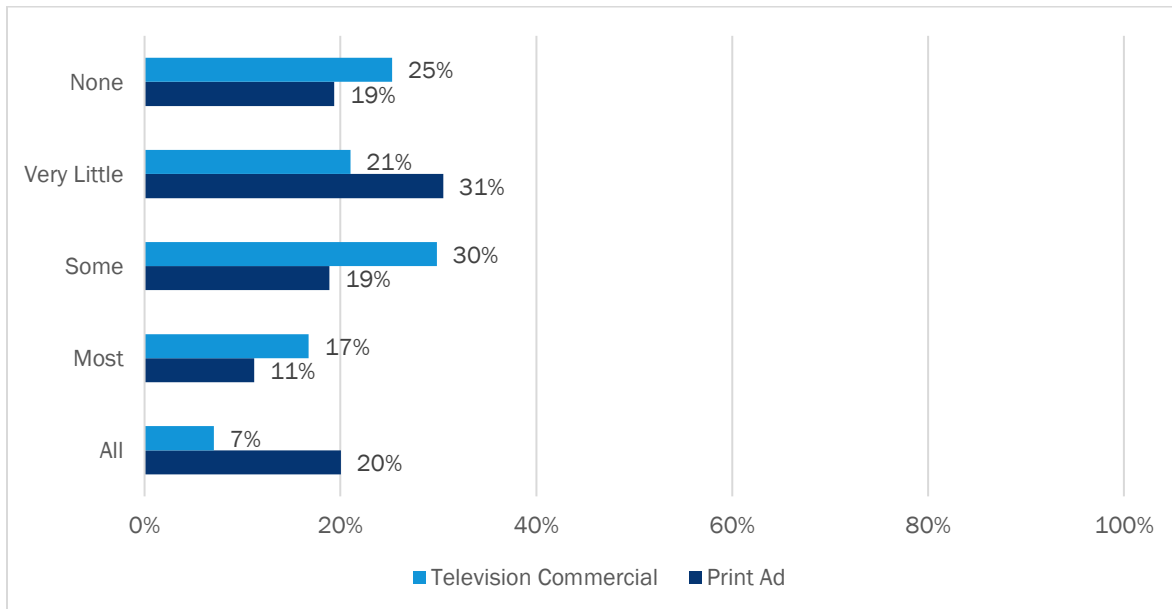
Figure 51. Customers’ Interpretation of the Main Message of the Energy Hero Campaign Commercial



Notes: Answers shown are the coded answers to the question: “In your own words, what is the main message of this commercial?” Respondents could have answers in more than one category.
 Source: SCG Energy Hero Campaign Survey.

Respondents had mixed views when it came to the newness of the information presented in the materials, though results varied slightly by medium (Figure 52). For instance, a greater percentage of respondents (31%) found very little of the information provided in the print ad to be new, compared to 21% of respondents who found very little of the information in the television ad to be new. In addition, a greater percentage of respondents (20%) found all of the information in the print ad to be new, compared to 7% of respondents who found all of the information in the television commercial to be new. It is not clear whether the differences are due to the medium or the different content provided in the television commercial and print ad, since the former was focused on promoting rebates for energy-efficient appliances, while the latter promoted weatherization upgrade rebates.

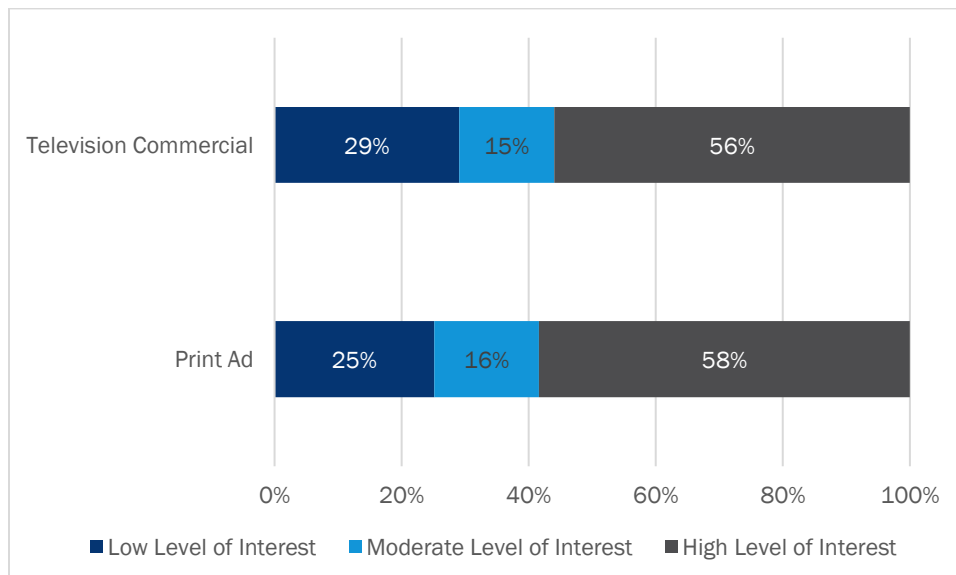
Figure 52. Amount of New Information Provided in the Energy Hero Campaign Print Ad and Television Commercial



Source: SCG Energy Hero Campaign Survey.

Finally, customers had very similar levels of interest in both the television commercial and print ad, with 56% and 58% of customers indicating that they wanted to learn more about the program presented in each piece of collateral, respectively (Figure 53).

Figure 53. Customer Interest in Learning More about Programs Promoted by Energy Hero Campaign



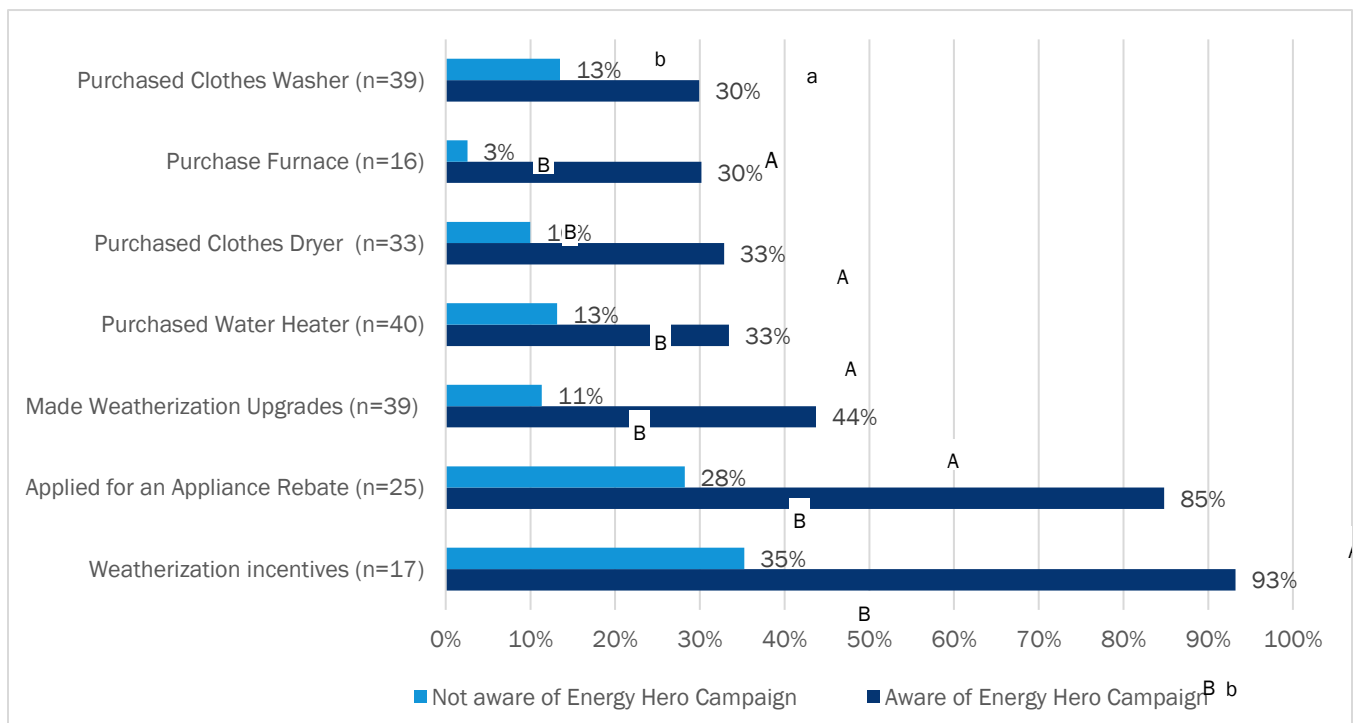
Source: SCG Energy Hero Campaign Survey.

