EVALUATION OF THE 2002 STATEWIDE EDUCATION, TRAINING AND SERVICES PROGRAM

FINAL REPORT

Prepared for

Southern California Edison,
Pacific Gas and Electric Company,
San Diego Gas and Electric Company and
Southern California Gas Company

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December 16, 2003

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EXECUTIVE SUMMARY

This is the final report for the evaluation of the 2002 Statewide Education, Training, and Services Program (program), sponsored by Southern California Edison (SCE), Pacific Gas and Electric Company (PG&E), Southern California Gas Company (SCG), and San Diego Gas and Electric Company (SDG&E).

This executive summary provides a brief overview of the program, discusses the evaluation objectives and approach, and presents study conclusions and recommendations.

1.1 PROGRAM OVERVIEW

The Statewide Education, Training, and Services Program is designed to collect, transfer, research, evaluate, demonstrate, and showcase energy-efficiency concepts, technologies, and products for manufacturers, businesses, researchers, educational institutions, and the general public. The program promotes energy efficiency to a variety of customer segments through energy centers (physical and virtual) and other informational programs. Three of the four utilities possess physical energy centers: PG&E's Energy Training Center (ETC); SCE's Customer Technology Application Center (CTAC) and Agricultural Technology Application Center (AGTAC); and SCG's Energy Resource Center (ERC). SDG&E offers energy-efficiency classes to its customers using other utility facilities or non-utility sites.

The 2002 program offered its core seminars and workshops, on which it has consistently relied to educate its target markets. The program also disseminated information about energy-efficiency technologies and practices at the center facilities with displays, demonstrations, technical consultants, facility presentations, fact sheets, and brochures. The utilities continued to leverage community organizations and local government and trade associations to gain access to a wider audience. The 2002 program placed a special emphasis on increasing the participation of hard-to-reach² (HTR) customers by targeting a specific number of HTR seminars/events or a certain percentage of HTR seminar attendees. Prior statewide collaborative efforts were also expanded in 2002.

The program initially projected 377 seminars and ultimately conducted 444, with more than 7,000 nonresidential utility customers attending. Likewise, the program exceeded its HTR goals.

¹ PG&E has a second energy center, the Pacific Energy Center (PEC). The PEC's 2002 activities were assessed by a separate evaluation because PG&E funds the PEC as a local program. The scope of this evaluation includes all utility centers that are funded by the Statewide Education, Training, and Services Program. Note that the ETC offers some commercial and industrial seminars as part of the PEC program's HTR initiatives. This evaluation covers the ETC's residential contractor-focused seminars only.

² The California Public Utilities Commission defined HTR nonresidential customers based on the following segments: renters, small businesses, local chain/single-location restaurants, strip malls, convenience stores, rural customers, and "mom and pop" restaurant/groceries.

The overall program budget was initially \$7.7 million and, after budget shifts, totaled \$7.6 million. The program spent about 90 percent of its budget, or \$6.9 million.

1.2 Market Barriers

The program seeks to reduce information-related market barriers by offering customers cumulative exposure to measure-specific information. Through its educational seminars, technology demonstrations, and technology showcase environments, the program is designed to reduce four key market barriers to adopting energy-efficient measures, as described in Table 1-1.

Table 1-1
Energy-Efficiency Measure Market Barriers Addressed by the Program¹

Barrier	Barrier Description	Program Intervention
Information Costs	There are costs associated with identifying energy-efficiency products and accessing technical information	The program provided: Credible advocacy and information on a range of energy-efficiency products A convenient, centralized location and flexible schedule of seminars
Performance Uncertainty	Difficulties arise in evaluating the claims about the benefits of energy-efficiency products	The program provided: Objective information, on-site demonstrations, and technical support
Information Asymmetry	End-users face difficulties in evaluating the claims by salespeople for energy-efficiency products because the sellers may have more information and/or incentives to mislead customers	The program provided: • Unbiased, cutting-edge information on new technologies
Bounded Rationality	Decisions are not always entirely rational, and individuals tend to remain with the status quo even though their stated goals would indicate otherwise	The program provided: Individualized information provided by knowledgeable instructors in an interactive environment to give customers the impetus to depart from the status quo Objective information and on-the-spot technical support

¹We adapted the program theory developed for SCE's energy centers (CTAC and AGTAC) as part of the 1999 market effects study (KEMA-XENERGY) for the 2002 statewide program.

1.3 EVALUATION OBJECTIVES AND APPROACH

The overall study objective was to evaluate program performance and effectiveness at achieving program objectives as well as provide feedback and corrective guidance. The evaluation results are intended to feed program planning, improve program design and implementation, and ultimately, improve future program performance.

Specifically, the evaluation was designed to:

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- Measure program effectiveness and test program theory assumptions
- Provide ongoing feedback and corrective guidance regarding program design and implementation.

Our approach to addressing the study objectives is outlined in Table 1-2. As shown, the study included both an assessment of program effectiveness and a process evaluation, which were supported by a participant survey, a target market survey, in-depth interviews with program staff, and a review of program filings and materials.

