



***WORKING GROUP 2 DEMAND RESPONSE PROGRAM
EVALUATION -***

NONPARTICIPANT MARKET SURVEY REPORT

FINAL

Prepared for

Working Group 2 Measurement and Evaluation Committee

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1. EXECUTIVE SUMMARY

This report is the second report of the Working Group 2 (WG2) Demand Response (DR) evaluation. In this second report, we present results from a quantitative survey of the eligible market of non-participants for the WG2 DR programs that was conducted in March 2004. The goal of the evaluation is to provide feedback to program managers and policy makers to help improve programs in the short-term for PY2004 and PY2005 and in the long-term to meet the DR goals established under ruling R.02-06-001 for PY2007. The first WG2 evaluation report, entitled *Summary of Phase 1 Research*, was distributed on April 8, 2004. The complete WG2 DR program evaluation scope includes process, market, and impact evaluation activities, as well as a sub-metering task. An interim process and impact evaluation report is currently in progress and is targeted for completion in late August as its own volume. The final project report will be completed after the summer 2004 programs have ended and all of the relevant data has been collected and analyzed.

1.1 SCOPE OF THIS REPORT

One of the key objectives of the WG2 Demand Response Evaluation is to carry out an end-user market assessment that focuses on demand response familiarity, receptivity, barriers, opportunities, and potential. Current participants in WG2 DR programs represent a fairly small portion of the potential market for these programs. These customers are being studied through a variety of evaluation tasks focused on program participants. To complement this participant research, several data collection and research activities have been designed to focus on non-participants, which comprise the vast majority of the market. In the Phase I evaluation effort, in-depth interviews were conducted with a small sample of non-participants.

As part of the Phase II evaluation, the evaluation team conducted a quantitative survey of non-participants. A telephone survey was conducted with a total of 500 non-participant customers among the PG&E, SCE, SDG&E (IOU) service territories. This survey seeks to improve our understanding of large non-residential customers (the greater than 200 kW market for PG&E and SCE, greater than 100kW for SDG&E) that were not participating in the Demand Bidding Program (DBP), Critical Peak Pricing (CPP), or SDG&E-only Hourly Pricing Option (HPO) as of March 2004. Note that the population of eligible customers for this survey does not include direct access (DA) customers, as these customers were ineligible for the DBP, CPP, and HPO¹ programs at the time of this research.

1.2 OVERVIEW OF KEY FINDINGS

The market survey of non-participants in the DBP and CPP programs provides a wealth of information that can be used to better understand both barriers and opportunities for demand response. When reviewing and interpreting the survey results, it is important to consider that the market for the current DR programs is still in an early, developmental stage, and that

¹ CPP and HPO are technically tariffs but are commonly referred to as programs throughout the R.03-06-032 proceeding.

customers' responses to the questions asked are influenced by a wide variety of factors including their experience with the recent California electricity crisis, their experience with other related programs (e.g., interruptible programs), and their previous exposure to time-of-use rates. The results of the survey have both positive and negative implications with respect to the near-term prospects for increasing participation in the current DBP and CPP programs. Because this survey is one part of an overarching evaluation effort, and because the programs are still relatively new and evolving, we believe these results should be used to better understand the potential market for DR and develop ways of improving program offerings and customer support, rather than being used to pre-maturely assess whether the programs are destined to succeed or fail relative to current overall DR load reduction goals. With that perspective in mind, highlights and implications of our key findings are discussed below. The full report and appendices provide details on survey methodology and detailed survey results.

DR Potential

Several questions were asked of customers to develop inputs for estimation of the potential load reduction associated with the large nonresidential market for demand response in the service territories of the three IOUs. It is important to note that the resulting estimates of potential are based on customer self-reports and have not been independently confirmed with on-site engineering analyses. **The average technical potential reported from the market was 16 percent**, however, the average varied widely by market segment. Based on rough initial estimates of the range of coincident peak demand for this population, the total **MW reduction potential** is likely in the range of **1,200 to 1,800 MW**. Note, however, that this estimate of potential contains partial overlap with the IOUs' current interruptible participants. The size of the DR potential drops when customers are asked to report how much they would require in bill savings to deliver DR load reductions. **At bill savings similar to those associated with the current DBP and CPP programs** (less than three percent of annual bills), the **potential decreases by almost an order of magnitude, to 100 to 200 MW**. At the same time, somewhat surprisingly, the vast majority of the market says they are willing to consider taking specific DR actions on a limited number of hot summer afternoons. Also of note is the fact that significant DR potential was reported across all eligible size groups, including the smallest customers.

Familiarity with DR Programs

Overall, familiarity with the demand response *concept* was quite high with 92 percent of the market² indicating some level of familiarity and half reporting they were "very familiar". **Levels of familiarity reported for the DBP and CPP programs were reasonably high** and similar (64 percent versus 61 percent of the market, respectively). **Familiarity with the CPA-DRP program was significantly lower**, with only one-third of the market reporting some level of familiarity. The main source of information about these programs came from personal contact with their utility.

² "Market" here refers to the energy-weighted customer survey results. See Appendix C for weighting details. Un-weighted and Premise weighted results are presented in Appendix D.

DR Barriers

Customers indicated that there are numerous barriers that limit their ability and willingness to participate in DR programs. In rating potential barriers to participation and implementation, **the number one concern** for the market as a whole was **“Effects on Products or Productivity”**. **The next largest concerns were “Amount of Potential Bill Savings”, “Level of On-peak Prices or Non-performance Penalties”, and “Inability to Reduce Peak Loads”**. The least significant concern reported was **“Inadequate program information”**. The rating of barrier importance varied greatly by market segment, for example, Institutional and Office customers ranked concerns over occupant comfort very high, while industrial customers considered this a relatively insignificant issue. **Barriers that were more of a concern for those who said they were *very likely* to participate in DBP or CPP included “Amount of Potential Bill Savings”, “Complexity of Program Rules”, “Uncertainty over Future Program Changes”, and “Level of On-Peak Prices or Non-Performance Penalties”** all of which indicate concerns with program design, economics and change associated with a developing market rather than actual load reduction.

Likelihood of Participating in DBP/ CPP

Somewhat surprisingly, 19 percent of the market indicated some likelihood that they would participate in one of the programs and **10 percent said they were “highly” likely**. The percentage of customers reporting they are going to participate in either the DBP or CPP program is much larger than the number of customers that have signed up for the programs since the survey. One would expect self-reports of participation intent would over-report actual participation, however, the gap between self-reported likelihood to participate and current participation is much larger than one would expect. If these self-designated “likely” participants do not end up signing up for the programs, it would be useful to assess their reasons for not doing so later in this evaluation.

Likely participants reported the main reason they may participate was to lower their energy bills (54 percent). **Other significant reasons** reported for considering participation were because there were **no risks or penalties associated with program participation** and because they believed it would **help mitigate power outages**. It is important to note that customers mainly participating to avoid outages may be less likely to enter a DBP bid based solely on high market prices unless it seems a blackout is looming. A fairly sizable portion of the market (13 percent) indicated they were likely to participate since doing so fit easily within their normal business operations. **Customers who indicated they were unlikely to participate in any of the new DR programs said the main reason was their inability to shed load (53 percent)**. Financial reasons, conflicts with other program participation, lack of information and concerns over comfort were also reported as reasons for low likelihood to participation.

Effects of Existing TOU Rates and CA Energy Crisis

Roughly half of the market on existing TOU rates reported they had already shifted their usage from higher priced to lower priced hours. The main action taken to reduce on-peak usage was to reschedule staff or equipment to off-peak periods. These actions were reportedly taken in significant numbers both before and after the recent California energy crisis. Fifty-seven percent of the market reported they have made other significant changes in electricity

usage since the crisis. The average self-reported peak load reduction from these actions was nearly 10 percent.

General Electricity Market and Cost Perceptions

Customers were asked several questions aimed at assessing their level of attention to and assessment of electricity market trends. **Only a quarter of the market said that their organization analyzed electricity markets and prices very closely** and 32 percent reported following these markets somewhat closely. **The majority of the market believes that it is unlikely that California's power supply will be adequate to meet the expected power demand over the next three years.** A third of the market reported having no idea how much the wholesale market price of electricity varies from the lowest daytime price to the highest on high demand days. The rest of the population was evenly distributed between expecting the price to increase by 10 percent, 50 percent and more than 100 percent. **Nearly three-quarters of the market stated their organization is very concerned about energy costs relative to other costs of running their business. Roughly half of the market expects electricity prices to increase over the next three years, a quarter expect them to stay the same and the remainder expect them to decrease.**

Enhanced/Building Automation

Because building automation and energy information systems can help to facilitate demand response, customers were asked several questions about the relevance and use of such systems currently. **Three-quarters of the market indicated that information about building automation and controls was relevant to their business. One-third of the market said they had installed automation investments to manage their energy use within the past two years.** The level of building automation reported was moderate with 59 percent of the market reporting being able to view hourly demand on their utility's website, 54 percent stating they could automatically control a portion of their energy load on an in-house energy management system, and 41 percent able to view hourly demand on an in-house energy information system. Industrial customers reported having increased access to usage information, but less control capability, and institutional and commercial customers reported having increased control capability, but limited usage information.

1.3 IMPLICATIONS OF SURVEY FINDINGS

The results of this market research effort point to both opportunities and challenges associated with achieving significant levels of participation in the DBP, CPP, or similar voluntary, price-responsive programs. On the one hand, almost twenty percent of the market reported they are somewhat or very likely to participate in the DBP or CPP (as of March 2004, the time of our survey); yet since then, actual participation increases have been significantly less than what these self-projections would suggest. This could be due to a number of factors, for example, as suggested by our Phase I research: customers may not believe the level of financial compensation for program participation is acceptable; they may believe it is too difficult to get final internal approval to participate; they may believe participation itself is too complicated or entails significant hassle costs; or they may believe that there is no immediate need for them to participate because power supplies are adequate in the short term. In the case of the CPP, there are additional complexities. For example, customers may not fully understand or trust that they

can save money without significant changes in their load profiles (this barrier may have been adequately addressed in recent changes to the Bill Protection plan).

Despite limited increases in participation in the DBP and CPP since this survey was conducted, our survey results indicate that there is a significant pool of DR potential available as well as a broad willingness to take specific DR actions on a limited basis. What is still somewhat unclear is the extent to which financial versus civic duty or reliability-related motivations are the key to tapping this potential and, concomitantly, how to convert these DR motivations into reliable DR resources.

Specific actions that should be considered in response to the findings from this survey and the Phase I research are presented below:

- Consider increasing the financial benefits of program participation (though only if cost-effectiveness can be maintained) or making it even easier for customers to participate in programs (e.g., lower customers' decision making and hassle costs).
- Aggressively market the recent changes in the Bill Protection Plan for the CPP to ensure customers understand that they can try the tariff with no initial risk.
- Consider reducing the 100 kW DBP bid minimum or otherwise facilitating the participation of chains or other aggregation groups.
- Take steps to actively mitigate the top customer-perceived market barriers to program participation – for example:
 - “Effects on Products or Productivity” – Continue utilizing existing and develop additional segment-specific case studies that demonstrate successful customer experiences with DR actions and provide strategies for minimizing or eliminating negative effects.
 - “Inability to Reduce Peak Loads” – Develop and test new approaches to providing high-value, customer-specific technical assistance to identify load reduction opportunities and strategies for implementation.³ Investigate leveraging of energy efficiency program investments in audits and control systems to provide DR benefits at low marginal cost.
 - “Level of On-peak Prices or Non-performance Penalties” – Continue and re-iterate customer communication messages that emphasize the no risk/low risk attributes of the DBP and CPP.
 - “Amount of Potential Bill Savings” – Emphasize significance of bill savings as fractions of monthly or summer bills in addition to annual bills.

³ The current Technical Assistance Incentives are going unspent. At the same time, there is evidence from the evaluation team's interaction with program participants that a number of them are clearly in need of advice on how best to achieve DR reductions in their facilities. We suggest that new approaches be piloted quickly (during the remainder of this summer, if possible) so that evidence for which approaches are most effective can be developed for future program years.

- “Uncertainty over Future Program Changes” – Continue regulatory, utility, and working group efforts to develop and maintain consistency in all peak load reduction programs, including reliability programs, while still making improvements where necessary (possibly by guaranteeing minimum program features for set periods of time).
- Continue utilizing and consider expanding technical support materials and related tools (e.g., Enhanced Automation Guidebooks, DR action cut-sheets, cases studies, on-line software, etc.).

Readers should note that the presence of a suggestion in the list above does not mean that the utilities or other parties are not already pursuing or proposing similar or closely related actions (e.g., recently proposed utility programs such as E-Sav, chain account aggregation, and a customer awareness and education campaign, as well as ASW’s program proposal and Infotility’s discussion of DR on-line tools).⁴

⁴ See presentations from the July 13 and July 27, 2004 WG2 DR Workshops.

2. INTRODUCTION

This report is the second report of the Working Group 2 (WG2) Demand Response (DR) evaluation. In this second report, we present results from a quantitative survey of the eligible market of non-participants for the WG2 DR programs that was conducted in March 2004. The goal of the evaluation is to provide feedback to program managers and policy makers to help improve programs in the short-term for PY2004 and PY2005 and in the long-term to meet the DR goals established under ruling R.02-06-001 for PY2007. The first WG2 evaluation report, entitled *Summary of Phase 1 Research*, was distributed on April 8, 2004. The complete WG2 DR program evaluation scope includes process, market, and impact evaluation activities, as well as a sub-metering task. An interim process and impact evaluation report is currently in progress and is targeted for completion in late August as its own volume. The final project report will be completed after the summer 2004 programs have ended and all of the relevant data has been collected and analyzed.

One of the key objectives of the Working Group 2 Demand Response Evaluation is to carry out an end-user market assessment that focuses on demand response familiarity, receptivity, barriers, opportunities, and potential. Current participants in WG2 DR programs represent a fairly small portion of the potential market for these programs. These customers are being studied through a variety of evaluation tasks focused on program participants. To complement this participant research, several data collection and research activities have also been designed to focus on non-participants, which comprise the vast majority of the market. In the Phase I evaluation effort, in-depth interviews were conducted with a small sample of non-participants.

As part of the Phase II evaluation, the evaluation team conducted a quantitative survey of non-participants. This survey seeks to improve our understanding of Large Commercial and Industrial customers (the greater than 200 kW market for PG&E and SCE, greater than 100kW for SDG&E) that were not participating in the Demand Bidding Program (DBP), Critical Peak Pricing (CPP), or SDG&E-only Hourly Pricing Option (HPO), as of March 2004. Note that the population of eligible customers for this survey does not include direct access (DA) customers, as these customers were ineligible for the DBP, CPP, and HPO programs at the time of this research. Overall, the eligible non-participants comprise 97.7 percent (only 457 participants out of 19,863 eligible) of the total eligible DBP population and 99.6 percent (only 70 participants out of 19,097 eligible) of the total eligible CPP population sites. Results presented in the text are all based on energy-weighted analysis. Premise weighted and un-weighted results are presented in Appendix D.

A telephone survey was conducted on a total of 500 non-participant commercial and industrial customers from either SCE, SDG&E or PG&E territory who were eligible for either CPP or DBP but were not signed up to participate in either of these programs. The goal of the survey was to collect baseline information on the customers' awareness, energy-related activities, decision-making processes and other customer characteristics. The survey data was analyzed to highlight important results.

The remainder of the report is organized as follows:

- Section 3 presents the study methodology;
- Section 4 presents the results of the telephone survey, these results are organized as follows:
 - Business Demographics,
 - Demand Response Awareness and Familiarity,
 - General Perceptions of Demand Response Programs,
 - Participation Decisions,
 - Reasons for Participation,
 - Reasons for Non-Participation,
 - Current Activity,
 - Decision Process and General Market Perceptions,
 - Enhanced Automation Awareness and Materials,
 - Capability and Potential Actions, and
 - Bill Savings Required;
- Appendix A contains the telephone survey instrument;
- Appendix B contains the resulting survey dispositions;
- Appendix C contains a detailed description of the different weighting schemes; and
- Survey frequencies tables (energy-weighted, premise-weighted and un-weighted) are presented in Appendix D.

3. METHODOLOGY

This section describes the methods used to conduct the Quantitative Non-Participant Survey for the WG2 Demand Response Evaluation. It begins with a brief overview of the objectives of the survey and methodology. It is followed by a discussion of the sample design, which includes details on the construction of the population frame, sampling plan and weighting scheme.

3.1 QUANTITATIVE NON-PARTICIPANT SURVEY OVERVIEW

The objective of the Quantitative Non-Participant Survey was to obtain statistically reliable data on the characteristics, motivations, awareness, knowledge, and infrastructure of the non-participating population. Additionally, this survey captured reasons for non-participation and barriers to participation, and very limited general information on customers' Demand Response program preferences.

3.2 DATA SOURCES

Data for the WG2 Demand Response Evaluation was provided to Quantum Consulting from each of the three utilities (PG&E, SCE, and SDG&E). The utilities provided the following types of data:

- *Demand Response Participant Tracking Data.* The participant tracking data was used to identify accounts that had signed up to participate in the CPP, DBP or HPO programs.
- *Commercial Population Data.* Customer Information System (CIS) data was used to determine whether an account was eligible for the CPP, DBP or HPO programs. It also was used to create the size and business type classifications for each account. Premise and Customer identifiers from the CIS were used to identify unique premises (across multiple accounts at a site) and customers (across multiple accounts and premises), and classification variables associated with these aggregated units.
- *Customer Contact Information.* Contact information (names and phone numbers) for both participants and non-participants were provided to Quantum from Customer Representative tracking databases, as opposed to the CIS. Where applicable, this helped ensure the customer we contacted was the same individual the utility account representative spoke with while marketing the DR programs. These contacts were provided on an as needed basis after samples had been selected.

3.3 POPULATION FRAME

Quantum Consulting created a population frame containing all PG&E, SCE and SDG&E accounts that were eligible for the Demand Bidding Program (DBP) and/or the Critical Peak Pricing (CPP) Program. Eligibility for these programs was primarily based upon the account having a maximum annual demand greater than 200kW (100kW for SDG&E) and not being a Direct Access account. CPP had an additional requirement that the account not be participating in a conflicting load management program (such as BIP, OBMC, SLRP, etc.).

Accounts in the population frame were assigned flags indicating their Size and Business type. These flags were created on an account level, a premise level and a customer level. The premise level flags were selected based on the largest account at that premise. In a similar manner the customer level flags were selected based on the largest account for that customer. The size flags were defined based on an account's annual maximum demand;

- Small customers are defined as having a max demand between 200 kW (100 kW was the cutoff for SDG&E) and 500 kW,
- Medium customers are those with max demand between 500 kW and 1000 kW,
- Large customers are those with max demand between 1000 kW and 2000 kW and
- Extra Large customers are those with max demand greater than 2000 kW.

The business type flags were defined based on SIC code for SCE and SDG&E and a mapping of NAICS to SIC codes for PG&E. The nine business types used for this evaluation were:

- Office,
- Retail/Grocery,
- Institutional,
- Other Commercial,
- Transportation/Communication/Utility,
- Petroleum/Plastic/Rubber/Chemicals,
- Mining/Metals/Stone/Glass/Concrete,
- Electronic/Machinery/Fabricated Metals,
- Other Industrial/Agricultural.

The size and business type distributions of the accounts in the population frame, along with the sum of their non-coincident demand (in MW) and energy consumption (in GWh) are presented in Exhibit 3-1. This exhibit also displays the breakdown of accounts eligible for CPP and DBP across the four sizes and nine business types. Note that the customer demand coincident with utility system peaks will be significantly less than the non-coincident figures shown in Exhibit 3-1.⁵

⁵ Coincident peak demand values will be used to update these data later in this evaluation after receipt of customer hourly interval data from each of the utilities.

Exhibit 3-1
Population Frame of WG2 Eligible Population

3 IOUs	Accounts in Frame	Accounts in Frame MW Sum**	Eligible Accounts	Eligible Accounts MW Sum**	Eligible Account GWh Sum	Eligible for CPP	Eligible for DBP
Size							
Very Small (100-200 kW) - SDG&E Only	2,406	344	2,076	297	897	1,989	2,076
Small (200-500 kW)	13,684	4,420	11,426	3,666	12,337	11,292	11,413
Medium (500-1000 kW)	4,790	3,302	3,957	2,733	9,756	3,744	3,954
Large (1000-2000 kW)	1,818	2,486	1,460	1,991	7,320	1,272	1,460
Extra Large (2000+ kW)	1,299	7,626	960	5,334	13,380	800	960
Business Type							
Commercial and TCU							
Office	3,609	2,328	3,308	2,120	6,192	3,267	3,298
Retail/Grocery	4,034	1,729	2,220	964	3,966	2,215	2,219
Institutional	4,253	2,868	3,703	2,040	6,254	3,658	3,703
Other Commercial	3,288	1,982	2,810	1,707	6,367	2,743	2,808
Transportation/Communication/Utility	1,901	1,524	1,601	1,209	2,762	1,484	1,599
Industrial and Agricultural							
Petroleum, Plastic, Rubber and Chemicals	907	1,350	805	1,108	3,411	697	805
Mining, Metals, Stone, Glass, Concrete	725	1,177	646	716	2,891	540	646
Electronic, Machinery, Fabricated Metals	1,886	1,767	1,638	1,160	4,269	1,555	1,638
Other Industrial and Agriculture	2,773	2,548	2,552	2,109	6,923	2,348	2,551
Unclassified							
Unknown	622	903	596	887	655	590	596
Totals	23,997	18,177	19,879	14,021	43,690	19,097	19,863

* Excluding Direct Access Accounts

**Diversified customer peak demand

3.4 SAMPLE SELECTION

Preparing the survey sample dataset began by creating a statewide database of premises eligible to participate in the DR Programs, but not currently enrolled. The sample design targeted 500 eligible non-participating premise decision-makers across the three utilities (PG&E, SCE and SDG&E). Primary quotas were assigned based upon four customer sizes and nine business types, with roughly equal points allocated to each category to ensure comprehensive representation. Quotas were further specified by IOU service territory (50 completes for SDG&E and 225 completes for both PG&E and SCE). The sample was then reduced to ensure multiple premises with the same decision maker would not be contacted more than once. The final sample frame included decision-makers who may be responsible for one or more accounts and/or premises. Section 3.6 describes how weights were calculated to account for decision-makers that were responsible for multiple accounts and/or premises.

3.5 DATA COLLECTION

Telephone interviews were conducted with a representative group of customers eligible for the WG2 DR programs but not participating as of March 2004. The survey was implemented by Quantum Consulting's Computer Aided Telephone Interview (CATI) center. A disposition of the results from the interviews is provide in Appendix B. As mentioned in Section 3.4, customers were assigned within utilities to one of 108 strata based on their utility, business type

and size. Quotas were then set for each of the 108 strata. Exhibit 3-3 presents the final distribution of the completed non-participant surveys by size, business type and utility.

Exhibit 3-3
Final Distribution of Completes by Industry, Size and Utility

Industry	All			Small (100/200-500 kW) *			Medium (500-1000 kW)			Large (1000-2000 kW)			Extra Large (2000+ kW)		
	PG&E	SCE	SDG&E	PG&E	SCE	SDG&E	PG&E	SCE	SDG&E	PG&E	SCE	SDG&E	PG&E	SCE	SDG&E
Office	30	21	8	7	2	2	4	9	2	11	10	2	8	0	2
Retail/Grocery	26	33	7	7	8	2	6	5	2	7	9	2	6	11	1
Institutional	30	24	9	7	5	2	6	8	1	3	6	2	14	5	4
Other Commercial	24	30	5	7	8	2	6	9	1	7	6	2	4	7	0
Transportation, Communication, Utility	26	26	2	6	7	2	6	9	0	6	4	0	8	6	0
Petroleum, Plastic, Rubber and Chemicals	24	28	5	5	5	2	8	9	1	7	9	2	4	5	0
Mining, Metals, Stone, Glass, Concrete	29	21	4	7	2	2	4	9	1	9	8	1	9	2	0
Electronic, Machinery, and Fabricated Metals	19	25	7	7	8	1	2	5	3	5	7	1	5	5	2
Other Industrial and Agriculture	18	16	3	6	6	1	4	5	2	5	2	0	3	3	0
Total	226	224	50	59	51	16	46	68	13	60	61	12	61	44	9

3.6 WEIGHTING

The responses to the non-participant quantitative survey results are analyzed using two distinct weighting schemes. The primary weighting scheme is based on energy usage. This weight is calculated based on the ratio of the energy use represented by the surveyed population relative to the respective energy used in the eligible population for each size, business type and utility cell. These weights were then adjusted according to the usage associated with each decision-maker within the cell. (A detailed description of precise calculation techniques is presented in Appendix C.) The second sample weight is very similar, but based on the number of premises represented in the surveyed population versus the total eligible population.

As mentioned in Section 3.4, the sample frame consisted of many decision-makers who were responsible for one or more accounts and/or premises. In order to calculate the appropriate energy weights it was necessary to determine the appropriate energy consumption (kWh) for each decision-maker. Within the survey, decision-makers were asked how many facilities in the same IOU service territory they were responsible for. They were also asked how many of these facilities their survey responses were applicable to. CIS data were used to corroborate self-report responses. The additional energy usages of other similar facilities under the decision-makers management are used to adjust the survey weight. By associating survey responses with more than one facility, a measurable variance in the relative importance of surveys within a cell is introduced. Thus, the weight assigned to surveys within a given cell was allocated proportionally according to the energy usage represented by each survey respondent.

The second weight used in the analysis was the premise weight, which is similar to the energy weight just described except that it is based on the number of facilities rather than energy consumption. The detailed steps used to calculate the energy weight are provided in Appendix C. Responses to survey questions are provided in Appendix D and are shown with both the energy and the premise weights, as well as un-weighted.

4. SURVEY RESULTS

This section presents the final results of the Quantitative Non-Participant Baseline Analysis for the Demand Response Evaluation. The alphanumeric series in parentheses in each section heading correspond to the question numbers from the survey instrument (see Appendix D).

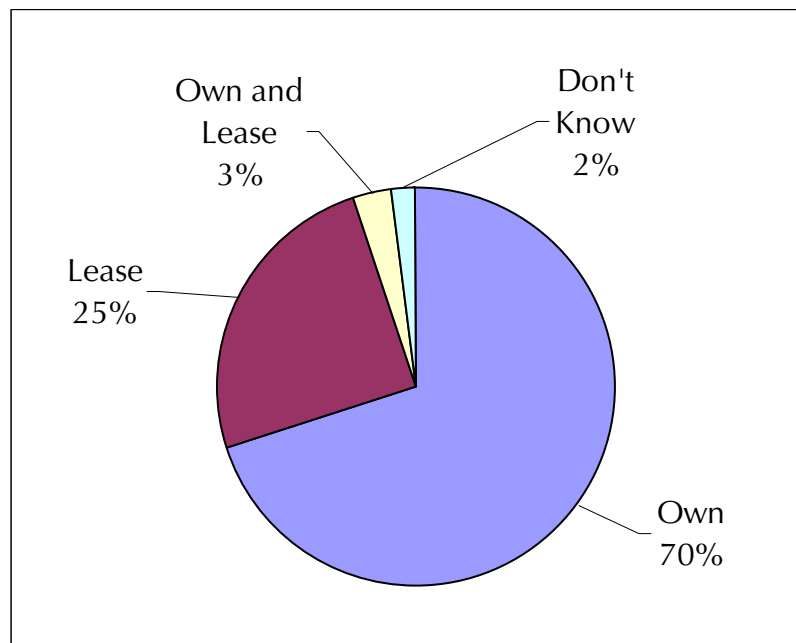
4.1 BUSINESS DEMOGRAPHICS (EC1-EC10)

Each of the customers interviewed were asked to describe the demographics of their organization such as the number of employees, whether they rent or own their location, their hours of operation, and the like. The responses to the demographic questions are presented below on an energy-weighted basis. (The un-weighted and premise-weighted results are included in Appendix D.)

Key findings regarding non-participant demographics include:

- As presented in Exhibit 4-1, seventy percent of the market place reported owning their facility.

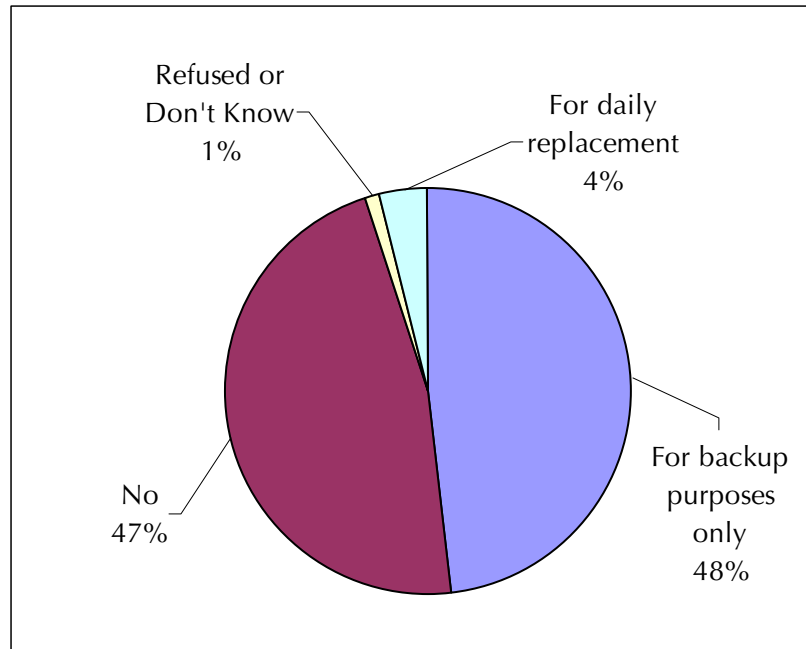
Exhibit 4-1
Renter / Owner Distribution in California



- Forty-eight percent of the market occupies more than 100,000 sq/ft of space.

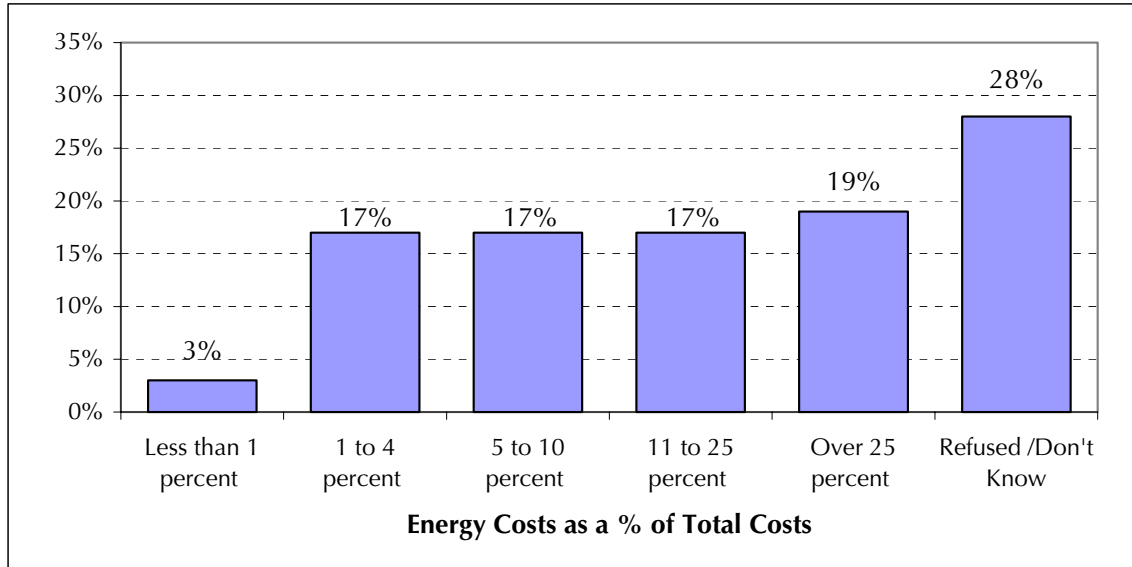
- As shown in Exhibit 4-2, more than half the market reported having on-site electricity generators (52 percent), however 62 percent of those indicated there are legal restrictions when they can be operated during the summer months. Overall, the average respondent with on-site generation indicated they could meet approximately 40 percent of their load using this generation. This percentage fluctuated drastically by the type of business from an average 10 percent for Retail/Grocery businesses to 76 percent for Transportation, Communication and Utility (TCU) businesses.

*Exhibit 4-2
On-Site Generator Capabilities in California*



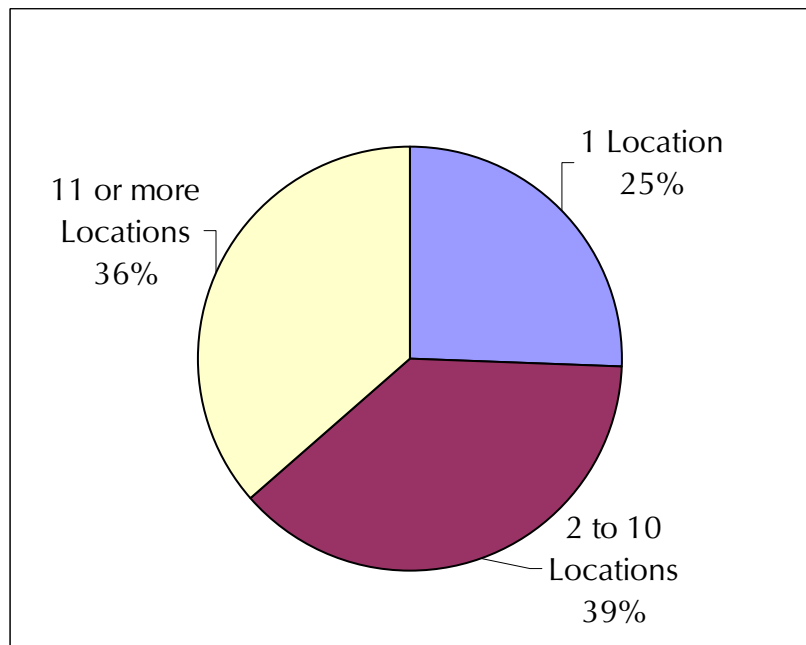
- As displayed in Exhibit 4-3, thirty-six percent of the market of eligible non-participants reported their energy costs represented more than 10 percent of their total annual operating costs. On average for the entire non-participant population, energy costs were reported to be approximately 14 percent of their total operating costs.
- Eighty percent of the market reported they had assigned responsibility for controlling energy usage and costs to an in-house staff person, a group of staff or an outside contractor.

Exhibit 4-3
Energy Costs as a Percentage of Total Costs for Organizations in California



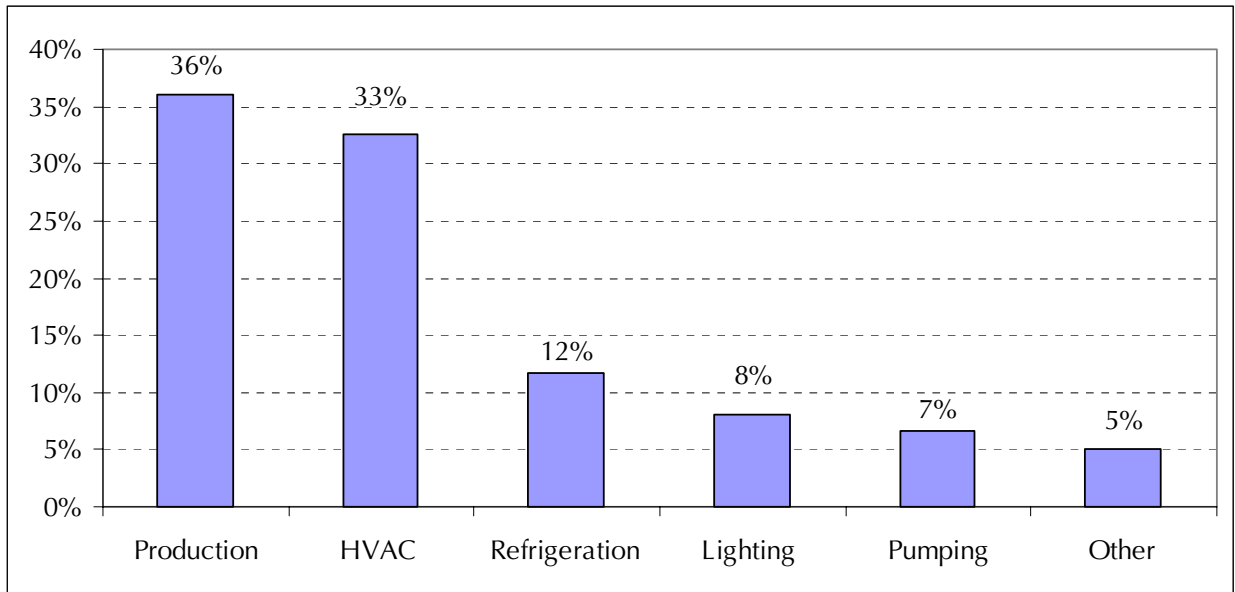
- Exhibit 4-4 one shows that seventy-five percent of the market reported having more than one location in California. The average company reported having between 11 and 12 locations.