Campaign Influence on Behaviors and Actions

The Energy Hero campaign promoted a series of programs that each directed customers to take specific actions. The Energy Hero campaign promoted several programs, including the Energy Upgrade California Home Upgrade Program, which encourages customers to apply for weatherization incentives and upgrades; the Energy Efficiency Rebate program and the Cold Water Washer program, which encourage customers to purchase energy-efficient appliances; and the Energy Efficiency Starter Kit program, which encourages customers to request their free kit.

Overall, 39% of respondents reported taking at least one energy-saving action associated with these programs. Customers who were aware of the Energy Hero campaign were more likely to take an action than customers who weren't aware. Although we cannot directly link marketing exposure to the respondents' actions, it suggests that awareness of the campaign is correlated with higher rates of self-reported actions specifically promoted by the campaign.

Figure 54. Actions Taken by Customers Aware and Not Aware of the Energy Hero Campaign



Notes: A and B indicate significant differences between those who were aware and those who were not aware of the Energy Hero campaign and took each action at the 0.05 significance level (Z-test); a and b indicate differences at the 0.10 significance level. The Cold Water Washer program provided rebates for a specific cold water clothes washer, while the Energy Efficient Appliance Rebate program provided incentives for qualifying energy-efficient washers.

Source: SCG Energy Hero Campaign Survey.

F. SoCalREN’s Energy Upgrade California Home Upgrade Program

F.1 Marketing Campaign Overview

SoCalREN’s Energy Upgrade California Home Upgrade Program offers incentives up to \$3,000 to consumers for completing comprehensive home retrofits through a participating contractor. The overarching goals for the program’s ME&O efforts during the first quarter of 2016 were to generate awareness and participation among several key target audiences: homeowners, contractors, and public agencies. For the purposes of this assessment, we focused on marketing efforts targeting homeowners, as they are ultimately the participants in the program and are the target of the majority of marketing activities.¹¹³

SoCalREN set out to achieve its marketing goals by creating a virtual buzz among consumers through social media; educating homeowners by email; engaging them in person through workshops or events; and making marketing collateral available for stakeholders, such as contractors and local government personnel. SoCalREN also promoted the Energy Upgrade California Home Upgrade Program through the organization’s website (www.theenergynetwork.com), which is designed to be a one-stop shop for program materials and additional information.¹¹⁴

Table 60. SoCalREN’s Q1 2106 Energy Upgrade California Home Upgrade Program Marketing Activities

Marketing Activity	Deployment Time Frame	Description	Channel	Audience
Assessment Voucher Emails	January – March 2016	Email blast to contractors offering an incentive for executing comprehensive energy assessments	• Email	Contractors
Collateral Distribution	January – March 2016	Distribute program collateral to homeowners, contractors, local governments, and realtors; delivered at events, upon request, or through city partners	• Flyers • Partnerships	Homeowners, Contractors, Local Governments, Real Estate Professionals
Community Events	February – March 2016	Participate in local community events to educate homeowners about the program and whole-house energy efficiency	• Events/ workshops	Homeowners
Email Newsletter	January – March 2016	Twice-monthly email newsletter to homeowners and general audiences with program and whole-house energy efficiency information	• Email	Homeowners
Home Upgrade Advisor Call Center	January – March 2016	Call center for information on energy efficiency programs	• Email • Phone	Homeowners
Homeowner Workshop	March 2016	Organize workshops to educate homeowners about the program and whole-house energy efficiency; also includes lunch and learn office visits	• Events/ workshops	Homeowners

¹¹³ In particular, participating contractors were interviewed during the study period as part of the IOU led process evaluation of the Energy Upgrade California Home Upgrade Program.

¹¹⁴ The website has separate homepages for residents, businesses, and public agencies.

Marketing Activity	Deployment Time Frame	Description	Channel	Audience
Homeowner Workshop Social Media Promotion	January – March 2016	Facebook and display advertisements to promote local workshops	• Social media	Homeowners
Local Government Outreach	January – March 2016	Build relationships with city staff and leverage their networks to promote the program to homeowners	• Email • Partnerships • Phone	Local Governments
Online Lead Generation	January – March 2016	Use Google AdWords and website to drive customers to a landing page where homeowners can find contact information for Home Upgrade contractors; SoCalREN provides several contractor options to customers based on their geography or other criteria; customer can also request to speak with a Home Upgrade Advisor.	• Internet	Homeowners
Social Media	January – March 2016	Grow following on Facebook page and provide messages about program and whole-house energy efficiency information	• Social media	Homeowners
Upgrade Coupon Social Media Promotion (initial research)	January – March 2016	Drive interest in Advanced Home Upgrade through Facebook advertisements; initial research stage in Q1, launch in Q2	• Social media	Homeowners
Website	January – March 2016	Maintain program information on website	• Website	Homeowners, Contractors, Local Governments, Real Estate Professionals