Table 1-2 Study Objectives and Approach

Study Component	Study Objective	Approach	Research Activities	
Program Effectiveness Assessment	Measure program effectiveness and test program theory assumptions	 Evaluate changes in participant awareness and behaviors Determine program awareness among the target audience Evaluate the effectiveness of the program in overcoming the relevant market barriers 	 Conduct a telephone participant survey with a sample of 346 seminar attendees from 2002 Conduct a telephone target market survey with a sample of 1,049 nonresidential customers located within driving distance of the centers 	
Process Evaluation	Provide ongoing feedback and corrective guidance regarding program design and implementation	 Assess the effectiveness of the program implementation strategies and marketing efforts Determine the benefits from statewide coordination of the program 	 Utilize the participant survey results Utilize the target market survey results Review program filings and materials such as marketing collateral, seminar coursework, and schedules Conduct in-depth interviews with program staff 	

1.4 Conclusions

1.4.1 Program Effectiveness

This assessment used the results from the participant survey to measure indicators of program effectiveness. About 350 telephone surveys were conducted in the summer of 2003 with 2002 program seminar attendees in support of both the program effectiveness assessment and the process evaluation.

The program effectiveness assessment consisted of a three-pronged approach. First, to test the program theory, we assessed the strength of the linkages between program seminars attendance and the reduction of relevant market barriers. Next, we presented evidence of reduced market barriers as a result of attending the program's seminars. Finally, we determined the program's effectiveness in increasing the adoption of energy-efficiency measures and inducing behavioral changes.

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The participant survey results indicated that the program's seminars are effective in reducing the relevant market barriers, including information costs, performance uncertainty, and information asymmetry. Furthermore, the survey results provided evidence that the program reduced the relevant market barriers for the majority of its attendees, resulting in changes in behavior for well over half of participants. These changes included purchasing higher efficiency equipment and improving operation and maintenance of equipment. Likewise, most participants reported that future purchase decisions would be influenced by the program. In cases where respondents reported that the program was not influential in their behavior, the results suggest that the program indirectly emphasized and reinforced existing knowledge and supported the continuation of energy-efficient practices.

1.4.2 Program Target Market

The target market analysis was intended to determine the influence of the program on its target audience in terms of awareness, prior participation, and interest in participating in the future. For the purposes of this study, the target market is defined as a geographic area surrounding each center equal to a reasonable driving distance. During the summer of 2003, we conducted about 1,000 telephone surveys with nonresidential customers located within each of the centers' target markets.

While the program effectiveness assessment focuses on the program's impact on 2002 seminar participants, the target market assessment expands the scope of analysis to the program's target audience. This analysis attempts to answer the following questions: What percentage of the target market is aware of the program? What is the extent of prior participation among the target audience? How much interest exists among the target market for using the program's services?

The target market survey results suggested the following results:

- There remains a significant untapped market for participants, with more than half of the target market unaware of the program and historic participation rates of less than 10 percent of the target market.
- However, once informed about the program, upwards of half of the target market is interested in using the program's services in the future.
- The most significant barrier to increasing participation is awareness, with one-half of
 the target market unaware of the program. The other major barriers to
 participation include concerns about the relevance of the seminars to the specific
 customer's situation and lack of time, cited by one-quarter and one-eighth of the
 target market, respectively.

1.4.3 Process Evaluation

The process evaluation provides feedback and guidance regarding program design and implementation. We assessed the effectiveness of the program's implementation strategies and marketing efforts using both the participant and target market survey results, combined with our

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review of program filings and materials. In-depth program staff interviews added to our understanding of the program and helped to identify where the program is particularly effective and where it could be improved.

Administration and Coordination

We found that administration and coordination of the program are effective. The programs are administered locally at the center level, with each center operating efficiently with staff members often fulfilling multiple roles, including planning, marketing, and technical services. The program benefits from a high rate of staff retention and effective local communication and coordination. Maintaining contact with corporate decision-making (since the centers, with the exception of SDG&E, are geographically apart from their respective utility headquarter buildings) can sometimes prove challenging, although this has improved over the years. Statewide coordination has benefited this program in particular, resulting in seminar development cost savings and expanded seminar offerings.

Marketing and Tracking

The program has consistently relied on prior participants as the foundation of its marketing list, with partnerships with associations and industry experts also providing links to wider target audiences. Most participants heard about the seminar they attended through a brochure they received in the mail, and this approach continues to be the preferred method for informing prior attendees about upcoming seminars.

There is some evidence to suggest that the program is not currently tracking all participants and seminars electronically. The program could improve its tracking capabilities to increase the effectiveness of marketing efforts and to improve its ability to report on its accomplishments and conduct evaluations.

Hard-to-Reach Goals

The utilities began tracking HTR customer participation for the first time in 2002, although these customer segments have always been included in the program's target audience. The program defined HTR participation based on either the seminar or seminar attendee location, using the California Public Utilities Commission's definition for HTR as a starting point for developing a working definition tailored to each center. The HTR definitions developed for the 2002 program are not consistent statewide. However, it should be noted that it is difficult for this program to collect accurate and complete data on attendees. Since attendees do not have to be customers of the sponsoring utility, the program must solicit HTR data from participants as part of the optional customer satisfaction form they provide at the end of the seminar. Therefore, any statewide definition that includes tracking of criteria beyond geographic HTR (which is easily tracked using attendee address) should be flexible so that the utilities are not negatively impacted with respect to meeting HTR goals due to incomplete attendee information.