Exhibit 4-4
Multi Location Distribution in California



- Fifty-one percent of the eligible market indicated their facility operated 24-hours a day on weekdays in the summer.
- Thirty-five percent of the market reported that the end-use with the largest share of their electrical consumption was their production process and an additional 29 percent reported that it was HVAC. The distribution across the market of the end-use consuming the most electricity is shown in Exhibit 4-5.

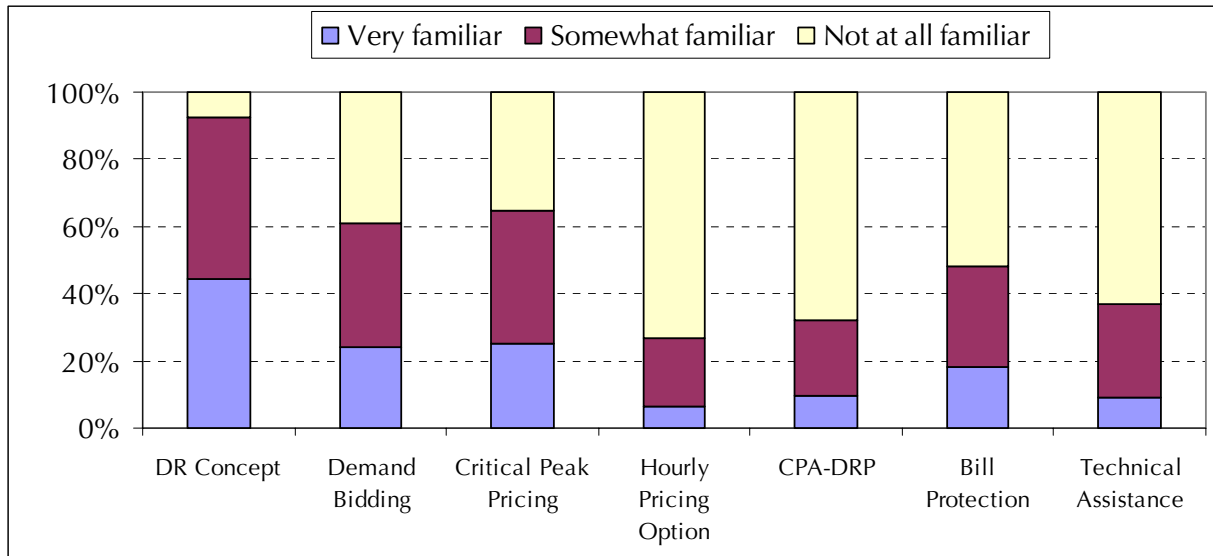
Exhibit 4-5
Self-Report of Largest End Use



4.2 DEMAND RESPONSE AWARENESS AND FAMILIARITY (F1-F7)

A battery of questions was asked of the non-participants to gain an understanding of their current awareness of the general concept of demand response and their familiarity with specific DR programs and incentives. The results below are weighted by energy consumption, however the un-weighted and premise weighted results can be found in Appendix D. Exhibit 4-6 presents the market's familiarity with the DR concept, four specific DR programs (DBP, CPP, HPO and CPA-DRP), and the incentives being offered to accompany the programs.

Exhibit 4-6
Demand Response Concept, Program and Incentive Familiarity



The familiarity questions asked about the four programs were all aided questions in which the programs were described with a one to two sentence description prior to the customer being asked to state their level of familiarity.

Overall, 92 percent of the market indicated having some level of familiarity with the demand response concept and almost half reported they were very familiar with the concept. As might be expected, the level of DR familiarity was correlated with customer size, such that the larger the customer the more familiar they were with DR.

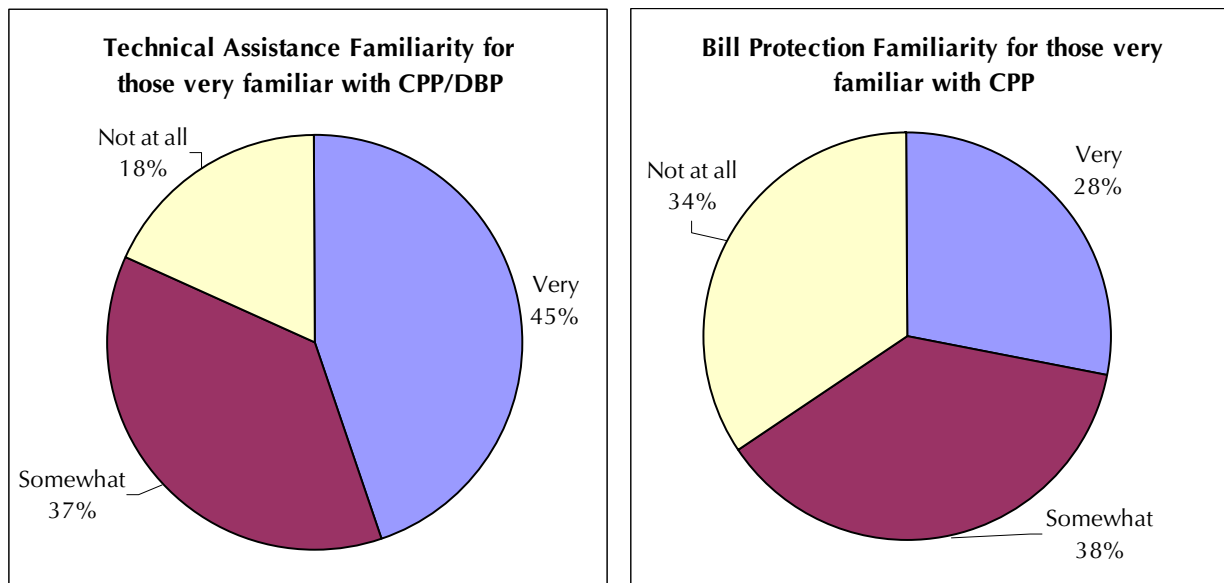
Although a larger percentage of the market on a premise basis reported being more familiar with CPP than with DBP (66 percent versus 58 percent when premise-weighted), the levels of familiarity reported for the two programs on an energy consumption basis were very close (64 percent versus 61 percent when energy-weighted). This may result from the distribution of familiarity across business sizes. In general, CPP had higher familiarity levels among small customers and DBP had higher familiarity levels among larger customers. Both PG&E and SCE customers seemed to have similar familiarity levels with the CPP and DBP programs, however SDG&E customers reported being much more familiar with CPP (71 percent for CPP versus 45 percent for DBP). This is to be expected since SDG&E has more small customers, and is the only utility at which customers with max demands between 100 and 200kW are eligible for these programs. Because DBP had a minimum 100kW hourly reduction level, SDG&E customers with yearly max demand less than 200kW are potential not as interested in such a program since they have to have the ability to drop between 50 percent and 100 percent of their load to be eligible. Overall, despite SDG&E customers' lower levels of deep familiarity with DBP, the general familiarity levels were similar for the three utilities, despite the fact that SDG&E started its one-on-one customer market efforts early in 2004, while PG&E and SCE conducted their extensive in-person visits in the second half of 2003. Levels of familiarity for SDG&E's HPO program were very low with only six percent responding they were very familiar and 21 percent responding they were somewhat familiar.

Other interesting items to note:

- Two-thirds of the market was not at all familiar with the California Power Authority's Demand Reserves Partnership (CPA-DRP) program. Familiarity levels were lowest among the smallest customers.
- More than half of the customers in the business segment Mining, Metals, Stone, Glass and Concrete reported being very familiar with demand response as a concept (59 percent) as well as being very familiar with the CPP and DBP programs (52 percent and 57 percent respectively). However, this level of familiarity did not exist for the CPA-DRP program for which only one percent reported being very familiar.
- Familiarity with the Technical Assistance Incentive was reasonably high for those who were very familiar with CPP or DBP with 45 percent of the market reporting being very familiar and 37 percent reporting being somewhat familiar with this incentive. Familiarity with the Bill Protection plan for those very familiar with CPP was less significant with only 28 percent of customers reporting being very familiar and 37 percent reporting being somewhat familiar. These results are displayed in Exhibit 4-7.

Exhibit 4-7

Familiarity with Demand Response Incentives for those Very Familiar with DR Programs



- Seventy-two percent of the market that reported being familiar with one or more of the DR programs learned about them through personal contact with their utility. The next highest source of information on these programs came from direct mail (15 percent) followed by workshops and conferences (nine percent).

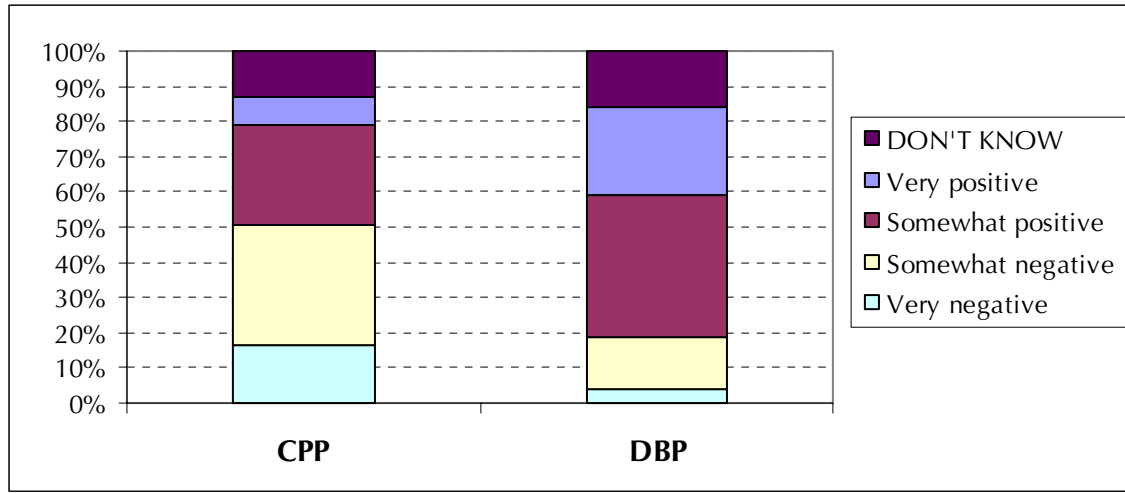
- Forty percent of the market reported first learning of the new DR programs in the last six months⁶ and an additional 26 percent learned about them in the last year. 30 percent have known about them for more than a year and the remaining four percent could not remember when they first heard of them. Forty-one percent of the largest customers have known about the programs for over a year versus only 21 percent of the smallest customers.
- Although 73 percent of the market recalled receiving general discussion of DR features from their utility representative or brochures and print materials about DR programs, only 34 percent recall receiving any financial impact analysis of program participation.
- Of the 23 percent of the market that reported receiving other forms of information on Demand Response programs, the highest reported alternative source was via E-mail (57 percent).
- Overall, the DR program information provided appeared to be moderately successful for those who remembered receiving it with 35 percent of the market reporting that the material was very helpful and 42 percent reporting that it was somewhat helpful. The main strength of the materials seemed to be that they clearly presented the DR options to the customer and thus aided them in their decision making process. The majority of the market who reported that the materials were not helpful stated they are unable to participate in the DR programs since they cannot shut down their operation or are otherwise not interested in the programs.

4.3 GENERAL PERCEPTIONS OF DEMAND RESPONSE PROGRAMS (PE1/PE2)

A series of questions was asked during the quantitative survey to gauge the general perceptions held by non-participants regarding programs such as the Critical Peak Pricing (CPP) and Demand Bidding Program (DBP). The responses to these questions are weighted by the energy consumption of the respondents as a percentage of the overall energy consumed for the eligible population. As mentioned before, un-weighted and premise-weighted results can be found in Appendix D. The distribution of the attitudes towards CPP and DBP are displayed in Exhibit 4-8 below.

⁶ Relative to the date the survey was conducted (March 2004).

Exhibit 4-8
Attitudes Towards New Demand Response Programs



As shown in the exhibit above, 50 percent of the market reported having negative perceptions towards tariffs such as CPP and only 36 percent had positive feelings. The remaining 13 percent were unsure. It is interesting to note that while Retail/Grocery customers had the highest rate of “Very Negative” perceptions (35 percent versus the overall population rate of 16 percent), they also had the highest rate of “Very Positive” perceptions (17 percent versus the overall population rate of eight percent). The attitudes towards programs such as the DBP were much more favorable with 66 percent stating they had positive perceptions of DBP and only 19 percent stating they had negative perceptions. Although, overall 25 percent of the market reported they had “Very Positive” perceptions of programs such as DBP, the level of these perceptions varied significantly by business type. Institutions had the most favorable perception with 42 percent having “Very Positive” perceptions, while Mining, Metals, Stone, Glass and Concrete companies were not as fond of DBP with only seven percent of the industry having “Very Positive Feelings”. The underlying reasons decision-makers provided for their positive or negative attitudes towards the CPP tariff and the DBP program, broken down by business type, are displayed in Exhibits 4-9 and Exhibit 4-10.

Exhibit 4-9 illustrates that although there are a small percentage of businesses that favor programs such as CPP since they encourage good corporate citizenship and can help customers save money, many more do not like these types of programs since they perceive that they do not provide the flexibility or incentives that they would require to participate. It is interesting to note that while Retail/Grocery businesses report the highest levels of looking into anything that would help them save money (23 percent), they also have the highest rates of limited interest due to limited flexibility of their timing and demand. A comparison of the reasons provided for CPP attitudes in Exhibit 4-9 versus the reasons provided for DBP attitudes in 4-10 illustrates that most customers favor programs such as DBP over tariffs such as CPP due to the flexibility and lack of risk associated with signing up.

Exhibit 4-9
Underlying Reasons for Attitudes Towards CPP

	Total	Business Type								
		Office	Retail/Grocery	Institutional	Other Commercial	Transportation, Communication, Utility	Petroleum, Plastic, Rubber and Chemicals	Mining, Metals, Stone, Glass, Concrete	Electronic, Machinery, and Fabricated Metals	Other Industrial and Agriculture
Primary Reasons for Positive Attitudes										
Would look into anything that would help save money	9%	3%	23%	6%	9%	17%	9%	5%	9%	4%
Worth it if you can do it (but we can not)	6%	10%	11%	6%	2%	0%	8%	2%	5%	6%
Program encourages reduced usage, good corporate citizen	4%	0%	7%	3%	6%	5%	1%	3%	10%	1%
Primary Reasons for Negative Attitudes										
Limited interest due to limited flexibility/timing/demand	19%	23%	39%	27%	14%	15%	8%	9%	18%	7%
Too expensive/need more incentives	12%	6%	7%	6%	5%	4%	20%	50%	12%	16%
Can not participate/can not reduce (reason unspecified or other)	9%	18%	0%	6%	11%	2%	4%	1%	3%	18%
Too many restrictions and penalties, not flexible enough	7%	5%	3%	1%	8%	11%	9%	4%	8%	13%
Continuous/24 hour demand	6%	3%	0%	1%	8%	9%	15%	3%	0%	14%
No obvious benefit	4%	0%	2%	11%	1%	11%	12%	1%	4%	0%
Hampers production/not willing to hurt production	3%	0%	2%	0%	9%	0%	3%	1%	6%	2%
Reduced comfort/bad impact on employees	2%	10%	0%	0%	0%	0%	0%	0%	7%	0%
Can not participate due to safety reasons	2%	1%	0%	10%	0%	4%	1%	0%	0%	1%
Other										
Other	12%	13%	5%	21%	4%	21%	5%	15%	3%	16%
Cannot reduce more/involved in another load shedding program	5%	4%	0%	2%	13%	0%	6%	7%	6%	4%
Do not fully understand concept/need more info to sell program	3%	5%	7%	0%	7%	4%	2%	0%	6%	0%
Don't know	1%	0%	0%	0%	0%	0%	2%	1%	5%	1%

Exhibit 4-10
Underlying Reasons for Attitudes Towards DBP

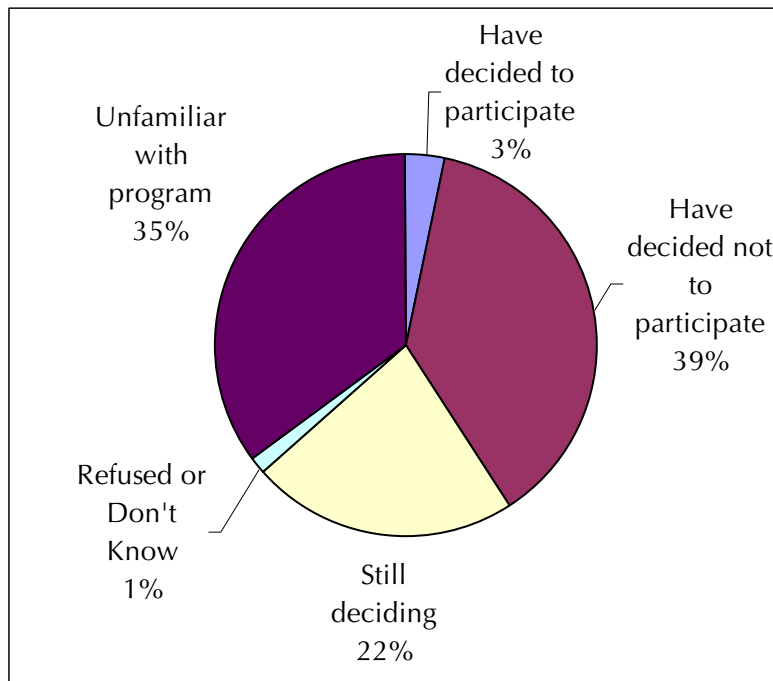
	Total	Business Type								
		Office	Retail/Grocery	Institutional	Other Commercial	Transportation, Communication, Utility	Petroleum, Plastic, Rubber and Chemicals	Mining, Metals, Stone, Glass, Concrete	Electronic, Machinery, and Fabricated Metals	Other Industrial and Agriculture
Primary Reasons for Positive Attitudes										
An opportunity/incentive to save money/energy	27%	19%	26%	35%	27%	23%	20%	22%	26%	36%
No penalties/no risk	19%	20%	33%	18%	26%	14%	29%	13%	18%	8%
Good program in general/can participate	9%	8%	12%	10%	3%	1%	15%	3%	17%	8%
Flexible, have more choice, easier for the customer	5%	3%	1%	5%	5%	26%	1%	1%	4%	4%
Perhaps there are small areas where we can contribute	4%	0%	24%	0%	0%	2%	4%	0%	6%	3%
Primary Reasons for Negative Attitudes										
Can not participate/shed load/shutdown, etc	24%	30%	4%	31%	27%	25%	16%	18%	13%	31%
Savings not high enough/no benefit	8%	0%	10%	15%	1%	8%	4%	49%	4%	4%
Other										
Other	9%	22%	7%	3%	11%	6%	7%	4%	6%	8%
Need more information/have not looked at it yet	4%	7%	4%	1%	10%	0%	6%	2%	5%	0%
Don't know	1%	0%	0%	3%	0%	0%	1%	1%	5%	0%

4.4 PARTICIPATION DECISIONS (DM1-DM4 + PLUS)

A series of questions asked of all decision-makers familiar with the new demand response programs gauged whether or not organizations had made firm decisions on participation or non-participation in the new DR programs or were likely or unlikely to participate in them in the near future. Responses to these questions were weighted by the decision-makers energy consumption, un-weighted results are presented in Appendix D.

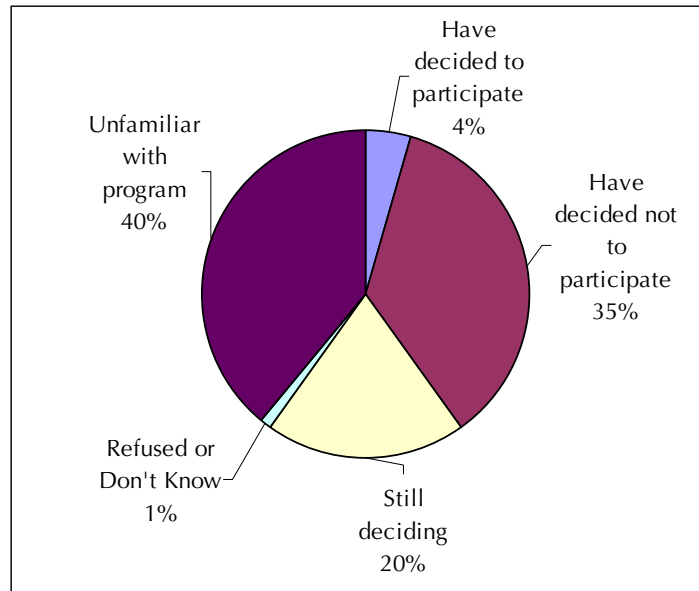
At the time of the survey more than a third of the market (35 percent) reported being unfamiliar with the Critical Peak Pricing tariff, only three percent of non-participants at the time reported they had decided to participate, and 39 percent had made a firm decision not to participate. An additional 22 percent were still deciding or had not yet seriously evaluated tariff. The distribution of the non-participant markets' CPP participation decision-making status is displayed in Exhibit 4-11.

*Exhibit 4-11
Current CPP Participation Decision-Making Status*



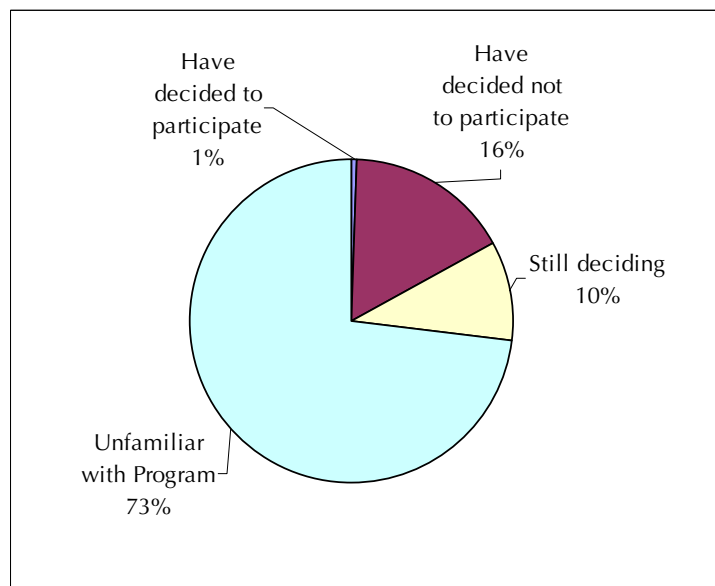
Familiarity with the Demand Bidding Program was slightly lower than that of CPP with 40 percent of the market reporting they were unfamiliar, however the percentage reporting they had decided to participate was very similar to that of CPP (4 percent for DBP versus 3 percent for CPP). Thirty-five percent reported they had made a firm decision not to participate in DBP, 20 percent reported they were still deciding or had not seriously considered participation in the program. The overall distribution of the non-participant markets' DBP decision-making status is displayed in Exhibit 4-12.

Exhibit 4-12
Current DBP Participation Decision-Making Status



Familiarity with the HPO program within the SDG&E territory was very low with 73 percent of the market reporting they were unfamiliar with the program. Less than one percent had made a firm decision to participate, 16 percent had decided not to participate and 10 percent were still deciding.

Exhibit 4-13
Current HPO Participation Decision Making Status



Customers who responded they had not made a firm decision about whether they would participate in any of the three DR programs were asked an additional question to gauge their likelihood of participation (from very likely to very unlikely) based on their current level of information. Combining the results of this question with the responses of those who had made a firm decision regarding participation resulted in an integrated response that allowed us to estimate the population's overall likelihood of participation⁷. Exhibit 4-14 presents the results of this integrated question showing the overall likelihood of participation in at least one of the three DR programs.

Exhibit 4-14
Overall Likelihood of Participation in One of the New DR Programs

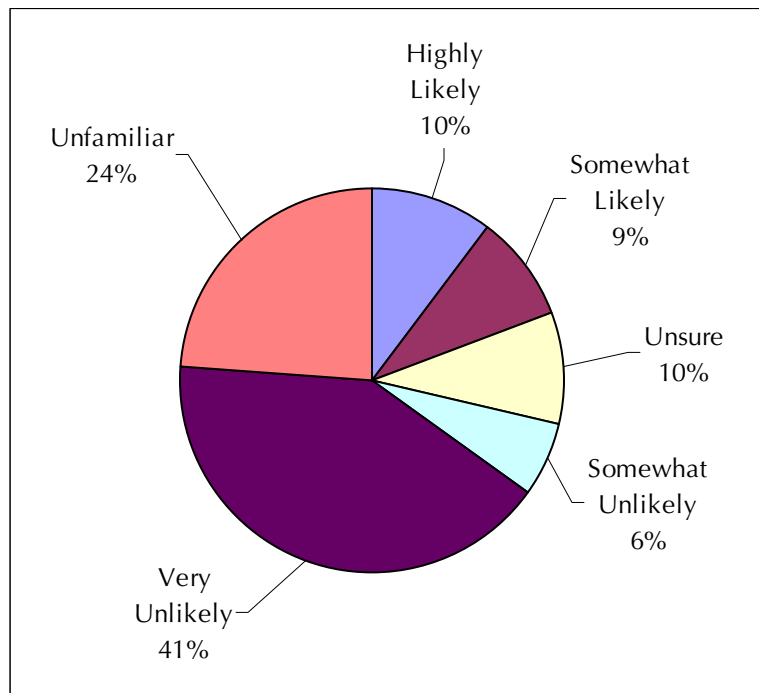


Exhibit 4-14 shows that 19 percent of the market indicated some level of likelihood that they would participate in one of the programs and 10 percent said they were “highly” likely. The highly likely to participate market is three to four times larger than the current group of participants. The percentage of customers reporting they are going to participate in both the DBP and CPP program is much larger than the number of customers that have joined the program since the survey. One would expect self-reports of participation intent would over report actual participation. However, there appears to be a much larger gap between self-reported likelihood to participate and current participation than one would expect. Future analysis will be conducted to ascertain whether these customers eventually sign up. For those

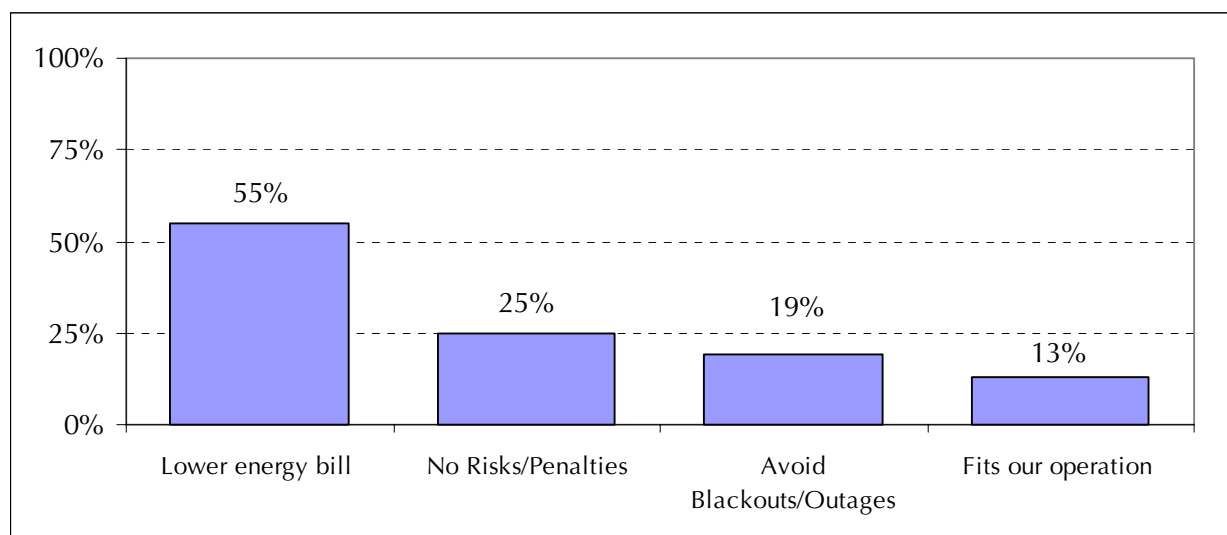
⁷ Customers responding they have not seriously evaluated whether to participate were combined with those responding that they were still deciding whether to participate. Customers who responded they didn't think they were eligible were combined with those who responded they have decided not to participate.

that do not, additional interviews may be useful to ascertain why they changed their decision. As presented later in this report, the difference in potential “likely” participants and actual participation levels may be partially due to the level of financial incentive associated with the current program.

4.5 REASONS FOR PARTICIPATION (PA1)

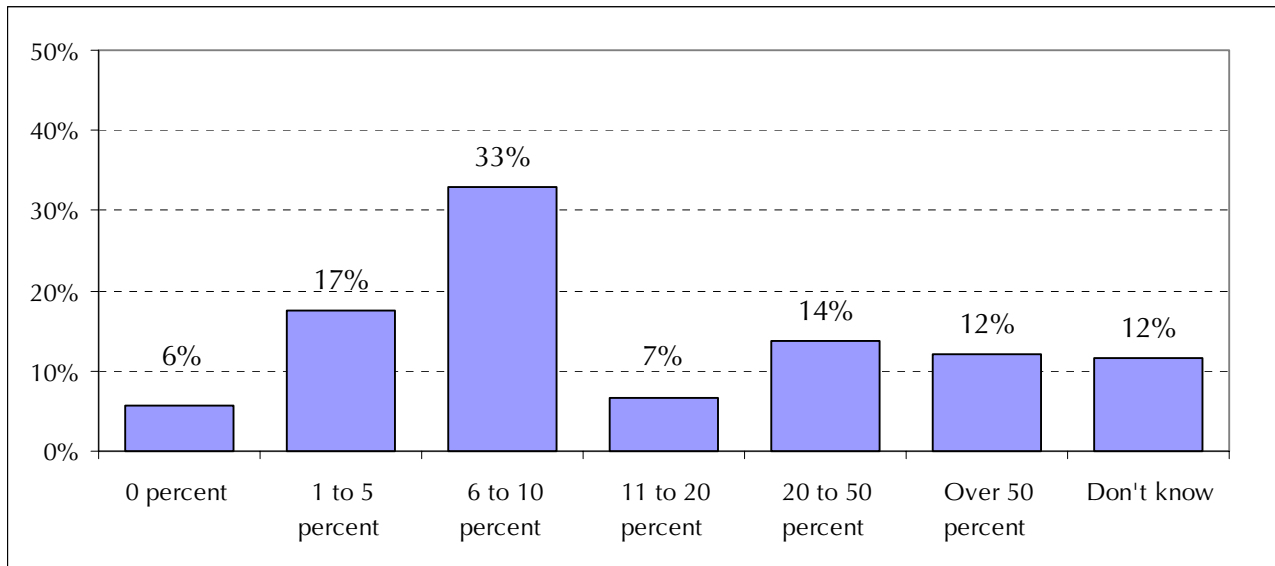
Customers indicating likelihood to participate in one of the DR programs were asked their reasons for considering participation (using an open-ended question). The main reason reported by more than half of the market (54 percent) was to lower their energy bills. This reason was even more important to customers who indicated they were likely to participate in CPP, with 74 percent responding that lowering their energy bills was their main reason for participation. The second most significant reason to consider participation was because there were no risks or penalties associated with participation in the program. The majority of these responses came from those who indicated a likelihood of participating in DBP, although some likely CPP customers responded this way as well. Mitigating power outages was the third most common response, mentioned by 19 percent of the market. Thirteen percent of the market indicated they were likely to participate simply because doing so would fit well within their normal business operations. Exhibit 4-15 shows the four main reasons given for participation in one of the new DR programs along the frequency with which these reasons were stated.

*Exhibit 4-15
Reasons for Participation in One of the New DR Programs*



Customers who said they were likely to participate in one of the new DR programs were also asked how much demand reduction, as a percent of their normal summer afternoon peak demand, their organization would be likely to provide this summer during the limited demand response program periods. The distribution of the reduction ranges is provided in Exhibit 4-16. Taking the midpoints of the ranges the average load reduction was calculated to be 20 percent.

Exhibit 4-16
Percent of Normal Peak Demand Likely Participants Could Provide for Limited DR Program Periods



4.6 REASONS FOR NONPARTICIPATION (NP1)

Customers who indicated they were unlikely to participate in any of the new DR programs were asked the reasons why they were unlikely to participate (again, on an open-ended question). Numerous reasons were provided for non-participation, each of which was post-coded into one of five categories: Inability to Shed Load, Lack of Financial Motivation, Conflicting Program Participation, Lack of Information, or Other Reasons. Examples of specific reasons are provided below.

The main reason category provided by more than half the market (53 percent) for non-participation was the inability to shed load. This category included specific production reasons such as:

- “Our load is constant ...we can’t shave we have to run 24/7”, and
- “I make glass, and the Kiln must be kept at certain temperature all the time”.

Customer comfort reasons such as:

- “We have contractual agreements with tenants and need to provide them with certain services”,

As well as general customer responses such as:

- “Can’t reduce demand”,
- “Can’t shut down”,

- “Can’t vary load”, and
- “If we could reduce we would do so all the time”.

The second most significant reason why participation was not considered was due to a perceived lack of financial motivation the programs provided. Customers made statements such as:

- “The risks are greater than the financial rewards”,
- “Not enough economic benefit for the work we would have to go through to set it up”.

Other interesting comments from decision makers that were mapped into one of the three remaining categories (Other Program, Information or Other) were:

- “They want minimum curtailment per site that is too large for retail environment. If I could average it out over 30 buildings then maybe we could do it, but we’re worried about if we can’t what the consequences would be”,
- “Don’t know what we need to do; technically, what is it based on?”,
- “Don’t have a dedicated energy response”, and
- “Just haven’t read up on it yet, I’m too busy”.

Exhibit 4-17 displays the main non-participation reason categories along with the frequency with which these categories were cited.