Source: SoCalREN Response to Data Request

F.2 Evaluation Objectives and Approach

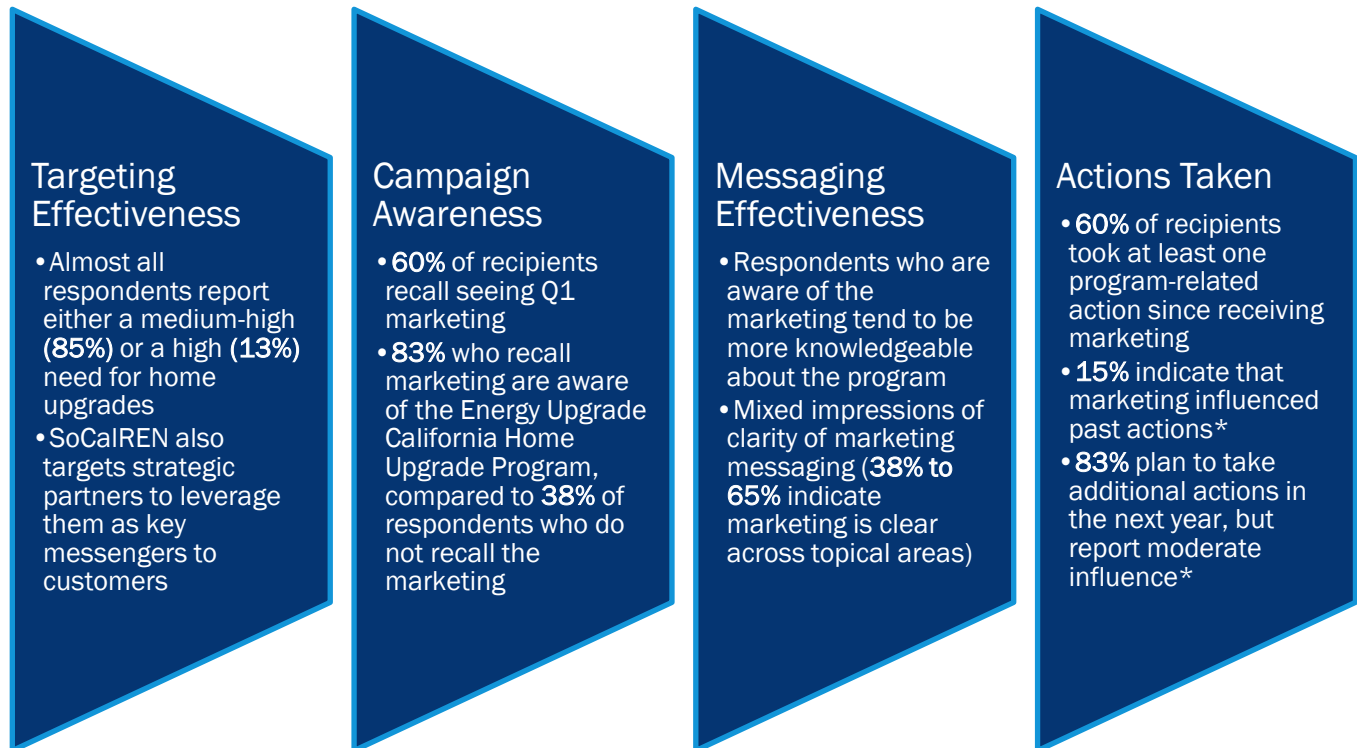
Our research addressed two overarching objectives. The first objective was to document the core marketing activities SoCalREN completed during Q1 2016 campaign to examine how well these activities align with the campaign theory and stated campaign goals, as well as to assess campaign performance associated with these goals. Second, we assessed the effectiveness of one or more specific marketing activities within the campaign by fielding a survey with targeted customers. To meet the first objective, we reviewed program materials that SoCalREN provided, including communications plans, budgets, metrics, success criteria, and outcomes for all activities. To meet the second objective, we fielded an internet survey to a census of 877 customers who received Home Upgrade Advisor workshop invitations, attended a workshop, or contacted the Home Upgrade Advisor call center.¹¹⁵ We completed surveys with 40 of these customers. As part of the survey effort, we explored the effectiveness of any SoCalREN marketing efforts that consumers recalled from 2015 or Q1 2016.

F.3 Key Findings and Conclusions

¹¹⁵ We chose to interview homeowners because the program tracked whether or not they received marketing materials or engaged with the program. Further, we decided, given ongoing evaluations for the Energy Upgrade California Home Upgrade Program, that additional interviews with the same contractors would be burdensome.

SoCalREN's goals in promoting the program were to increase program awareness and participation. Figure 55 combines our findings about targeting, messaging, and resulting awareness in a conceptual model of how the marketing campaign supports customers taking action with respect to the programs. Below the figure, we expand on our conclusions about campaign effectiveness and discuss several limitations of the assessment.

Figure 55. SoCalREN Energy Upgrade California Home Upgrade Program Marketing Summary of Results



* Percent who indicate that marketing influenced past or planned actions is based on the percent of respondents who recalled the marketing, took at least one action in the past few months, and, when asked about their likelihood to have taken or take action if they had not received information from the marketing, provided a score of 1, 2, or 3 on a scale of 1 “not at all likely” to 7 “very likely.”

The results of our study suggest that SoCalREN's marketing campaign achieved success across several dimensions. Key findings and recommendations include:

- **A review of materials is mixed in terms of whether or not SoCalREN will achieve its annual marketing campaign goals.** In many cases, especially for online activities, SoCalREN is on pace to achieve or exceed annual goals. In others, such as community events, SoCalREN may need to significantly ramp up efforts for the remainder of the year. However, we cannot make conclusive statements about progress to date because we have limited data on how much SoCalREN invested in those efforts in Q1. Specifically, SoCalREN does not track expenditures at the activity level. The evaluation team recommends that SoCalREN track expenditures at an activity level to enable assessment of marketing performance to inform future marketing efforts.
- **SoCalREN's marketing campaign appears to be well targeted.** In particular, SoCalREN's marketing strategy is well suited for the Energy Upgrade California Home Upgrade Program. SoCalREN mixes direct marketing to homeowners with leveraging strategic partners (contractors, real estate professionals, local governments) who act as credible messengers to homeowners. This type of strategy is appropriate for the program, which relies on a network of participating contractors and

requires a large financial investment from homeowners. SoCalREN's focus on "deep engagement" efforts (such as presentations and conversations with customers), rather than mass media, is also aligned with the level of support homeowners may need to decide whether to participate.

- **Awareness of Energy Upgrade California Home Upgrade Program is moderate (65%), and SoCalREN efforts appear to be successful in driving program awareness.** A little under three-quarters of survey respondents recall some marketing from SoCalREN. Further, consumers who recall the marketing have higher awareness of the program (83%) than those who do not recall the marketing (38%). In addition, those who recall marketing tend to have higher familiarity and knowledge of the program.
- **Respondent perception of newsletter marketing was varied in terms of clarity.** The marketing campaign was moderately effective in delivering its intended messaging in that it is generally giving consumers a somewhat clear idea of how to take such actions as attending community events or finding out more about the program. However, some aspects of marketing messaging could use improvement. There was a range in terms of the clarity of the messaging (28% to 65% of respondent's report "very clear"). However, we do find that customers who recall receiving marketing have greater levels of knowledge regarding the program.
- **SoCalREN marketing is one of many factors that may contribute to future program participation, and focuses on moving customers along the path to engaging with more information about the program.** Nearly two thirds of respondents (60%) reported taking some intermediate action related to participating in the program or planning to take some type of action in the next 12 months. However, respondents also indicated that the marketing had a low influence on consumer decisions to take these intermediate actions.

Additionally, this assessment should be interpreted in light of three limitations.

- First, our analysis focuses on short-term outcomes from the marketing, and comments on the effectiveness of one key activity targeted to homeowners only, and email newsletter. We recommend that the CPUC interpret our findings as only one of several important indicators of the broader campaign's success in marketing the Program. To address this limitation, future research should consider conducting a longitudinal study of awareness over time, such as before and after receipt of marketing materials. Further, we recommend comparing program enrollment rates 12 months after the receipt of materials to explore the degree of correspondence between the survey respondents' reported intentions to participate in the program (within a month of receiving marketing materials) relative to their actual participation.
- Second, we fielded a customer survey among a specific subset of the SoCalREN customer base that does not represent all customers who might be exposed to SoCalREN's Energy Upgrade California Home Upgrade Program marketing campaign. At best, the responsiveness of customers who opt in to receiving the marketing may be considered an upper-bound approximation of the responsiveness of all customers on average.
- Third, marketing is one of many influences that can support a customer decision to participate in a program. Given the limited number of participants we surveyed, we were unable to assess the role of marketing compared to other factors in terms of driving participation.