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Reliance on the geographic HTR criterion may not be appropriate given that seminars are conducted at physical energy centers with fixed locations.³ While the program offers a limited number of seminars off site to reach remote areas of the state, the core program relies on seminars conducted at the energy centers to take advantage of the permanent displays and demonstrations.

Customer Satisfaction

Almost all participants were very or extremely satisfied with the seminars they attended and found them to be very or extremely useful. The most commonly cited reason for being dissatisfied with the program was that the seminar was "average" or "not applicable to my situation" (cited by 5 percent of participants). Very few respondents provided ways to improve the program, with the majority of respondents saying the program was "fine as-is" and did not need improving.

1.5 RECOMMENDATIONS

Below, we provide recommendations based on the study conclusions for improving the program design and performance.

• Emphasize in program marketing materials the program's attributes that participants respond to most favorably, i.e., its credibility and objectivity and use of hands-on demonstrations.

These research results suggested that the program's reputation, credibility, and objectivity as well as the hands-on demonstrations and interactivity are the main reasons customers attend seminars. These attributes should be emphasized in marketing materials.

• Continue and expand statewide coordination.

The centers have benefited from statewide collaboration by increasing the number of new seminars offered at reduced cost. Moreover, by sharing marketing databases where the centers serve an overlap target audience (e.g., CTAC and ERC and AGTAC and ETC), the centers have greatly expanded their marketing capabilities. The program should continue and expand these efforts to improve its technical offerings and its marketing capabilities.

• Ensure that the program is adequately staffed with the appropriate personnel.

There was some evidence that some of the centers lack staff, especially technically skilled staff. Ensuring adequate resources is important to maximizing the effectiveness of the program.

• Improve tracking of seminar participants.

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³ SDG&E does not have a physical center and instead offers seminars throughout its territory. SDG&E does not use the geographic criterion for tracking HTR goals due to the small size of its territory.

The program could improve upon its tracking of seminar participants to support marketing, evaluation, and reporting efforts. We found that while upwards of 90 percent of seminar attendees were comprehensively tracked in 2002, tracking functions could be improved.

• Develop a consistent HTR definition that is not limited to geographic HTR criteria.

As the utilities continue to coordinate the program statewide, they should consider collaborating on how they define, track, and report on HTR attendance. A consistent definition of an HTR participant, not limited to geographic location of attendee or seminar, should be developed and instituted on a statewide basis. The utilities should begin tracking HTR attendance to determine a baseline level of HTR participation. This baseline information could then be used to develop appropriate center-specific HTR attendance goals in the future. Existing efforts to expand participation to HTR segments should be continued and expanded to address the CPUC goal of serving HTR customers.

• Continue and expand existing marketing efforts to increase awareness of the program among the target audience.

Less than half the target market is currently aware of the program and its services. There remains potential for increasing program participation by addressing the most important participation barrier, lack of awareness. The target market survey results suggested that a very high percentage of "aware" customers had used the program's services in the past, suggesting that once aware of the program, customers may be likely to use its services.

Methods for increasing awareness include expanding existing market efforts (e.g., tracking of prior participants and using Dunn and Bradstreet Market Place data to target market certain seminars) and further collaborating statewide on the sharing of market databases and successful marketing methods. Many of the centers have close relationships with trade allies such as professional associations and trade organizations. The utilities should leverage these relationships statewide so that all of the centers benefit.

Participant tracking databases are being continuously improved, and there remains the potential for further leveraging the information from prior participants. For example, the utilities are adding functionality to their tracking systems to record business type, size, HTR characteristics, etc., in order to expand their target marketing capabilities. These practices should be considered statewide, and the utilities should collaborate on the effectiveness of target marketing.

• Ensure that marketing efforts address customers' concerns about the potential relevance of the program's seminars.

Most customers located in the program's target market are interested in using the program's services. However, about one-quarter of target market customers are concerned that the program's services may not be directly applicable to them. There is evidence to suggest that,

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among participants, this concern is present but not as prevalent—with 5 percent of participants unsatisfied with the seminar they attended because they felt it was not relevant to their specific situation.

The utilities might consider conducting further research to determine if there are seminar topics that are not being offered or changes to existing seminars that could increase their appeal to the target audience. One of the centers has conducted focus groups periodically to evaluate new seminar concepts. Conducting focus groups might help to tease out more specifics from uninterested customers since telephone surveys are limited in their ability to probe deeply on specific issues. The program was less successful in providing customized information to address the bounded rationality market barrier, and qualitative research could provide an opportunity for probing how the program might more effectively address this market barrier.

• Address customers' time constraints through marketing and program design.

The third most significant barrier to expanding program participation is customers' lack of time. While this barrier may be very difficult to address given the inherent nature of the program, marketing strategies and program design should be examined to ensure that the program is being promoted effectively to customers with time constraints. For example, more seminars could be offered during off-peak traffic times and could be marketed as such. Likewise, certain seminars that provide benefits to customers with only one visit could also be strategically marketed to address customers who do not attend due to time constraints.