Exhibit 4-17
Reasons for Non-Participation in One of the New DR Programs

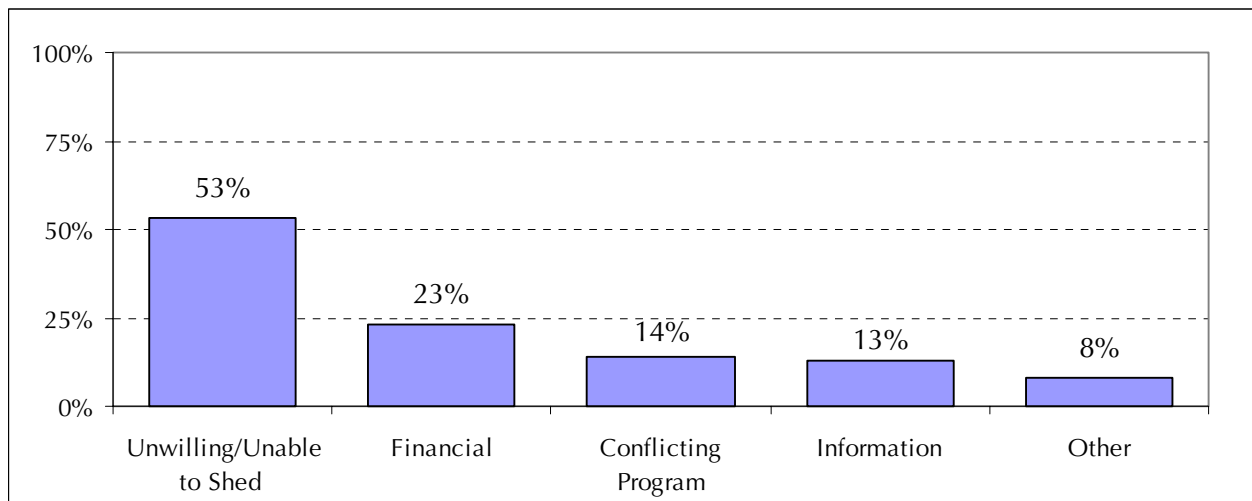
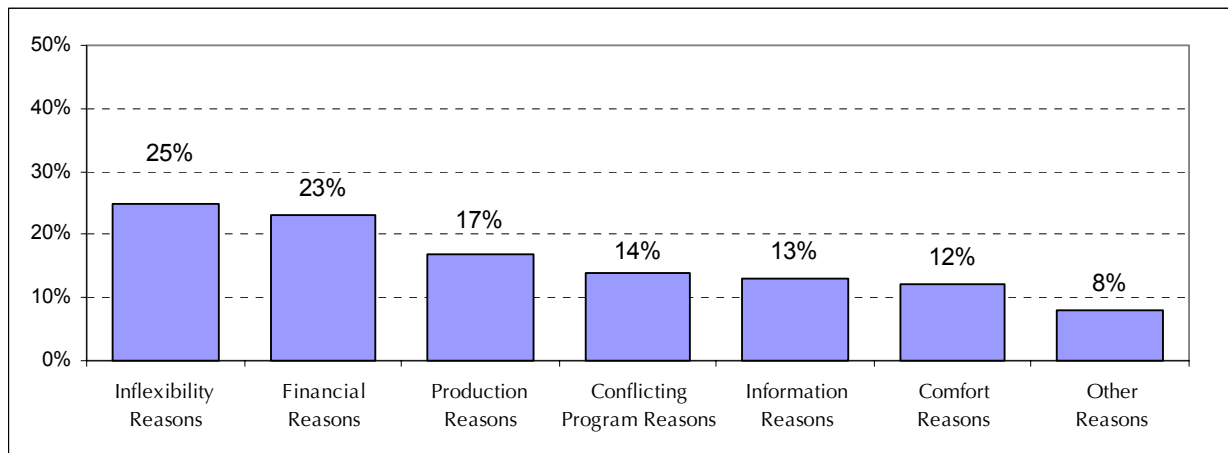


Exhibit 4-18 displays the distribution of non-participation reasons with the “Inability to Shed” category broken down to a finer level (Inflexibility, Production and Comfort).

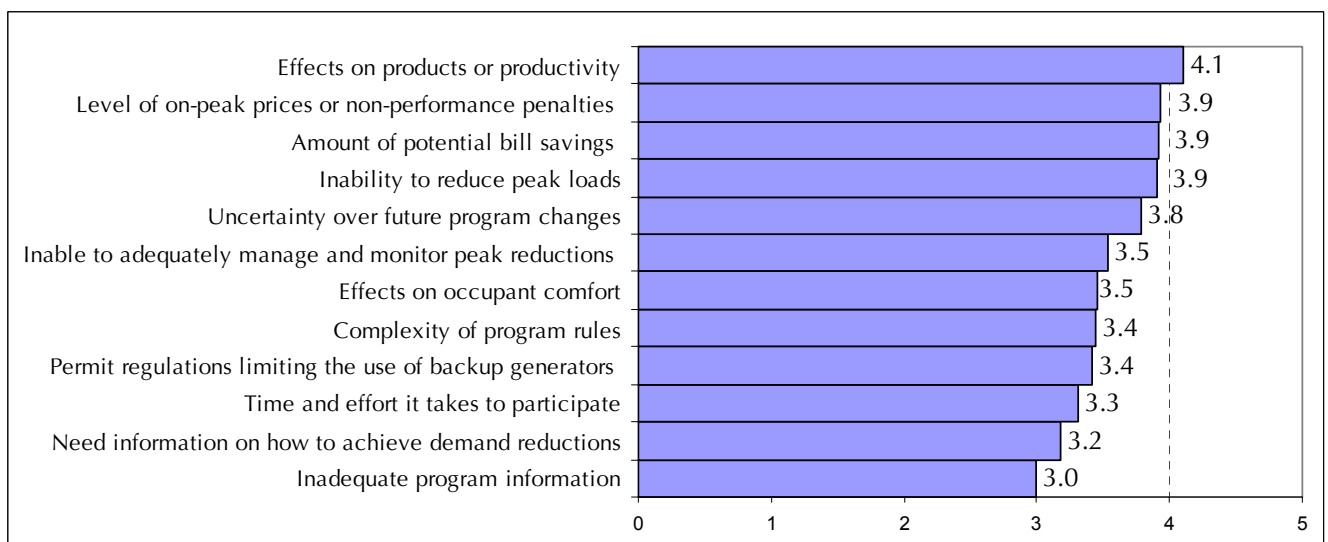
Exhibit 4-18
Reasons for Non-Participation in One of the New DR Programs- Finer Level



4.7 BARRIERS (BA1-BA12)

Customers were read 12 concerns that an organization might view as barriers to participation in DR programs or to implementing demand reduction actions. Respondents were asked to rank the significance of each of these concerns to their organization on a 1 to 5 scale, where 5 means extremely significant and 1 means insignificant. The mean response for each of the concerns, along with the overall mean for all questions, is shown in Exhibit 4-19.

Exhibit 4-19
Customer Ranking of Participation Concerns (Mean Concern = 3.6)



As shown in Exhibit 4-19, the number one concern was the “Effects on products or productivity”. In fact, over 60 percent of market rated this concern a 5, meaning it was very significant. Behind this concern, the next three most significant concerns that shared the same level of significance were “Amount of potential bill savings”, “Level of on-peak prices or non-performance penalties”, and “Inability to reduce peak loads”. Forty-seven percent of respondents rated these three concerns as very significant. The least significant concern among the respondents was “Inadequate program information”, which illustrates that simply increasing the level of marketing of these programs will not on its own do much to increase participation.

While the average customer rank for most factors ranged between 3 and 4 (the mean was 3.6), there is some interesting variation among the different concerns between industries and customer sizes. The mean values of the concerns broken down by business type and by size are displayed in Exhibit 4-20.

Exhibit 4-20
Ranking of Participation Concerns by Business Type and Size

	Total	Business Type									Business Size			
		Office	Retail/Grocery	Institutional	Other Commercial	Transportation, Communication, Utility	Petroleum, Plastic, Rubber and Chemicals	Mining, Metals, Stone, Glass, Concrete	Electronic, Machinery, and Fabricated Metals	Other Industrial and Agriculture	Extra Large (2000+ kW)	Large (1000-2000 kW)	Medium (500-1000 kW)	Small (100/200-500 kW)
Inadequate program information	2.99	3.09	3.12	2.80	3.26	2.57	3.50	2.44	2.88	2.98	2.61	3.00	3.18	3.25
Need information on how to achieve demand reductions	3.18	3.23	3.48	3.24	3.43	2.53	3.58	2.33	3.19	3.11	2.63	3.19	3.33	3.64
Time and effort it takes to participate	3.31	3.32	3.69	3.07	3.41	3.28	3.52	2.97	3.12	3.39	3.31	3.14	3.23	3.47
Permit regulations limiting the use of backup generators	3.42	3.80	3.58	3.35	3.22	3.16	3.25	3.43	2.97	3.64	3.58	3.63	3.16	3.31
Complexity of program rules	3.44	3.43	3.97	3.20	3.89	3.77	2.81	2.85	3.40	3.42	2.94	3.41	3.65	3.83
Effects on occupant comfort	3.46	4.46	3.66	4.48	3.94	2.45	2.70	1.88	3.63	2.41	3.00	3.47	3.89	3.62
Inable to adequately manage and monitor peak reductions	3.54	3.83	4.02	3.91	3.62	3.24	2.77	2.86	3.54	3.35	2.97	3.49	3.60	4.11
Uncertainty over future program changes	3.79	3.73	4.48	3.89	3.90	3.47	3.74	3.69	3.82	3.42	3.59	3.66	3.88	4.00
Inability to reduce peak loads	3.91	3.80	4.25	4.08	3.75	3.23	4.15	3.83	4.19	3.84	3.75	3.92	3.81	4.15
Amount of potential bill savings	3.92	3.86	4.14	4.14	3.88	3.97	3.62	3.94	3.58	4.03	3.69	3.78	3.93	4.24
Level of on-peak prices or non-performance penalties	3.93	3.89	4.43	4.01	4.17	3.82	3.72	3.64	3.96	3.62	3.64	3.83	4.04	4.19
Effects on products or productivity	4.10	3.75	4.56	3.58	3.89	3.96	4.67	4.30	4.79	4.11	4.23	4.06	3.91	4.15

* The minimum cutoff for program participation is a maximum yearly demand of ≥ 100 kw for customers in SDG&E territory and ≥ 200 kw for customers in SCE and PG&E territory.

For smaller customers (100/200 < maximum kW < 1,000) the two largest concerns were “Amount of potential bill savings” and Level of on-peak prices or non-performance penalties. This shows that although the smaller customers reported that their energy costs represent a smaller percent of their organizations total annual operating costs (13 percent versus 15 percent for large customers), the scale of their operation makes them much more sensitive to financial concerns. The small customers are also more likely to be Retail or Grocery businesses that tend to encounter a low margin, cost competitive marketplace. “Complexity of program rules” was also a larger concern for smaller customers who most likely are not as used to dealing with complicated tariffs or programs and probably do not have the resources to dedicate to understanding them.

For larger customers (maximum kW > 1,000) “Effects on products or productivity” was the largest concern. For many of these large customers productivity, throughput, and on-time delivery are what keeps them in businesses and thus cannot be sacrificed at any cost. This was also a large concern for Retail/Grocery businesses that, for example, may encounter serious losses if their products spoil due to a temperature fluctuation in their cold storage cases.

Exhibit 4-21 displays the individual ranks of “Effects on Occupant Comfort” by business type. Not surprisingly, Institutional, Office and Other Commercial businesses are much more concerned about occupant comfort than Industrial customers. Although degradations in occupant comfort in industrial settings may lead to a reduction in productivity, they are not as likely to lose their customers to their competitors as a result of uncomfortable surroundings.

Exhibit 4-21
Ranking of Customer Comfort by Business Type as Participation Concerns (Mean=3.5)

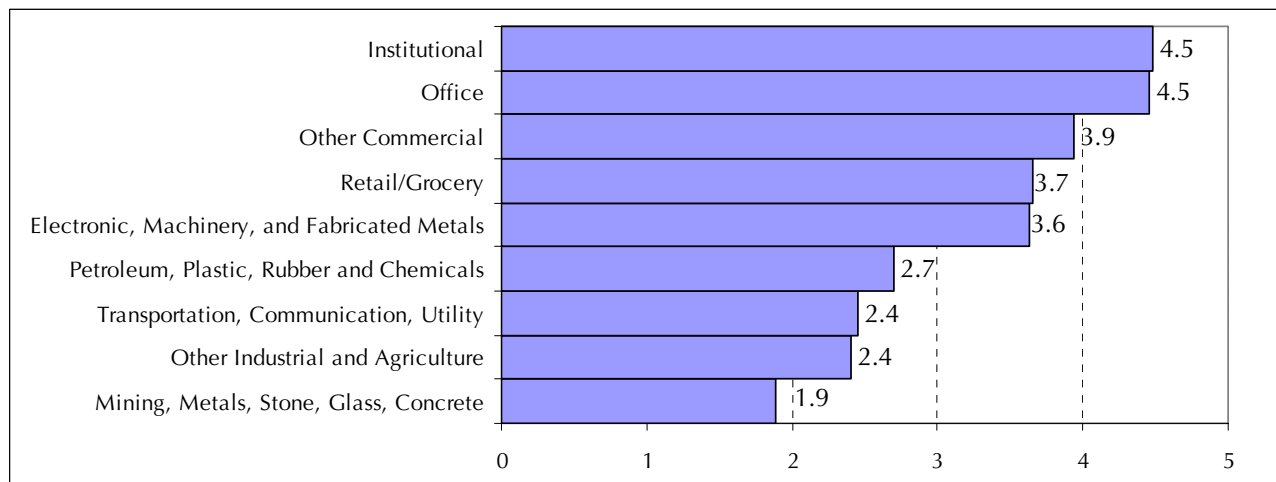
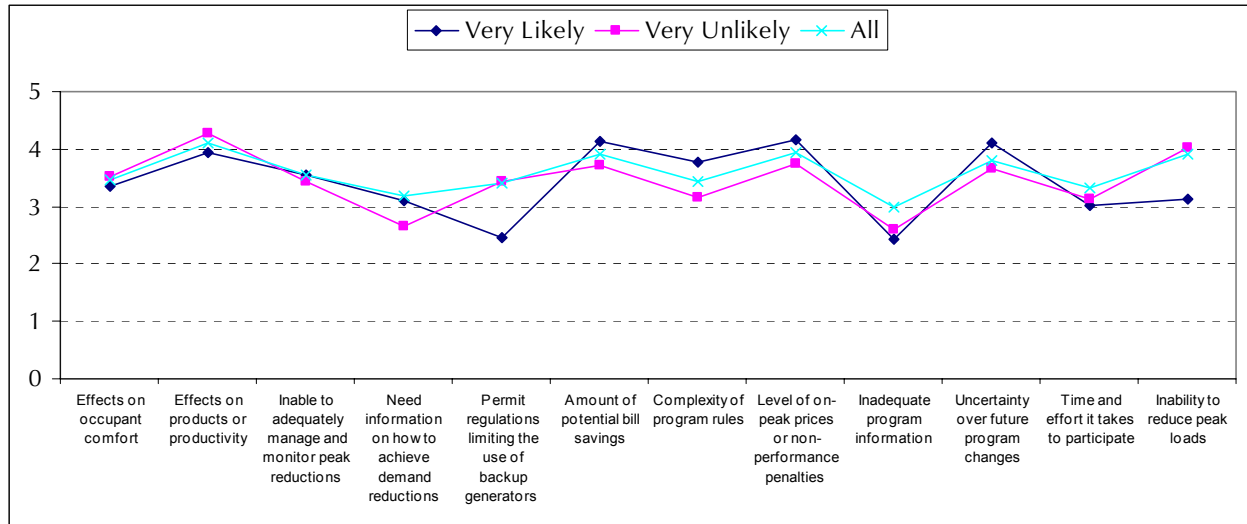


Exhibit 4-22 compares the mean ranking of each of the twelve barriers for the overall population, those very likely to participate and those very unlikely to participate in one of the new DR programs. As can be seen from Exhibit 4-22 some barriers such as “Effects on Occupant Comfort” and “Effects on Products or Productivity” had little correlation with likelihood of participation. It was interesting to note that the two barriers where the mean of the *very likely* to participate and the *very unlikely* to participate had the most separation were “Permit Regulations Limiting the Use of Backup Generators” and “Inability to Reduce Peak Loads”, both of which were larger barriers for those who indicated they were *very unlikely* to participate. These two barriers both indicate that those *very unlikely* to participate have more fundamental reduction problems related to their operations, which potentially prevents them from participating in the new DR programs. The barriers that were more of a concern for those *very likely* to participate were “Amount of Potential Bill Savings”, “Complexity of Program Rules”, “Uncertainty over Future Program Changes”, and “Level of On-Peak Prices or Non-Performance Penalties” none of which indicate the same fundamental issues mentioned above.

Exhibit 4-22
Comparison of Barrier Ranking by Likelihood of Participation in DR Program



4.8 CURRENT ACTIVITY (CDR1-4)

A series of questions was asked of the non-participants about their current energy rates and what, if any, changes they have made in the past to the way their organization uses electricity as a result of the time-of-use rates or the energy crisis.

First, customers were asked whether they are currently on a time-of-use rate. Sixty-seven percent of the market reported they are currently on a time-of-use rate (13 percent were unsure), while 13 percent of the market was unsure. Larger customers also reported being on TOU rates at a higher frequency than small or medium sized customers. However, despite this, customers in SDG&E’s territory (which were typically smaller) reported being on time-of-use (TOU) rates much more often than customers of the other utilities. As most customers in the eligible population are actually on TOU rates, it appears that customers under-reported their current rate type. Exhibit 4-23 displays the self-reported distribution of the market being on TOU rates.

Exhibit 4-23
Customers Self-Reported Status Regarding Time-Of-Use Rates

Is this location currently on a time-of-use rate where the price you pay varies by time period within summer days?	Total	Utility		
		PG&E	SCE	SDG&E
Yes	67%	58%	75%	82%
No	21%	25%	19%	4%
Refused	0%	0%	0%	0%
Don't know	13%	17%	6%	14%

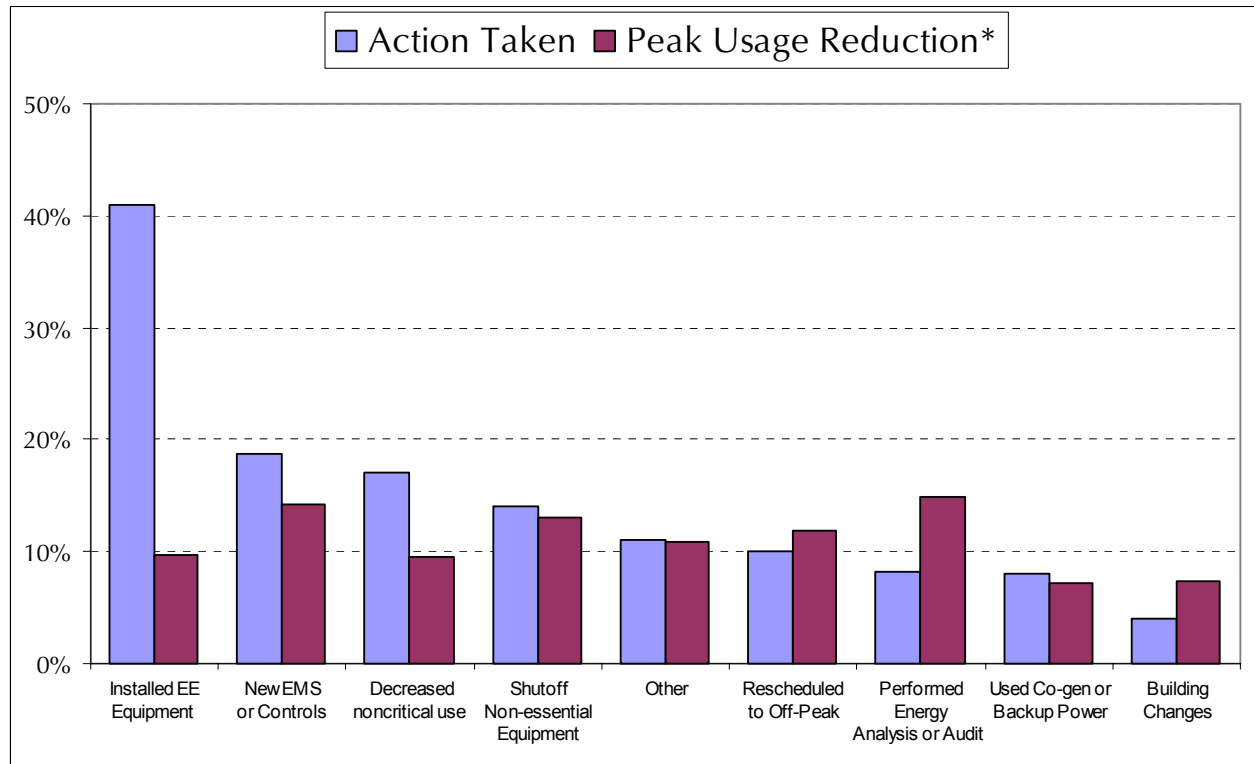
To assess the hypothesis that PG&E, SCE, and SDG&E customers have made load shifting changes in the past, customers who reported being on TOU rates were asked if their organization had taken action to shift usage from higher priced hours to lower priced hours in response to TOU price differences. Roughly half of the market on TOU rates reported they had shifted their usage to lower priced hours. The distribution of those taking action to shift their load off peak had a fairly similar distribution across small, medium and large sized businesses. Those customers who reported they had shifted their usage to lower priced hours were then asked what actions they had taken. Fifty-eight percent said they rescheduled staff/production to off-peak and 21 percent said they reduced the use of certain equipment. On a statewide basis respondents who took these actions, reported they did so equally before and after the California energy crisis. However, a breakdown by utility showed that more SDG&E and SCE respondents reported taking TOU actions before the crisis (over 73 percent and 61 percent respectively) compared to just less than half of the PG&E customers (49 percent).

Fifty-seven percent of the market reported they have made other significant changes in electricity usage since the crisis. Office and Retail/Grocery businesses reported the highest level of changes at 81 percent and 76 percent, respectively. Small and Medium sized customers also reportedly made more changes than large and extra large customers. Customers who had taken actions were asked how much they thought their average peak load usage had changed as compared to their peak usage prior to the energy crisis. Nineteen percent reported they were not sure, however the average of the remaining was nearly 10 percent. These results are consistent with those obtained from other surveys⁸ of this customer group and the system-wide load reductions documented by the CEC after the energy crisis. The frequency with which the major changes were reported, along with the estimated peak usage reduction that resulted from these changes, are displayed in Exhibit 4-24.

Exhibit 4-24 illustrates that although installing energy-efficient equipment was the most frequently occurring change (reported by 40 percent of the market who made changes), the portion of the market that reported they had an energy analysis or audit performed reported the largest reduction in their peak load. The second largest impact reported came from installing a new EMS system or other type of control. Note, however, that sample sizes for these actions are small and the results do not capture the effects of multiple actions.

⁸ See, for example, Quantum Consulting, Inc. 2004. 2002 Statewide Nonresidential Standard Performance Contract Program Measurement and Evaluation Study, Process Evaluation And Market Assessment Report, prepared for Southern California Edison Company, March.

Exhibit 4-24
Significant Changes to Organizations Energy Use Since 2000 CA Energy Crisis



* Peak Usage Reduction cannot entirely be attributed to the action taken. Some decision-makers reported multiple changes to their organizations peak energy usage, and thus a portion of peak usage reduction reported in these instances would result from each action taken.

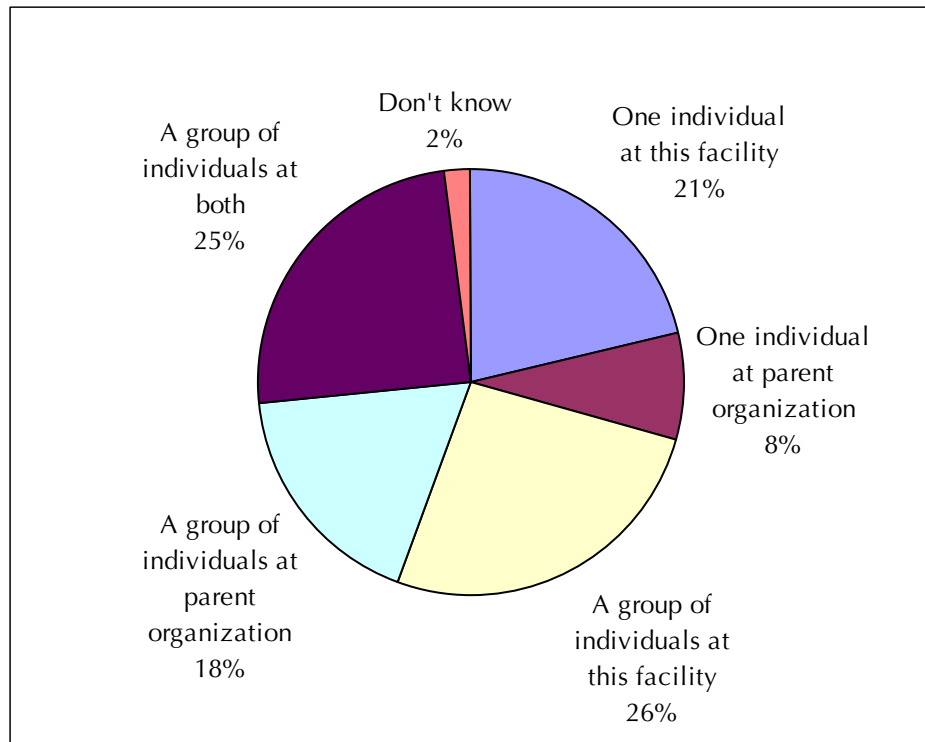
4.9 DECISION PROCESS AND GENERAL MARKET PERCEPTIONS (EM1-7)

A series of questions was asked of the non-participants to gauge how organizations make decisions about participating in DR programs and what are their current perceptions of the California energy market.

The key findings from these questions were:

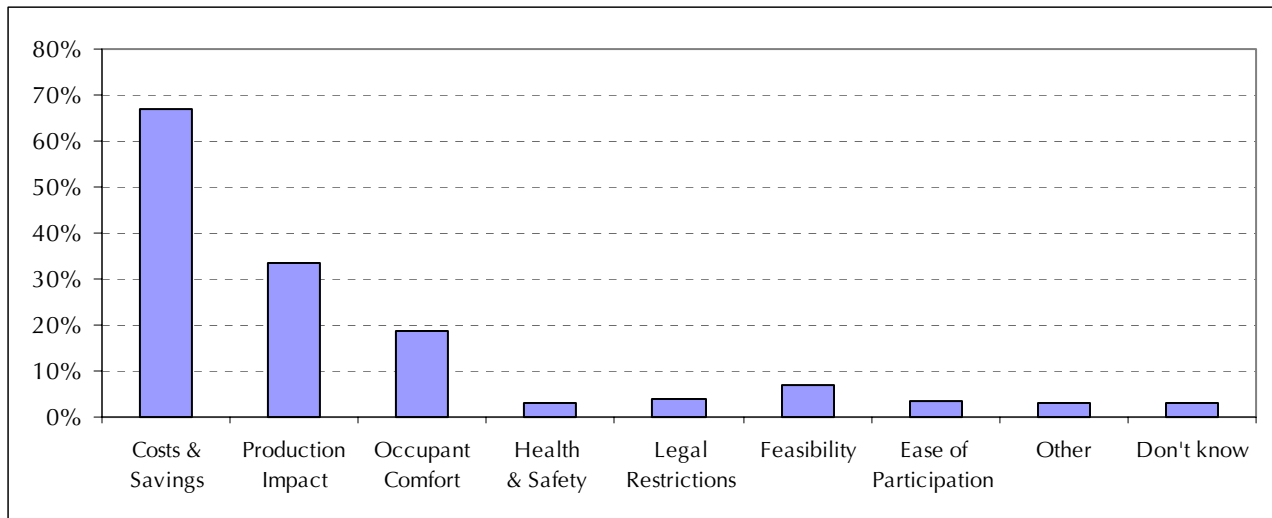
- Sixty-nine percent of the market reported that a group of individuals had ultimate authority with respect to their participation in energy programs and rates compared to 29 percent of the market where this authority was granted to one individual. The organizations where groups of individuals had authority were typically larger businesses. Forty-seven percent of the market reported that either an individual or group of individuals at the facility is responsible for making participation decisions, 26 percent reported this responsibility lies with the parent organization, and 25 percent stated it is a collaborative effort between the parent organization and the facility staff. The distribution of who has ultimate authority to make DR program participation decisions is displayed in Exhibit 4-25.

Exhibit 4-25
Ultimate Authority on DR Program Participation Decisions



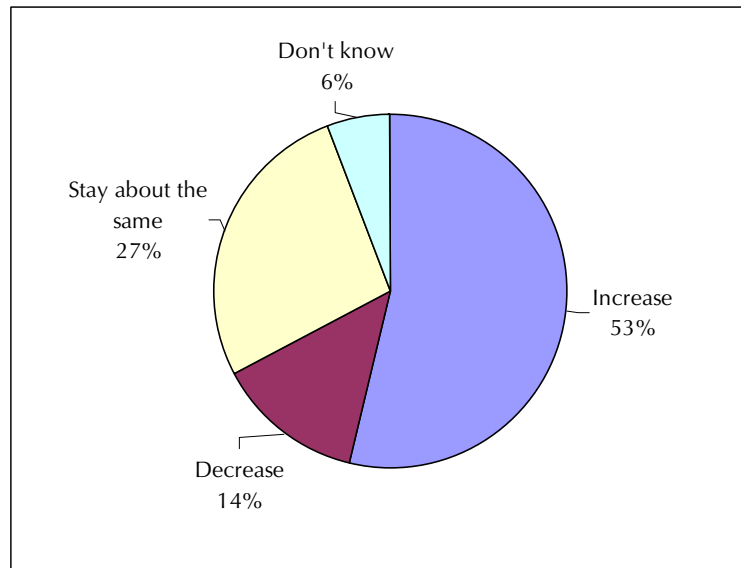
- Fifty percent of the market reported that it typically takes less than one month to make a decision about participating in programs such as the new Direct Response programs. Another 34 percent of the market reported that it takes from 1 to 3 months.
- When customers were asked about the primary factors taken into consideration when making decisions about new rates or DR programs, 67 percent of the market responded that the program costs and/or savings resulting from the program was the most important factor. Impact on production was the second largest stated factor (reported by 33 percent of the market) and occupant comfort was the third largest consideration (reported by 19 percent of the market). Exhibit 4-26 displays the primary factors reported, along with the frequency with which they were given.

Exhibit 4-26
Primary Factors Considered When Making DR Program Decisions



- Twenty-six percent of the market reported that their organization analyzed electricity markets and prices very closely, 32 percent reported following them somewhat closely and 40 percent responded they did follow them very closely.
- Sixty-eight percent of the market believes that it is either very or somewhat likely that California’s power supply will not meet the expected power demand over the next three years, while 27 percent believe that it will meet the demand.
- Thirty-five percent of the market admits having no idea how much the wholesale market price of electricity varies from the lowest daytime price to the highest on high demand days. The rest of the population was evenly distributed between expecting the price to increase by 10 percent, 50 percent and more than 100 percent.
- Seventy percent of the market claims their organization is very concerned about energy costs relative to other costs of running their business. Another 25 percent are somewhat concerned.
- Fifty-three percent of the market expects electricity prices to increase over the next three years, 27 percent expects them to stay the same and 14 percent expects them to decrease. This is displayed graphically in Exhibit 4-27.

Exhibit 4-27
Markets Perceptions Regarding the Price of Electricity Over the Next 3 Years



4.10 ENHANCED AUTOMATION AWARENESS AND MATERIALS (EA1-EA20)

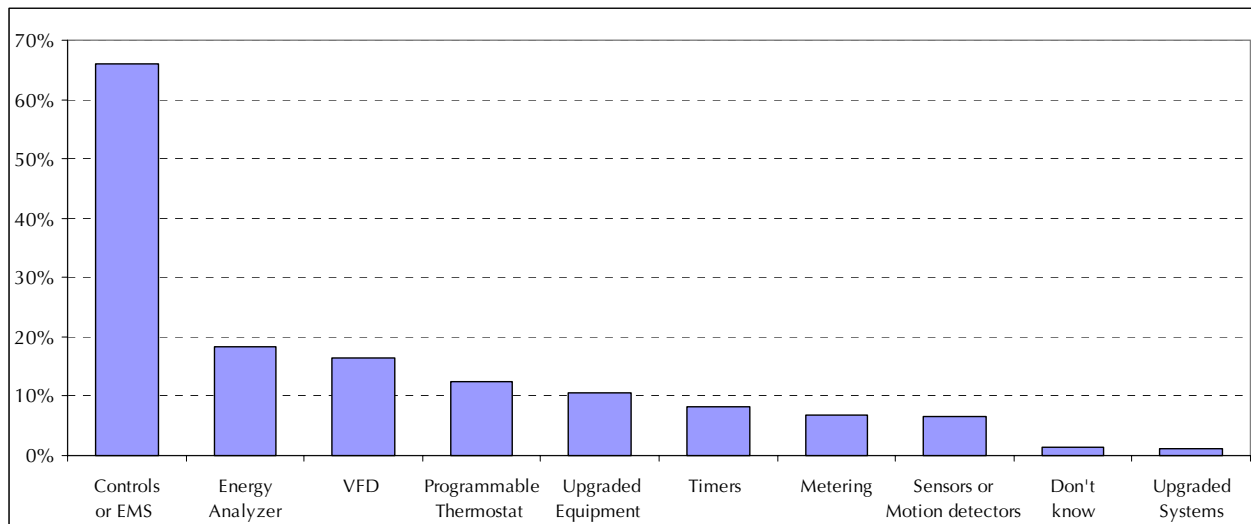
Non-participants were asked a series of questions regarding their knowledge and opinions of the Enhanced Automation Program sponsored by the California Energy Commission and their history of long-term automation investments for load management in the past few years.

Questions regarding the Enhanced Automation (EA) program revealed that knowledge of EA was only moderate. Thirty-six percent of the market had heard of EA and facility size classification (based on annual maximum demand) was positively correlated with EA awareness. The awareness was similar at all three utilities. Institutions had the highest awareness of EA and Other Industrial/Agriculture businesses had the lowest awareness. When asked to define what EA meant to them, the majority of the decision-makers (83 percent) mentioned automated controls that would allow for remote or automated energy management. Nineteen percent also associated EA with the availability of real time data that would allow them to monitor their energy use and thus run a more efficient operation. Only seven percent of those surveyed remember receiving or hearing about materials discussing EA. SDG&E customers reported the lowest levels familiarity with these materials. And of those who had heard of or received EA materials, 65 percent reported they either came in the mail, from a utility representative or from a utility seminar.

More than half of the market (58 percent) reported considering automated investments to improve their ability to manage their energy use. Surprisingly, larger customers did not appear to consider these investments any more than the smaller customers. The mass majority of those considering these investments (79 percent) reported doing so to save on their energy costs, upgrade their old equipment (21 percent) and to increase their flexibility of control systems (21 percent). Only three percent reported considering the improvements to be able to respond to dynamic pricing. Thirty-five percent of the market indicated they had installed automation

investments to manage their energy use (in the past two years). Of those who had made the investments, the majority reported they had upgraded their EMS (66 percent). The distribution of the control improvements reported to manage energy use is presented in Exhibit 4-28.

Exhibit 4-28
Control Improvements Installed to Improve Energy Management in the Past Few Years
(Of those who Report Installing New Controls)



The majority of respondents who had considered automation improvements but never implemented them, refrained from doing so due to the costs associated with implementation (73 percent). When customers were asked what type of information on building automation improvements would be the most helpful to their business the most common responses were information on EMS/controls, facility load data by end-use, efficient equipment and new technologies.

All decision-makers surveyed were asked how relevant information about building automation and controls are to them with respect to managing their energy use. Seventy-five percent of the market indicated this information was either very or somewhat relevant. The overall distribution of the relevancy of this information is presented in Exhibit 4-29.

When asked what method of communication about Enhanced Automation would be most likely to get their attention, the majority stated email or a letter from the CA Energy Commission. Exhibit 4-30 displays the method of communication that decision-makers reported would be most likely to get their attention.