F.4 Detailed Findings

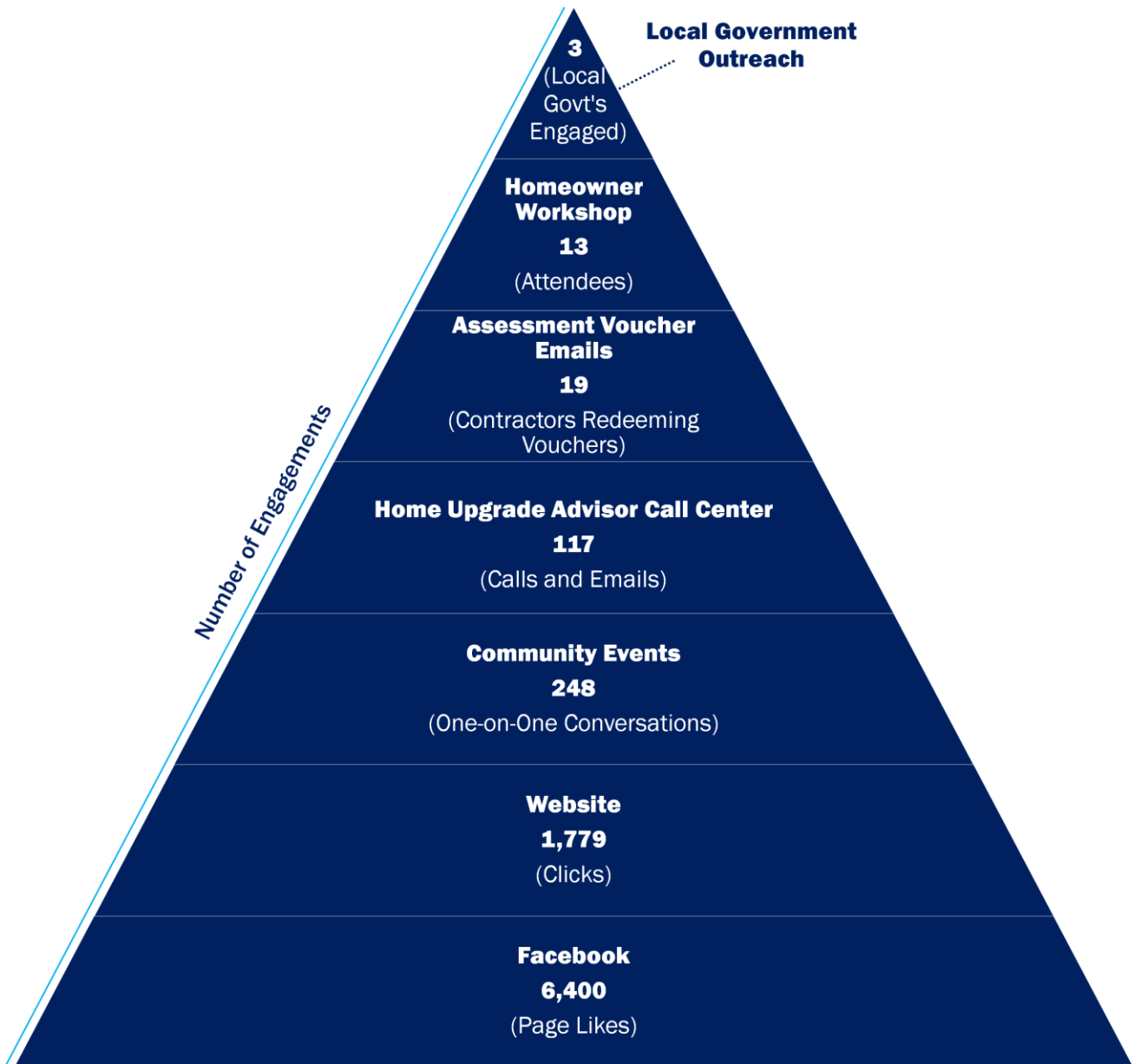
In this section, we present an assessment of the effectiveness of SoCalREN's Q1 2016 Energy Upgrade California Home Upgrade Program marketing campaign.

Campaign Reach

As shown in Figure 56, SoCalREN reached the greatest number of consumers with digital marketing activities, such as Facebook or their website. The “engagements” in Figure 56 represent the customers the campaign reached through each activity.

Notably, most tactics involved in-person events with homeowners and strategic partners, and reach is tracked through attendees at these events. These in-person activities typically reached far fewer customers or partners but offered opportunities for face-to-face, in-depth engagements. In the next section, we explore the extent to which the different marketing activities connected with the target audience and met the metrics that SoCalREN set.

Figure 56. Q1 2016 Marketing Program Reach for SoCalREN Energy Upgrade California Home Upgrade Program Marketing Reach



Note: SoCalREN does not track interactions for the email newsletter and homeowner workshop promotion activities.
Source: Secondary data provided by SoCalREN.

Achievement of Metrics

SoCalREN set annual metrics and success criteria for 9 of its 10¹¹⁶ active 2016 marketing activities. According to SoCalREN, program implementers develop their marketing strategies and goals using a variety of primary and secondary research. However, typically these goals are not developed by quarter, making it difficult to assess whether they will achieve their goals by year-end.

In many cases, especially for online activities, SoCalREN is on pace to achieve or exceed annual goals. For instance, it is currently exceeding its web clicks (website) and CTR goals. However, SoCalREN tracks these accomplishments as a rate, and current data represent only a small sample of the total events it plans. As such, we cannot conclude whether SoCalREN will maintain these rates throughout the rest of the year. In other cases, such as community events or workshops, SoCalREN will need to significantly ramp up activities in the remainder of the year to meet its goals.

Additionally, there appears to be several opportunities for SoCalREN to improve its progress tracking. For instance, SoCalREN could estimate impressions by tracking the number of social media followers and tracking the number of emails distributed. Further, SoCalREN currently tracks CTRs for some social media and website activities, but not others.

Table 61. SoCalREN Q1 2016 Energy Upgrade California Home Upgrade Program Marketing Campaign Achievement of Metrics

Activity	Metric	Success Criteria	Result	Achievement
Assessment Voucher Emails	Contractors requesting and redeeming vouchers	4	3	75% of quarter goal
	Vouchers requested	27	27	100% of quarter goal
	Redeemed vouchers	36	19	53% of quarter goal
Collateral Distribution	Develop collateral	Deploy collateral	Collateral deployed	Achieved
Community Events	Number of events	45	3	7% of annual goal
	Number reached at event	4,500	248	6% of annual goal
Email newsletter	Open rate	30%	20%	10 percentage points lower than goal
Home Upgrade Advisor Call Center	Phone or email contacts	Not provided	117	Not applicable
Homeowner Workshop	Events	16	2	13% of annual goal
	Number of attendees	240	13	5% of annual goal
Homeowner Workshop Social Media Promotion	CTR	1%	2.26%	1.26 percentage points higher than goal
	Cost per click	\$0.30	\$0.18	60% of annual goal
Local Government Outreach	Local governments engaged	12	3	25% of annual goal
Social Media	Facebook page likes	10,000	6,400	64% of annual goal
Website	Clicks	1,000	1,779	178% of campaign goal

¹¹⁶ This count excludes two activities that were under development during Q1 2016.

Note: Online lead generation tool was under development, planned launch in Q2. Upgrade Coupon Social Media Promotion was in research stage during Q1.
 Source: SoCalREN Data Request.

Program Budget and Expenditures

SoCalREN conducted 12 different types of ME&O activities for the Energy Upgrade California Home Upgrade Program in Q1 2016. It did not track budgets and expenditures at the activity level for most activities, but grouped 10 of them into one general category comprising the vast majority of its total budget and expenditures. Overall, the program spent about a third of its annual 2016 ME&O budget in the first quarter (Table 62).