This barrier could also be explored through qualitative research to determine whether customers who say they "do not have enough time" to participate could benefit from the program. That is, certain customer segments may have time but do not perceive enough benefits from participating to warrant their time, e.g., customers who do not pay their energy bills or who have very low fixed energy bills. These customers should probably not be targeted by the program. However, customers who could benefit from the program but perceive that they cannot afford to spare staff or their own time to attend seminars could be probed to determine how best to address their needs. For example, the program might be able to expand its off-site seminars to reduce travel time. Or the program could offer mini-seminars or traveling demonstrations to disseminate information to customers who could never make the time commitment for a regular seminar.

• Incorporate PG&E's PEC and the nonresidential seminars that the ETC offers into the Statewide program evaluation.

Currently, PG&E's PEC is considered a local program and, as such, it is evaluated separately from the Statewide program. Both the PEC's services and its target audience are very similar to those of the Statewide program and, accordingly, the Statewide program evaluation would benefit from broadening its scope to include the PEC and the nonresidential seminars offered by the ETC.

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INTRODUCTION

This is the final report for the evaluation of the 2002 Statewide Education, Training and Services Program, sponsored by Southern California Edison (SCE), Pacific Gas and Electric Company (PG&E), Southern California Gas Company (SCG), and San Diego Gas and Electric Company (SDG&E). This section provides a brief overview of the program, discusses the evaluation objectives and approach, and presents the organization of the remainder of the report.

2.1 Program Overview

The Statewide Education, Training and Services Program (program) is designed to collect, transfer, research, evaluate, demonstrate, and showcase energy-efficiency concepts, technologies, and products for manufacturers, businesses, researchers, educational institutions, and the general public. The program promotes energy efficiency to a variety of customer segments through energy centers (physical and virtual) and other informational programs. Three of the four utilities possess physical energy centers: PG&E's Energy Training Center (ETC); SCE's Customer Technology Application Center (CTAC) and Agricultural Technology Application Center (AGTAC); and SCG's Energy Resource Center (ERC). SDG&E offers energy-efficiency classes to its customers using other utility facilities or non-utility sites.

The 2002 program offered its core seminars and workshops, on which it has consistently relied to educate its target markets. The program also disseminated information about energy-efficiency technologies and practices at the center facilities with displays, demonstrations, technical consultants, facility presentations, fact sheets, and brochures. The utilities continued to leverage community organizations and local government and trade associations to gain access to a wider audience. The 2002 program placed a special emphasis on increasing the participation of hard-to-reach² (HTR) customers by targeting a specific number of HTR seminars/events or a certain percentage of HTR seminar attendees. Prior statewide collaborative efforts were also expanded in 2002.

The program initially projected 377 seminars and ultimately conducted 444 seminars, with more than 7,000 nonresidential utility customers attending. Likewise, the program exceeded its HTR goals. The overall program budget was initially \$7.7 million and, after budget shifts, totaled \$7.6 million. The program spent about 90 percent of its budget, or \$6.9 million.

¹ PG&E has a second energy center, the Pacific Energy Center (PEC). The PEC's 2002 activities were assessed by a separate evaluation because PG&E funds the PEC as a local program. The scope of this evaluation includes all utility centers that are funded by the Statewide Education, Training and Services Program. Note that the ETC offers some commercial and industrial seminars as part of the PEC program's HTR initiatives. This evaluation covers the ETC's residential contractor-focused seminars only.

² The CPUC defined HTR nonresidential customers based on the following segments: renters, small businesses, local chain/single-location restaurants, strip malls, convenience stores, geographic location, and "mom and pop" restaurant/groceries. The program defined HTR customers primarily based on geographical location.

2.2 EVALUATION OBJECTIVES AND APPROACH

The overall study objective was to evaluate program performance and effectiveness at achieving program objectives as well as provide feedback and corrective guidance. The evaluation results are intended to feed program planning, improve program design and implementation, and ultimately, improve future program performance.

Specifically, the evaluation was designed to:

- Measure program effectiveness and test program theory assumptions
- Provide ongoing feedback and corrective guidance regarding program design and implementation.

Our approach to addressing the study objectives is outlined in Table 2-1. As shown, the study included both an assessment of program effectiveness and a process evaluation, which were supported by a participant survey, a target market survey, in-depth interviews with program staff, and a review of program filings and materials.

Table 2-1
Study Objectives and Approach

Study Component	Study Objective	Approach	Research Activities
Program Effectiveness Assessment	Measure program effectiveness and test program theory assumptions	 Evaluate changes in participant awareness and behaviors Determine program awareness among the target audience Evaluate the effectiveness of the program in overcoming the relevant market barriers 	 Conduct a telephone participant survey with a sample of 346 seminar attendees from 2002 Conduct a telephone target market survey with a sample of 1,049 nonresidential customers located within driving distance to the centers
Process Evaluation	Provide ongoing feedback and corrective guidance regarding program design and implementation	 Assess the effectiveness of the program implementation strategies and marketing efforts Determine the benefits from statewide coordination of the program 	 Utilize the participant survey results Utilize the target market survey results Review program filings and materials such as marketing collateral, seminar coursework and schedules Conduct in-depth interviews with program staff

The following subsections describe in more detail the research activities that were conducted in support of this evaluation.