Exhibit 4-29
Relevancy of Information about Building Automation and Controls to Managing Energy Use

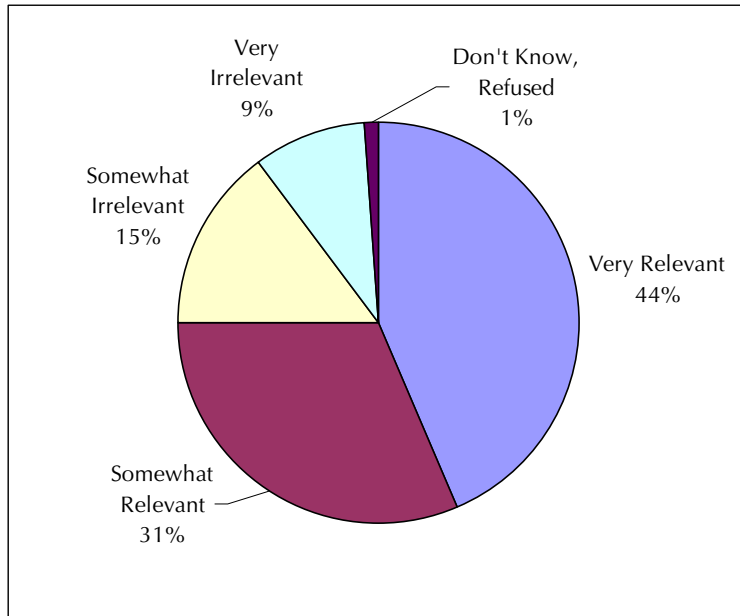
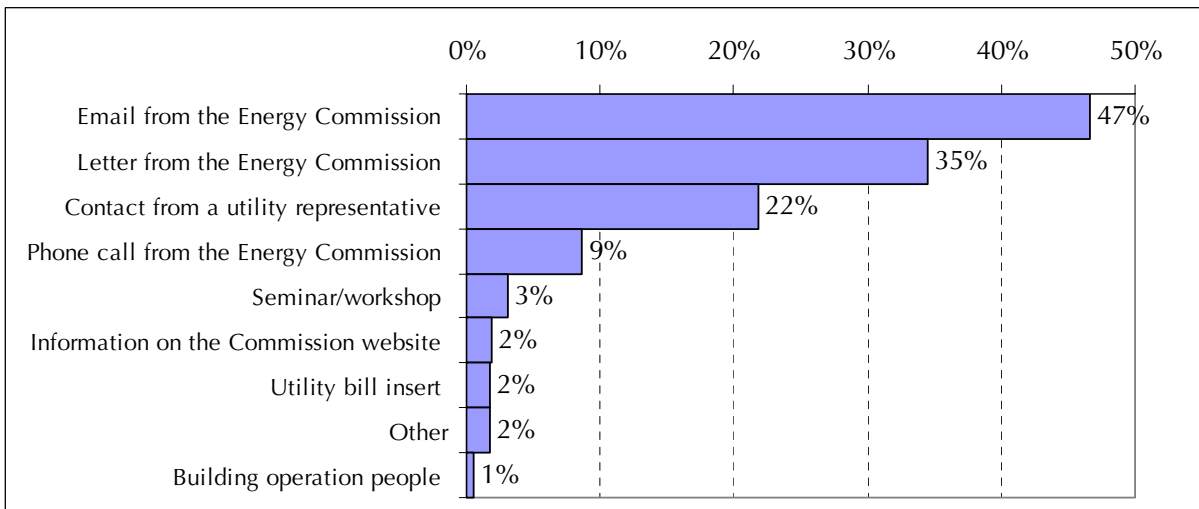


Exhibit 4-30
Preferred Method Of Communication for Information on Building Automation, etc.



4.11 CAPABILITY/POTENTIAL ACTIONS (CA1-3)

To develop very rough estimates of the DR capability that currently exists customers were asked a hypothetical question asking what percent of their normal summer afternoon peak demand their company would be willing and able to reduce for a few hours on four weekdays in the summer, provided they were notified the day before, and were given *sufficient financial motivation*. This question forms the basis for our initial, self-report-based estimate of the

technical potential (the potential of the marketplace assuming money was no object and the programs paid what the market demanded) of voluntary DR programs. The estimates below were calculated using the mid-points of the stated reduction ranges and can be considered the upper bound of the near-term technical potential since there may be a tendency with self-reports to over-estimate true ability. At the same time, because DR knowledge and automation capabilities are still relatively limited and nascent, one would expect that the longer-term DR technical potential would be higher if improvements in knowledge and controls automation increase.

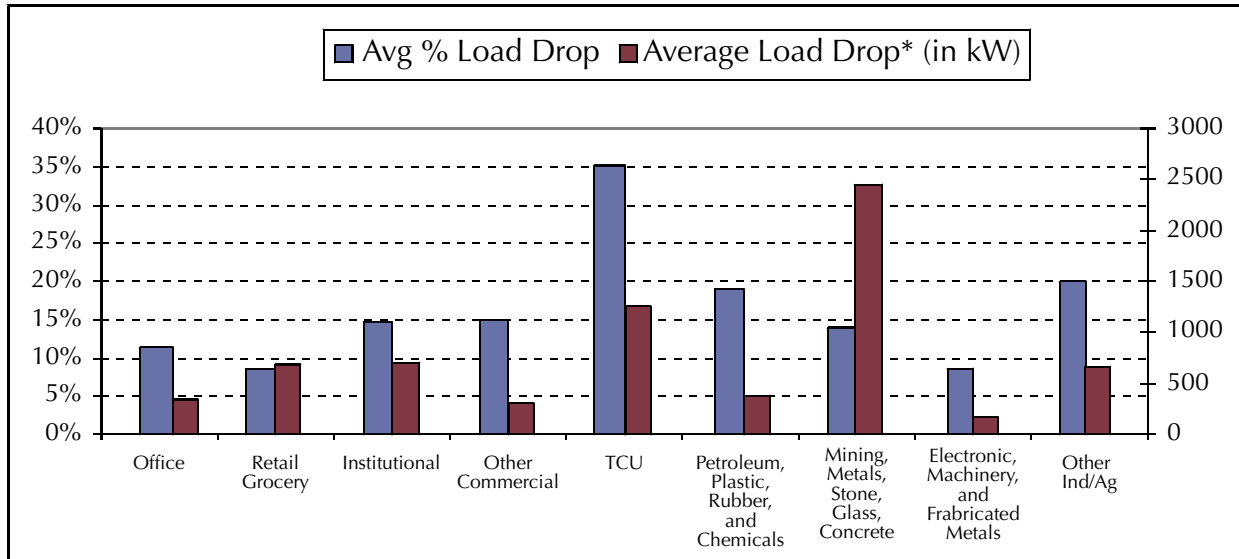
The average technical potential reported from the market was 16 percent. Based on rough initial estimates of the range of coincident peak demand for this population, the total MW reduction potential is likely in the range of 1,200 to 1,800 MW.⁹ Note, however, that this estimate of potential contains overlap with the IOUs current interruptible participants.¹⁰ Thirty-six percent of potential is attributable to the 13 percent of population participating in another DR program.

The average load reduction potential varied widely from TCU businesses who stated they could drop more than 35 percent of their load (attributable primarily to the 63 percent of the TCU business that claimed they could drop more than 50 percent of their load) to Electronic, Machinery and Fabricated Metal (EMFM) businesses who stated they could drop less than nine percent of their load. Thirty-nine percent of the market in the Petroleum, Plastic, Rubber and Chemical (PPRC) business reported they would be unable to drop any demand. SDG&E customers reported being able to shed less than PG&E and SCE customers (12 percent, 15 percent and 16 percent respectively), which most likely results from SDG&E having more commercial and smaller sized customers who in general report being able to shed less than other customers. Exhibit 4-31 compares the average technical potential as a percentage of total load and the actual estimated load drop across the nine distinct business types.

⁹ This figure will be revised once we have received hourly load data for the non-participant sample from the three IOUs.

¹⁰ After receipt of the hourly load data, we will also estimate the share of technical potential accounted for by current interruptible program participants.

Exhibit 4-31
**Average Technical Potential as a Percentage of Total Load and as Actual Estimated Load*
(in kW)**



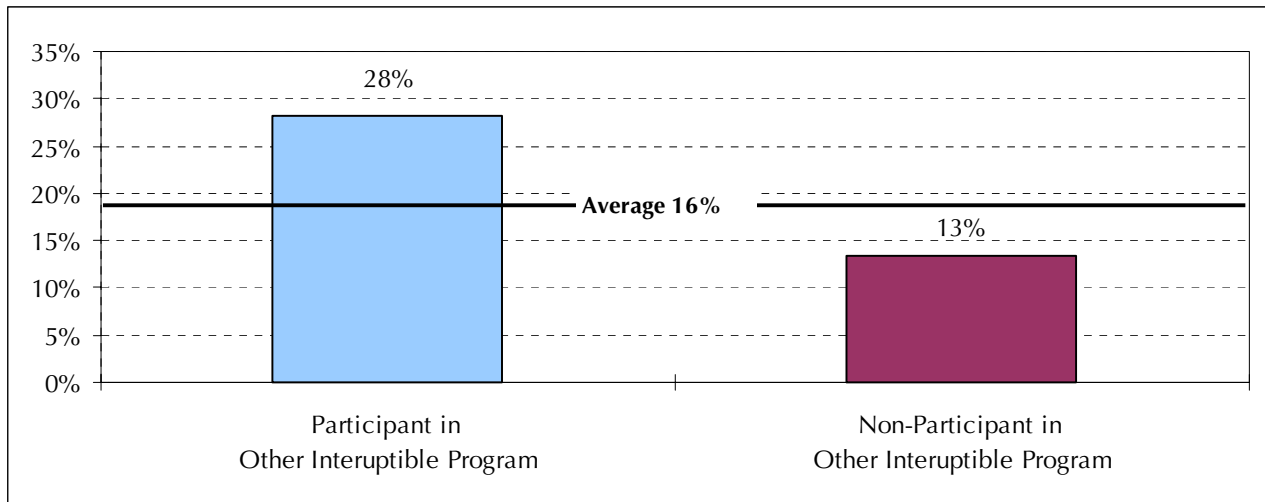
* Non-coincident Load Drop

Based on CIS data we were able to flag 67 of the 500 CPP and DBP non-participants surveyed as participants in other interruptible programs. The distribution amongst other programs was the following:

- Six in the Base Interruptible Program (BIP),
- Three in Optional Binding Mandatory Curtailment Program (OBMC),
- One in the California Power Authority's Demand Reserves Partnership Program (CPA-DRP),
- Two in the Agricultural and Pumping Interruptible Program (API),
- Fifty-two in Traditional Interruptible Programs, and
- Three in SDG&E's Rolling Blackout Reduction Program (RBRP).

Although the average technical potential reported from the market was 15.6 percent, when the market was broken down by whether or not the customer was participating in another interruptible program we found a significant difference between the two populations. Customers who participated in another interruptible program reported their technical potential was nearly 30 percent, which was more than double what was reported by customers who were not participating in other programs (14 percent). Although only 67 of the 500 customers indicated they were participating in other interruptible programs (13 percent), their maximum demand represented 21 percent of the total populations non-coincident demand. The percentage of the Exhibit 4-32 displays the average technical potential as a percentage of total load for participants and non-participants in other interruptible programs.

Exhibit 4-32
Average Technical Potential as a Percentage of Total Load for Participants and Non-Participants in Other Interruptible Programs



Surveyed customers also were read the following list of four temporary demand reduction actions and asked which they would be willing to consider if the motivation were sufficient:

- Allowing the temperature to rise in their occupied space by 1 to 5 degrees,
- Shutting off a portion of the air conditioning system,
- Reducing the overhead lighting, and
- Reducing or shutting off their production process.

Surprisingly, over 92 percent of the market responded they were willing to consider one of these four DR actions and nearly half (48 percent) reported they were willing to consider three of the four demand reduction actions given (allowing AC to be shut off, allowing the temperature to rise in the occupied space or reducing the overhead lighting). Customers were less likely to consider the fourth action, Reducing or shutting off their production process, with only 31 percent of the market saying they would consider this action (after those who had responded “Not Applicable” were removed). Only five percent of the offices and 15 percent of the institutions said they would consider this action versus 58 percent of the TCU businesses and 57 percent of the MMSGC businesses that said they would. This response pattern most likely indicates that many of the office and institutional customers surveyed do not consider themselves as having a production process to shut off. Exhibit 4-33 displays the willingness to perform these DR actions broken down by business type.

Exhibit 4-33

Demand Response Actions to be Considered if Motivation were Sufficient, by Business Type

	Total	Business Type									
		Office	Retail/Grocery	Institutional	Other Commercial	Transportation, Communication, Utility	Petroleum, Plastic, Rubber and Chemicals	Mining, Metals, Stone, Glass, Concrete	Electronic, Machinery, and Fabricated Metals	Other Industrial and Agriculture	
Allow the temperature to rise in the occupied space	72%	57%	76%	70%	66%	68%	88%	93%	87%	66%	
Shut off a portion of the air conditioning system	64%	47%	56%	62%	63%	68%	85%	79%	75%	60%	
Reduce the overhead lighting	79%	77%	89%	71%	78%	74%	88%	92%	89%	68%	
Reduce or shut off some or all production processes	31%	5%	17%	15%	18%	58%	43%	57%	16%	48%	

Decision-makers were read a list of three energy management capabilities and asked which, if any, they currently have in place at their facility. The responses indicated that 59 percent of the market could view hourly demand on their utility's website, 54 percent could automatically control a significant portion of their energy load on an in-house energy management or control system, and 41 percent could view their hourly demand on an in-house energy information system. Offices, Retail/Grocery stores and Institutional businesses were much more likely to report being able to automatically control their energy load compared to Industrial type businesses who were more likely to be able to view their demand on their utility's website. Seventy-two percent of the market of chain businesses that had 11 or more locations in California reported being able to automatically control their energy load on an in-house system. As expected, larger customers reported they had many more control capabilities than smaller customers and more than 83 percent of the Extra Large market indicated they had the ability to view their demand on their utility's website.

4.12 BILL SAVINGS REQUIRED TO EXECUTE DR REDUCTIONS (SA1/SA2)

To benchmark the technical potential results, which were based on the hypothetical assumption of *sufficient* financial motivation, two questions were asked that sought more specific information on how much financial motivation customers would need to achieve specific levels of demand reduction. Customers were asked what percentage of their annual electricity bill they would need to save as an incentive to reduce their demand by 5 percent and 15 percent for a few hours in the late afternoon on approximately four non-sequential weekdays in the summer. The distribution of responses to these questions is displayed in Exhibit 4-34.

Exhibit 4-34
Percent Bill Savings Required to Reduce Demand by 5 Percent and 15 Percent for Four Non-Sequential Summer Weekday Afternoons

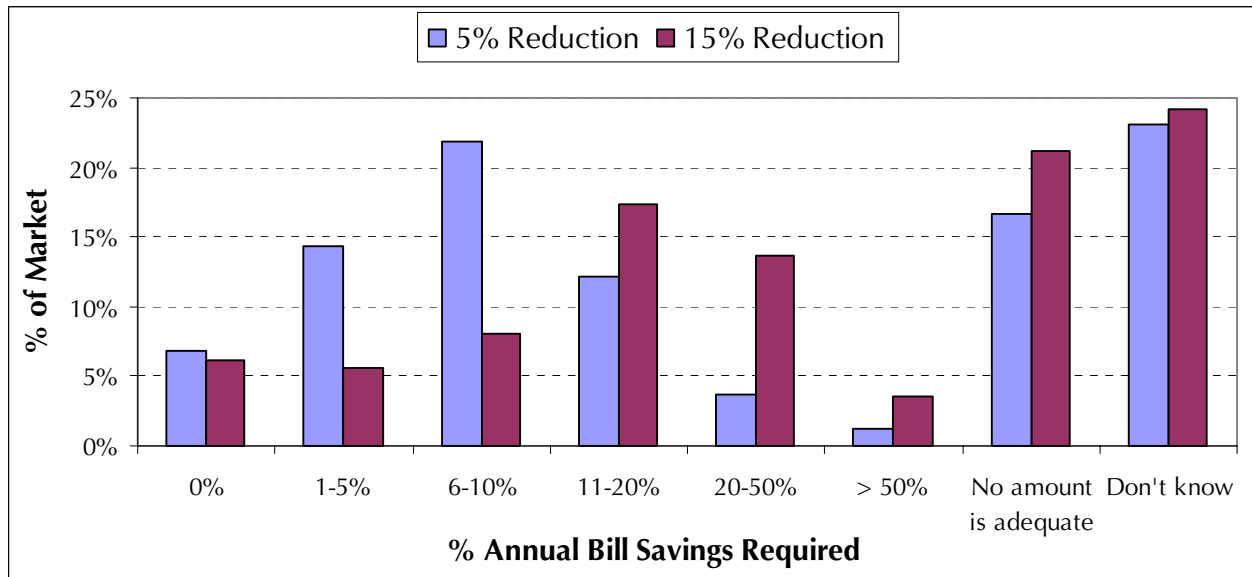


Exhibit 4-34 shows that nearly half the market responded that either no monetary amount would be adequate to compensate for a 5 or 15 percent drop in summer peak demand or that they did not know what level of bill savings would be required for such reductions. A little more than five percent of the market reported that they would be willing to make either of these reductions for no compensation. The average bill reduction for the market was calculated by averaging the energy-weighted midpoints of the ranges reported by each decision-maker. Based on this technique the average bill reduction required for a 5 percent drop in demand was 10 percent and for a 15 percent drop in demand was 19 percent. Currently, bill reductions of 10 and 15 percent may not be feasible levels of compensations for such demand reductions. Additional analysis of these questions focused on the upper range of the current compensation spectrum (specifically, those reporting they would require a 5 percent bill reduction or less).

Confining the analysis to the current compensation range we are able to come up with an estimate of economic potential (this potential is a function of price versus the technical potential which assumes sufficient financial motivation) would be willing to reduce their demand by 5 percent for a 0% or 1-5% bill reduction and 12 percent of the market would be willing to reduce by 15 percent for the same compensation.

To calculate the economic potential using a five percent or less economic cutoff, the coincident maximum demand (which we assume, until we receive hourly load data, to be a approximately 9,000 MW) is multiplied times the proportion of the population indicating they would reduce for this level of compensation times the level of associated reduction.

Thus the economic potential for a five percent reduction (EP@5%) in demand would be:

$$\begin{aligned} \text{EP@5\%} &= 9,000 \text{ MW of coincident demand} * 21\% \text{ of population} * 5\% \text{ demand reduction} \\ &= 9,000 * 0.21 * 0.05 = \mathbf{95 \text{ MW}} \end{aligned}$$

And the economic potential for a 15 percent reduction (EP@15%) in demand would be:

$$\begin{aligned} \text{EP@15\%} &= 9,000 \text{ MW of coincident demand} * 12\% \text{ of population} * 15\% \text{ demand reduction} \\ &= 9,000 * 0.12 * 0.15 = \mathbf{158 \text{ MW}} \end{aligned}$$

A table containing these results, along with the percentage of the total demand this potential represents, is presented in Exhibit 4-35 below. These self-reported results should be considered very rough ranges for planning purposes.

Exhibit 4-35
Economic Potential of DR Programs Based on 5% or Less Compensation

	5% Reduction	15% Reduction
Estimated Coincident Demand	9,000 MW	9,000 MW
Percent of the Market Willing to Reduce for a 5% or less Bill Reduction	21%	12%
MW of Demand Willing to Reduce	95 MW	158 MW
Percent of Total Demand	1.1%	1.8%

It is interesting to note that although the percent of the market willing to reduce their demand by 15 percent is about half the size of those willing to reduce by 5 percent, the higher reduction level leads to a larger net impact under the 15 percent reduction scenario. Exhibit 4-35 also illustrates that under the best-case scenario the largest demand reduction estimate for less than 5 percent bill savings is 158 MW or 1.8 percent of the total maximum coincident demand.

4.13 LIKELIHOOD AND POTENTIAL DISCUSSION

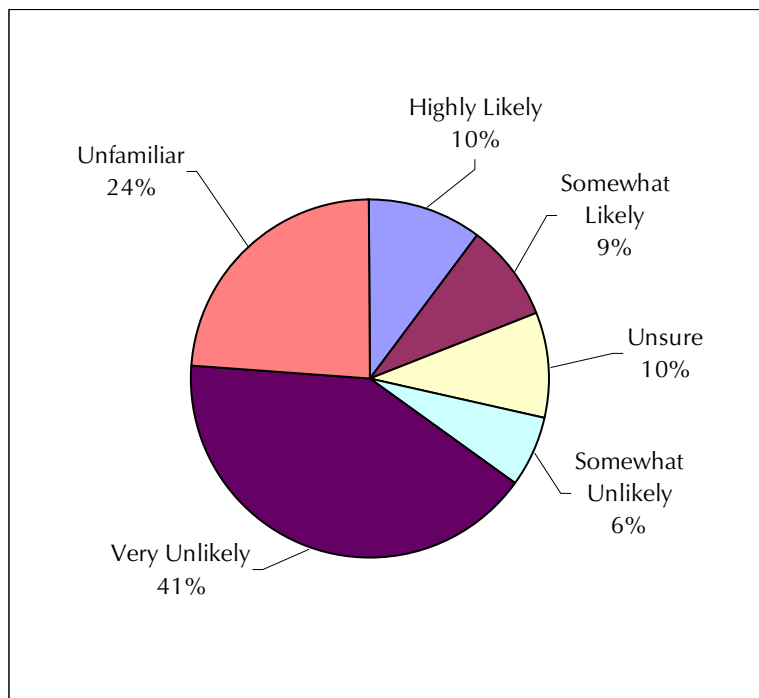
The likelihood of demand response participation¹¹ and the demand reduction potential¹² were examined in further detail in combination with other survey questions in an effort to ascertain

¹¹ The likelihood of DR participation variable was created by backfilling question DM4 ('How likely would you say your organization is to participate in one of the new DR programs for this location?') for respondents who were unfamiliar with the DR programs (based on the familiarity questions) or who had made a firm decision to participate or not participate in one of the DR programs. As a result, all survey respondents could be classified as Very Likely, Somewhat Likely, Unsure, Somewhat Unlikely, Very Unlikely or Unfamiliar. For higher-level comparisons Very Likely and Somewhat Likely were grouped into a "Likely" category, Unsure and Unfamiliar were grouped into a "Unsure/Unfamiliar" category and Somewhat Unlikely and Very Unlikely were grouped into a Unlikely category. Overall the likelihood of participation for the non-participant market was 19.1 percent.

whether correlations existed between a customer’s reported DR Program perceptions or their energy management capabilities and their likelihood of program participation and demand reduction (kW) contribution. The goal of this portion of the analysis is to examine various population segments to determine if there are portions of the non-participant population where there exists high levels of participation likelihood or DR potential that should be focused on to meet the existing price-responsive DR goals. The results presented are univariate analyses, however, the evaluation team will be exploring multivariate analyses techniques to better isolate the most characteristics associated with DR potential and participation likelihood.

Before launching into this analysis it is important to recall a few of the results presented previously regarding the likelihood of participation and the average technical potential that currently exists within the market. In Section 4.4 it was shown that approximately 19 percent of the non-participant population indicated they were either Highly or Somewhat likely to Participate in one of the new DR programs, while nearly 50 percent reported being Very or Somewhat unlikely to participate. Exhibit 4-36a presents the distribution of the overall likelihood of participation in at least one of the three DR programs.

Exhibit 4-36a
Overall Likelihood of Participation in One of the New DR Programs



¹² The demand reduction potential was calculated using the midpoints values of the customers’ response to question CA1 (‘What percentage of your normal summer afternoon peak demand could you reduce ...provide you were notified the day before and were given sufficient financial motivation?’). Customers who responded “Refused” or “Don’t Know” were backfilled with the average potential of respondents who indicated a similar likelihood of participating in one of the DR programs. The average potential for the entire non-participant market was 16 percent.

Exhibits 4-36b and 4-36c present the likelihood of participation in one of the new DR programs broken down by the nine distinct business types and the four customer size groupings, respectively.

Exhibit 4-36b
Overall Likelihood of Participation in One of the New DR Programs by Business Type

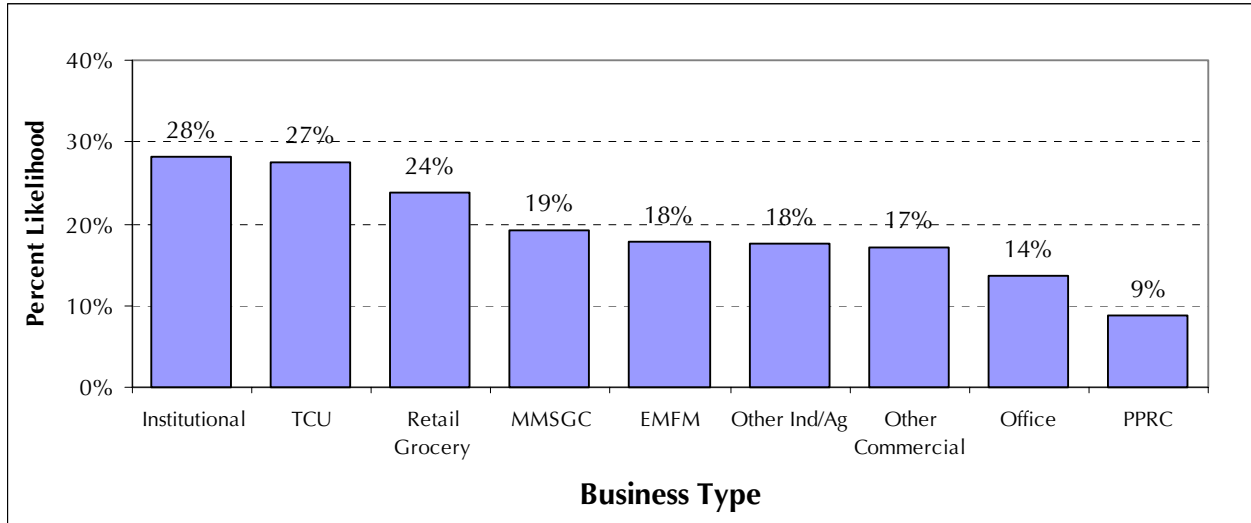
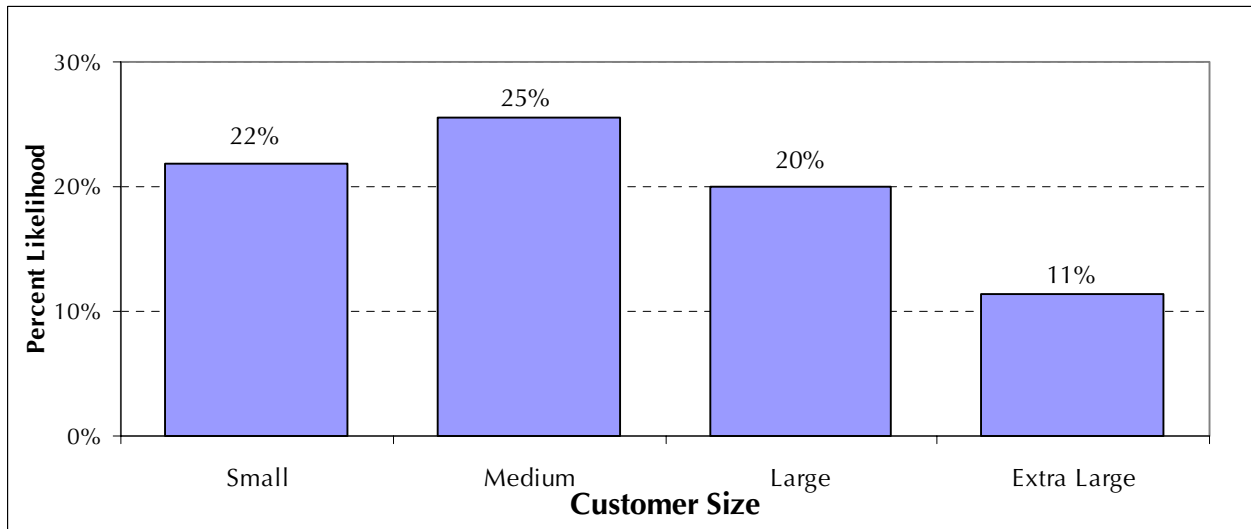


Exhibit 4-36c
Overall Likelihood of Participation in One of the New DR Programs by Customer Size



In Section 4.11 the average median technical potential reported was calculated to be 16 percent for the overall marketplace. Exhibit 4-37a displays the average median technical potential for each of the nine distinct business types.

Exhibit 4-37a
Average Median Technical Potential Overall and by Business Type

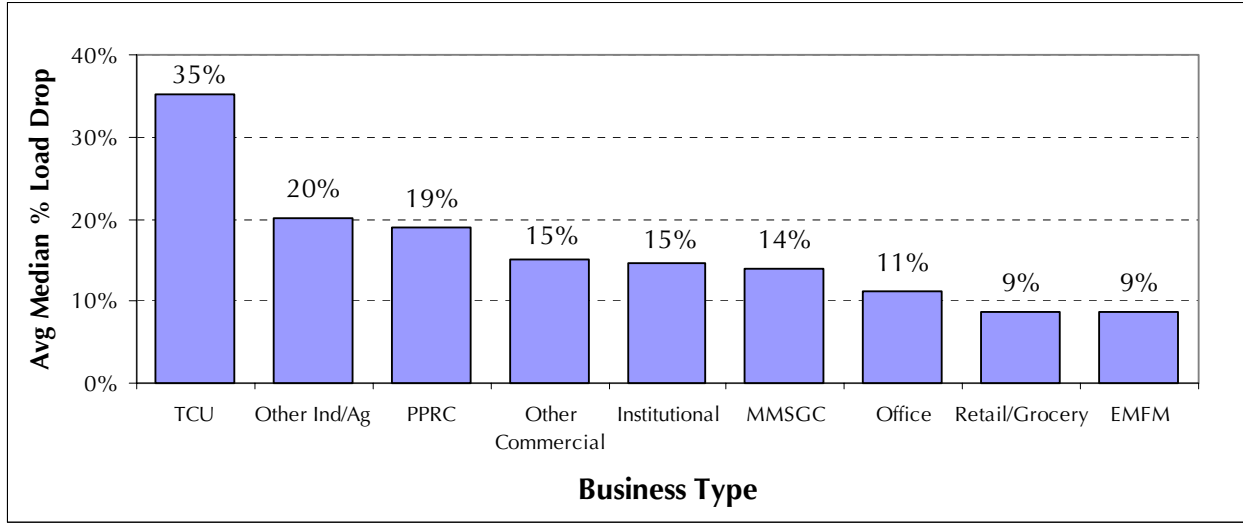
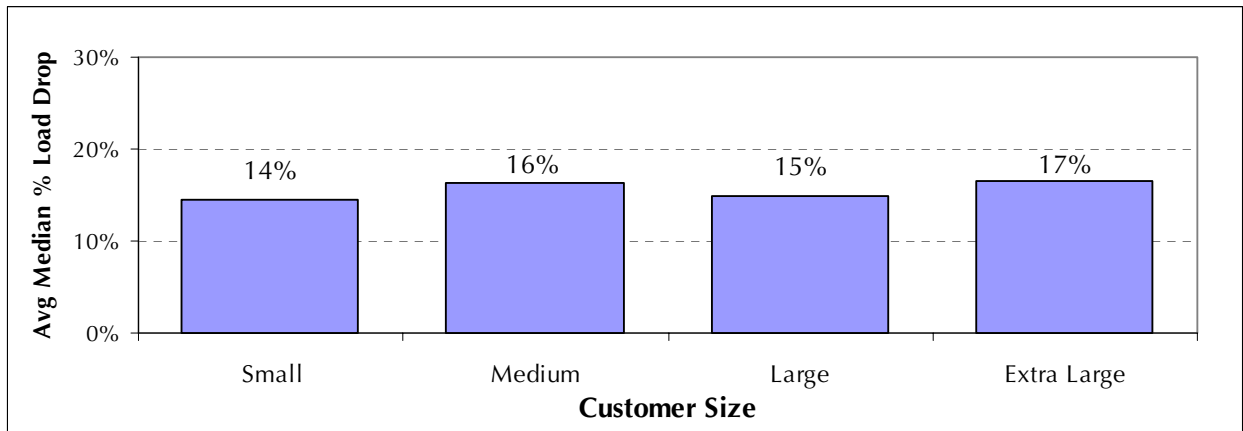


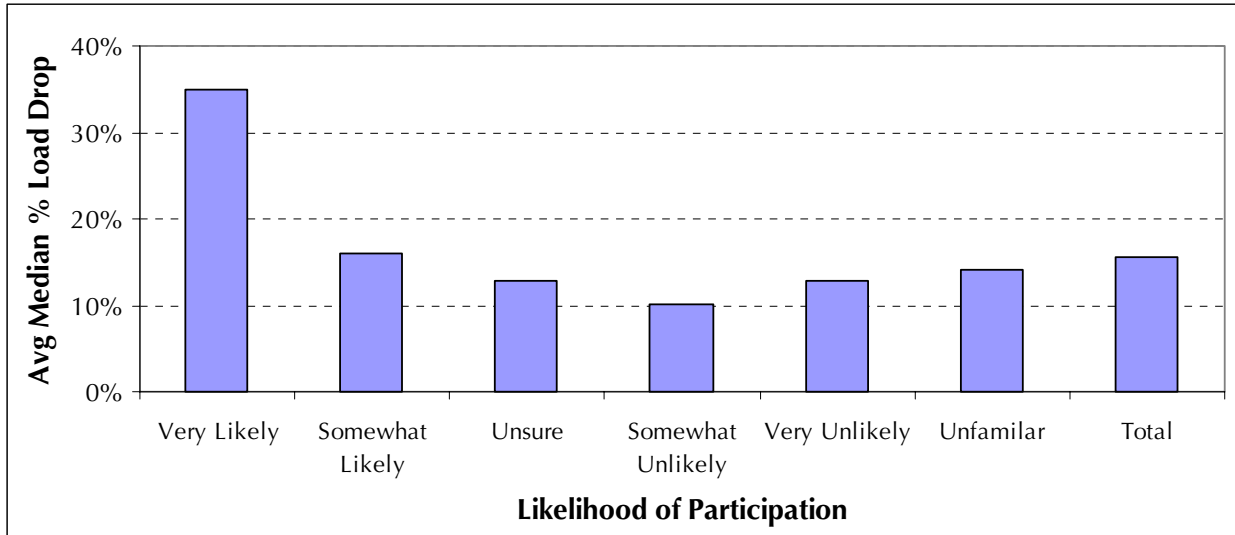
Exhibit 4-37b displays the average median technical potential for each of the four distinct customer sizes.

Exhibit 4-37b
Average Median Technical Potential by Customer Size



Although the market reported an average technical potential of 16 percent, Exhibit 4-38 displays the relationship between the level of technical potential and the likelihood of participating in a DR program. This exhibit illustrates how the technical potential ranges from a high of 35 percent for those customers very likely to participate to a low of 10 percent for those somewhat unlikely to participate.