Table 62. SoCalREN Budget and Q1 2016 Expenditures for Promotion of the Energy Upgrade California Home Upgrade Program

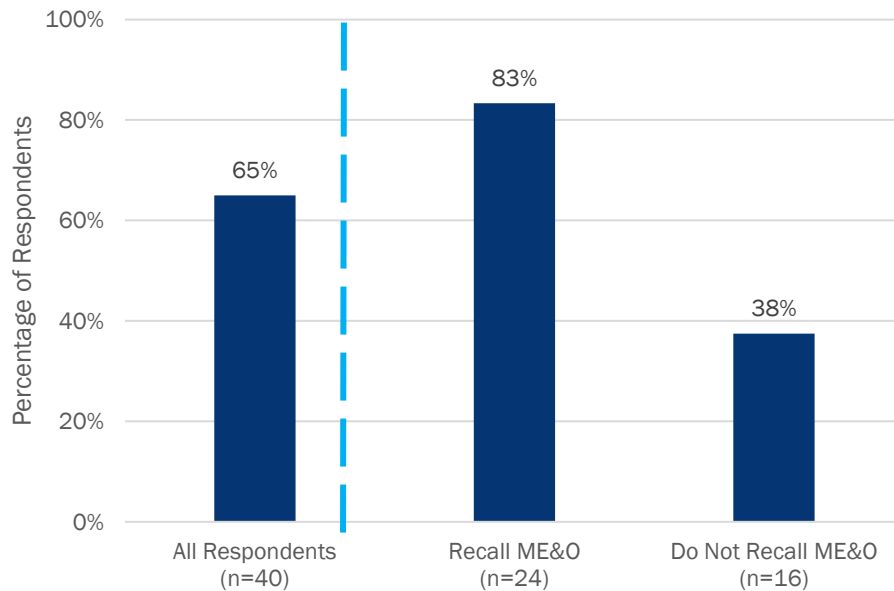
Activity	2016 Annual Budget	Expenditures through March 2016	Share of Q1 Expenditures	% of 2016 Budget Spent
Collateral Distribution*	\$767,623	\$244,511	91%	32%
Community Events*				
Email Newsletter*				
Home Upgrade Advisor Call Center*				
Homeowner Workshop*				
Homeowner Workshop Social Media Promotion*				
Local Government Outreach*				
Online Lead Generation*				
Website*				
Social Media				
Upgrade Coupon Social Media Promotion	\$6,000	\$2,975	1%	50%
Assessment Voucher Emails	\$55,000	\$2,512	1%	5%
Total	\$878,623	\$270,091	100%	31%

* Activity-level budget and expenditures are unavailable.
 Source: SoCalREN Response to Data Request.

Awareness of Program and Marketing Campaign

Survey results suggest that SoCalREN’s marketing efforts helped drive awareness of the Energy Upgrade California Home Upgrade Program and that consumers who engaged with the program are knowledgeable about it. While this finding suggests that there are differences between customer who recall and customers who do not recall the marketing, we cannot confidently attribute this difference to SoCalREN marketing. As shown in Figure 57, most respondents are aware of the program (26 of 40, or 65%), but the 24 respondents who recall receiving, seeing, or hearing SoCalREN marketing were far more likely to remember the program (83%) than the 16 respondents who do not recall any marketing (38%). This high level of awareness makes sense, considering all respondents have engaged with the program at least enough to share their contact information with SoCalREN.

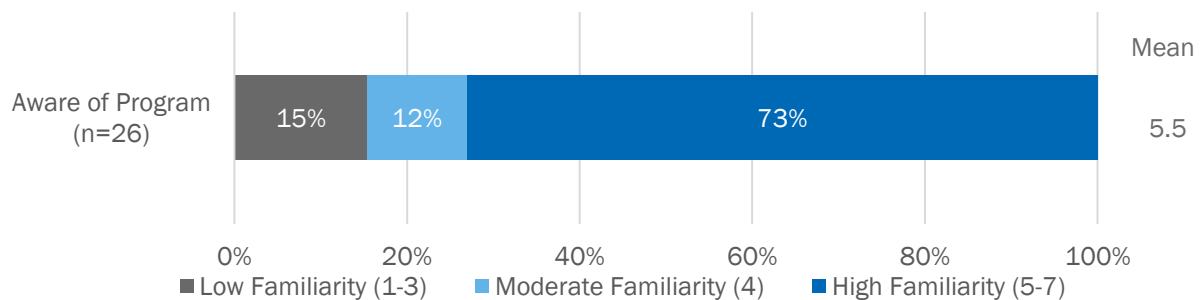
Figure 57. Awareness of the SoCalREN Energy Upgrade California Home Upgrade Program



Source: SoCalREN Consumer Survey.

The 26 respondents who were aware of the program were also very knowledgeable about the nature of it, as indicated by high average familiarity scores (Figure 58). To further test respondents’ comprehension of the program, we asked respondents who were aware of the program to identify which of three statements best described the Energy Upgrade California Home Upgrade Program and almost all (94%) selected the correct program description.

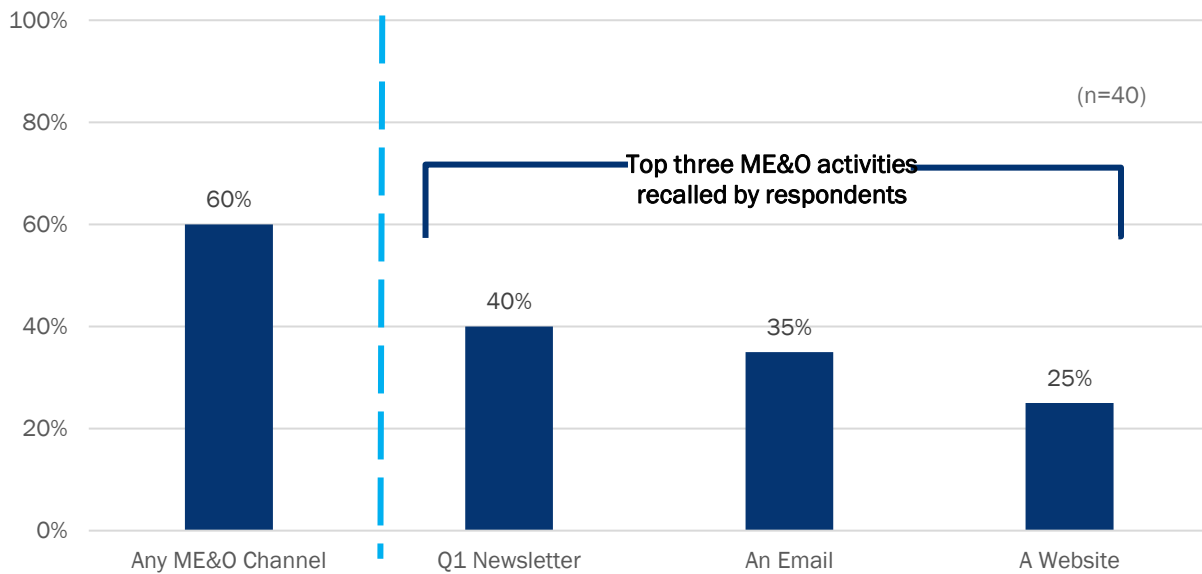
Figure 58. Familiarity with the SoCalREN Energy Upgrade California Home Upgrade Program among Those Aware



Note: Scale of 1 to 7, where 1 indicates “I have only heard the name” and 7 is “I know a lot about it.”
 Source: SoCalREN Consumer Survey.

In terms of consumer recall of specific marketing from SoCalREN, the majority of respondent’s recall seeing at least one item between 2015 and Q1 2016. While they most commonly recalled the Q1 newsletter, other emails, and the website, some respondents also recalled a paper mailer (20%), a radio advertisement (13%), and a booth at a community event (10%).