2.2.1 Participant Survey

The participant survey was designed to assess the effectiveness of the program in increasing market demand for and market adoption of energy-efficiency measures. It was also intended to

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evaluate participant satisfaction with the program. The survey results were used to support both the assessment of program effectiveness and the process evaluation.

Specifically, the participant survey addressed the extent to which seminar attendees:

- Have increased their interest in, awareness of, and knowledgeability about energyefficient equipment; if so, what components of program's seminars were most
 informative
- Have been influenced by the seminars to consider and/or purchase and install energy-efficiency equipment; if so, what components of seminars were most important
- Have experienced an increased ability to assess their equipment needs as well as acquire and understand the necessary information to successfully negotiate an equipment purchase; if so, what components of the seminars were most helpful
- Have experienced a decline in their concerns about how energy-efficient equipment will perform as a result of the seminars; if so, what components of the seminars were most useful
- Were satisfied with the seminars and had suggestions for improvement.

We conducted 346 telephone surveys with attendees of seminars and workshops offered by each of the utilities in 2002.³ Approximately 70 participants from each center were surveyed. We developed a participant sample frame using 2002 seminar attendee lists provided by the utility program managers. The sample frame was stratified by market segment, which was assigned based on the type of seminar attended (e.g., lighting, HVAC, Title 24, etc.). A modified proportional sample allocation was specified to ensure a minimum number of survey completions by segment.

The telephone survey was administered during the months of July and August 2003 by an experienced survey research firm, which was selected as a result of a competitive bid process.

2.2.2 Target Market Survey

The target market survey was designed to determine the influence of the program on its target audience. The survey results were used to support both the assessment of program effectiveness and the process evaluation.

In particular, the survey assessed whether the target market audience:

• Is aware of the program

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³ While this might be considered a narrow interpretation of participants since the program offers other services, we were restricted by the availability of program participant tracking data.

• Is aware of specific services offered by the program (e.g., seminars focused on energy-efficient technologies and building design principles)

- Has participated in program activities
- Would be interested in participating in program activities in the future (or, if not, why not).

We conducted 1,049 telephone surveys with nonresidential customers located within the program's target market. A customer was defined as being part of the program's target market if they were located within a reasonable driving distance to one of the centers. For SDG&E, the target market was assumed to be the entire service territory due to the compact size of the territory and the various locations throughout the territory that seminars are conducted. For the physical centers, we worked with program staff and reviewed prior evaluation results⁴ to determine the reasonable driving distance for each center.

We developed two sample frames for each target market area, one for end-use customers and another for upstream market actors. The end-user sample frame was developed using a combination of utility nonresidential customer information system data and a list of ZIP codes for each of the four geographic target markets. The target market ZIP code lists were created using the geographic information system (GIS) software Arcview GIS. The upstream market actor sample frame was generated using Dunn & Bradstreet Market Place Data 2003 and the target market ZIP code list. Both the end-user and upstream market actor sample frames were stratified by business segment and size. A modified proportional sample allocation was specified to ensure a minimum number of survey completes for each stratum.

The target market survey was conducted in two phases from June–September 2003. The first phase was coordinated with a survey that Quantum Consulting implemented in support of three concurrent nonresidential program evaluations. We essentially added our questions to their survey, which was conducted with a representative sample of nonresidential end-use customers statewide. The second phase of the survey was a stand-alone effort, also implemented by Quantum Consulting, that attempted to reach additional end-use customers and a sample of upstream market actors.

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⁴ CTAC Market Effects Study (1998) by Hagler Bailly, Inc. and CTAC and AgTAC Market Effects Study (2000) by KEMA-XENERGY.

⁵ Upstream market actor refers to a customer segment whose business activities are conducted in support of other businesses, such as engineers, architects, designers, and building contractors. Their needs differ from end-use customers, who typically attend seminars to learn how about using energy-efficient technologies in their business. Upstream market actors typically attend seminars to understand how energy-efficient technologies can help them improve their business through the specification and/or endorsement of such products to end-use customers.

⁶ For the PG&E ETC, we did not develop an end-user sample frame because the Center's seminars that were being evaluated as part of this effort targeted only upstream market actors, specifically residential contractors. A separate evaluation addressed PG&E seminars offered by the ETC targeted to nonresidential upstream market actors and nonresidential end-use customers.

2.2.3 Program Staff Interviews and Materials Review

We conducted in-depth program staff interviews and reviewed program filings and materials in support of the process evaluation and to guide the participant and target market survey approaches. One of the first evaluation steps was to review program implementation plans and quarterly reports and to request a variety of program collateral, including marketing materials and seminar coursework and attendee lists. The review of the program filings provided a deeper understanding of the program's objectives, accomplishments, and key implementation strategies. The program materials review facilitated the development of a practical understanding of program offerings, target market, and program marketing strategies.