Exhibit 4-38
Average Median Technical Potential versus Likelihood of Participation

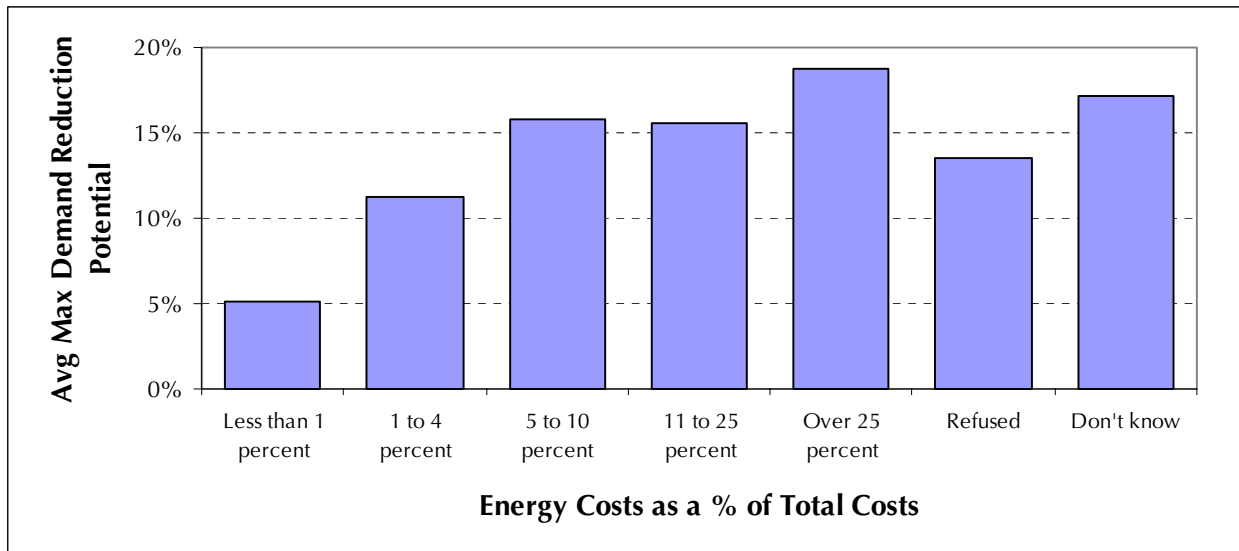


Demographic Likelihood and Potential

A series of interesting findings with respect to customer demographics and their relationship to program participation and demand reduction potential were revealed through the course of this analysis. The most interesting are presented below:

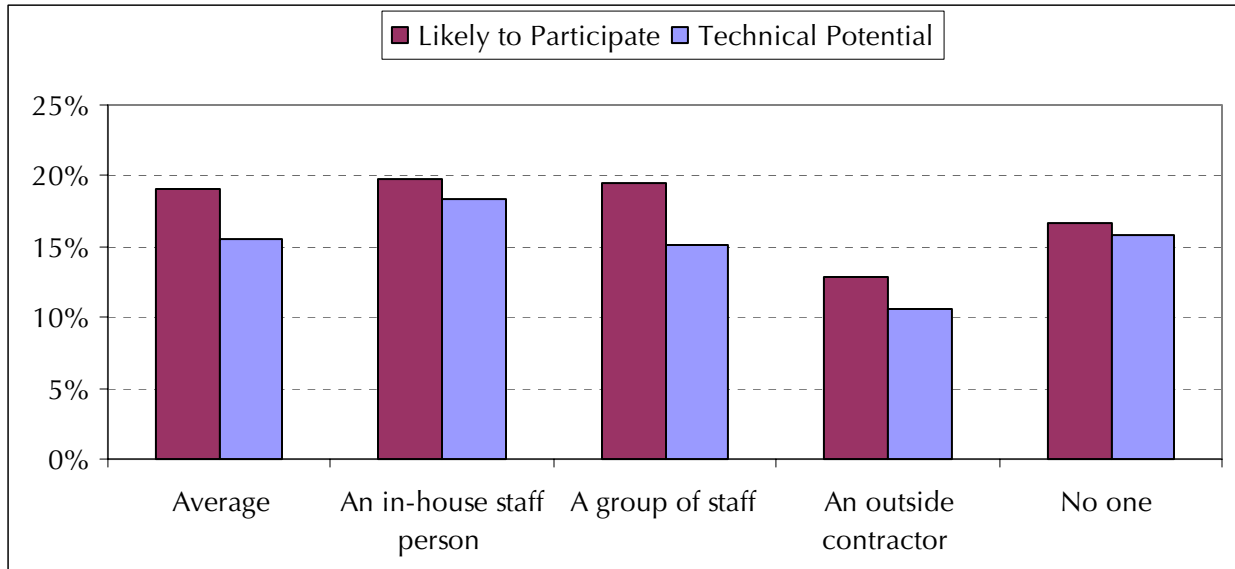
- Organizations with on-site generators used for backup or standby situations only are only half as likely to participate in a DR program as those who have either no on-site generation capability or who use it daily as a supplemental or replacement generation source (14 percent compared to 25 percent respectively). This most likely indicates that businesses equipped with backup generators for standby situations only are more likely to be businesses which can not afford to be without power for any reason (such as a hospital, etc.) and thus are not good candidates for DR programs.
- Energy costs, as a percentage of total operating costs, were closely correlated with the load reduction capability assuming sufficient financial motivation. This correlation is illustrated in Exhibit 4-39 below.

Exhibit 4-39
Average Demand Reduction Potential versus Energy Cost as a Percent of Total Annual Operating Costs



- The five percent of the market who assigned an outside contractor to control their energy usage reported the lowest levels of reduction capability assuming sufficient financial motivation (11 percent) and the lowest probability of participation (13 percent). The highest reduction capability was reported by the 39 percent of the market who assigned an in-house staff person (18 percent). This group had close to a 20 percent likelihood of participation. These results may indicate that organizations that assign an outside contractor to control their energy use are less familiar with their reduction capabilities and the DR programs and thus less likely to participate and skeptical of their technical potential. Exhibit 4-40 below presents the technical potential and likelihood of participation for the entire market compared to the four reported styles of assigned energy usage responsibility.
- Customers who indicated they were likely to participate in one of the DR programs had on average 3 to 4 more locations than those unlikely to participate.
- Organizations that operated 24-hours a day were less likely to consider participating in a DR program than organizations that did not operate on a continuous schedule (16 percent versus 20 percent). However, organizations that were operational 24-hours a day reported having higher maximum demands (854 versus 460 kW) and the capability to drop a higher percentage of their load if given sufficient financial motivation (17 percent versus 13 percent).

Exhibit 4-40
Likelihood of Participation and Technical Potential versus Energy Usage Responsibility



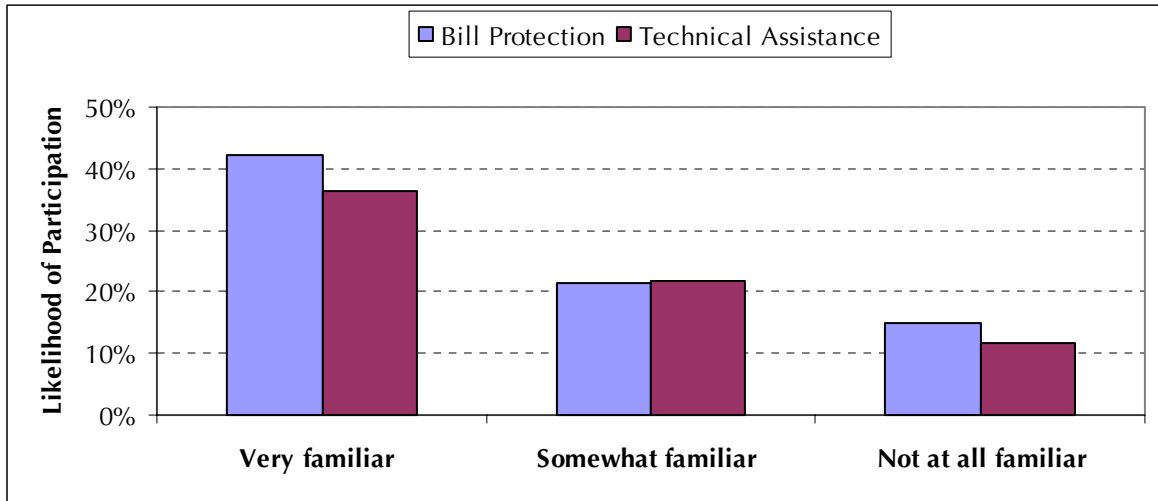
Program Familiarity Versus Likelihood and Potential

As one would expect, customers with greater DR program familiarity are more likely to participate in one of the DR programs. Customers with higher levels of familiarity with the programs are more likely to understand the benefits and limited risks associated with program participation and thus are more inclined to participate. Additionally, some customers who are not familiar with the programs may be a result of a conscious decision on the part of their utility representative since the representative may know their business model is not a good fit for the program. The relationships existing between program familiarity and program participation likelihood / potential are presented below:

- Customers who classified themselves as very familiar were 45 percent more likely to participate in a DR program than a customer who stated they were somewhat familiar (25 percent versus 17 percent respectively). They also reported higher levels of load reduction capability (17 percent) compared to those who were only somewhat familiar (15 percent).
- Higher levels of familiarity with the technical incentive programs were closely related to an increased likelihood of participation in one of the new DR programs. Customers stating they were very familiar with Bill Protection or Technical Assistance were three times more likely to participate in one of the two programs than those who stated they were not at all familiar. Exhibit 4-41 illustrates the relationship between familiarity with program incentives and likelihood of DR program participation.

Exhibit 4-41

Likelihood of Participation in a DR Program versus Familiarity with Program Incentives



General Perceptions of Demand Response Programs Versus Likelihood and Potential

As one would expect, the more positive the perceptions of the CPP and/or DBP programs, the higher the likelihood of participation in one of those programs. Decision-makers reported technical potential numbers that were also similarly correlated. Exhibit 4-42 and 4-43 below illustrate these relations for the CPP and DBP programs respectively. It is interesting to note organizations with very positive perceptions of DBP type programs indicated a likelihood of participation of nearly 40 percent.

Exhibit 4-42

Likelihood of Participation and Technical Potential versus Attitudes Towards CPP Type Tariffs

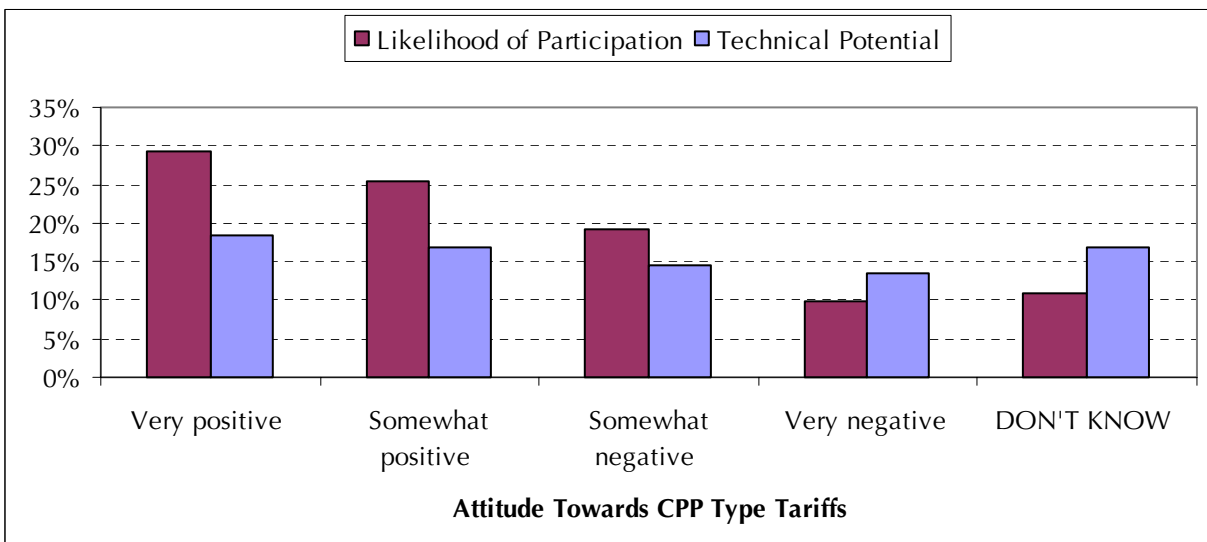
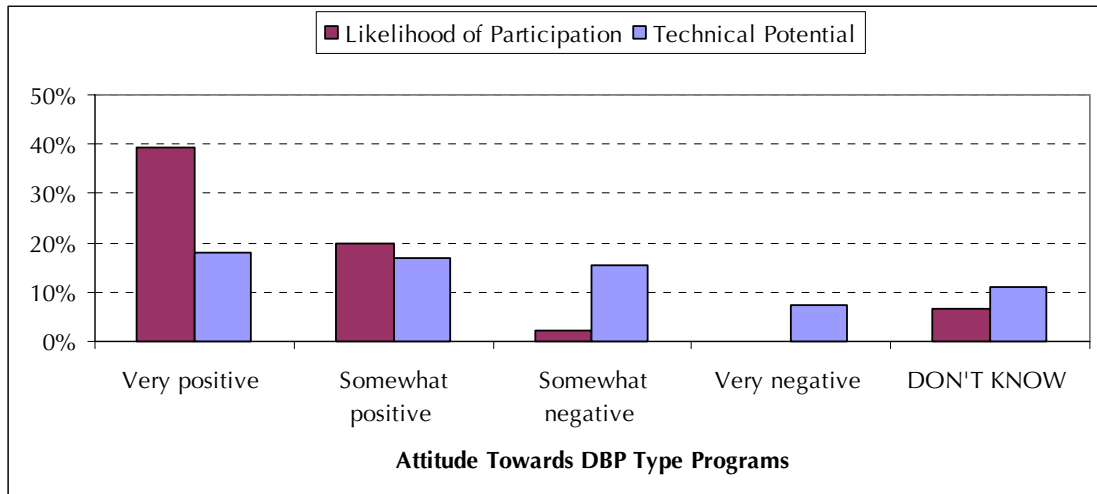


Exhibit 4-43
Likelihood of Participation and Technical Potential versus Attitudes Towards DBP Type Programs

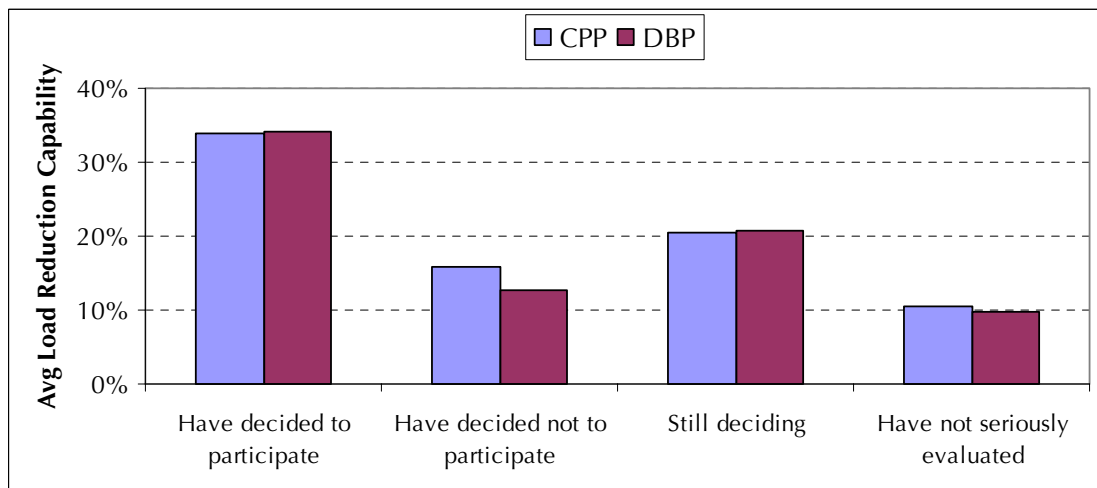


Participation Decision Versus Potential

This section compares the point at which a customer is at regarding participation in one or more of the demand response programs versus their demand reduction potential. The results of this comparison indicated the following:

- Customers who have decided to participate in one of the DR program indicated more than twice the capability to reduce their load, provided they were given adequate compensation, than those who had decided not to participate. Those who indicated that they were still deciding whether or not to participate also stated higher levels of reduction potential than those who had made a firm decision not to participate. The complete results are displayed in Exhibit 4-44 below.

Exhibit 4-44
Average Load Reduction Capability versus Decision to Participate in CPP or DBP

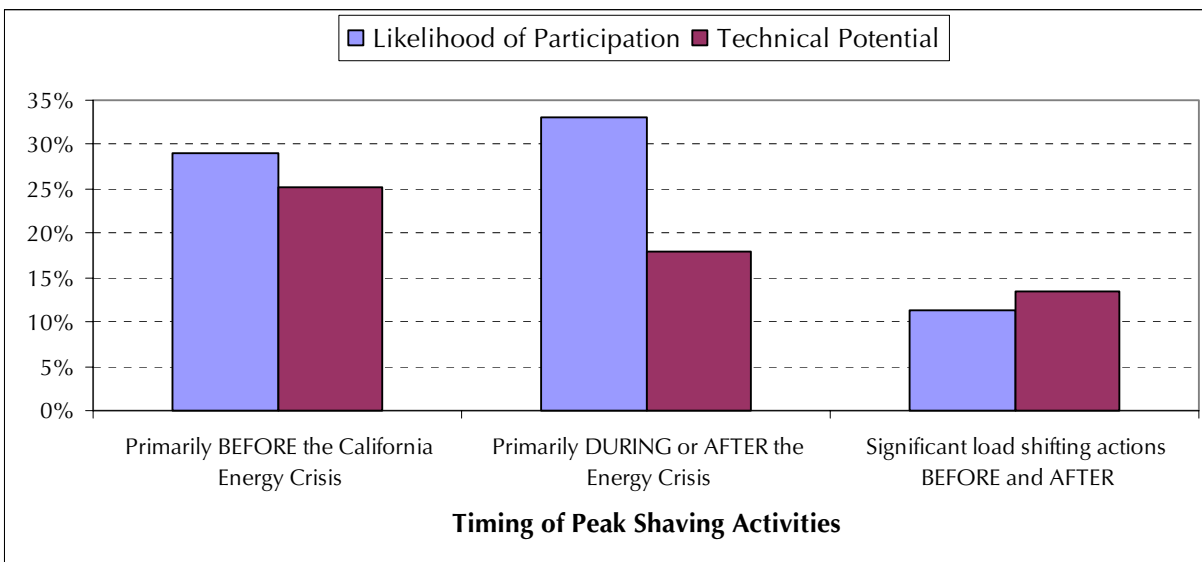


Current Activity Versus Likelihood and Potential

Responses to questions regarding a customer’s current rate, historical energy usage and their peak load shifting activities were analyzed to determine whether any correlations existed between these items and their likelihood of participation in a DR program and their potential demand reduction. The following is a summary of the key results:

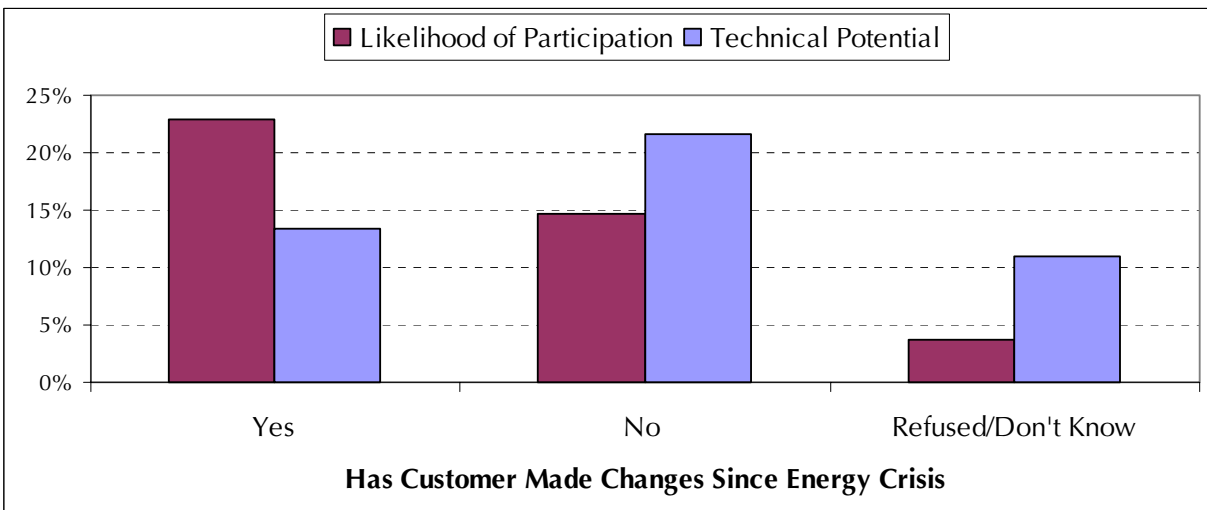
- The analysis showed that there was virtually no difference in the technical potential of customers who indicated their facility was currently on a TOU-rate versus those whose facilities were not on a TOU-rate (17 percent versus 16 percent respectively). This result is to be expected since most of these customers are on TOU-rates regardless of whether or not they responded that they were on a TOU-rate.
- Although the likelihood of participating in one of the DR programs was higher amongst customers who reported taking the majority of their actions to shift usage from higher priced on-peak to lower priced off-peak periods *During* or *After* the Energy Crisis, their reported technical potential was lower than those who took most of these actions *Before* the Energy Crisis. This lower level of technical potential most likely results from many of these customers still taking these on-peak shift actions and thus, while they are more likely to participate, they have a limited ability to make further reductions. This is illustrated in Exhibit 4-45.

Exhibit 4-45
Likelihood of Participation and Technical Potential versus
Timing of When Peak Shaving Activities Began



- Exhibit 4-46 shows that customers who have made significant changes in the way their organization uses electricity since the energy crisis indicate an increased likelihood of participation in the DR programs (23 percent versus 17 percent respectively). However, similar to the findings presented above, these customers also indicate a lower level of technical potential.

Exhibit 4-46
Likelihood of Participation and Technical Potential versus Whether Changes Had Been Made since the Energy Crisis Began

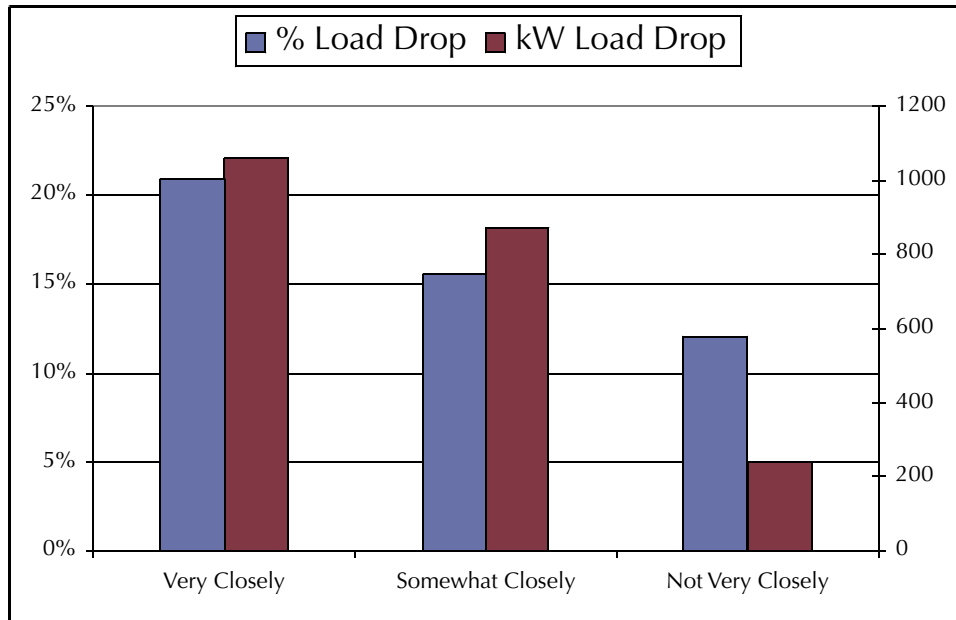


Decision Process and General Market Perceptions Versus Likelihood and Potential

A series of interesting findings regarding the relationship between how organizations make decisions and their general market perceptions versus their likelihood of participating in a DR program or their demand reduction potential were revealed through the course of this analysis. These are presented below:

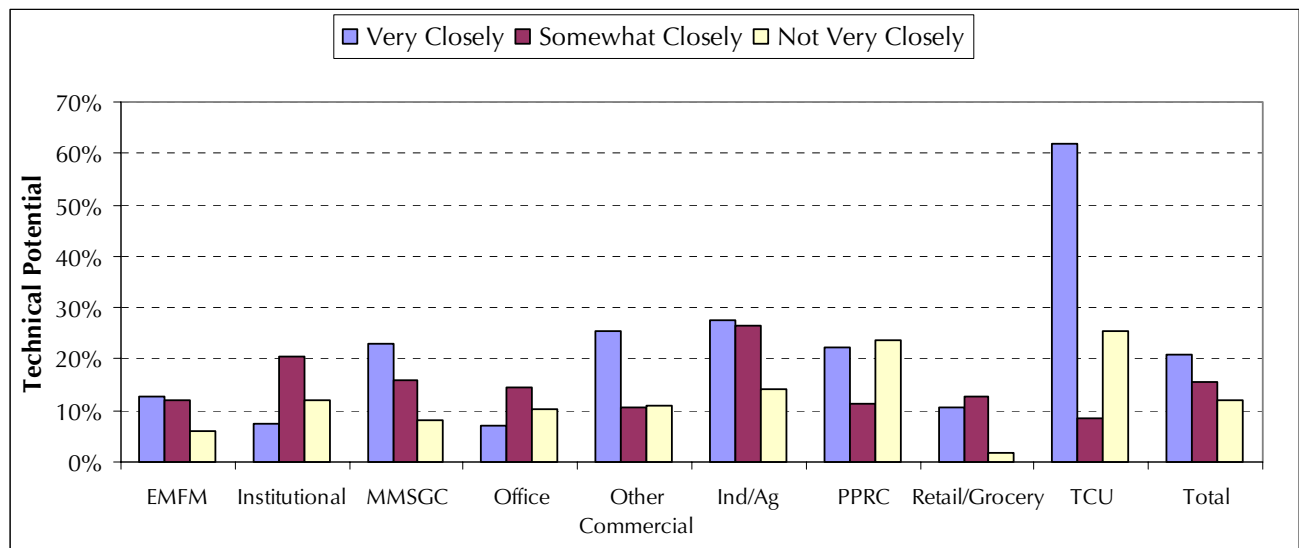
- Organizations where decisions regarding participation in energy programs are made by a group of individuals indicated a higher likelihood of DR program participation than those organizations where a single individual was responsible for these decisions (22 percent versus 15 percent, respectively). This may result from the increased availability of information regarding DR programs within organizations that have more than one individual assigned to make energy decisions.
- Surprisingly, there seemed to be little correlation between an organization’s analysis of electricity markets and their stated likelihood of DR program participation. At the same time, however, monitoring and analysis of the market was closely tied to the organization’s load reduction potential on both a percentage and actual load (*in kW) basis. This finding is illustrated in Exhibit 4-47.

Exhibit 4-47
Percent Load Reduction and Size of Load Reduction versus Monitoring and Analysis of Electrical Markets



- Exhibit 4-48 illustrates that for some business types, such as institutions and offices, this relationship is reversed such that those who report analyzing the electricity market the closest also report the lowest levels of technical potential.

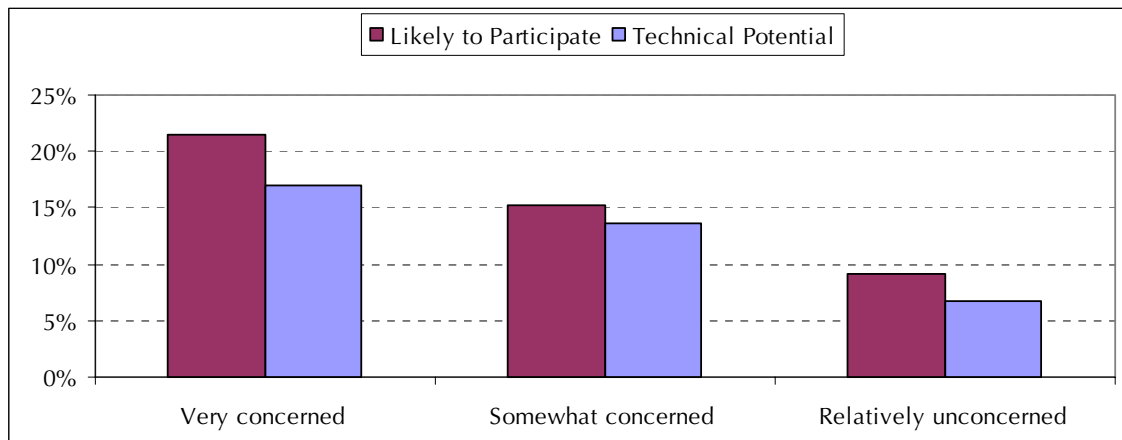
Exhibit 4-48
Monitoring and Analysis of Electrical Markets versus Technical Potential by Business Type



- Fourteen percent of the marketplace indicated that they expected electricity prices to decrease over the next three years. From the questions asked it wasn't apparent why they held this belief, however, it is interesting to note that those organizations expecting prices to decrease are two-thirds more likely than the rest of the market to be likely participants (28 percent versus 17 percent, respectively).
- A strong correlation existed between customers' concerns regarding energy costs relative to other costs of running their business and their likelihood of participation, as well as their reported technical potential. As illustrated in Exhibit 4-49 below, the likelihood of participation ranged from 21 percent for organizations that were very concerned about energy costs to nine percent for organizations that were relatively unconcerned. This exhibit also shows that a similar relationship exists between their concern over energy costs and the technical potential of the organization.

Exhibit 4-49

Likelihood of Participation and Technical Potential versus Concerns over Energy Costs



Bill Savings Required Versus Likelihood and Potential

Customers' responses to the level of compensation they would require for a 5 percent and 15 percent reduction in demand were analyzed with respect to likelihood of DR program participation and their technical potential.

- This analysis showed that customers who were more likely to participate required less compensation than those who were less likely to participate. Exhibit 4-50 displays the compensation required for the two different load reduction scenarios (5% and 15%) versus the likelihood of participation.

Exhibit 4-50

Average Median Compensation Required for 5 and 15 Percent Load Reduction by Likelihood of Participation

	5% Load Reduction	15% Load Reduction
Likely Participant	7%	14%
Unlikely Participant/Unsure	11%	22%
Total	10%	20%

APPENDICES

**APPENDIX A
FINAL QUANTITATIVE CUSTOMER SURVEY INSTRUMENT**

INTRODUCTION

SCREEN1

[WHEN RECEPTIONIST ANSWERS]:

[LARGE COMPANY]: May I have Plant Engineering, please?

[SMALL COMPANY]: May I speak with the Facilities Manager, please?

[OTHER DEPARTMENTS TO ASK FOR]:

- Maintenance
- Operations (Manager)
- Plant Services
- Building Manager
- General Services
- Public Relations
- Purchasing
- Planning Department

LEAD IN

INTRO1

Hello, this is _____, calling from Quantum Consulting on behalf of the California Public Utilities Commission and [UTILITY]. We are conducting a study on issues related to energy usage and peak power demand in California. May I speak with the person in your organization who is responsible for energy-related decisions for this facility?

[IF NEEDED:] This is a fact-finding survey only – we are NOT selling anything, and responses will not be connected with your firm in any way. The Public Utilities Commission wants to better understand how businesses think about and manage their summer peak energy usage. Your input is very important to the Commission.

1	Yes	INTRO2_2
2	Respondent not available now	CALL BACK
3	Respondent coming to phone	INTRO2_1
4	No such person	INTRO1A
88	Refused	INTRO1A

INTRO1A

[IF NO SUCH PERSON]: May I speak with the person in your organization who is responsible for decisions regarding construction, renovation, or operation of your physical facilities?

INTRO1B NAME OF CONTACT: _____

INTRO1C TITLE: _____

IF RESPONDENT IS NOT AVAILABLE, GET HIS/HER NAME AND TITLE; MAKE ARRANGEMENTS TO CALL LATER

INTRO2_1

WHEN RESPONDENT GETS ON THE LINE: Hello, this is _____, calling from Quantum Consulting on behalf of the Public Utilities Commission and [UTILITY]. We are conducting a study on issues related to energy usage and peak power demand in California.

Are you familiar with your organization's energy-related decisions such as those concerning your utility rate and energy usage?

1	Yes	INTRO3
2	No	INTRO2A

INTRO2_2

WHEN RESPONDENT GETS ON THE LINE: We are conducting a study on behalf of the Public Utilities Commission and [UTILITY] on issues related to energy usage and peak power demand in California. Are you familiar with your organization's energy-related decisions such as those concerning your utility rate and energy usage?

1	Yes	INTRO3
2	No	INTRO2A

INTRO2A

Who would be the best person in your organization to speak with about energy-related decisions for this facility? _____ ASK TO BE CONNECTED WITH THIS INDIVIDUAL.

INTRO2B

May I please speak with ____ (insert from Intro2A) _____
(IF CONTACT COMES TO PHONE, ASK INTRO2_1)
(IF CONTACT NOT AVAILABLE, SCHEDULE CALLBACK)

INTRO3

We are speaking with selected businesses and organizations to learn about their current load management and rate preferences.

The information you provide will be kept in strictest confidence. If you agree to participate in the survey, [UTILITY] will provide energy use and load information for your facility to the evaluation contractor. This information and your survey responses will be shared with the study team (the Energy Commission and its contractors, and [UTILITY]) only in a form that does not allow the identification of any business, individual or facility.

This interview should take about 15 minutes. Is this a good time for you or is there a better time I can call you back?

1	Yes	SC1
2	No, schedule callback	Call back
88	Refused	T&T

If utility contact information requested, please use the following:

SCE: Edward Lovelace (626) 302-1697
 PG&E: Susan McNicoll (415) 973-7404
 SDG&E: Leslie Willoughby (858) 654-1262

SC1. First, what is your job title? [DON'T READ]

1	Facilities Manager	SC2
2	Energy Manager	SC2
3	Other facilities management/maintenance position	SC2
4	Chief Financial Officer	SC2
5	Other financial/administrative position	SC2
6	Proprietor/Owner	SC2
7	President/CEO	SC2
SC1_8	Other (Specify)	SC2
88	Refused	SC2

RESP: Are you responsible for any other facilities in the SDG&E service territory other than the facility located at (address)(city)?

HOWMANY: How many facilities in the SDG&E service territory are you responsible for?

I'd like to remind you that unless otherwise stated, all questions pertain to the facility located at (address)(city).

DR AWARENESS AND FAMILIARITY

First I'd like to ask you about your awareness of and experience with demand response programs being offered to (IOU) customers. For the purposes of this interview, Demand Response refers to actions customers take to temporarily reduce electrical load during short periods in response to peak demand shortages or high power supply prices.

F1. How familiar would you say your organization is with the Demand Response concept? Would you say your organization is:

Very familiar 1
 Somewhat familiar 2
 Not at all familiar 3
 Refused 88
 Don't Know 99

F2. Now I would like to ask you how familiar your organization is with several specific demand response programs offered by utilities and energy agencies in California. I'll read a brief description of each program and then ask whether your organization is very familiar, somewhat familiar, or not at all familiar with each program.

F2a. [UTILITY'S] Critical Peak Pricing tariff. The Critical Peak Pricing (CPP) tariff offers lower rates to customers who agree to reduce electricity use during up to 12 critical peak periods per summer. Customers on the CPP tariff pay higher rates during these peak periods, but receive reduced energy rates at other times. How familiar is your organization with [UTILITY'S] *Critical Peak Pricing* (CPP) tariff?

Very familiar	1
Somewhat familiar	2
Not at all familiar	3
Refused	88
Don't Know	99

F2b. [UTILITY'S] Demand Bidding Program. The Demand Bidding Program is a no-risk program whereby participants earn bill credits for reducing their power usage when contacted. How familiar is your organization with [UTILITY'S] *Demand Bidding Program* (DBP)

Very familiar	1
Somewhat familiar	2
Not at all familiar	3
Refused	88
Don't Know	99

[IF SDG&E=1 ASK IN1c, ELSE SKIP]

F2c. San Diego Gas & Electric's Hourly Pricing Option. The Hourly Pricing Option (HPO) is a daily-adjusted hourly electric rate that provides potential cost savings for customers who can shift energy usage to lower-priced hours. How familiar is your organization with San Diego Gas & Electric's *Hourly Pricing Option*?

Very familiar	1
Somewhat familiar	2
Not at all familiar	3
Refused	88
Don't Know	99

F2d. The California Power Authority's *Demand Reserves Partnership* (DRP) Program. Like the Demand Bidding Program, customers provide demand reductions when contacted and receive payments for reductions; however, this program is offered by the California Power Authority. How familiar is your organization with this California Power Authority program?

Very familiar	1
Somewhat familiar	2
Not at all familiar	3
Refused	88
Don't Know	99

F3. There are also two supporting incentives associated with these demand response programs. How familiar is your organization with each of the following demand response support efforts?

F3a. [UTILITY'S] *Bill Protection Plan* for the Critical Peak Pricing rate

Very familiar	1
Somewhat familiar	2
Not at all familiar	3
Refused	88
Don't Know	99

F3b. [UTILITY'S] *Technical Assistance Incentive* for the Critical Peak Pricing Rate and Demand Bidding Program

Very familiar	1
Somewhat familiar	2
Not at all familiar	3
Refused	88
Don't Know	99

[IF FAMILIAR WITH AT LEAST ONE OF DBP, CPP, HPO CONTINUE (F2a, b, c = 1 OR 2), ELSE SKIP TO F6]

F4. How did you and your organization learn about [IOU's] new demand response programs??

1. Personal contact from utility
2. Direct mail
3. Workshops/conferences
4. Other end users/customers
5. Energy service provider
6. Trade or industry group
7. Equipment vendors/consultants, etc.
8. Other (specify)

F5. About when did you first learn about these new demand response programs? Would you say:

1. Within the Past Month
2. Within the Past 3 months
3. Within the Past 6 months
4. Within the Past 9 months (Summer of 2003)
5. Within the Past year
6. More than a year ago
7. Refused
8. Don't know

F6. Do you recall receiving any of the following types of information on [UTILITY'S] new demand response programs?