Figure 59. Aided Recall of SoCalREN 2015 and Q1 2016 Marketing Campaign Activities



Source: SoCalREN Consumer Survey.

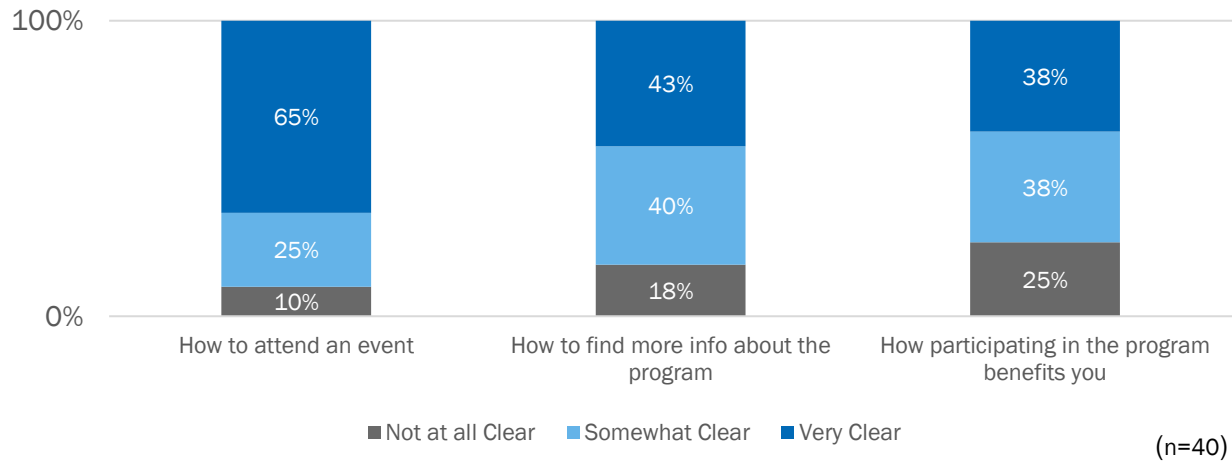
We also asked respondents about their awareness of SoCalREN (publicly known as “The Energy Network”). We found that fewer respondents, but more than half (55%), had heard of The Energy Network compared to 62% who had heard of the Energy Upgrade California Home Upgrade Program. Given that SoCalREN is a relatively new PA, this level of awareness is a positive sign.

Campaign Messaging Clarity and Usefulness

Our results indicate that SoCalREN’s intended marketing messaging was somewhat clear. We asked respondents specifically about SoCalREN’s Q1 newsletter, which focused on energy efficiency financing options and community events that might help support participation in Energy Upgrade California Home Upgrade.¹¹⁷ Overall, respondents reported that the most prominent messages came across more clearly than others did. For example, more than half of consumers felt the newsletter was very clear about how to attend a community event, which was the main message within the newsletter. In contrast, respondents were less clear about how to find out more about the program or how the program benefits them.

¹¹⁷ In cases where respondents did not recall the newsletter, we provided them an example during the survey.

Figure 60. Clarity of Information Provided in the SoCalREN Newsletter



Source: SoCalREN Consumer Survey.

To put marketing usefulness in the context of customers’ relative need for the program, we developed an index of each customer’s relative need for home upgrades. We developed the index using six survey questions about participants’ recent and planned home improvement projects, behavior changes, and energy assessment history.¹¹⁸ We interpret high index scores as an indication that a respondent would be more interested in making major home upgrades and believes there are additional opportunities for upgrades to their home or behavior changes to use less energy. Nearly all respondents (98%) had a “high” or “medium high” need for home upgrades (13% and 85%, respectively).

Campaign Influence on Behaviors and Actions

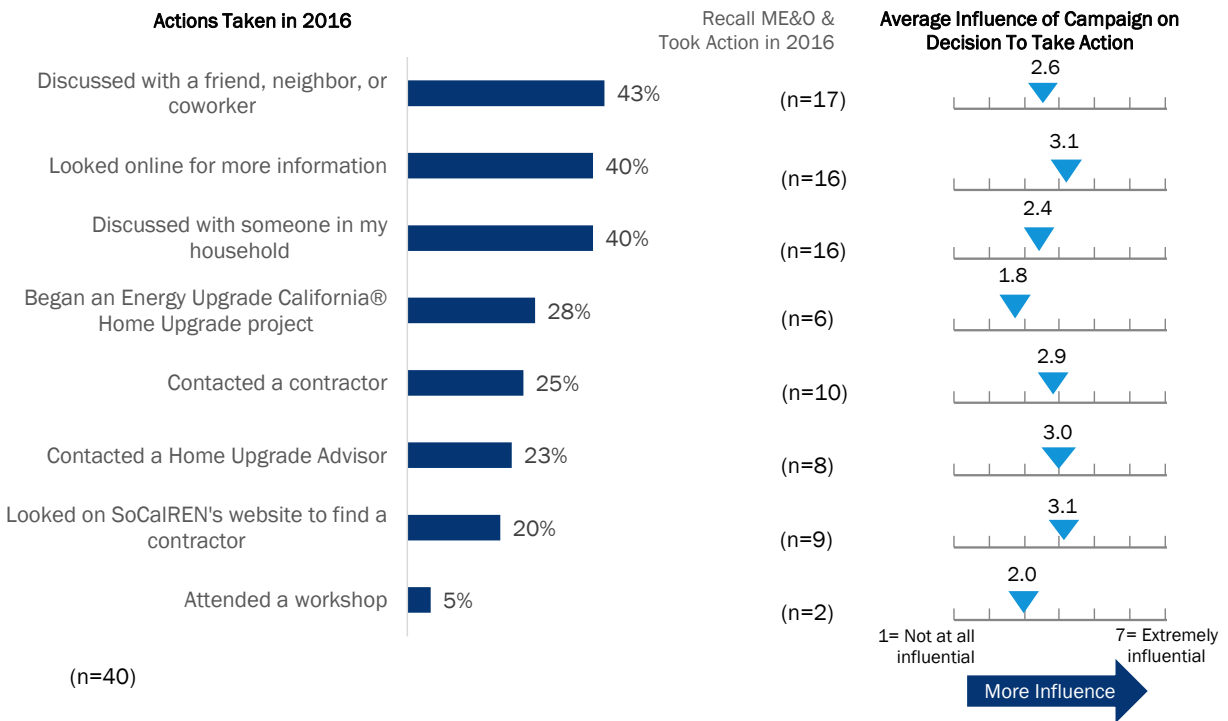
More than half (60%) of respondent’s report having taken some action related to participating in the program during Q1 2016. These actions tended to be simpler tasks with limited program interaction, such as discussing the program with a friend, neighbor, or someone in their household, as well as looking for more information online, as shown in Figure 61. Given that the participation process for the Energy Upgrade California Home Upgrade Program can take a long time and requires both a large financial and time commitment, these intermediate actions reflect improved awareness of the program, a growing interest in participating, and initial steps to determine if the program is a good fit for their needs.