To supplement our understanding of the program, we conducted either on-site or telephone interviews with core program staff at each of the centers in May, 2003; telephone surveys were conducted with center staff in the cases where the evaluators had already interviewed staff and toured center facilities as part of prior evaluations.⁷ The interviews clarified program objectives, determined staff roles and responsibilities, identified potential program process issues, and explored statewide coordination and HTR targeting activities.

2.3 REPORT ORGANIZATION

The remainder of this report is organized as follows:

- Section 3: Program Description
- Section 4: Program Effectiveness
- Section 5: Target Market Assessment
- Section 6: Process Evaluation
- Section 7: Conclusions
- Appendix A: Survey Methodologies
- Appendix B: Participant Survey Questionnaire
- Appendix C: Target Market Survey Questionnaire
- Appendix D: Program Staff Interview Guide
- Appendix E: Participant Survey Cross-Tabulations
- Appendix F: Target Market Survey Cross-Tabulations
- Appendix G: Catalog of 2002 Seminars.

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⁷ The evaluators participated in program manager interviews at CTAC and AGTAC in 1999 as part of the 1999 market effects evaluation of both Centers. The evaluators also conducted an interview and a facility tour with PG&E's staff at the ETC in 2001 as part of a process evaluation of PG&E's Low Income Energy Efficiency program.

3

PROGRAM DESCRIPTION

This section presents a detailed description of the 2002 Statewide Education, Training and Services Program. First, we provide a brief background section, followed by a description of program objectives and approach. Then we discuss the market barriers that the program is designed to reduce. The section concludes with a discussion of program goals and accomplishments. We used a combination of program filings (i.e., 2002 implementation plans and quarterly reports), program manager interviews, and prior evaluation reports to develop this program description.

3.1 BACKGROUND

The 2002 Statewide Energy Efficiency and Training Program promotes energy efficiency to a variety of customer segments through energy centers (physical and virtual) and other informational programs. Three of the four utilities possess physical energy centers, Pacific Gas and Electric (PG&E), Southern California Edison (SCE) and Southern California Gas (SCG). San Diego Gas & Electric (SDG&E) offers energy-efficiency classes to its customers using other utility facilities or non-utility sites.

PG&E has two energy centers: the Pacific Energy Center (PEC),¹ located in downtown San Francisco, and the Energy Training Center (ETC), located in Stockton. This evaluation addresses the ETC's activities. The ETC offers residential contractors, building inspectors, architects, engineers and home designers an opportunity for hands-on instruction in the proper use, installation, maintenance and testing of energy-efficient windows, insulation materials, as well as heating, ventilation and air conditioning (HVAC) systems. The facility includes a detached 1,500-square-foot display home, classrooms, HVAC display labs, a demonstration mobile home, a home interior display, a computer lab, and meeting and conference space for up to 70 participants.

SCE also has two energy centers: CTAC and AGTAC. CTAC is located in central Los Angeles County (Irwindale), serving primarily commercial and industrial customers from end-use to design and engineering. AGTAC is located in the San Joaquin Valley (Tulare) and primarily serves the agricultural community in addition to commercial and industrial customers in the region.

SCG has one center, the Energy Resource Center (ERC), which is located in Downey. The ERC serves as a showcase for the latest energy-efficient and sustainable technologies. The ERC

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only.

¹ The PEC program year 2002 activities were assessed by a separate evaluation because PG&E funds the PEC as a local program. The scope of this evaluation includes all utility centers that are funded by the Statewide Education, Training and Services Program. Note that the ETC offers some commercial and industrial seminars as part of the PEC program's hard-to-reach initiatives. This evaluation covers the ETC's residential contractor-focused seminars

primarily serves commercial and industrial customers and contractors, architects, and engineers, offering seminars targeted to the food service industry, to commercial and industrial facility managers, and to new construction market actors.

SDG&E offers energy-efficiency classes to its commercial and industrial customers using other facilities and non-utility sites located in its territory. SDG&E offers new construction seminars to its customers as well; however, these seminars are not part of the Statewide program and are not addressed by this evaluation.

3.2 PROGRAM OBJECTIVES

The Statewide Education, Training and Services Program is designed to collect, transfer, research, evaluate, demonstrate, and showcase energy-efficiency concepts, technologies, and products for manufacturers, businesses, researchers, educational institutions, and the general public. The program's objectives are to:

- 1. **Disseminate information about energy-efficient equipment and practices** to utility customers for the purpose of assisting them to reduce energy usage, lower their bills, reduce operation and maintenance costs, and improve their productivity
- 2. Provide services to a variety of market actors, architects, engineers, distributors, and contractors who use information and tools to design more efficient buildings or processes and to conduct energy-efficiency retrofits and renovations
- 3. **Support other utility energy-efficiency programs** through the distribution of incentive and financing program promotional materials, providing field support, seminars, displays, equipment demonstrations, and face-to-face contact with customers in a variety of venues, which can include trade shows and community meetings.

3.3 PROGRAM APPROACH

The 2002 program relied on core seminars and workshops that are offered to customers each year, focusing on energy-efficiency basics and more advanced topics for HVAC and lighting. The program also disseminated information about energy-efficiency technologies and practices at the center facilities with displays, demonstrations, technical consultants, facility presentations, fact sheets, and brochures. The utilities continued to leverage community organizations and local government and trade associations to gain access to a wider audience.