F6a. General discussion with your utility representative of demand response program features?

Yes	1
No	2
Refused	88
Don't Know	99

F6b. Specific analysis of financial impact of participating in the new demand response programs from your utility representative?

Yes	1
No	2
Refused	88
Don't Know	99

F6c. Brochures and Print Materials about Demand Response Programs?

Yes	1
No	2
Refused	88
Don't Know	99

F6d. Do you recall receiving any other type of information on SDG&E's Demand Response Programs?

Yes	1
No	2
Refused	88
Don't Know	99

F6DOT What other type of information on SDG&E's Demand Response Programs did you receive? Record Verbatim.

[IF F6a, b, c, or d = 1, THEN GO TO F7 ELSE SKIP]

F7. How helpful was this information in determining whether the new demand response programs would be of interest to your organization?

Very Helpful	1
Somewhat Helpful	2
Not Very Helpful	3
Refused	88
Don't Know	99

F7a. And why is that?

<VERBATIM>

GENERAL CPP AND DBP PERCEPTION

PE1. How would you describe your organization's attitude toward tariffs such as the Critical Peak Pricing rate that offer lower overall prices to customers who agree to reduce their electric load during limited critical peak periods, but charge more for the power used during those critical peak periods? Would you say:

Very positive	1
Somewhat positive	2
Somewhat negative	3
Very negative	4
Refused	88
Don't Know	99

PE1a. And why is that?

<VERBATIM>

PE2. How would you describe your organization's overall attitude toward programs such as the Demand Bidding Program that pay an incentive to customers who reduce their usage during peak periods without imposing a penalty for failure to do so? Would you say?

Very positive	1
Somewhat positive	2
Somewhat negative	3
Very negative	4
Refused	88
Don't Know	99

PE2a. And why is that?

<VERBATIM>

CPP/DBP/HPO RATE PARTICIPATION DECISIONS

Next I'd like to ask you about your organizations decisions regarding these new demand response programs.

[IF CPP PART FLAG=1 OR CPP ELIGIBLE FLAG=0 OR F2a NE 1 OR 2, SKIP TO DM2]

DM1. Which of the following 5 statements best describes your organization's decision-making about whether to participate in the Critical Peak Pricing program for this location?

1. Have decided to participate in CPP
2. Have decided not to participate in CPP
3. Still deciding on whether to participate in CPP
4. Have not seriously evaluated whether to participate in CPP
5. Didn't think we were eligible
6. Refused
7. Don't know

[IF DBP PART FLAG=1 OR DBP ELIGIBLE FLAG=0 OR F2b NE 1 OR 2, SKIP TO DM2]

DM2. Which of the following 5 statements best describes your organization's decision-making about whether to participate in the Demand Bidding Program for this location?

1. Have decided to participate in DBP
2. Have decided not to participate in DBP
3. Still deciding on whether to participate in DBP
4. Have not seriously evaluated whether to participate in DBP
5. Didn't think we were eligible
6. Refused
7. Don't know

[IF SDG&E FLAG=1, IF HPO PART FLAG=1 OR HPO ELIGIBLE FLAG=0 OR F2c NE 1 OR 2, SKIP TO DM2] [CONSIDER ROTATING HPO WITH CPP?]

DM3. Which of the following 5 statements best describes your organization's decision-making about whether to participate in the Hourly Pricing Program for this location?

1. Have decided to participate in HPO
2. Have decided not to participate in HPO
3. Still deciding on whether to participate in HPO
4. Have not seriously evaluated whether to participate in HPO
5. Didn't think we were eligible
6. Refused
7. Don't know

[SKIP FOR THOSE THAT MADE CPP, DBP, HPO DECISION (DM1=1 OR 2; OR DM2=1 OR 2; OR DM3=1 OR 2)]

DM4. With the information you have as of today, how likely would say your organization is to participate in one of these new demand response programs for this location?

1. Highly likely
2. Somewhat likely
3. Not sure
4. Somewhat unlikely
5. Very unlikely
6. Refused
7. Don't know

[IF DM4=1 OR 2]

DM4a. Which demand response program are you most likely to participate in, is it:

1. Critical Peak Pricing
2. Demand Bidding
3. Hourly Pricing
4. CPA Demand Reserves Program
5. Other, Specify _____
6. Refused
7. Don't know

REASONS FOR PARTICIPATION

[ASK PA1 FOR ALL PARTS (CPP OR DBP OR HPO FLAG=1) AND LIKELY PARTICIPANTS (DM1=1, OR DM2=1, OR DM3=1 OR DM4=1 OR 2)]

PA1_1. What are the reasons /your organization decided to sign up for/organization is likely to sign up/ [CATI LOGIC FOR PHRASE] your for this demand response program for this location? [VERBATIM]

PA1_2 Can you think of another reason?

PA1_3 Can you think of another reason?

PA1_4 Can you think of another reason?

PA1_5 Can you think of another reason?

[IF MORE THAN ONE REASON, ASK PA1A]

PA1_A. And which of those reasons was most important? [VERBATIM]

PA2. How much demand reduction, as a percent of your normal summer afternoon peak demand, is your organization LIKELY to provide this summer during the limited demand response program periods from this location?

1. 0 percent
2. 1 to 5 percent
3. 6 to 10 percent
4. 11 to 20 percent
5. 20 to 50 percent
6. Over 50 percent
7. Refused
8. Don't know

REASONS FOR NON-PARTICIPATION

[ASK NP1 IF DECIDED NOT TO PARTICIPATE OR UNCERTAIN ABOUT, SOMEWHAT OR VERY UNLIKELY TO PARTICIPATE (DM1=2 OR DM2=2 OR DM3=2 OR DM4 = 3, 4 OR 5)]

NP1_1. What are the reasons why your organization is unlikely/uncertain/ [CATI LOGIC FOR PHRASE] to participate in these new demand response programs? [VERBATIM]

NP1_2 Can you think of another reason?

NP1_3 Can you think of another reason?

NP1_4 Can you think of another reason?

NP1_5 Can you think of another reason?

[IF MORE THAN ONE REASON, ASK NP2]

NP1A. And which of those reasons was most important? [VERBATIM]

BARRIERS TO PARTICIPATION

BA1-BA12. Now I'd like to describe some reasons organizations might not participate in demand response programs or would achieve only small demand reductions. On a 1 to 5 scale, where 1 indicates insignificant and 5 indicates extremely significant, please indicate how significant each of the following is as a concern about demand response program participation at this location. [ROTATE RANDOMLY]

- B1. Effects on occupant comfort
- B2. Effects on products or productivity
- B3. Inability to adequately manage and monitor peak reductions
- B4. Need for more information on how to achieve demand reductions
- B5. Permit regulations that limit the running of backup generators
- B6. Amount of potential bill savings
- B7. Complexity of program rules
- B8. Level of on-peak prices or non-performance penalties
- B9. Inadequate program information
- B10. Uncertainty over future changes in program price signals and rules
- B11. Time and effort it takes to participate
- B12. Inability to reduce peak loads

BA20TC01-BA20TC11. What other concerns, if any, does your organization have about trying to temporarily reduce summer peak loads at this location through participation in demand response programs?

<VERBATIM>

CURRENT ACTIVITY AND ASSOCIATED MOTIVATIONS

CDR1. Is this location currently on a time-of-use rate where the price you pay varies by time period within summer days?

Yes	1
No	2
Refused	88
Don't Know	99

[IF CDR1 = 1, ELSE SKIP TO CDR3]

CDR1a. Has your firm taken action in the past to SHIFT usage from higher priced to lower priced hours in response to these time-of-use price differences?

Yes	1
No	2
Refused	88
Don't Know	99

[IF CDR1a = 1, ELSE SKIP TO CDR3]

CDR2. What actions has your organization taken to shift usage from these higher priced to lower priced rate periods?

<VERBATIM>

CDRNU. Which of the following best describes WHEN your organization took the majority of these actions to shift usage from higher priced to lower priced rate periods? Would you say:

Primarily before the California Energy Crisis [before Summer 2000]	1
Primarily during or after the California Energy Crisis [after Summer 2000]	2
Significant load shifting actions were taken both before and after the California Energy Crisis	3
Refused	88
Don't know	99

CDR3. Have you made any /other/ significant changes in the way your organization uses electricity at this site since the California energy crisis began in the summer of 2000?

Yes	1
No	2
Refused	88
Don't Know	99

CDR3a. And what were the principal changes made? [VERBATIM]

CDR4. By roughly how much do you think all of these load shifting and other changes have changed the summer on peak usage at this facility as compared to its summer on peak usage prior to the California energy crisis?

1	0 to 2 percent decrease	
2	3 to 5 percent decrease	
3	6 to 10 percent decrease	
4	10 to 15 percent decrease	
5	16 to 20 percent decrease	
6	More than 20 percent decrease	
7	0 to 2 percent increase	
8	3 to 5 percent increase	
9	6 to 10 percent increase	
10	10 to 15 percent increase	
11	16 to 20 percent increase	
12	More than 20 percent increase	
88	Refused	
99	Don't know	

BILL SAVINGS REQUIRED FOR SINGLE POINT, GENERIC TYPE OF PARTICIPATION

Now I am going ask you a couple of questions about the amount by which your organization would be able to reduce it's electricity demand in response to notification from [UTILITY] due to high utility system demand. Assume for these questions that the reductions at this location would be requested for only a few hours in the late afternoon on roughly four weekdays in the summer and that the days are not sequential.

SA1. What percentage of your annual electricity bill would you need to save as an incentive to reduce your demand at this location by 5% for a few hours on roughly four weekdays in the summer?

1. 0 percent
2. 1 to 5 percent
3. 6 to 10 percent
4. 11 to 20 percent
5. 20 to 50 percent
6. Over 50 percent
7. No amount would be adequate
8. Refused
9. Don't know

SA2. And what percentage of your annual electricity bill would you need to save as an incentive to reduce your demand at this location by 15% for a few hours on roughly four weekdays in the summer?

1. 0 percent
2. 1 to 5 percent
3. 6 to 10 percent
4. 11 to 20 percent
5. 20 to 50 percent
6. Over 50 percent
7. No amount would be adequate
8. Refused
9. Don't know

DR CAPABILITY AND POTENTIAL ACTIONS

CA1. What percentage of your normal summer afternoon peak demand could you reduce for a few hours on roughly four weekdays in the summer, provided you were notified the day before and you were give sufficient financial motivation?

1. 0 percent
2. 1 to 5 percent
3. 6 to 10 percent
4. 11 to 20 percent
5. 20 to 50 percent
6. Over 50 percent
7. Refused
8. Don't know

CA2. If the motivation were sufficient, which of the following temporary demand reduction actions would you be willing to consider for a few hours on roughly four weekdays in the summer?

CA2a. Allow the temperature to rise in the occupied space (from 1 to 5 degrees)?

1	Yes	
2	No	
99	Don't know/refused	

CA2b. Shut off a portion of the air conditioning system, such as ventilation fans in areas with low occupancy (such as storage or warehouse space)?

1	Yes	
2	No	
99	Don't know/refused	

CA2c. Reduce overhead lighting (dim some lights, turn every other lamp off, turn off lights near windows)?

1	Yes	
---	-----	--

2	No	
99	Don't know/refused	

CA2d. Reduce or shut off some or all production processes?

1	Yes	
2	No	
99	Don't know/refused	

CA2e. Are there any other actions you might take (Please Specify).

Action #1		
Action #2		

CA3. And which, if any, of the following types of energy information, management, load monitoring, and control capabilities do you currently have for this location?

CA3a. The ability to view hourly demand on an in-house energy information system?

Yes	1
No	2
Refused	88
Don't Know	99

CA3b. The ability to view your hourly demand on your utility's website?

Yes	1
No	2
Refused	88
Don't Know	99

CA3c. The ability to automatically control a significant portion of your electricity load through energy management or other control systems?

Yes	1
No	2
Refused	88
Don't Know	99

DECISION PROCESSES AND GENERAL ENERGY MARKET PERCEPTIONS

Now I'd like to ask some questions about how your organization makes decisions about participating in utility-offered demand response- programs or tariffs.

EM1a. Which of the following best characterizes who has ultimate authority in your organization with respect to participation in a new utility rate or program such as demand response programs? Would you say that it is: [READ LIST]

- One individual at this facility 1
- One individual at parent organization 2
- A group of individuals at this facility 3
- A group of individuals at parent organization 4
- A group of individuals at both this facility and the parent organization 5
- [DON'T READ] Don't Know 98
- [DON'T READ] Refused 99

EM2. What is the typical time frame for your organization to make decisions about participating in demand response programs? Would you say:

- Less than 1 month 1
- 1 to 3 months 2
- More than 3 months 3
- Refused 88
- Don't know 99

EM2a. And what are the primary factors that your organization considers when making decisions about utility rate offerings and demand response programs?

<VERBATIM>

Now I have a few questions about electricity markets and prices.

EM3. How closely does your organization monitor and analyze electricity markets and prices? Would you say,

- Very closely 1
- Somewhat closely 2
- Not very closely 3
- Refused 88
- Don't Know 99

EM4. And over the next three years, does your organization expect wholesale electricity prices to increase, decrease, or stay about the same?

1	Increase	
2	Decrease	
3	Stay about the same	
88	Refused	
99	Don't know	

EM5. In your organization's view, how likely is it that California's power supplies will be inadequate to meet expected power demand over the next three years? Would you say:

- Very likely 1
- Somewhat likely 2
- Somewhat unlikely 3

Very unlikely	4
Refused	88
Don't Know	99

EM6. On hot high demand summer days, how much do you expect the wholesale market price of electricity varies from lowest daytime price to highest?

1. 10% variation,
2. 50% variation,
3. 100% variation,
4. 200% variation,
5. 500% variation,
6. 1000% variation,
7. More than 1000% variation from lowest daytime price to highest
8. Refused
9. Don't Know

EM7. How concerned is your organization about energy costs relative to other costs of running your business?

Very concerned	1
Somewhat concerned	2
Relatively unconcerned	3
Refused	88
Don't Know	99

ENHANCED AUTOMATION MATERIALS

Now I would like to shift the focus and ask you a few questions about building automation and control systems.

EA1. Have you ever heard of the term "Enhanced Automation"?

1	Vendor	
1	Yes	
2	No	→ GO TO EA3
99	Don't know/refused	→ GO TO EA3

EA2. What does the term "Enhanced Automation" mean to you?

<VERBATIM>

As you may know, the California Energy Commission is conducting an education campaign, called "Enhanced Automation" to inform customers of building automation and controls upgrades available to save money on their electric bills. Enhanced automation technologies improve the efficiency, comfort and control of buildings. They can provide information on building systems, energy costs, and increase flexibility of building operations. Examples include adding a new energy information system, re-programming an existing energy management system, or expanding a network of sensors and control devices. The education packet comes in a black and blue folder, and includes case studies of success stories, a Business Case Guidebook and a Technical Options Guidebook.

EA3 Have you ever received or heard about materials from the California Energy Commission, such as a brochure or case studies, discussing Enhanced Automation and advanced building controls?

1	Yes	
2	No	→GO TO EA8
99	Don't know/refused	→GO TO EA8

EA4. How did you hear of the Enhanced Automation campaign?

1	Vendor	
2	Utility Representative	
3	Colleague or Trade Association	
4	Browsing/Searching the Internet	
5	In the Mail	
6	Other→(SPECIFY_____)	
99	Don't know/refused	

EA5. What, if any, information did you receive directly from the Enhanced Automation Program? <READ LIST IF NEEDED; CHECK ALL THAT APPLY>

1	Brochure(s)	
2	Case studies	
3	Business Case Guidebook	
4	Technical Options Guidebook	
5	Guidebooks (don't know which one)	
6	Technical Assistance	
7	Visited website	
8	No materials, just heard about it	→GO TO EA8
9	Other (SPECIFY_____)	
99	Don't know/refused	

EA6. How valuable were the Enhanced Automation materials or services you received? Would you say they were...

1	Very valuable	
2	Somewhat valuable	
3	Not valuable	
99	Don't know/refused	

EA7. And why is that?

<VERBATIM>

EA8. In the past 2 years, have you considered any automation investments for your control systems to improve your ability to manage your energy use?

1	Yes	
2	No	→GO TO EA17
99	Don't know/refused	→GO TO EA17

EA9. What are the reasons you considered these improvements to your control systems? (DO NOT READ, CHECK ALL THAT APPLY)

1	Save on energy costs	
2	Upgrade old equipment	
3	Increase flexibility of controls systems	
4	Be able to respond to dynamic pricing	
5	To increase occupant comfort	
8	Other (specify_____)	
99	Don't know/refused	

EA10. Did you actually install any of these controls improvements for your business?

1	Yes	
2	No	→GO TO EA12
99	Don't know/refused	→GO TO EA12

EA11. Which of these controls improvements have you made in the past few years to help manage your energy use? Anything else?

<RECORD ALL MENTIONS>

EA12. What or controls improvements have you considered to help manage your energy use, but not pursued?

<RECORD ALL MENTIONS>

[IF HAVE NOT CONSIDERED ANYTHING, SKIP TO EA14]

EA13. Why have you not pursued those improvements?

<RECORD ALL MENTIONS>

EFFECT OF EA MATERIALS ON EE/DR ACTIVITY

IF EA3 = (2 or 99) then SKIP TO EA17

(skip if don't recall receiving EA materials)

EA14. Did the Enhanced Automation educational materials or services influence your decision to take any of the energy efficiency or demand response actions or controls improvements you mentioned?

1	Yes	
2	No	→GO TO EA17
99	Don't know/refused	→GO TO EA17

EA15. Please describe which action(s)?

< VERBATIM >

EA16. How have the EA materials influenced your plans? Anything else?

<RECORD ALL MENTIONS>

ENHANCED AUTOMATION INFORMATION

EA17. How relevant is information on building automation improvements and advanced building controls to your business as a way to manage your energy use? Would you say it is...

1	Very relevant	
2	Somewhat relevant	
3	Somewhat irrelevant	
4	Very irrelevant	
99	Don't know/refused	

EA18. What type of information on building automation improvements would be most helpful to you and your business as a way to manage your energy use? (What else?)

< VERBATIM >

EA19. What method of communication would be most likely to get your attention? (For example, if the Energy Commission wanted to inform you of technical assistance or incentives available, what would be the best way to pass that information to you?) DO NOT READ, CHECK ALL THAT APPLY.

1	Contact from a utility representative	
2	Contact from a vendor	
3	Utility bill insert	
4	Email from the Energy Commission	
5	Phone call from the Energy Commission	
6	Letter from the Energy Commission	

7	Information on the Commission website	
8	Other (specify _____)	
9	No method, don't pay attention to unsolicited information	
99	Don't know/refused	

EA20. Do you have any other suggestions for how the Energy Commission could best promote investments in automation improvements and advanced controls to customers, such as yourself?

<VERBATIM>

DIFF You mentioned earlier that you are responsible for _____ other facilities in the SDG&E service territory. Overall, would you say that the responses that you have provided for the facility located at (address) (city) are generally representative of all of your facilities that you are responsible for?

Yes	1
No	2
Refused	88
Don't Know	99

DIFFHOW What things come to mind that would make this facility different than the other facilities you manage in the SDG&E service territory, relating to the questions we have discussed today? RECORD VERBATIM.

DIFFHOW2 Anything else?

DIFFHOW3 Anything else?

FIRMOGRAPHIC CHARACTERISTICS

Now I'd like to ask a few quick questions about this facility. Unless otherwise stated, all questions pertain to THIS FACILITY [RESTATE FACILITY LOCATION IF NECESSARY].

EC1. What is the main activity performed at this location?

1	Office	EC2
2	Retail (non-food)	EC2
3	College/university	EC2
4	School	EC2
5	Grocery store	EC2
6	Convenience store	EC2
7	Restaurant	EC2
8	Health care/hospital	EC2
9	Hotel or motel	EC2
10	Warehouse	EC2
11	Personal Service	EC2
12	Community Service/Church/Temple/Municipality	EC2
13	Industrial Electronic & Machinery	EC2
14	Industrial Mining, Metals, Stone, Glass, Concrete	EC2
15	Industrial Petroleum, Plastic, Rubber and Chemicals	EC2

16	Other Industrial	EC2
17	Agricultural	EC2
18	Transportation/Telecommunications/Utility	EC2
77	Other (SPECIFY)	EC2
88	Refused	EC2
99	Don't know	EC2

EC2. Approximately how many square feet does **your organization occupy in this facility?**

1	Less than 10,000 square feet	EC3
2	10,000 but less than 20,000 square feet	EC3
3	20,000 but less than 50,000 square feet	EC3
4	50,000 but less than 100,000 square feet	EC3
5	100,000 but less than 200,000 square feet	EC3
6	200,000 but less than 300,000 square feet	EC3
7	300,000 but less than 400,000 square feet	EC3
8	400,000 but less than 500,000 square feet	EC3
9	Over 500,000 square feet	EC3
10	Ag/Non-facility – Outdoors	EC3
88	Refused	EC3
99	Don't know	EC3

EC3. Does your organization.....

1	Own this space	EC5
2	Lease this space	EC4
3	Own a portion and lease the remainder	EC4
88	Refused	EC5
99	Don't know	EC5

EC4 Does your organization pay its own electric bill directly to [UTILITY] or is electricity provided under your lease arrangement?

1	Pay own electric bill	EC5
2	Part of the lease arrangement	EC5
88	Refused	EC5
99	Don't know	EC5

EC5 What percent of your organization's total annual operating costs do energy costs represent?

1	Less than 1 percent	EC5A
2	1 to 4 percent	EC5A
3	5 to 10 percent	EC5A
4	11 to 25 percent	EC5A
5	Over 25	EC5A
88	Refused	EC5A
99	Don't know	EC5A

EC5A Has your organization assigned responsibility for controlling energy usage and costs to any of the following?

1	An in-house staff person	EC6
2	A group of staff	EC6
3	An outside contractor	EC6
4	No one	EC6
88	Refused	EC6

99	Don't know	EC6
----	------------	-----

EC6. Approximately how many locations does your organization have in California?

1	1	EC7
2	2 to 4	EC7
3	5 to 10	EC7
4	11 to 25	EC7
5	Over 25	EC7
88	Refused	EC7
99	Don't know	EC7

EC7. What is the approximate number of full-time equivalent workers of all types employed by your organization at this facility?

1	1 to 10	
2	11 to 50	
3	51 to 100	
4	100 to 250	
5	251 to 500	
7	501 to 1000	
8	Or, over 1000	
88	[Don't read] Refused	
99	[Don't read] Don't know	

EC8. What is the approximate daily operating schedule at this location during the summer for weekdays and weekends?

EC8a. Weekdays

Start Code	Start Time	End Code	End Time
1	1 am	1	1 am
2	2 am	2	2 am
3	3 am	3	3 am
4	4 am	4	4 am
5	5 am	5	5 am
6	6 am	6	6 am
7	7 am	7	7 am
...	...Code 8 am through 11 pmCode 8 am through 11 pm
24	12 pm	24	12 pm
88	Refused	88	Refused
99	Don't know	99	Don't know

EC8b. Weekends

Start Code	Start Time	End Code	End Time
1	1 am	1	1 am
2	2 am	2	2 am
3	3 am	3	3 am
4	4 am	4	4 am

5	5 am	5	5 am
6	6 am	6	6 am
7	7 am	7	7 am
...	...Code 8 am through 11 pmCode 8 am through 11 pm
24	12 pm	24	12 pm
88	Refused	88	Refused
99	Don't know	99	Don't know

DAYS Are there any days of the week, Monday through Sunday that you are usually closed?

1	Sunday	EC5A
2	Monday	EC5A
3	Tuesday	EC5A
4	Wednesday	EC5A
5	Thursday	EC5A
6	Friday	
7	Saturday	
8	Open Every Day	
88	Refused	EC5A
99	Don't know	EC5A

EC9A. Which of the following is the LARGEST a end uses in terms of electricity consumption for this facility?

EC9a	First Largest	EC9b	Second Largest
1	Lighting	1	Lighting
2	HVAC	2	HVAC
3	Continuous processing	3	Continuous processing
4	Batch processing	4	Batch processing
5	Refrigeration	5	Refrigeration
6	Other, Specify _____	6	Other, Specify _____
88	Refused	88	Refused
99	Don't know	99	Don't know

EC9B. And which would you say used the SECOND most electricity?

EC9a	First Largest	EC9b	Second Largest
1	Lighting	1	Lighting
2	HVAC	2	HVAC
3	Continuous processing	3	Continuous processing
4	Batch processing	4	Batch processing
5	Refrigeration	5	Refrigeration
6	Other, Specify _____	6	Other, Specify _____
88	Refused	88	Refused
99	Don't know	99	Don't know

EC10. Does this location have any on-site electricity generators?

1	Yes, for backup/standby purposes only	
2	Yes, as an everyday supplement or replacement for electricity purchased from the grid	
3	No	
88	Refused	
99	Don't know/	

[IF EC10 = 1 or 2, ELSE SKIP TO CL1]

EC10a. What percent of this location's electricity load can be met by your on-site generation?

_____ Percent (allow > 100%)

EC10b. Are there any legal restrictions on the number of hours your on-site system can run during the summer?

1	Yes	
2	No	
88	Refused	
99	Don't know/	

CLOSE

CL1. Do you have any final comments or suggestions about demand response programs being offered by (IOU)?

<VERBATIM>

Those are all the questions I have for you. Thank you very much for your time.

APPENDIX B

SURVEY DISPOSITION

Disposition	PGE	SCE	SDG
Appointments	41	8	53
Engaged	18	12	2
No Response	29	17	29
Quota Full	364	107	70
Refused	75	95	26
Disconnected	174	144	33
Undialed Sample	200	5	23
Answering Machine, no message left	29	48	46
Answering Machine, message left	562	397	142
Duplicate record??	5	7	5
Language Barrier	4	1	1
Indefinite Appointment	75	39	38
Participant	0	1	0
Non-participant	0	1	0
Residential	9	3	1
Fax/Cell Phone	19	2	4
Complete	226	224	50
Incomplete	5	10	7
Wrong Address	40	15	7

APPENDIX C

ANALYSIS WEIGHTING DETAILS

Appendix C contains the detailed steps involved in calculating the energy and premise weights.

Steps in Energy Weight Calculation:

Step 1) A premise level dataset that grouped all accounts at a premise level was created. Premise level classification variables (size, strata, demand, corporate code) were selected from the account with the largest demand at that premise. Premise level demand (kW) and consumption (kWh) were calculated by summing the demand and consumption for all accounts at the individual premise.

Step 2) A premise level consumption (kWh) variable was calculated for each strata based on all premises in the eligible population.

Step 3) A customer/strata level dataset that grouped all premises for a customer within given strata was created. The premise level dataset was used as a basis for the customer/strata dataset. Customer/Strata demand and consumption were calculated by summing the kW and kWh for all premises belonging to a given customer within the same strata.

Step 4) A customer level consumption (kWh) variable was calculated for each strata at the customer level based on all customers in the eligible population.

Step 5) The premise level dataset and the customer level dataset from Steps 1 and 3 above were combined so every premise had the customer demand and consumption variables all premises associated with that customer within the same strata.

Step 6) Premise level consumption (kWh) variables were created for each strata based on the population of surveyed non-participants.

Step 7) The appropriate premise level consumption (kWh) for each surveyed decision-maker was calculated based on their responses to three survey questions. These questions were:

Question 1: "Are you responsible for any other facilities in the (IOU) service territory other than the facility located at (Address)?"

Question 2: If "Yes" to Question 1 they were asked, "How many are you responsible for?"

Question 3: If "Yes" to Question 1 they were asked, "Overall, would you say that the responses that you have provided for this facility are generally representative of all facilities that you are responsible for?"

- a. If the decision-maker responded to the third question that their answers WERE NOT representative of all the facilities they were responsible for, then the consumption (kWh) used for the energy weight of this decision-maker was set equal to the premise consumption (kWh) value calculated in Step 1.
- b. If the decision-maker responded to the third question that their answers WERE representative of all the facilities they were responsible for, then their response to Question 2 was compared to the number of premises calculated for that customer within the same strata (in Step 3 above). If the decision-maker's response to Question 2 was greater than or equal to the number calculated in Step 3, then the consumption (kWh) used for the energy weight was set equal to the Customer/Strata consumption. However, if the decision-maker's response to Question 2 above was greater than or equal to the number calculated in Step 3, then the consumption (kWh) used for the energy weight was set equal to the Customer/Strata consumption times the ratio of the number of facilities they reported they were responsible for (from Question 2) divided by the number of premises calculated for that customer at the Customer/Strata level (in Step 3).

Step 8) A ratio of the total consumption in the eligible population frame over total consumption in the survey was calculated for each strata.

Step 9) Finally, the energy-weights were calculated by multiplying the ratio from Step 8 above times the consumption (kWh) calculated in Step 7.

Steps in Premise Weight Calculation:

The steps in the premise-weight calculation were similar to the energy-weight calculation described above with the exception of all consumption values were set = 1.

APPENDIX D

DRAFT WG2 DR NON-PARTICIPANT MARKET SURVEY FREQUENCIES

SURVEY FREQUENCY TABLES

The survey frequency tables included in this appendix have been organized in the following manner:

- The first column in the table includes the question and the question number (as labeled in Appendix A) in the top row, the set of possible answers in the following rows, and the number of decision makers that were asked the question within the given segment in the last row.
- The second column presents the overall distribution of the responses weighted by the energy weight (described in detail in Appendix C). For questions in which a decision maker could provide only one answer the sum of rows in the second column (excluding the last row) will total ~100% (sums of slightly less or more than 100% are possible due to rounding in the individual rows).
- The 3rd through 11th columns present the distribution of the responses broken down by the nine business types (weighted by the energy weight). The business types were set based on a mapping of SIC or NAICS code.
- The 12th through 15th columns present the distribution of the responses broken down by the four business sizes (weighted by the energy weight). The 4 sizes were set based on a mapping of the maximum demand in 2003.
- The 16th and 17th columns present the unweighted distribution of the number of respondents and the percentage of respondents.
- The 18th column is similar to the 2nd column except that the responses are weighted by the premise weight (described in Appendix C).

F1. How familiar would you say your organization is with the Demand Response concept?	Total	Business Type										Business Size				Utility			Number of Respondents	Percent of Respondents	Percent of Premises
		Office	Retail/Grocery	Institutional	Other Commercial	Transportation, Communication, Utility	Petroleum, Plastic, Rubber and Chemicals	Mining, Metals, Stone, Glass, Concrete	Electronic, Machinery and Fabricated Metals	Other Industrial and Agriculture	Extra Large (2000+ kW)	Large (1000-2000 kW)	Medium (500-1000 kW)	Small (100-500 kW) *	PG&E	SCE	SDG&E				
Very familiar	44%	45%	45%	47%	37%	51%	27%	59%	43%	48%	54%	44%	48%	31%	40%	49%	40%	206	41%	45%	
Somewhat familiar	48%	46%	44%	50%	53%	40%	49%	37%	51%	40%	47%	50%	56%	53%	45%	40%	248	50%	47%		
Not at all familiar	8%	9%	11%	3%	10%	9%	24%	4%	6%	6%	9%	2%	13%	7%	6%	19%	45	9%	7%		
Don't know	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	2%	1	0%	0%		
N	500	60	37	66	62	51	57	54	59	54	114	133	127	126	226	224	50	500	100%	100%	

F2A. How familiar are you with your utilities Critical Peak Pricing tariff?	Total	Business Type										Business Size				Utility			Number of Respondents	Percent of Respondents	Percent of Premises
		Office	Retail/Grocery	Institutional	Other Commercial	Transportation, Communication, Utility	Petroleum, Plastic, Rubber and Chemicals	Mining, Metals, Stone, Glass, Concrete	Electronic, Machinery, and Fabricated Metals	Other Industrial and Agriculture	Extra Large (2000+ kW)	Large (1000-2000 kW)	Medium (500-1000 kW)	Small (100-500 kW) *	PG&E	SCE	SDG&E				
Very familiar	25%	16%	9%	45%	25%	41%	12%	52%	15%	20%	37%	19%	20%	20%	19%	32%	20%	115	23%	24%	
Somewhat familiar	39%	65%	44%	25%	33%	16%	23%	31%	47%	50%	28%	54%	43%	41%	41%	36%	51%	217	43%	41%	
Not at all familiar	35%	19%	47%	30%	42%	43%	64%	17%	37%	30%	35%	28%	36%	39%	40%	32%	29%	166	33%	35%	
Don't know	0%	0%	0%	0%	0%	1%	0%	2%	0%	0%	0%	1%	0%	0%	0%	0%	0%	2	0%	0%	
N	500	60	37	66	62	51	57	54	59	54	114	133	127	126	226	224	50	500	100%	100%	

F2B. How familiar are you with your utility's Demand Bidding Program?	Total	Business Type										Business Size				Utility			Number of Respondents	Percent of Respondents	Percent of Premises
		Office	Retail/Grocery	Institutional	Other Commercial	Transportation, Communication, Utility	Petroleum, Plastic, Rubber and Chemicals	Mining, Metals, Stone, Glass, Concrete	Electronic, Machinery, and Fabricated Metals	Other Industrial and Agriculture	Extra Large (2000+ kW)	Large (1000-2000 kW)	Medium (500-1000 kW)	Small (100-500 kW) *	PG&E	SCE	SDG&E				
Very familiar	24%	9%	15%	35%	23%	29%	12%	57%	16%	29%	39%	17%	27%	10%	18%	33%	5%	93	19%	23%	
Somewhat familiar	37%	46%	41%	32%	34%	22%	28%	29%	54%	37%	37%	45%	32%	37%	35%	39%	40%	198	40%	39%	
Not at all familiar	39%	45%	44%	32%	43%	49%	60%	15%	28%	34%	24%	38%	40%	53%	47%	28%	55%	208	42%	38%	
Don't know	0%	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%	0%	1%	0%	0%	0%	0%	1	0%	0%	
N	500	60	37	66	62	51	57	54	59	54	114	133	127	126	226	224	50	500	100%	100%	

F2C. How familiar are you with SDG&E's Hourly Pricing Option?	Total	Business Type										Business Size				Utility			Number of Respondents	Percent of Respondents	Percent of Premises
		Office	Retail/Grocery	Institutional	Other Commercial	Transportation, Communication, Utility	Petroleum, Plastic, Rubber and Chemicals	Mining, Metals, Stone, Glass, Concrete	Electronic, Machinery, and Fabricated Metals	Other Industrial and Agriculture	Extra Large (2000+ kW)	Large (1000-2000 kW)	Medium (500-1000 kW)	Small (100-500 kW) *	PG&E	SCE	SDG&E				
Very familiar	6%	13%	0%	0%	9%	4%	20%	0%	9%	0%	5%	36%	4%	0%	0%	0%	6%	7	14%	7%	
Somewhat familiar	21%	8%	13%	23%	7%	55%	12%	0%	71%	16%	52%	37%	21%	10%	0%	0%	21%	13	26%	32%	
Not at all familiar	73%	79%	87%	77%	84%	41%	68%	100%	21%	84%	43%	27%	75%	90%	0%	0%	73%	30	60%	61%	
N	50	8	3	7	9	7	5	2	5	4	9	12	13	16	0	0	50	50	100%	100%	

F2D. How familiar are you with The California Power Authority's Demand Reserves Partnership (DRP) Program?	Total	Business Type										Business Size				Utility			Number of Respondents	Percent of Respondents	Percent of Premises
		Office	Retail/Grocery	Institutional	Other Commercial	Transportation, Communication, Utility	Petroleum, Plastic, Rubber and Chemicals	Mining, Metals, Stone, Glass, Concrete	Electronic, Machinery, and Fabricated Metals	Other Industrial and Agriculture	Extra Large (2000+ kW)	Large (1000-2000 kW)	Medium (500-1000 kW)	Small (100-500 kW) *	PG&E	SCE	SDG&E				
Very familiar	10%	9%	7%	21%	9%	10%	8%	1%	7%	8%	17%	8%	10%	2%	10%	11%	2%	38	8%	8%	
Somewhat familiar	22%	15%	32%	12%	28%	16%	11%	28%	17%	38%	26%	32%	25%	12%	25%	21%	22%	128	26%	22%	
Not at all familiar	67%	76%	62%	68%	63%	74%	81%	71%	69%	54%	56%	59%	64%	86%	65%	67%	75%	331	66%	69%	
Don't know	1%	0%	0%	0%	0%	0%	0%	0%	6%	0%	1%	1%	1%	0%	0%	1%	0%	3	1%	0%	
N	500	60	37	66	62	51	57	54	59	54	114	133	127	126	226	224	50	500	100%	100%	