However, we also found that SoCalREN’s marketing has had little influence on consumer decisions to take action. On a scale of 1 to 7, with 1 meaning “not at all influential” and 7 meaning “extremely influential,” respondents who took action and recall the marketing gave average influence scores between 1.8 and 3.1,

¹¹⁸ We grouped respondents into one of four categories that indicate their relative need for energy efficiency information based on their responses to a series of questions about current, past, and planned energy efficiency upgrades that they have made to their home, as well as their beliefs about additional opportunities for upgrades or behavioral changes that they could make to save energy. At the “high” end of the need scale, we placed respondents who had made upgrades in the past, were currently working on a project, had future plans for more projects, and still believed that additional energy-saving opportunities existed. At the “low” end of the need scale, we placed respondents who had never completed upgrades, had no plans to do so, and didn’t believe there were any energy-saving opportunities. We placed respondents in the middle who gave a combination of responses within the particular category based on the number of questions that indicated the respondent had a history of taking action and a strong belief that opportunities for saving existed.

depending on the action (Figure 61, right side). Notably, the total number of survey respondents is small and may not necessarily represent the influence over these actions.

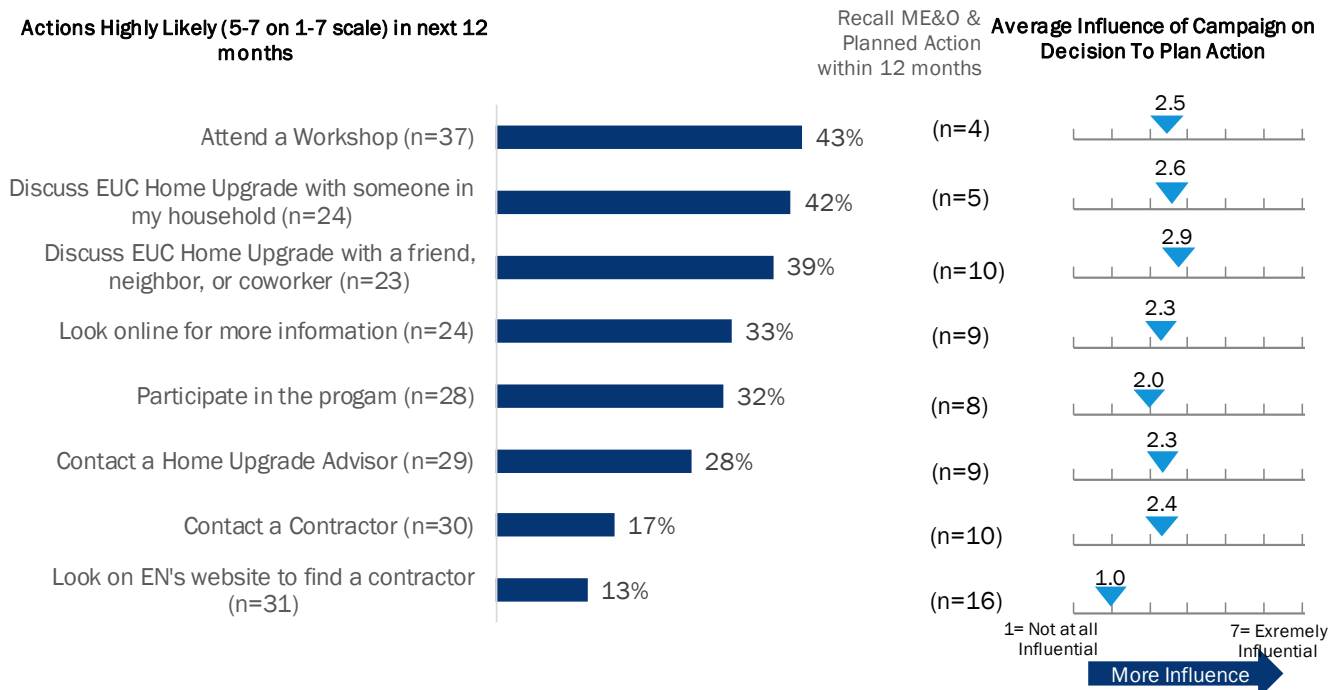
Figure 61. Influence of SoCalREN Campaign Information on Actions Taken in the Past Few Months



Source: SoCalREN Consumer Survey.

We also asked respondents about actions that they are likely to take in the next 12 months, as the participation process for Home Upgrade can take that long. In particular, we asked questions of those who had not taken certain actions in the past few months. Overall, we found that most (83%) consumers plan to take some type of action in next 12 months that will help them decide whether to participate. However, the influence of SoCalREN’s marketing continues to be low among those who plan an action and recall the marketing (Figure 62).

Figure 62. Influence of SoCalREN Campaign Information on Actions Planned



Source: SoCalREN Consumer Survey.

However, it is important to put these findings into context. While marketing is certainly useful in driving program awareness, or providing compelling information on the program (e.g., about the rebates), our past research has shown that marketing is only one of many forces driving consumers' decisions to participate.

G. Summary of Recommendations

Below we provide a summary of the recommendations provided in this report.

Table 63. List of ME&O Cross-Cutting Process Study Recommendations

#	Recommendation	Report Location
1	As the parties embark on the integrated planning process and closer alignment moving forward, the CPUC should consider utilizing an independent facilitator to design this process. Using an independent party will ensure that the arbiter does not favor any particular outcome.	Executive Summary, Chapter 5 (pp. 51)
2	Given the nature of the collaborative process envisioned, we recommend that the CPUC or a designated party establish formal rules and procedures for the group.	Executive Summary, Chapter 5 (pp. 51)
3	To codify institutional arrangements in a way that is transparent to all parties, the SW ME&O administrator should expand on the most recent RASCI model to indicate the different levels of responsibility by stakeholder for different implementation activities. The model currently outlined in Decision 16-09-020 is a good starting point, but not sufficient given the different areas where collaboration needs to occur and the fact that roles and responsibilities of a given participant could differ across those areas.	Executive Summary, Chapter 5 (pp. 51)
4	The SW ME&O administrator should establish a formal feedback loop so that it is clear how information or input provided by the PAs has been used to inform campaign design.	Executive Summary, Chapter 5 (pp. 52)
5	<p>Given the differing positions, perspectives, and incentives of stakeholders in the ME&O Proceeding, we recommend a collaborative approach to developing metrics (including program implementers, administrators, and evaluators). As noted in the SW Verification and Integrated Effectiveness Study, the CPUC, SW ME&O administrator, PAs, and evaluation team have important roles to play in determining the key metrics for ME&O efforts. Each of these parties bring different expertise and all have valuable perspectives on what aligns with campaign goals, what can reasonably be measured, and how related measures can be triangulated to provide a fuller picture.</p> <ul style="list-style-type: none"> • 5A: The SW ME&O administrator should include metric development as a specific activity in the updated RASCI model and, as noted in the SW Verification and Integrated Effectiveness Study, metrics should be in place in advance of program deployment. • 5B: CPUC staff involved in the ME&O Proceeding should coordinate with their counterparts in other proceedings, including those that support Energy Efficiency, Electric Vehicles, Demand Response, Customer-Owned Generation, and the Residential Rate Reform Proceeding to determine the desired level of alignment between the metrics used for all efforts. As an example, based on preliminary information, it appears that there is consistency between the construct being developed by the retail rates team and that developed by statewide ME&O. These include awareness, attitudes, knowledge, self-efficacy/barriers, and actions taken. • 5C: CPUC staff should engage the SW ME&O evaluator in developing program performance metrics using the PTLM as a guide. The CPUC should consider giving the evaluation team a greater role in the development of program performance metrics. In the 2014-2015 period, the evaluation team was asked to comment on draft metrics and provided input regarding potential measurement challenges. Expanding this role would help ensure that the metrics provide a more holistic view of program performance. 	Executive Summary, Chapter 5 (pp. 52)