The 2002 program placed a special emphasis on increasing the participation of hard-to-reach (HTR) customers by targeting a specific number of HTR seminars/events or a certain percentage of HTR seminar attendees. Prior statewide collaborative efforts were also expanded in 2002.

3.3.1 Seminars

The following tables list the energy-efficient seminars offered by each of the centers in program year 2002. As stated previously, the program year officially began on April 1, 2002. We created the following catalog of seminars using lists of participants, seminar calendars, and utility program staff feedback that we obtained during the participant sample frame development process.² Table 3-1 presents the seminars that AGTAC offered; Table 3-2 lists those for CTAC; Table 3-3 shows ETC's; Table 3-4 gives ERC's; and Table 3-5 presents SDG&E's.

Note that Appendix G contains a comprehensive list of seminars offered in 2002, organized by seminar category, including instructor and seminar target audience where available.

Table 3-1
AGTAC Seminars Offered in Program Year 2002

			Number of	
Seminar name	Date	Time	attendees	Seminar category
Instrumentation and Sensors				
Workshop	05/08/2002	8am-4pm	3	Water/wastewater
Introduction to Drip/Micro Irrigation				
System Design	05/14/2002	8am-10:30am	13	Irrigation/Pumps/Wells
Chemigation and Legal				
Requirements Compliance	06/11/2002	8am-12pm	19	Irrigation/Pumps/Wells
Basic Lighting Workshop	06/19/2002	8am-4pm	5	Lighting
Commercial Industrial Lighting	06/19/2002		5	Lighting
Basic HVAC Workshop	06/20/2002	8am-4pm	7	HVAC
Industrial Ammonia Refrigeration	06/25/2002	8am-4pm	3	Refrigeration
Introduction to Well and Deep Well				
Turbine Pump Design	07/09/2002	8am-3pm	47	Irrigation/Pumps/Wells
Skylighting for Commercial &				
Industrial Buildings	07/15/2002	9am-12pm	4	Process
Introduction to Pumping Plant				
Design	08/15/2002	8am-12pm	13	Irrigation/Pumps/Wells
Packaged HVAC Workshop	08/21/2002	8am-4pm	10	HVAC
Compressed Air Workshop	08/22/2002	9am-4pm	14	Process
Frost Protection Systems	09/10/2002		10	Irrigation/Pumps/Wells

² Where the number of seminar attendees is missing, the utility was unable to locate the seminar attendee list.

Table 3-1, continued
AGTAC Seminars Offered in Program Year 2002

			Number of	
Seminar name	Date	Time	attendees	Seminar category
Technology Review Workshop	09/17/2002	8am-4pm	11	Basics/General EE
Efficient Technologies for				
Commercial Refrigeration	09/18/2002	8am-4pm	21	Refrigeration
Instrumentation and Sensors				
Workshop	10/24/2002	8am-4pm	9	Water/wastewater
Motors and ASDs	10/30/2002	8am-4pm	45	Motors
Matching Pump Capacity to				
Irrigation System Demand	11/14/2002	8am-1pm	22	Irrigation/Pumps/Wells
				High-
Collaborative for High Performance		1pm-		performance/Green
Schools	12/03/2002	4:30 pm	16	buildings
High Performance Duct Systems				
and 2001 Residential Energy				
Standards Overview	12/12/2002	8am-1pm	15	HVAC

Table 3-2 CTAC Seminars Offered in Program Year 2002

			Number of	
Seminar name	Date	Time	attendees	Seminar category
California Conservation Corps				
Lighting Set	04/08/2002		11	Lighting
Lighting Fixture Maintenance				
Workshop	04/09/2002	8:30am-3pm	28	Lighting
·		·		
Hibay Lighting	04/11/2002	9am-1pm	68	Lighting
Express Efficiency Vendor Kick Off				
and Fair	04/15/2002		178	Basics/General EE
Lighting Fixture Maintenance				
Workshop	04/16/2002		31	Lighting
Advanced Food Service				
Refrigeration	04/18/2002	9am-12pm	68	Food
	0.4/00/0000		40	
Advanced Lighting Technologies	04/23/2002		19	Lighting
Lighting Controls for Energy	0.4/0.0/0.00	9am-	07	
Management	04/23/2002	1:30 pm	27	Lighting
				High-
High Performance Commercial				performance/Green
Building Facades Roundtable	04/29/2002	9am-1pm	28	buildings
				High-
High Performance Commercial				performance/Green
Building Facades Roundtable	04/29/2002	1pm-4pm	60	buildings
Electric Motors & Adjustable Speed		8:30am-		
Drives	05/07/2002	4:30 pm	59	Motors
Association of Professional Energy				
Managers- Spring Energy Forum	05/08/2002	9am-1pm	68	Basics/General EE
Commercial & Industrial Lighting	05/08/2002	8:30am-12pm	23	Lighting
Basic Heating, Ventilation & Air				
Conditioning (HVAC)	05/09/2002	8:30am-12pm	37	HVAC
Energy Management Systems		8:30am-		
(EMS)	05/09/2002	4:30 pm	22	HVAC
,		8:30am-		
Compressed Air Systems	05/14/2002	4:30pm	13	Process
Lighting Retrofit Strategies & Project		8:30am-	-	
Management Techniques	05/15/2002	3:30pm	21	Lighting
1,1,1,1		- 1		
Lighting for Offices and Schools	05/16/2002	9am-1pm	41	Lighting
		8:30am-		
Pumping System Assessment	05/16/2002	3:30pm	64	Irrigation/Pumps/Wells