F3A. How familiar would you say your organization is with the Bill Protection Plan for the Critical Peak Pricing rate?	Total	Business Type										Business Size				Utility			Number of Respondents	Percent of Respondents	Percent of Premises
		Office	Retail/Grocery	Institutional	Other Commercial	Transportation, Communication, Utility	Petroleum, Plastic, Rubber and Chemicals	Mining, Metals, Stone, Glass, Concrete	Electronic, Machinery, and Fabricated Metals	Other Industrial and Agriculture	Extra Large (2000+ kW)	Large (1000-2000 kW)	Medium (500-1000 kW)	Small (100/200-500 kW) *	PG&E	SCE	SDG&E				
Very familiar	9%	7%	11%	24%	8%	9%	1%	9%	8%	1%	14%	6%	11%	4%	7%	12%	2%	37	7%	8%	
Somewhat familiar	28%	42%	17%	23%	31%	15%	18%	56%	21%	25%	34%	25%	30%	21%	28%	28%	28%	139	28%	29%	
Not at all familiar	63%	51%	72%	53%	62%	75%	81%	36%	67%	74%	52%	68%	59%	75%	65%	59%	70%	319	64%	62%	
Don't know	0%	0%	0%	0%	0%	1%	0%	0%	3%	0%	0%	1%	1%	0%	0%	1%	0%	5	1%	0%	
N	500	60	37	66	62	51	57	54	59	54	114	133	127	126	226	224	50	500	100%	100%	

F3B. How familiar would you say your organization is with the Technical Assistance Incentive for the Critical Peak Pricing Rate and Demand Bidding Program?	Business Type											Business Size				Utility			Number of Respondents	Percent of Respondents	Percent of Premises
	Total	Office	Retail/Grocery	Institutional	Other Commercial	Transportation, Communication, Utility	Petroleum, Plastic, Rubber and Chemicals	Mining, Metals, Stone, Glass, Concrete	Electronic, Machinery, and Fabricated Metals	Other Industrial and Agriculture	Extra Large (2000+ kW)	Large (1000-2000 kW)	Medium (500-1000 kW)	Small (100/200-500 kW) *	PG&E	SCE	SDG&E				
Very familiar	18%	12%	20%	15%	10%	12%	5%	57%	19%	25%	28%	15%	20%	8%	17%	22%	3%	67	13%	19%	
Somewhat familiar	30%	36%	19%	39%	30%	34%	21%	20%	30%	29%	34%	30%	31%	25%	31%	29%	27%	158	32%	31%	
Not at all familiar	52%	51%	61%	46%	60%	53%	74%	23%	49%	46%	38%	55%	48%	66%	52%	48%	70%	271	54%	49%	
Don't know	0%	1%	0%	0%	0%	2%	0%	0%	2%	0%	0%	0%	1%	0%	0%	1%	0%	4	1%	0%	
N	500	60	37	66	62	51	57	54	59	54	114	133	127	126	226	224	50	500	100%	100%	

	Business Type													Business Size				Utility			Number of Respondents	Percent of Respondents	Percent of Premises
	Total	Office	Retail/Grocery	Institutional	Other Commercial	Transportation, Communication, Utility	Petroleum, Plastic, Rubber and Chemicals	Mining, Metals, Stone, Glass, Concrete	Electronic, Machinery, and Fabricated Metals	Other Industrial and Agriculture	Extra Large (2000+ kW)	Large (1000-2000 kW)	Medium (500-1000 kW)	Small (100/200-500 kW) *	PG&E	SCE	SDG&E						
F4. How did you and your organization learn about your utility's new Demand Bidding Program?	Total	Office	Retail/Grocery	Institutional	Other Commercial	Transportation, Communication, Utility	Petroleum, Plastic, Rubber and Chemicals	Mining, Metals, Stone, Glass, Concrete	Electronic, Machinery, and Fabricated Metals	Other Industrial and Agriculture	Extra Large (2000+ kW)	Large (1000-2000 kW)	Medium (500-1000 kW)	Small (100/200-500 kW) *	PG&E	SCE	SDG&E	Number of Respondents	Percent of Respondents	Percent of Premises			
Personal contact from utility	72%	66%	75%	66%	62%	87%	78%	81%	73%	81%	80%	78%	64%	66%	84%	67%	51%	267	70%	74%			
Direct mail	15%	20%	8%	16%	12%	15%	29%	10%	20%	8%	7%	12%	8%	30%	9%	16%	34%	71	19%	13%			
Workshops/conferences	9%	1%	0%	19%	15%	2%	1%	2%	20%	10%	10%	6%	14%	7%	8%	10%	8%	31	8%	10%			
Other end users/customers	2%	0%	0%	0%	2%	1%	3%	2%	10%	1%	4%	1%	1%	3%	1%	2%	8	2%	2%				
Energy Service Provider	2%	0%	16%	0%	4%	0%	1%	1%	0%	0%	0%	9%	0%	1%	3%	0%	8	2%	3%				
Trade or industry group	1%	0%	0%	0%	1%	0%	3%	0%	0%	4%	0%	4%	1%	1%	0%	2%	0%	4	1%	1%			
Equipment vendors/consultants	0%	0%	1%	0%	0%	0%	3%	2%	0%	0%	0%	0%	1%	0%	0%	0%	4	1%	0%				
Email	2%	8%	1%	0%	0%	7%	3%	0%	3%	1%	5%	1%	3%	0%	3%	2%	9	2%	3%				
Internet/website	4%	8%	0%	1%	8%	9%	4%	9%	0%	0%	6%	0%	6%	3%	1%	7%	0%	12	3%	4%			
Focus groups	3%	0%	0%	18%	0%	0%	0%	0%	3%	0%	9%	0%	1%	0%	1%	6%	0%	3	1%	2%			
Other	2%	4%	0%	0%	9%	0%	3%	2%	3%	0%	2%	4%	4%	2%	1%	9%	11	3%	2%				
Don't know	1%	2%	0%	1%	1%	0%	1%	2%	2%	2%	0%	3%	1%	2%	1%	8%	10	3%	1%				
N	382	50	28	53	44	33	38	45	47	44	92	104	98	88	170	172	40	382	115%	115%			

	Business Type													Business Size				Utility			Number of Respondents	Percent of Respondents	Percent of Premises
	Total	Office	Retail/Grocery	Institutional	Other Commercial	Transportation, Communication, Utility	Petroleum, Plastic, Rubber and Chemicals	Mining, Metals, Stone, Glass, Concrete	Electronic, Machinery, and Fabricated Metals	Other Industrial and Agriculture	Extra Large (2000+ kW)	Large (1000-2000 kW)	Medium (500-1000 kW)	Small (100/200-500 kW) *	PG&E	SCE	SDG&E						
F5. About when did you first learn about these new demand response programs?	Total	Office	Retail/Grocery	Institutional	Other Commercial	Transportation, Communication, Utility	Petroleum, Plastic, Rubber and Chemicals	Mining, Metals, Stone, Glass, Concrete	Electronic, Machinery, and Fabricated Metals	Other Industrial and Agriculture	Extra Large (2000+ kW)	Large (1000-2000 kW)	Medium (500-1000 kW)	Small (100/200-500 kW) *	PG&E	SCE	SDG&E	Number of Respondents	Percent of Respondents	Percent of Premises			
Within the past month	5%	2%	0%	7%	15%	1%	1%	0%	11%	1%	5%	3%	4%	6%	4%	3%	13%	17	4%	4%			
Within the past 3 months	12%	4%	53%	11%	8%	13%	3%	2%	9%	9%	11%	9%	18%	16%	9%	11%	40	10%	13%				
Within the past 6 months	23%	43%	7%	28%	11%	19%	36%	18%	21%	27%	15%	23%	24%	23%	25%	18%	84	22%	24%				
Within the past 9 months	11%	14%	10%	9%	10%	26%	2%	11%	18%	7%	9%	12%	12%	13%	9%	17%	30	8%	12%				
Within the past year	15%	9%	14%	10%	34%	15%	9%	13%	14%	16%	9%	15%	24%	15%	17%	14%	76	20%	15%				
More than a year ago	30%	24%	15%	34%	19%	26%	48%	52%	22%	39%	41%	32%	25%	21%	23%	37%	115	30%	28%				
Don't know	4%	5%	1%	1%	3%	0%	1%	4%	6%	7%	0%	12%	3%	3%	4%	3%	2%	20	5%	4%			
N	382	50	28	53	44	33	38	45	47	44	92	104	98	88	170	172	40	382	100%	100%			

	Business Type													Business Size				Utility			Number of Respondents	Percent of Respondents	Percent of Premises
	Total	Office	Retail/Grocery	Institutional	Other Commercial	Transportation, Communication, Utility	Petroleum, Plastic, Rubber and Chemicals	Mining, Metals, Stone, Glass, Concrete	Electronic, Machinery, and Fabricated Metals	Other Industrial and Agriculture	Extra Large (2000+ kW)	Large (1000-2000 kW)	Medium (500-1000 kW)	Small (100/200-500 kW) *	PG&E	SCE	SDG&E						
F6a. Do you recall receiving any general discussion with your utility representative of demand response program features?	Total	Office	Retail/Grocery	Institutional	Other Commercial	Transportation, Communication, Utility	Petroleum, Plastic, Rubber and Chemicals	Mining, Metals, Stone, Glass, Concrete	Electronic, Machinery, and Fabricated Metals	Other Industrial and Agriculture	Extra Large (2000+ kW)	Large (1000-2000 kW)	Medium (500-1000 kW)	Small (100/200-500 kW) *	PG&E	SCE	SDG&E	Number of Respondents	Percent of Respondents	Percent of Premises			
Yes	62%	61%	67%	68%	54%	59%	46%	79%	58%	66%	73%	70%	50%	54%	66%	64%	34%	284	57%	63%			
No	36%	37%	31%	32%	44%	39%	52%	18%	38%	33%	26%	26%	46%	45%	33%	33%	64%	199	40%	35%			
Don't know	2%	2%	2%	0%	3%	2%	2%	3%	4%	1%	1%	3%	4%	1%	1%	3%	2%	17	3%	2%			
N	500	60	37	66	62	51	57	54	59	54	114	133	127	126	226	224	50	500	100%	100%			

F6d. Do you recall receiving any other type of information on Demand Response Programs?	Total	Business Type										Business Size				Utility			Number of Respondents	Percent of Respondents	Percent of Premises
		Office	Retail/Grocery	Institutional	Other Commercial	Transportation, Communication, Utility	Petroleum, Plastic, Rubber and Chemicals	Mining, Metals, Stone, Glass, Concrete	Electronic, Machinery, and Fabricated Metals	Other Industrial and Agriculture	Extra Large (2000+ kW)	Large (1000-2000 kW)	Medium (500-1000 kW)	Small (100/200-500 kW) *	PG&E	SCE	SDG&E				
Yes	23%	12%	51%	36%	15%	8%	19%	21%	27%	17%	20%	25%	27%	22%	19%	29%	11%	107	21%	22%	
No	75%	88%	43%	62%	83%	85%	79%	76%	71%	82%	79%	73%	68%	77%	79%	69%	88%	380	76%	75%	
Don't know	2%	0%	6%	2%	2%	6%	2%	3%	2%	1%	1%	3%	5%	1%	2%	3%	1%	13	3%	2%	
N	500	60	37	66	62	51	57	54	59	54	114	133	127	126	226	224	50	500	100%	100%	

F6DOT. What other type of information on your utility's Demand Response Programs did you receive?	Total	Business Type										Business Size				Utility			Number of Respondents	Percent of Respondents	Percent of Premises
		Office	Retail/Grocery	Institutional	Other Commercial	Transportation, Communication, Utility	Petroleum, Plastic, Rubber and Chemicals	Mining, Metals, Stone, Glass, Concrete	Electronic, Machinery, and Fabricated Metals	Other Industrial and Agriculture	Extra Large (2000+ kW)	Large (1000-2000 kW)	Medium (500-1000 kW)	Small (100/200-500 kW) *	PG&E	SCE	SDG&E				
General discussion with utility rep	6%	0%	5%	2%	10%	31%	0%	0%	8%	13%	0%	12%	8%	6%	13%	2%	0%	6	6%	6%	
Financial analysis of participating in DR program	0%	0%	0%	0%	0%	0%	8%	0%	0%	0%	0%	0%	2%	0%	1%	0%	0%	1	1%	1%	
Brochures and printed materials (newsletter)	17%	4%	17%	21%	49%	0%	18%	2%	0%	18%	30%	16%	15%	7%	8%	23%	0%	14	13%	15%	
Email	57%	83%	70%	44%	40%	0%	74%	61%	57%	54%	54%	58%	56%	59%	45%	66%	25%	56	52%	59%	
Seminar/workshops	7%	0%	17%	3%	0%	13%	0%	3%	19%	0%	6%	7%	1%	14%	6%	2%	75%	9	8%	7%	
Website	6%	0%	0%	2%	13%	0%	8%	20%	0%	20%	7%	9%	3%	5%	8%	5%	0%	10	9%	6%	
Other	10%	13%	2%	16%	2%	57%	9%	16%	15%	0%	8%	7%	19%	6%	15%	8%	0%	15	14%	10%	
Refused	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0	0%	0%	
Don't know	4%	0%	0%	15%	0%	0%	9%	0%	0%	0%	0%	2%	10%	3%	4%	4%	0%	4	4%	4%	
N	107	8	13	20	11	4	13	14	15	9	25	29	31	22	43	60	4	107	107%	107%	

F7a. Why was the information helpful/not helpful?	Total	Business Type										Business Size				Utility			Number of Respondents	Percent of Respondents	Percent of Premises
		Office	Retail/Grocery	Institutional	Other Commercial	Transportation, Communication, Utility	Petroleum, Plastic, Rubber and Chemicals	Mining, Metals, Stone, Glass, Concrete	Electronic, Machinery, and Fabricated Metals	Other Industrial and Agriculture	Extra Large (2000+ kW)	Large (1000-2000 kW)	Medium (500-1000 kW)	Small (100/200-500 kW) *	PG&E	SCE	SDG&E				
Aided in decision making/presented options	39%	29%	47%	38%	37%	30%	59%	66%	36%	30%	52%	30%	34%	32%	38%	39%	45%	126	35%	39%	
Showed us how to save money & energy	11%	7%	6%	25%	6%	9%	6%	2%	9%	12%	9%	10%	19%	7%	12%	10%	8%	47	13%	10%	
Provided details about how the program works	8%	6%	1%	14%	7%	12%	3%	4%	14%	5%	7%	8%	10%	7%	7%	8%	8%	37	10%	8%	
Information was not site-specific	1%	0%	0%	1%	3%	0%	0%	2%	2%	1%	0%	3%	1%	2%	1%	1%	4%	7	2%	1%	
Confusing/still do not understand	3%	4%	1%	0%	8%	0%	3%	2%	5%	2%	1%	3%	7%	2%	4%	2%	0%	13	4%	3%	
Information not thorough enough	7%	3%	3%	4%	14%	30%	7%	1%	5%	4%	4%	11%	2%	11%	10%	5%	2%	24	7%	7%	
Have not read it yet/need more investigation	5%	3%	13%	2%	4%	1%	2%	11%	9%	2%	5%	3%	4%	7%	4%	4%	18%	19	5%	5%	
Not eligible/not interested in participating	37%	56%	23%	22%	24%	19%	37%	61%	27%	53%	42%	41%	24%	37%	37%	37%	27%	115	32%	37%	
Other	6%	6%	10%	6%	9%	9%	3%	4%	2%	4%	6%	3%	10%	4%	4%	8%	1%	23	6%	6%	
Don't know	0%	0%	0%	2%	0%	0%	0%	1%	0%	0%	0%	0%	2%	0%	1%	0%	0%	2	1%	0%	
N	365	43	28	55	41	32	40	37	45	44	87	109	88	81	168	170	27	365	113%	116%	

PE2. How would you describe your organization's attitude toward programs such as the Demand Bidding Program?	Total	Business Type										Business Size				Utility			Number of Respondents	Percent of Respondents	Percent of Premises
		Office	Retail/Grocery	Institutional	Other Commercial	Transportation, Communication, Utility	Petroleum, Plastic, Rubber and Chemicals	Mining, Metals, Stone, Glass, Concrete	Electronic, Machinery, and Fabricated Metals	Other Industrial and Agriculture	Extra Large (2000+ kW)	Large (1000-2000 kW)	Medium (500-1000 kW)	Small (100/200-500 kW) *	PG&E	SCE	SDG&E				
Very positive	25%	21%	29%	42%	31%	11%	12%	7%	17%	29%	20%	19%	33%	26%	25%	22%	39%	118	24%	23%	
Somewhat positive	41%	36%	49%	28%	46%	47%	46%	29%	53%	39%	37%	48%	39%	41%	40%	40%	44%	223	45%	41%	
Somewhat negative	15%	26%	4%	9%	9%	14%	8%	45%	10%	15%	22%	13%	8%	14%	15%	17%	5%	59	12%	15%	
Very negative	4%	6%	0%	9%	0%	2%	5%	1%	4%	4%	4%	9%	0%	0%	7%	3%	14	3%	3%		
DON'T KNOW	16%	11%	18%	12%	14%	26%	30%	18%	17%	13%	16%	17%	11%	19%	20%	14%	9%	86	17%	17%	
N	500	60	37	66	62	51	57	54	59	54	114	133	127	126	226	224	50	500	100%	100%	

PE2a. Why do you have that attitude toward the Demand Bidding Program?	Total	Business Type										Business Size				Utility			Number of Respondents	Percent of Respondents	Percent of Premises
		Office	Retail/Grocery	Institutional	Other Commercial	Transportation, Communication, Utility	Petroleum, Plastic, Rubber and Chemicals	Mining, Metals, Stone, Glass, Concrete	Electronic, Machinery, and Fabricated Metals	Other Industrial and Agriculture	Extra Large (2000+ kW)	Large (1000-2000 kW)	Medium (500-1000 kW)	Small (100/200-500 kW) *	PG&E	SCE	SDG&E				
An opportunity/incentive to save money/energy	27%	19%	26%	35%	27%	23%	20%	22%	26%	36%	25%	29%	29%	27%	26%	28%	29%	118	29%	25%	
No penalties/no risk	19%	20%	33%	18%	26%	14%	29%	13%	18%	8%	13%	25%	16%	25%	17%	21%	24%	83	20%	18%	
Can not participate/shed load/shutdown, etc	24%	30%	4%	31%	27%	25%	16%	18%	13%	31%	25%	27%	18%	25%	27%	22%	23%	90	22%	24%	
Flexible, have more choice, easier for the customer	5%	3%	1%	5%	5%	26%	1%	1%	4%	4%	2%	5%	4%	8%	3%	6%	5%	23	6%	5%	
Savings not high enough/no benefit	8%	0%	10%	15%	1%	8%	4%	49%	4%	4%	16%	4%	8%	3%	2%	15%	2%	21	5%	9%	
Need more information/have not looked at it yet	4%	7%	4%	1%	10%	0%	6%	2%	5%	0%	2%	7%	7%	2%	7%	1%	5%	18	4%	4%	
Good program in general/can participate	9%	8%	12%	10%	3%	1%	15%	3%	17%	8%	9%	7%	7%	11%	11%	6%	12%	40	10%	10%	
Perhaps there are small areas where we can contribute	4%	0%	24%	0%	0%	2%	4%	0%	6%	3%	3%	2%	1%	7%	0%	7%	0%	11	3%	4%	
Other	9%	22%	7%	3%	11%	6%	7%	4%	6%	8%	12%	6%	12%	6%	13%	7%	5%	40	10%	9%	
Refused	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1	0%	0%	
Don't know	1%	0%	0%	3%	0%	0%	1%	1%	5%	0%	1%	0%	4%	0%	1%	1%	4%	6	1%	1%	
N	414	49	31	54	53	35	50	44	50	48	93	113	109	99	185	186	43	414	109%	109%	

DM1. Which of the following statements best describes your organization's decision-making about whether to participate in the CPP Program?	Business Type										Business Size				Utility			Number of Respondents	Percent of Respondents	Percent of Premises
	Total	Office	Retail/Grocery	Institutional	Other Commercial	Transportation, Communication, Utility	Petroleum, Plastic, Rubber and Chemicals	Mining, Metals, Stone, Glass, Concrete	Electronic, Machinery, and Fabricated Metals	Other Industrial and Agriculture	Extra Large (2000+ kW)	Large (1000-2000 kW)	Medium (500-1000 kW)	Small (100/200-500 kW) *	PG&E	SCE	SDG&E			
Have decided to participate in CPP	3%	0%	3%	1%	5%	7%	1%	3%	4%	5%	2%	5%	5%	3%	4%	1%	11%	21	4%	4%
Have decided not to participate in CPP	38%	56%	15%	45%	30%	41%	22%	53%	27%	40%	48%	38%	35%	29%	28%	47%	33%	167	33%	36%
Still deciding on whether to participate	22%	25%	32%	23%	21%	9%	12%	25%	31%	20%	15%	25%	22%	28%	26%	18%	24%	136	27%	24%
Unfamiliar with CPP program	35%	19%	47%	30%	42%	43%	65%	17%	38%	30%	35%	28%	37%	39%	40%	33%	29%	168	34%	35%
Refused	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%	0%	1%	0%	0%	0%	0%	0%	1	0%	0%
Don't know	1%	0%	3%	0%	2%	0%	0%	0%	0%	5%	0%	4%	1%	1%	2%	1%	3%	7	1%	1%
N	500	60	37	66	62	51	57	54	59	54	114	133	127	126	226	224	50	500	100%	100%

DM1.** The statement that best describes your organization's decision-making about whether to participate in the CPP Program.	Business Type										Business Size				Utility			Number of Respondents	Percent of Respondents	Percent of Premises
	Total	Office	Retail/Grocery	Institutional	Other Commercial	Transportation, Communication, Utility	Petroleum, Plastic, Rubber and Chemicals	Mining, Metals, Stone, Glass, Concrete	Electronic, Machinery, and Fabricated Metals	Other Industrial and Agriculture	Extra Large (2000+ kW)	Large (1000-2000 kW)	Medium (500-1000 kW)	Small (100/200-500 kW) *	PG&E	SCE	SDG&E			
Have decided to participate in CPP	3%	0%	3%	1%	5%	7%	1%	3%	4%	5%	2%	5%	5%	3%	4%	1%	11%	21	4%	4%
Have decided not to participate in CPP	38%	56%	15%	45%	30%	41%	22%	53%	27%	40%	48%	38%	35%	29%	28%	47%	33%	167	33%	36%
Still deciding, but likely to participate in CPP	3%	2%	4%	5%	3%	1%	1%	12%	3%	1%	4%	0%	6%	2%	4%	3%	1%	20	4%	3%
Still deciding, but likely to participate in another program	8%	11%	13%	9%	5%	3%	4%	2%	7%	9%	4%	10%	6%	11%	8%	8%	4%	39	8%	8%
Still deciding and unsure if we will participate in CPP	6%	4%	1%	5%	8%	3%	2%	3%	13%	7%	3%	10%	7%	4%	7%	5%	4%	43	9%	6%
Still deciding, but unlikely to participate in CPP	6%	8%	14%	4%	4%	2%	4%	8%	8%	2%	4%	4%	3%	11%	7%	3%	15%	34	7%	7%
Unfamiliar with CPP program	35%	19%	47%	30%	42%	43%	65%	17%	38%	30%	35%	28%	37%	39%	40%	33%	29%	168	34%	35%
Refused	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%	0%	1%	0%	0%	0%	0%	0%	1	0%	0%
Don't know	1%	0%	3%	0%	2%	0%	0%	0%	0%	5%	0%	4%	1%	1%	2%	1%	3%	7	1%	1%
N	500	60	37	66	62	51	57	54	59	54	114	133	127	126	226	224	50	500	100%	100%

** DM1 was backfilled with questions DM4 and DM4a.

DM2. Which of the following statements best describes your organization's decision-making about whether to participate in the DBP Program?	Business Type										Business Size				Utility			Number of Respondents	Percent of Respondents	Percent of Premises
	Total	Office	Retail/Grocery	Institutional	Other Commercial	Transportation, Communication, Utility	Petroleum, Plastic, Rubber and Chemicals	Mining, Metals, Stone, Glass, Concrete	Electronic, Machinery, and Fabricated Metals	Other Industrial and Agriculture	Extra Large (2000+ kW)	Large (1000-2000 kW)	Medium (500-1000 kW)	Small (100/200-500 kW) *	PG&E	SCE	SDG&E			
Have decided to participate in DBP	4%	1%	9%	5%	5%	22%	2%	3%	2%	1%	2%	4%	8%	5%	1%	7%	6%	20	4%	5%
Have decided not to participate in DBP	35%	42%	29%	37%	27%	19%	31%	61%	31%	39%	56%	29%	28%	23%	28%	46%	15%	142	28%	36%
Still deciding on whether to participate	20%	13%	18%	26%	22%	10%	7%	19%	35%	22%	18%	26%	21%	18%	22%	18%	19%	120	24%	21%
Unfamiliar with DBP program	39%	45%	44%	32%	43%	49%	60%	15%	30%	34%	24%	38%	41%	53%	47%	28%	55%	209	42%	38%
Refused	0%	0%	0%	0%	0%	0%	1%	2%	0%	0%	0%	1%	0%	0%	0%	0%	0%	2	0%	0%
Don't know	1%	0%	0%	0%	3%	0%	0%	1%	1%	3%	0%	2%	1%	1%	1%	0%	5%	7	1%	1%
N	500	60	37	66	62	51	57	54	59	54	114	133	127	126	226	224	50	500	100%	100%

DM2.** The statement that best describes your organization's decision-making about whether to participate in the DBP Program.	Business Type										Business Size				Utility			Number of Respondents	Percent of Respondents	Percent of Premises
	Total	Office	Retail/Grocery	Institutional	Other Commercial	Transportation, Communication, Utility	Petroleum, Plastic, Rubber and Chemicals	Mining, Metals, Stone, Glass, Concrete	Electronic, Machinery, and Fabricated Metals	Other Industrial and Agriculture	Extra Large (2000+ kW)	Large (1000-2000 kW)	Medium (500-1000 kW)	Small (100/200-500 kW) *	PG&E	SCE	SDG&E			
Have decided to participate in DBP	4%	1%	9%	5%	5%	22%	2%	3%	2%	1%	2%	4%	8%	5%	1%	7%	6%	20	4%	5%
Have decided not to participate in DBP	35%	42%	29%	37%	27%	19%	31%	61%	31%	39%	56%	29%	28%	23%	28%	46%	15%	142	29%	36%
Still deciding, but likely to participate in DBP	6%	5%	8%	10%	3%	3%	4%	2%	9%	6%	2%	9%	5%	9%	6%	6%	2%	32	6%	6%
Still deciding, but likely to participate in another program	5%	1%	6%	4%	6%	0%	2%	9%	5%	7%	7%	3%	9%	0%	7%	3%	4%	25	5%	5%
Still deciding and unsure if we will participate in DBP	6%	2%	2%	10%	13%	4%	0%	2%	11%	5%	6%	7%	6%	6%	5%	7%	9%	38	8%	6%
Still deciding, but unlikely to participate in DBP	3%	5%	2%	1%	0%	3%	1%	5%	10%	4%	3%	7%	2%	3%	4%	3%	4%	25	5%	4%
Unfamiliar with DBP program	39%	45%	44%	32%	43%	49%	60%	15%	30%	34%	24%	38%	41%	53%	47%	28%	55%	209	42%	38%
Refused	0%	0%	0%	0%	0%	0%	1%	2%	0%	0%	0%	1%	0%	0%	0%	0%	0%	2	0%	0%
Don't know	1%	0%	0%	0%	3%	0%	0%	1%	1%	3%	0%	2%	1%	1%	1%	0%	5%	7	1%	1%
N	500	60	37	66	62	51	57	54	59	54	114	133	127	126	226	224	50	493	100%	99%

** DM2 was backfilled with questions DM4 and DM4a.

DM3. Which of the following statements best describes your organization's decision-making about whether to participate in the HPO Program?	Business Type										Business Size				Utility			Number of Respondents	Percent of Respondents	Percent of Premises
	Total	Office	Retail/Grocery	Institutional	Other Commercial	Transportation, Communication, Utility	Petroleum, Plastic, Rubber and Chemicals	Mining, Metals, Stone, Glass, Concrete	Electronic, Machinery, and Fabricated Metals	Other Industrial and Agriculture	Extra Large (2000+ kW)	Large (1000-2000 kW)	Medium (500-1000 kW)	Small (100/200-500 kW) *	PG&E	SCE	SDG&E			
Have decided to participate in HPO	1%	0%	0%	0%	0%	0%	0%	9%	0%	0%	5%	0%	0%	0%	0%	0%	1%	1	2%	1%
Have decided not to participate in HPO	16%	14%	0%	23%	9%	55%	0%	0%	26%	0%	57%	23%	14%	7%	0%	0%	16%	10	20%	28%
Still deciding on whether to participate	10%	7%	13%	0%	7%	4%	32%	0%	45%	16%	0%	45%	10%	3%	0%	0%	10%	9	18%	10%
Unfamiliar with HPO program	73%	79%	87%	77%	84%	41%	68%	100%	21%	84%	43%	27%	75%	90%	0%	0%	73%	30	60%	61%
N	50	8	3	7	9	7	5	2	5	4	9	12	13	16	0	0	50	50	100%	100%

DM3.** The statement that best describes your organization's decision-making about whether to participate in the HPO Program.	Business Type										Business Size				Utility			Number of Respondents	Percent of Respondents	Percent of Premises
	Total	Office	Retail/Grocery	Institutional	Other Commercial	Transportation, Communication, Utility	Petroleum, Plastic, Rubber and Chemicals	Mining, Metals, Stone, Glass, Concrete	Electronic, Machinery, and Fabricated Metals	Other Industrial and Agriculture	Extra Large (2000+ kW)	Large (1000-2000 kW)	Medium (500-1000 kW)	Small (100/200-500 kW) *	PG&E	SCE	SDG&E			
Have decided to participate in HPO	1%	0%	0%	0%	0%	0%	0%	9%	0%	0%	5%	0%	0%	0%	0%	0%	1%	1	2%	1%
Have decided not to participate in HPO	16%	14%	0%	23%	9%	55%	0%	0%	26%	0%	57%	23%	14%	7%	0%	0%	16%	10	20%	28%
Still deciding, but unlikely to participate	73%	79%	87%	77%	84%	41%	68%	100%	21%	84%	43%	27%	75%	90%	0%	0%	73%	30	60%	61%
Unfamiliar with HPO program	10%	7%	13%	0%	7%	4%	32%	0%	45%	16%	0%	45%	10%	3%	0%	0%	10%	9	18%	10%
N	50	8	3	7	9	7	5	2	5	4	9	12	13	16	0	0	50	50	100%	100%

** DM3 was backfilled with questions DM4 and DM4a.

DM4. With the information you have as of today, how likely would say your organization is to participate in one of these new demand response programs for this location?	Total	Business Type									Business Size				Utility			Number of Respondents	Percent of Respondents	Percent of Premises
		Office	Retail/Grocery	Institutional	Other Commercial	Transportation, Communication, Utility	Petroleum, Plastic, Rubber and Chemicals	Mining, Metals, Stone, Glass, Concrete	Electronic, Machinery, and Fabricated Metals	Other Industrial and Agriculture	Extra Large (2000+ kW)	Large (1000-2000 kW)	Medium (500-1000 kW)	Small (100/200-500 kW) *	PG&E	SCE	SDG&E			
Highly likely	15%	14%	4%	29%	25%	7%	5%	5%	11%	10%	21%	8%	12%	18%	14%	16%	15%	26	12%	13%
Somewhat likely	26%	25%	53%	25%	12%	14%	37%	43%	22%	23%	16%	25%	39%	26%	27%	30%	12%	60	28%	28%
Not sure	26%	24%	5%	27%	39%	30%	15%	9%	28%	34%	23%	30%	30%	24%	26%	25%	31%	61	28%	26%
Somewhat unlikely	17%	14%	32%	7%	12%	14%	23%	28%	24%	17%	19%	23%	7%	19%	18%	16%	20%	35	16%	20%
Very unlikely	12%	22%	6%	2%	9%	36%	17%	15%	10%	16%	18%	4%	11%	14%	14%	7%	21%	28	13%	11%
Refused	0%	0%	0%	0%	0%	0%	3%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	1	0%	0%
Don't know	3%	0%	0%	10%	3%	0%	0%	0%	5%	0%	3%	10%	0%	0%	1%	6%	0%	6	3%	2%
N	217	26	21	30	27	17	18	24	31	23	48	60	53	56	104	88	25	217	100%	100%

DM4.** Likelihood of participating in one of the new demand response programs.	Total	Business Type									Business Size				Utility			Number of Respondents	Percent of Respondents	Percent of Premises
		Office	Retail/Grocery	Institutional	Other Commercial	Transportation, Communication, Utility	Petroleum, Plastic, Rubber and Chemicals	Mining, Metals, Stone, Glass, Concrete	Electronic, Machinery, and Fabricated Metals	Other Industrial and Agriculture	Extra Large (2000+ kW)	Large (1000-2000 kW)	Medium (500-1000 kW)	Small (100/200-500 kW) *	PG&E	SCE	SDG&E			
Highly likely	10%	5%	11%	17%	12%	25%	4%	6%	7%	8%	7%	9%	14%	12%	8%	11%	14%	52	10%	10%
Somewhat likely	9%	8%	13%	11%	5%	3%	4%	14%	11%	10%	4%	11%	11%	10%	11%	8%	4%	54	11%	10%
Not sure	10%	5%	2%	13%	16%	5%	3%	3%	16%	13%	8%	15%	10%	8%	10%	8%	14%	63	13%	9%
Somewhat unlikely	6%	5%	14%	3%	5%	3%	4%	9%	10%	7%	6%	11%	2%	8%	8%	5%	9%	34	7%	7%
Very unlikely	41%	60%	34%	41%	29%	30%	30%	63%	38%	42%	55%	32%	38%	34%	35%	48%	34%	179	36%	40%
Unfamiliar	24%	17%	26%	15%	34%	35%	55%	6%	18%	20%	20%	23%	24%	29%	28%	21%	25%	118	24%	23%
N	500	60	37	66	62	51	57	54	59	54	114	133	127	126	226	224	50	500	100%	100%

** DM4 was backfilled with questions DM1, DM2 and DM3.

if DM1, DM2 or DM3=1 then DM4=Highly likely

if DM1, DM2 and DM3=2 then DM4=Highly unlikely

DM4a. Which demand response program are you most likely to participate in?	Total	Business Type										Business Size				Utility			Number of Respondents	Percent of Respondents	Percent of Premises
		Office	Retail/Grocery	Institutional	Other Commercial	Transportation, Communication, Utility	Petroleum, Plastic, Rubber and Chemicals	Mining, Metals, Stone, Glass, Concrete	Electronic, Machinery, and Fabricated Metals	Other Industrial and Agriculture	Extra Large (2000+ kW)	Large (1000-2000 kW)	Medium (500-1000 kW)	Small (100/200-500 kW) *	PG&E	SCE	SDG&E				
Critical Peak Pricing	30%	16%	28%	26%	38%	32%	12%	81%	29%	23%	44%	12%	42%	20%	35%	22%	46%	26	30%	28%	
Demand Bidding	50%	36%	62%	66%	37%	68%	52%	11%	53%	47%	25%	66%	40%	65%	40%	66%	20%	39	45%	50%	
CPA Demand Reserves Program	6%	36%	0%	5%	0%	0%	17%	0%	0%	0%	8%	0%	0%	13%	12%	0%	0%	3	3%	6%	
Already in one	1%	0%	0%	0%	0%	0%	0%	0%	0%	3%	0%	3%	0%	0%	0%	0%	7%	1	1%	0%	
20E	1%	0%	0%	0%	0%	0%	0%	0%	0%	7%	0%	6%	0%	0%	2%	0%	0%	1	1%	1%	
I6	1%	0%	0%	0%	0%	0%	0%	0%	10%	0%	0%	6%	0%	0%	0%	2%	0%	1	1%	1%	
Other	1%	7%	0%	0%	0%	0%	0%	0%	0%	0%	0%	5%	0%	0%	2%	0%	0%	1	1%	1%	
Don't know	11%	5%	11%	2%	25%	0%	19%	8%	8%	19%	23%	2%	18%	2%	9%	10%	26%	14	16%	14%	
N	86	9	11	16	9	4	8	10	11	8	19	24	22	21	45	31	10	86	100%	100%	