#	Recommendation	Report Location
6	<p>Take a holistic view of campaign performance based on multiple metrics. As discussed extensively in the SW Verification and Integrated Effectiveness Study, and noted by stakeholders in the ME&O Proceeding, it is important to link metrics to key program objectives and clearly define what needs to be measured to assess how a campaign is performing. Further, it can be difficult to establish a single metric to perfectly measure a particular concept. As such, it is important to look at multiple metrics and consider what they convey in aggregate. This triangulation of findings can help identify inconsistencies across different measurements and also provide multiple perspectives on a particular metric of interest.</p>	Executive Summary, Chapter 5 (pp. 53)
7	<p>Require enhanced PA documentation of ME&O efforts. This evaluation reveals wide variations in terms of the level of documentation around PA marketing efforts in support of energy efficiency programs. While some variation is expected and reasonable, particularly for programs where the promotional aspect of marketing does not play an important role, or for smaller PAs with limited marketing budgets, the PAs should provide more documentation for major promotional campaigns so that the CPUC can ensure that ratepayer funds are being spent appropriately.</p> <ul style="list-style-type: none"> • 7A: Require annual reporting of ME&O budgets and expenditures. We found conflicting information about the amount of money budgeted for and spent on PA ME&O. Inconsistent information about budgets and expenditures makes it difficult for the CPUC to ensure that ratepayer funds for energy efficiency are truly being spent on energy efficiency messaging. As a result, we recommend that the PAs submit annual energy efficiency ME&O budgets and expenditure information for each program where PAs utilize promotional campaign marketing on a post-hoc basis. • 7B: Require PAs to develop strategic marketing plans at the program or portfolio-level on a post-hoc basis. Marketing plans are a valuable tool for aligning marketing tactics with overall program goals. Without an understanding of factors such as the current market, company and marketing objectives, and target audience, it is challenging to make informed decisions about which strategies to pursue, or whether PAs are achieving their promotional marketing goals. 	Executive Summary, Chapter 4 (pp. 42)
8	<p>CPUC should focus its oversight on all <u>coordinated</u> efforts between the PAs and the SW ME&O program. By focusing on the areas where the PAs and SW ME&O program coordinate, the CPUC can ensure that the potential for customer confusion is minimized, and that PA led promotional campaigns support achievement of the SW ME&O vision. The Joint Consumer Action Plans outlined by the CPUC play an important role in this process by helping to identify high priority areas for SW ME&O in consultation with the PAs. Early attempts to implement this type of process through SW ME&O Quarterly Stakeholder Meetings were well received and provided an opportunity for the PAs to share information on how high priority topics related to their own programmatic efforts.</p> <ul style="list-style-type: none"> • 8A: Develop relevant metrics to assess how well the coordination process is working. Metrics for effective coordination can include a suite of qualitative and quantitative measurements that address the level and efficacy of coordination. The CPUC, working with a facilitator and stakeholder groups, should determine the most pertinent metrics for assessing the effectiveness of the collaborative process. Metrics to consider include: <ul style="list-style-type: none"> ○ Achievement of established coordination goals (i.e., were all issues addressed, were the solutions thorough, did the solutions address the issues) ○ Progress relative to the timeline (i.e., were tasks completed on time, were there delays) ○ Level of participant engagement (i.e., is the level of engagement or amount of time dedicated to the tasks appropriate) • 8B: Continue to ensure the SW ME&O program and PAs coordinate on messaging and content if both entities are promoting a particular program to California consumers. Focus group findings and other qualitative research conducted as part of this study indicate that customers prefer multiple sources of information and do not appear to be confused by multiple messages 	Executive Summary, Chapter 7 (pp. 68)

#	Recommendation	Report Location
	offered across administrators in the market. Moving forward, general energy management topics and program-specific information promoted by the SW ME&O program and the PAs should continue to be coordinated to ensure consistency, as well as accuracy, of content.	
9	Assess the effectiveness of coordinated efforts between the PAs and SW ME&O program. An assessment of the effectiveness of coordinated marketing is essential to future SW ME&O campaigns, particularly when coordination of PA and SW ME&O efforts achieves both the short-term and long-term SW ME&O goals and vision. PA marketing is an essential component to supporting these goals and our team believes that there are currently core programmatic areas where measurement of coordinated effects is vital. These include all activities associated with lead generation for PA programs, as well as coordinated efforts to market specific programs such as the Energy Upgrade California® Home Upgrade Program. At present, the SW ME&O program performance metrics (PPMs) do not link statewide and PA efforts, but the development of a clear lead generation mechanism is an important step in linking statewide efforts to local program participation.	Executive Summary, Chapter 7 (pp. 68)
10	The PAs, although not required to by the CPUC, should consider embedding a comprehensive assessment of marketing effects as part of program-specific evaluation efforts. The PAs should consider directing evaluators to assess the effectiveness of marketing campaigns in achieving programmatic goals—particularly for underperforming programs. We recommend focusing on those programs that are not achieving their goals, are not cost-effective, are newer initiatives, or have hard-to-reach target audiences. These evaluations should move beyond studying efforts, to also assessing <i>effects</i> . As noted above, PA ME&O goes well beyond promotion, making it more valuable to assess marketing effects as part of the evaluation of the program(s) it supports. To date, there have been few comprehensive assessments of marketing effects within existing program evaluations. Refer to Section 4 for information on what a more comprehensive assessment would cover.	Executive Summary, Chapter 7 (pp. 69)
11	Review the metrics on a regular basis and update the metrics when the SW ME&O program changes. There are bound to be course corrections during the implementation of the SW ME&O program as the administrator sees how different channels are performing. Revisiting the program’s metrics will ensure that they continue to provide insight into the program’s performance. <ul style="list-style-type: none"> Regardless of a significant change in program implementation, the SW ME&O administrator should regularly revisit metrics to ensure that they are capturing the intended data and that any preliminary data suggest that the program is on track. 	Chapter 5 (pp. 53)
12	While the PAs should be required to document marketing efforts (but not measure effects), the CPUC should measure both market efforts and effects for SW ME&O. In particular, SW ME&O efforts require an assessment of market effects in addition to efforts. For example, measuring <i>effort</i> involves answering questions about what and how much was accomplished (e.g., how many materials were distributed and how many people did the campaign reach), whereas measuring <i>effect</i> involves assessing the changes that result from a campaign (e.g., has there been change in awareness or behavior, what actions have people taken). We recommend that in the future, the CPUC work with the SW ME&O administrator to design campaigns to measure effects (or causal impacts associated with campaigns) through incorporating experimental or quasi-experimental research designs. In any cases where direct response tracking is available (e.g., where marketing staff can keep a record of those participants who were exposed to the marketing collateral and used that channel to participate in the program), incorporate this within the marketing campaign, and collect data to assess achievements. When experimental design is not an option, the evaluator should work to develop other methods for determining effects such as latent class discrete choice (LCDC), structural equation modeling, multi-level modeling, or other approaches, some of which were used in the previous ME&O evaluation work for the 2006-2008 program cycle.	Chapter 7 (pp. 69)

For more information, please contact:

Olivia Patterson
Director, Data Science

510-444-5050 tel
510-444-5222 fax
opatterson@opiniondynamics.com

1999 Harrison St
Suite 1420
Oakland, CA 94612



Boston | Headquarters

617 492 1400 tel
617 497 7944 fax
800 966 1254 toll free

1000 Winter St
Waltham, MA 02451

San Francisco Bay

510 444 5050 tel
510 444 5222 fax

1999 Harrison St
Suite 1420
Oakland, CA 94612

Madison, WI

608 819 8828 tel
608 819 8825 fax

2979 Triverton Pike
Suite 102
Fitchburg, WI 53711

Orem, UT

510 444 5050 tel
510 444 5222 fax

206 North Orem Blvd
Orem, UT 84057