PA1. What are the reasons your organization either decided to sign up or is likely to sign up for this demand response program for this location?	Business Type													Business Size				Utility			Likely to Participate in CPP	Likely to Participate in DBP	Number of Respondents	Percent of Respondents	Percent of Premises
	Total	Office	Retail/Grocery	Institutional	Other Commercial	Transportation, Communication, Utility	Petroleum, Plastic, Rubber and Chemicals	Mining, Metals, Stone, Glass, Concrete	Electronic, Machinery, and Fabricated Metals	Other Industrial and Agriculture	Extra Large (2000+ kW)	Large (1000-2000 kW)	Medium (500-1000 kW)	Small (100/200-500 kW) *	PG&E	SCE	SDG&E								
Lower energy bill	55%	49%	51%	54%	46%	91%	57%	74%	12%	73%	61%	55%	38%	69%	58%	51%	66%	74%	49%	55	49%	57%			
Avoid blackouts/outages	19%	13%	35%	21%	20%	3%	4%	47%	25%	0%	24%	17%	17%	18%	29%	12%	3%	22%	18%	18	16%	18%			
No risks/penalties	25%	37%	20%	18%	25%	56%	31%	6%	51%	0%	15%	21%	9%	46%	27%	21%	32%	6%	33%	19	17%	22%			
Fits our operation	13%	12%	15%	12%	17%	3%	27%	6%	16%	15%	11%	15%	16%	11%	20%	8%	10%	19%	9%	19	17%	13%			
Other	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1	1%	0%			
Don't know	5%	2%	0%	2%	21%	0%	21%	2%	3%	0%	8%	4%	5%	2%	8%	1%	7%	7%	3%	11	10%	5%			
N	112	10	13	19	14	8	11	14	13	10	23	33	31	25	51	46	15	43	57	112	112	112			

PA2. How much demand reduction are you likely to provide this summer during the DR program periods?	Business Type													Business Size				Utility			Number of Respondents	Percent of Respondents	Percent of Premises
	Total	Office	Retail/Grocery	Institutional	Other Commercial	Transportation, Communication, Utility	Petroleum, Plastic, Rubber and Chemicals	Mining, Metals, Stone, Glass, Concrete	Electronic, Machinery, and Fabricated Metals	Other Industrial and Agriculture	Extra Large (2000+ kW)	Large (1000-2000 kW)	Medium (500-1000 kW)	Small (100/200-500 kW) *	PG&E	SCE	SDG&E						
0 percent	6%	2%	2%	2%	2%	0%	4%	8%	0%	27%	2%	2%	1%	14%	2%	10%	0%	8	7%	6%			
1 to 5 percent	17%	33%	14%	25%	20%	5%	3%	4%	34%	3%	15%	30%	16%	14%	19%	10%	48%	21	19%	15%			
6 to 10 percent	33%	41%	11%	41%	29%	78%	42%	59%	27%	0%	32%	24%	35%	36%	33%	35%	23%	25	22%	34%			
11 to 20 percent	7%	7%	9%	8%	8%	9%	19%	7%	0%	0%	6%	10%	3%	9%	10%	4%	6%	12	11%	7%			
20 to 50 percent	14%	0%	36%	20%	0%	1%	31%	5%	3%	20%	6%	15%	20%	11%	6%	23%	0%	14	13%	13%			
Over 50 percent	12%	0%	0%	0%	26%	4%	0%	6%	12%	50%	21%	10%	20%	1%	17%	8%	12%	12	11%	15%			
Don't know	12%	18%	28%	5%	15%	3%	0%	12%	25%	0%	18%	8%	6%	15%	13%	10%	11%	20	18%	11%			
N	112	10	13	19	14	8	11	14	13	10	23	33	31	25	51	46	15	112	###	100%			

NP1. What are the reasons why your organization is either unlikely or uncertain to participate in these new demand response programs?	Business Type										Business Size				Utility			Number of Respondents	Percent of Respondents	Percent of Premises
	Total	Office	Retail/Grocery	Institutional	Other Commercial	Transportation, Communication, Utility	Petroleum, Plastic, Rubber and Chemicals	Mining, Metals, Stone, Glass, Concrete	Electronic, Machinery, and Fabricated Metals	Other Industrial and Agriculture	Extra Large (2000+ kW)	Large (1000-2000 kW)	Medium (500-1000 kW)	Small (100/200-500 kW) *	PG&E	SCE	SDG&E			
Comfort Reasons																				
Concerns over potential effects on occupants	12%	19%	1%	29%	30%	0%	6%	4%	0%	1%	14%	10%	10%	12%	10%	14%	10%	31	11%	11%
Financial Reasons																				
Concerns over potential effects on production	17%	7%	3%	5%	18%	25%	25%	8%	23%	37%	13%	32%	20%	11%	19%	16%	12%	56	20%	17%
Lack of automated systems/person to carry out	2%	3%	1%	1%	0%	2%	0%	1%	4%	4%	3%	2%	3%	1%	4%	1%	0%	10	4%	2%
Concerns over level of potential financial incentive	17%	3%	39%	32%	0%	13%	11%	54%	8%	13%	30%	10%	5%	14%	8%	28%	3%	33	12%	17%
Concerns over risks associated with demand response	4%	9%	13%	3%	3%	0%	0%	0%	9%	0%	2%	3%	6%	5%	1%	4%	16%	8	3%	4%
Can not or unwilling to change load	26%	35%	20%	25%	23%	15%	15%	63%	20%	11%	30%	23%	22%	24%	24%	30%	12%	68	24%	27%
Not enough flexibility	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0	0%	0%
Information Reasons																				
Inadequate information/knowledge on how programs work	4%	2%	3%	10%	7%	0%	3%	0%	2%	4%	1%	7%	3%	5%	4%	1%	15%	9	3%	4%
Inadequate information on demand response	10%	6%	6%	10%	16%	4%	13%	4%	25%	4%	6%	10%	16%	9%	11%	8%	11%	41	15%	9%
Conflict Reasons																				
Permit limitations on running backup generators	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0	0%	0%
Were told we were ineligible/program does not apply	9%	11%	0%	3%	13%	5%	22%	0%	1%	19%	13%	2%	20%	0%	10%	8%	7%	19	7%	8%
Currently on another program/taking off-peak actions	6%	7%	3%	9%	0%	13%	2%	5%	12%	3%	6%	5%	2%	10%	5%	6%	12%	15	5%	7%
Other Reasons																				
Concerns over complexity of demand response	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0	0%	0%
Other	5%	4%	28%	1%	3%	5%	3%	1%	10%	0%	0%	2%	4%	13%	11%	1%	0%	11	4%	5%
Refused	0%	0%	0%	0%	0%	1%	2%	0%	0%	0%	0%	0%	1%	0%	0%	0%	1%	2	1%	0%
Don't know	6%	4%	0%	0%	3%	26%	2%	13%	5%	7%	5%	7%	6%	6%	6%	6%	6%	16	6%	7%
N	280	40	15	34	31	28	27	34	36	35	71	74	69	66	123	127	30	280	280	280

BA. How significant are the following concerns about DR program participation (on a scale of 1 to 5, where 1 indicates insignificant and 5 indicates extremely significant)	Total	Business Type										Business Size				Utility			Number of Respondents	Percent of Respondents	Percent of Premises
		Office	Retail/Grocery	Institutional	Other Commercial	Transportation, Communication, Utility	Petroleum, Plastic, Rubber and Chemicals	Mining, Metals, Stone, Glass, Concrete	Electronic, Machinery, and Fabricated Metals	Other Industrial and Agriculture	Extra Large (2000+ kW)	Large (1000-2000 kW)	Medium (500-1000 kW)	Small (100/200-500 kW) *	PG&E	SCE	SDG&E				
Effects on occupant comfort	3.46	4.46	3.66	4.48	3.94	2.45	2.70	1.88	3.63	2.41	3.00	3.47	3.89	3.62	3.30	3.43	4.32	491	3.37	3.416	
Effects on products or productivity	4.10	3.75	4.56	3.58	3.89	3.96	4.67	4.30	4.79	4.11	4.23	4.06	3.91	4.15	4.01	4.13	4.39	488	4.07	4.124	
Inability to adequately manage and monitor peak reductions	3.54	3.83	4.02	3.91	3.62	3.24	2.77	2.86	3.54	3.35	2.97	3.49	3.60	4.11	3.28	3.70	3.90	487	3.54	3.521	
Need for more information on how to achieve demand reductions	3.18	3.23	3.48	3.24	3.43	2.53	3.58	2.33	3.19	3.11	2.63	3.19	3.33	3.64	3.20	3.10	3.52	494	3.29	3.155	
Permit regulations that limit the running of backup generators	3.42	3.80	3.58	3.35	3.22	3.16	3.25	3.43	2.97	3.64	3.58	3.63	3.16	3.31	3.35	3.44	3.58	478	3.32	3.413	
Amount of potential bill savings	3.92	3.86	4.14	4.14	3.88	3.97	3.62	3.94	3.58	4.03	3.69	3.78	3.93	4.24	3.78	4.03	4.07	491	3.84	3.924	
Complexity of program rules	3.44	3.43	3.97	3.20	3.89	3.77	2.81	2.85	3.40	3.42	2.94	3.41	3.65	3.83	3.43	3.37	3.87	483	3.48	3.426	
Level of on-peak prices or non-performance penalties	3.93	3.89	4.43	4.01	4.17	3.82	3.72	3.64	3.96	3.62	3.64	3.83	4.04	4.19	3.74	4.06	4.05	488	3.83	3.939	
Inadequate program information	2.99	3.09	3.12	2.80	3.26	2.57	3.50	2.44	2.88	2.98	2.61	3.00	3.18	3.25	2.99	2.90	3.51	483	3.07	2.926	
Uncertainty over future changes in program price signals and rules	3.79	3.73	4.48	3.89	3.90	3.47	3.74	3.69	3.82	3.42	3.59	3.66	3.88	4.00	3.47	4.04	3.93	493	3.69	3.739	
Time and effort it takes to participate	3.31	3.32	3.69	3.07	3.41	3.28	3.52	2.97	3.12	3.39	3.31	3.14	3.23	3.47	3.28	3.32	3.43	488	3.17	3.287	
Inability to reduce peak loads	3.91	3.80	4.25	4.08	3.75	3.23	4.15	3.83	4.19	3.84	3.75	3.92	3.81	4.15	3.85	3.95	3.97	492	3.85	3.932	
N	491	60	36	65	62	49	56	54	57	52	111	132	123	125	222	221	48	493	491	491	

CA1. Percent of normal summer afternoon peak demand that your company is willing to reduce a few hours on roughly four weekdays in the summer, provided you were notified the day before and you were give sufficient financial motivation	Business Type										Business Size				Utility			Number of Respondents	Percent of Respondents	Percent of Premises
	Total	Office	Retail/Grocery	Institutional	Other Commercial	Transportation, Communication, Utility	Petroleum, Plastic, Rubber and Chemicals	Mining, Metals, Stone, Glass, Concrete	Electronic, Machinery, and Fabricated Metals	Other Industrial and Agriculture	Extra Large (2000+ kW)	Large (1000-2000 kW)	Medium (500-1000 kW)	Small (100/200-500 kW) *	PG&E	SCE	SDG&E			
0 percent	26%	22%	28%	29%	26%	21%	39%	10%	31%	27%	28%	28%	25%	24%	26%	27%	23%	124	25%	26%
1 to 5 percent	16%	19%	26%	10%	14%	3%	11%	19%	25%	17%	12%	18%	18%	18%	18%	15%	12%	81	16%	17%
6 to 10 percent	15%	19%	21%	16%	21%	5%	10%	12%	17%	10%	20%	14%	11%	15%	19%	12%	15%	68	14%	15%
11 to 20 percent	8%	10%	3%	8%	7%	14%	9%	7%	9%	7%	8%	10%	11%	4%	7%	7%	17%	48	10%	8%
20 to 50 percent	9%	7%	11%	9%	3%	11%	14%	4%	6%	18%	12%	8%	16%	3%	12%	7%	11%	55	11%	9%
Over 50 percent	10%	3%	1%	8%	10%	36%	15%	5%	2%	14%	10%	10%	8%	9%	9%	11%	1%	52	10%	9%
Refused	0%	0%	0%	0%	0%	1%	1%	2%	0%	0%	0%	1%	0%	0%	0%	0%	0%	4	1%	0%
Don't know	15%	20%	10%	20%	18%	8%	2%	41%	11%	8%	10%	13%	11%	25%	9%	19%	21%	68	14%	15%
N	500	60	37	66	62	51	57	54	59	54	114	133	127	126	226	224	50	500	100%	100%
Mean	0.14	0.09	0.08	0.13	0.13	0.34	0.19	0.09	0.07	0.19	0.15	0.14	0.15	0.11	0.15	0.14	0.10	-	0.15	0.13

CA2A-D. If the motivation were sufficient, which of the following temporary demand reduction actions would you be willing to consider for a few hours on roughly four weekdays in the summer....	Business Type										Business Size				Utility			Likely to Participate in CPP	Likely to Participate in DBP	Likely to Participate in CPP or DBP	Number of Respondents
	Total	Office	Retail/Grocery	Institutional	Other Commercial	Transportation, Communication, Utility	Petroleum, Plastic, Rubber and Chemicals	Mining, Metals, Stone, Glass, Concrete	Electronic, Machinery, and Fabricated Metals	Other Industrial and Agriculture	Extra Large (2000+ kW)	Large (1000-2000 kW)	Medium (500-1000 kW)	Small (100/200-500 kW) *	PG&E	SCE	SDG&E				
Allow the temperature to rise in the occupied space	72%	57%	76%	70%	66%	68%	88%	93%	87%	66%	64%	71%	77%	76%	69%	74%	74%	63%	93%	82%	358
Shut off a portion of the air conditioning system	64%	47%	56%	62%	63%	68%	85%	79%	75%	60%	67%	46%	63%	72%	55%	69%	75%	79%	81%	80%	301
Reduce the overhead lighting	79%	77%	89%	71%	78%	74%	88%	92%	89%	68%	81%	74%	77%	81%	78%	82%	64%	81%	92%	88%	385
Reduce or shut off some or all production processes	31%	5%	17%	15%	18%	58%	43%	57%	16%	48%	41%	30%	29%	20%	34%	31%	18%	42%	33%	39%	132
CA2E. Any other actions?																					
No other actions	82%	75%	82%	71%	79%	82%	89%	81%	85%	94%	76%	81%	81%	88%	82%	82%	77%	73%	85%	82%	393
Turn off uncritical equipment	4%	17%	0%	1%	5%	0%	1%	1%	0%	0%	5%	1%	4%	3%	8%	1%	1%	6%	2%	3%	15
Shut down some potentially critical equipment	2%	1%	0%	4%	2%	5%	0%	8%	0%	0%	2%	1%	3%	1%	2%	6%	8%	0%	3%	7	
Reduce consumption somewhat	4%	2%	5%	18%	0%	0%	0%	2%	0%	2%	7%	1%	3%	2%	2%	6%	3%	0%	5%	3%	10
Building envelope modifications, improve efficiency of equipment	1%	0%	2%	0%	3%	0%	1%	0%	3%	0%	1%	0%	0%	2%	0%	1%	5%	6%	1%	3%	7
Shut down completely/send people home	1%	0%	0%	0%	2%	2%	1%	0%	0%	0%	0%	3%	0%	0%	1%	0%	1%	0%	0%	0%	4
Use back up generators, cogeneration	2%	2%	1%	4%	7%	4%	1%	1%	0%	0%	5%	3%	1%	0%	4%	1%	5%	4%	2%	1%	18
Change schedule	3%	3%	6%	1%	0%	3%	7%	4%	7%	1%	1%	5%	5%	3%	2%	4%	0%	0%	5%	3%	24
Other	1%	0%	4%	0%	2%	3%	1%	1%	2%	0%	1%	2%	1%	0%	2%	0%	2%	0%	1%	1%	10
Refused	0%	0%	0%	0%	0%	1%	2%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	4
Don't know	1%	0%	0%	0%	0%	0%	0%	0%	3%	3%	0%	3%	1%	0%	0%	1%	3%	2%	0%	1%	8
N	500	60	37	66	62	51	57	54	59	54	114	133	127	126	226	224	50	43	57	106	500

CA3A-C. Which of the following energy information, management, load monitoring, and control capabilities do you have for this location?	Business Type													Business Size				Utility			Likely to Participate in CPP	Likely to Participate in DBP	Likely to Participate in CPP or DBP	Number of Respondents	Percent of Respondents
	Total	Office	Retail/Grocery	Institutional	Other Commercial	Transportation, Communication, Utility	Petroleum, Plastic, Rubber and Chemicals	Mining, Metals, Stone, Glass, Concrete	Electronic, Machinery, and Fabricated Metals	Other Industrial and Agriculture	Extra Large (2000+ kW)	Large (1000-2000 kW)	Medium (500-1000 kW)	Small (100/200-500 kW) *	PC&E	SCE	SDC&E								
View hourly demand on an in-house energy info system	41%	33%	45%	56%	36%	41%	45%	55%	44%	29%	61%	43%	34%	25%	38%	45%	32%	44%	51%	46%	182	36%			
View hourly demand on your utility's website	59%	51%	32%	62%	54%	60%	73%	85%	61%	68%	83%	64%	57%	34%	60%	61%	51%	76%	59%	66%	291	58%			
Automatically control energy load	54%	73%	79%	71%	53%	60%	14%	59%	40%	31%	58%	47%	60%	49%	49%	60%	44%	71%	66%	67%	231	46%			
Refused	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1	0%			
Don't know	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0	0%			
N	500	60	37	66	62	51	57	54	59	54	114	133	127	126	226	224	50	43	57	106	500	141%			

EA4. How did you hear about the Enhanced Automation campaign?	Total	Business Type										Business Size				Utility			Number of Respondents	Percent of Respondents	Percent of Premises
		Office	Retail/Grocery	Institutional	Other Commercial	Transportation, Communication, Utility	Petroleum, Plastic, Rubber and Chemicals	Mining, Metals, Stone, Glass, Concrete	Electronic, Machinery, and Fabricated Metals	Other Industrial and Agriculture	Extra Large (2000+ kW)	Large (1000-2000 kW)	Medium (500-1000 kW)	Small (100/200-500 kW) *	PG&E	SCE	SDG&E				
Vendor	11%	0%	43%	0%	0%	0%	36%	0%	0%	0%	0%	7%	44%	7%	0%	20%	0%	3	7%	15%	
Utility representative	22%	11%	48%	0%	17%	41%	35%	25%	43%	0%	17%	3%	46%	26%	30%	18%	0%	13	29%	21%	
Colleague or trade association	7%	18%	0%	0%	17%	0%	23%	0%	0%	0%	12%	7%	0%	6%	9%	5%	14%	5	11%	7%	
Browsing/searching the internet	9%	18%	0%	6%	35%	0%	0%	14%	0%	0%	28%	13%	0%	0%	17%	5%	0%	4	9%	10%	
In the mail	22%	45%	0%	9%	35%	59%	7%	51%	33%	100%	48%	43%	4%	3%	31%	18%	0%	10	22%	23%	
Utility seminar	21%	0%	0%	57%	9%	0%	11%	10%	24%	0%	5%	30%	0%	36%	19%	19%	86%	7	16%	20%	
Emails	10%	26%	0%	28%	4%	0%	0%	0%	0%	0%	7%	0%	4%	20%	4%	15%	0%	3	7%	9%	
Other	1%	0%	0%	0%	0%	0%	9%	0%	0%	0%	0%	0%	6%	0%	0%	2%	0%	1	2%	1%	
Don't know	4%	0%	9%	0%	18%	0%	0%	0%	0%	0%	7%	2%	0%	7%	6%	3%	0%	3	7%	4%	
N	45	4	5	6	7	2	9	7	4	1	11	14	6	14	19	24	2	45	109%	110%	

EA5. What, if any information did you receive directly from the Enhanced Automation Program?	Total	Business Type										Business Size				Utility			Number of Respondents	Percent of Respondents	Percent of Premises
		Office	Retail/Grocery	Institutional	Other Commercial	Transportation, Communication, Utility	Petroleum, Plastic, Rubber and Chemicals	Mining, Metals, Stone, Glass, Concrete	Electronic, Machinery, and Fabricated Metals	Other Industrial and Agriculture	Extra Large (2000+ kW)	Large (1000-2000 kW)	Medium (500-1000 kW)	Small (100/200-500 kW) *	PG&E	SCE	SDG&E				
Brochure(s)	44%	74%	19%	43%	52%	59%	36%	31%	57%	100%	40%	61%	20%	47%	39%	46%	86%	17	38%	43%	
Case studies	14%	18%	21%	0%	35%	0%	0%	10%	33%	0%	37%	8%	22%	0%	25%	7%	0%	5	11%	13%	
Business case guidebook	22%	0%	21%	36%	35%	59%	14%	0%	0%	0%	24%	6%	22%	30%	24%	22%	0%	5	11%	19%	
Technical options guidebook	21%	18%	21%	36%	35%	41%	0%	0%	0%	0%	24%	5%	22%	28%	26%	19%	0%	5	11%	18%	
Guidebooks (don't know which one)	4%	0%	0%	0%	0%	0%	0%	14%	33%	0%	13%	0%	0%	2%	2%	5%	0%	2	4%	3%	
Technical assistance	18%	45%	21%	0%	52%	59%	14%	0%	0%	0%	37%	20%	22%	4%	38%	5%	0%	6	13%	18%	
Visited website	10%	63%	0%	0%	35%	0%	0%	0%	0%	0%	24%	19%	0%	0%	22%	2%	0%	3	7%	11%	
No materials, just heard about it	24%	0%	52%	6%	19%	0%	40%	24%	43%	0%	18%	15%	53%	20%	18%	29%	0%	13	29%	26%	
Other	10%	26%	0%	23%	9%	0%	3%	0%	0%	0%	18%	9%	0%	10%	20%	3%	14%	5	11%	10%	
Don't know	14%	0%	8%	28%	3%	0%	20%	35%	0%	0%	11%	13%	6%	20%	3%	22%	0%	6	13%	13%	
N	45	4	5	6	7	2	9	7	4	1	11	14	6	14	19	24	2	45	149%	174%	

	Total	Business Type									Business Size				Utility			Number of Respondents	Percent of Respondents	Percent of Premises															
		Office	Retail/Grocery	Institutional	Other Commercial	Transportation, Communication, Utility	Petroleum, Plastic, Rubber and Chemicals	Mining, Metals, Stone, Glass, Concrete	Electronic, Machinery, and Fabricated Metals	Other Industrial and Agriculture	Extra Large (2000+ kW)	Large (1000-2000 kW)	Medium (500-1000 kW)	Small (100/200-500 kW) *	PG&E	SCE	SDG&E																		
EA6. How valuable were the Enhanced Automation materials or services you received?																																			
Very valuable	12%	11%	52%	0%	22%	0%	0%	0%	0%	0%	17%	4%	52%	0%	21%	3%	0%	3	12%	11%															
Somewhat valuable	55%	71%	0%	79%	66%	41%	35%	35%	57%	0%	78%	31%	0%	71%	53%	62%	0%	11	42%	53%															
Not valuable	31%	18%	48%	21%	11%	59%	57%	27%	43%	100%	4%	58%	48%	28%	23%	36%	86%	9	35%	34%															
Don't know	2%	0%	0%	0%	0%	0%	8%	38%	0%	0%	0%	6%	0%	2%	3%	0%	14%	3	12%	2%															
N	26	4	2	4	2	3	4	2	1	6	10	2	8	13	11	2	26	100%	100%																

	Total	Business Type									Business Size				Utility			Number of Respondents	Percent of Respondents	Percent of Premises																
		Office	Retail/Grocery	Institutional	Other Commercial	Transportation, Communication, Utility	Petroleum, Plastic, Rubber and Chemicals	Mining, Metals, Stone, Glass, Concrete	Electronic, Machinery, and Fabricated Metals	Other Industrial and Agriculture	Extra Large (2000+ kW)	Large (1000-2000 kW)	Medium (500-1000 kW)	Small (100/200-500 kW) *	PG&E	SCE	SDG&E																			
EA7. Why do you give that value rating?																																				
Not useful/do not apply to us	53%	18%	48%	100%	11%	59%	57%	0%	43%	100%	15%	71%	48%	71%	37%	68%	86%	11	42%	52%																
Informative	36%	71%	52%	0%	66%	0%	35%	35%	57%	0%	63%	19%	52%	23%	48%	27%	0%	8	31%	36%																
Other	8%	11%	0%	0%	22%	41%	0%	24%	0%	0%	17%	8%	0%	4%	14%	3%	0%	4	15%	9%																
Don't know	2%	0%	0%	0%	0%	0%	8%	41%	0%	0%	4%	2%	0%	2%	1%	3%	14%	3	12%	3%																
N	26	4	2	4	4	2	3	4	2	1	6	10	2	8	13	11	2	26	100%	100%																

	Total	Business Type									Business Size				Utility			Number of Respondents	Percent of Respondents	Percent of Premises																
		Office	Retail/Grocery	Institutional	Other Commercial	Transportation, Communication, Utility	Petroleum, Plastic, Rubber and Chemicals	Mining, Metals, Stone, Glass, Concrete	Electronic, Machinery, and Fabricated Metals	Other Industrial and Agriculture	Extra Large (2000+ kW)	Large (1000-2000 kW)	Medium (500-1000 kW)	Small (100/200-500 kW) *	PG&E	SCE	SDG&E																			
EA8. Have you considered any automation investments to improve your ability to manage your energy use in the past 2 years?																																				
Yes	58%	77%	66%	69%	54%	49%	48%	35%	52%	51%	55%	60%	64%	56%	60%	55%	66%	268	54%	59%																
No	39%	23%	34%	22%	42%	51%	50%	65%	45%	48%	41%	38%	35%	42%	40%	41%	30%	221	44%	39%																
Refused	1%	0%	0%	2%	2%	0%	1%	0%	0%	0%	0%	1%	1%	1%	1%	0%	3%	4	1%	1%																
Don't know	2%	0%	0%	8%	2%	0%	1%	0%	3%	0%	4%	2%	0%	1%	0%	3%	2%	7	1%	1%																
N	500	60	37	66	62	51	57	54	59	54	114	133	127	126	226	224	50	500	100%	100%																

EC1. What is the main activity performed at this location?	Business Type													Business Size				Utility			Number of Respondents	Percent of Respondents	Percent of Premises
	Total	Office	Retail/Grocery	Institutional	Other Commercial	Transportation, Communication, Utility	Petroleum, Plastic, Rubber and Chemicals	Mining, Metals, Stone, Glass, Concrete	Electronic, Machinery, and Fabricated Metals	Other Industrial and Agriculture	Extra Large (2000+ kW)	Large (1000-2000 kW)	Medium (500-1000 kW)	Small (100/200-500 kW) *	PG&E	SCE	SDG&E						
Office	14%	68%	2%	1%	14%	0%	0%	0%	17%	0%	11%	9%	19%	16%	17%	10%	16%	50	10%	14%			
Retail (non-food)	2%	1%	24%	0%	0%	0%	0%	0%	0%	0%	0%	3%	7%	1%	2%	3%	3%	15	3%	3%			
College/university	1%	0%	0%	10%	0%	0%	0%	0%	0%	0%	0%	2%	1%	3%	0%	1%	8%	7	1%	1%			
School	6%	2%	0%	39%	0%	0%	0%	0%	0%	0%	0%	3%	10%	11%	3%	8%	8%	27	5%	5%			
Grocery store	4%	0%	47%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	15%	5%	3%	8%	7	1%	5%			
Convenience store	1%	0%	6%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%	0%	1%	0%	1	0%	1%			
Restaurant	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	1%	1%	0%	0%	1	0%	0%			
Health care/hospital	7%	10%	0%	40%	0%	0%	1%	0%	0%	0%	15%	6%	4%	4%	7%	8%	6%	30	6%	7%			
Hotel or motel	2%	6%	0%	0%	6%	0%	0%	0%	0%	0%	0%	2%	4%	2%	2%	1%	2%	6	1%	2%			
Warehouse	1%	0%	3%	0%	2%	0%	0%	1%	0%	1%	2%	0%	1%	0%	1%	1%	2%	7	1%	1%			
Personal Service	0%	0%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%	0%	1%	1%	0%	0%	1	0%	0%			
Community Service/church/temple/municipal	2%	2%	0%	5%	2%	13%	0%	0%	0%	0%	2%	4%	1%	1%	1%	2%	6%	9	2%	3%			
Electronic & machinery	4%	1%	0%	0%	0%	0%	3%	9%	25%	1%	2%	5%	4%	4%	3%	4%	6%	30	6%	4%			
Mining, metals, stone, glass	6%	1%	0%	0%	2%	1%	3%	30%	15%	9%	7%	2%	9%	4%	5%	7%	1%	42	8%	6%			
Petroleum, plastic, rubber and chemicals	7%	2%	1%	0%	3%	0%	72%	8%	2%	0%	15%	8%	4%	1%	8%	7%	1%	39	8%	7%			
Other Industrial	9%	1%	2%	1%	7%	0%	8%	9%	8%	35%	10%	7%	6%	12%	9%	11%	1%	54	11%	10%			
Agricultural	3%	0%	0%	0%	2%	0%	1%	0%	0%	16%	3%	4%	4%	2%	4%	2%	4%	18	4%	3%			
Transportation/telecommunications/utility	11%	2%	2%	2%	9%	80%	2%	37%	1%	7%	15%	12%	6%	10%	9%	15%	3%	55	11%	11%			
Engineering/R&D	2%	0%	0%	0%	4%	2%	1%	1%	11%	0%	1%	3%	4%	1%	2%	1%	8%	13	3%	2%			
Manufacturing (non-food)	4%	0%	0%	1%	2%	0%	6%	5%	19%	8%	2%	13%	3%	2%	4%	5%	1%	29	6%	5%			
Food production/storage	4%	0%	6%	0%	1%	0%	1%	0%	0%	18%	5%	5%	4%	1%	6%	2%	0%	12	2%	3%			
Maintenance/testing facility	0%	0%	0%	0%	1%	2%	0%	0%	0%	0%	0%	1%	1%	0%	1%	0%	0%	3	1%	0%			
Entertainment	4%	1%	0%	0%	28%	0%	0%	0%	0%	0%	5%	2%	2%	6%	2%	4%	13%	15	3%	4%			
Other	4%	2%	6%	0%	15%	0%	1%	0%	0%	3%	3%	7%	5%	1%	7%	2%	0%	21	4%	4%			
Power Production	0%	0%	0%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	5	1%	0%			
Refused	0%	0%	0%	2%	1%	0%	1%	0%	0%	0%	0%	1%	0%	1%	0%	0%	3%	3	1%	0%			
N	500	60	37	66	62	51	57	54	59	54	114	133	127	126	226	224	50	500	100%	100%			

EC9a. Which of the following is the largest end use in terms of electricity consumption for this facility?	Business Type														Business Size				Utility			Number of Respondents	Percent of Respondents	Percent of Premises
	Total	Office	Retail/Grocery	Institutional	Other Commercial	Transportation, Communication, Utility	Petroleum, Plastic, Rubber and Chemicals	Mining, Metals, Stone, Glass, Concrete	Electronic, Machinery, and Fabricated Metals	Other Industrial and Agriculture	Extra Large (2000+ kW)	Large (1000-2000 kW)	Medium (500-1000 kW)	Small (100/200-500 kW) *	PG&E	SCE	SDG&E							
Lighting	8%	18%	17%	12%	12%	0%	0%	3%	0%	8%	9%	13%	4%	10%	5%	16%	41	8%	9%					
HVAC	33%	65%	16%	77%	36%	4%	6%	3%	40%	1%	26%	32%	38%	30%	30%	56%	145	29%	31%					
Continuous processing	30%	5%	6%	3%	25%	42%	84%	39%	40%	54%	38%	32%	25%	28%	36%	9%	171	34%	31%					
Batch processing	2%	0%	0%	0%	1%	4%	3%	2%	6%	3%	0%	2%	3%	2%	2%	0%	18	4%	2%					
Refrigeration	12%	7%	59%	0%	5%	1%	2%	0%	1%	25%	8%	6%	9%	15%	9%	13%	40	8%	12%					
Pumping/wastewater	7%	1%	0%	0%	6%	37%	0%	36%	0%	5%	13%	5%	4%	3%	5%	0%	24	5%	7%					
Industrial process/machinery	3%	0%	1%	0%	0%	8%	4%	15%	2%	8%	3%	5%	4%	4%	3%	2%	20	4%	3%					
Production equipment	1%	0%	0%	0%	2%	0%	0%	3%	0%	2%	0%	3%	1%	1%	1%	0%	9	2%	1%					
Other	3%	3%	0%	0%	12%	4%	0%	1%	4%	1%	5%	2%	2%	4%	5%	2%	19	4%	3%					
Refused	1%	0%	0%	2%	1%	1%	0%	0%	0%	0%	1%	0%	1%	0%	0%	3%	4	1%	0%					
Don't know	2%	0%	1%	6%	0%	0%	0%	1%	4%	1%	0%	4%	1%	2%	2%	0%	9	2%	1%					
N	500	60	37	66	62	51	57	54	59	54	114	133	127	126	226	224	50	500	100%	100%				

EC9b. And which would you say use the second most electricity?	Business Type														Business Size				Utility			Number of Respondents	Percent of Respondents	Percent of Premises
	Total	Office	Retail/Grocery	Institutional	Other Commercial	Transportation, Communication, Utility	Petroleum, Plastic, Rubber and Chemicals	Mining, Metals, Stone, Glass, Concrete	Electronic, Machinery, and Fabricated Metals	Other Industrial and Agriculture	Extra Large (2000+ kW)	Large (1000-2000 kW)	Medium (500-1000 kW)	Small (100/200-500 kW) *	PG&E	SCE	SDG&E							
Lighting	43%	61%	77%	73%	33%	33%	28%	16%	22%	23%	33%	39%	41%	33%	48%	57%	197	39%	41%					
HVAC	19%	18%	16%	12%	31%	17%	12%	7%	36%	14%	19%	17%	25%	22%	15%	20%	107	21%	19%					
Continuous processing	7%	3%	1%	0%	8%	4%	2%	7%	24%	14%	8%	14%	5%	12%	4%	2%	43	9%	7%					
Batch processing	5%	1%	0%	1%	3%	8%	22%	9%	5%	3%	7%	6%	2%	4%	6%	2%	39	8%	5%					
Refrigeration	11%	8%	0%	2%	9%	2%	29%	8%	2%	29%	13%	8%	12%	12%	10%	11%	35	7%	11%					
Computer/servers/data center	3%	5%	0%	2%	8%	0%	0%	6%	4%	0%	3%	10%	2%	5%	3%	2%	11	2%	4%					
Industrial equipment	2%	0%	1%	0%	3%	1%	4%	5%	0%	3%	4%	1%	1%	4%	1%	0%	18	4%	2%					
Other	4%	3%	4%	5%	2%	21%	1%	2%	0%	1%	4%	5%	1%	3%	5%	1%	19	4%	4%					
Refused	3%	0%	0%	2%	1%	0%	0%	37%	1%	1%	8%	1%	1%	1%	6%	0%	7	1%	4%					
Don't know	4%	0%	2%	2%	15%	2%	10%	3%	6%	6%	3%	3%	3%	5%	2%	4%	24	5%	4%					
N	500	60	37	66	62	51	57	54	59	54	114	133	127	126	226	224	50	500	100%	100%				