Table 3-2, continued
CTAC Seminars Offered in Program Year 2002

			Number of	
Seminar name	Date	Time	attendees	Seminar category
Industrial Maintenance	05/22/2002	8:30am-4pm	34	Basics/General EE
California Conservation Corps				
Lighting Set	05/28/2002		12	Lighting
Owning & Operating an Efficient		8:30am-		
Cooling Tower	05/30/2002	4:30 pm	30	HVAC
Refrigeration Vendor Event	06/04/2002	9am-12pm	17	Refrigeration
EE Vendor Rebate - Cathedral City	06/19/2002		23	Basics/General EE
Lighting & Daylighting for Architects				
& Designers	06/19/2002		24	Lighting
Commercial & Industrial Lighting	06/25/2002	8:30am-12pm	5	Lighting
Commercial and Industrial Lighting				
Offsite Mammoth	07/02/2002	8am- 12:15pm	3	Lighting
Faith Based Organization Program				
Offsite Ridgecrest	07/02/2002	8am-12:15pm	12	Basics/General EE
Efficient Technologies for		8:30am-		
Commercial Refrigeration	07/09/2002	4:30pm	24	Refrigeration
Basic Heating, Ventilation & Air		8:30am-		
Conditioning (HVAC)	07/10/2002	4:30am	31	HVAC
Commercial and Industrial Lighting				
Offsite Mammoth	07/12/2002		11	Lighting
California Conservation Corps				
Lighting Set	07/15/2002		12	Lighting
Chilled Water Systems	07/16/2002	8:30am-4pm	30	HVAC
EE Training - Thousand Oaks	07/16/2002		8	Basics/General EE
California Conservation Corps				
Lighting Set	07/22/2002		13	Lighting
EE Vendor Training - Victorville	07/23/2002		1	Basics/General EE
Lighting Fixture Maintenance				
Workshop	07/24/2002	8:30am-3pm	34	Lighting
Non Profit Energy Forum	07/24/2002		21	Basics/General EE
Industrial Maintenance	07/31/2002	07/31/2002	24	Basics/General EE
Commercial & Industrial Lighting	08/06/2002	8:30am-12pm	11	Lighting

Table 3-2, continued
CTAC Seminars Offered in Program Year 2002

			Number of	
Seminar name	Date	Time	attendees	Seminar category
		8:30am-		
Technology Update	08/06/2002	12:30pm	16	Basics/General EE
				High-
				performance/Green
Building Sustainable Libraries	08/13/2002	8:30am-2pm	63	buildings
Successful Merchandising with		8:30am-		
Efficient Lighting	08/14/2002	12:30pm	17	Lighting
				High-
				performance/Green
Sustainable Building	08/21/2002		46	buildings
Lighting & Daylighting for Architects		8:30am-		
& Designers	08/28/2002	12:30pm	27	Lighting
Energy Audits & Management for				
Foodservice	09/05/2002	9am-12pm	34	Food
		8:30am-		
Industrial Refrigeration	09/11/2002	4:30pm	30	Refrigeration
New Energy Technology Series	09/12/2002	9am-12pm	30	Basics/General EE
Hibay Lighting	09/17/2002	9am-12pm	50	Lighting
				High-
Design Strategies for High				performance/Green
Performance Glass	9/19/2002	9am-12pm	19	buildings
		8:30am-		
Air Handling Systems	09/25/2002	4:30pm	46	HVAC
Commercial and Industrial Lighting -				
Kern River Valley	10/03/2002	8am-12pm	7	Lighting
EE Lighting for Foodservice	10/03/2002	9am-12pm	47	Food
How to Manage your Business'				
Energy Costs - Victorville	10/11/2002	8am-1pm	16	Audits
Building Operator Certification				
(BOC)	10/22/2002		29	Basics/General EE
9th Annual Water Conference	11/01/2002	8:30am-2pm	62	Water/wastewater
Compressed Air Systems	11/06/2002	8:30am-4pm	24	Process
Package Unit Heating, Ventilation &				
Air Conditioning (HVAC)	11/13/2002	8:30am-4pm	63	HVAC

Table 3-2, continued
CTAC Seminars Offered in Program Year 2002

			Number of	
Seminar name	Date	Time	attendees	Seminar category
Skylighting for Commercial &				
Industrial Buildings	11/19/2002	8:30am-2pm	23	Lighting
Lighting Fixture Maintenance				
Workshop	11/21/2002	8:30am-3pm	27	Lighting
EE Lighting Systems & Controls				
(Victor Valley College)	11/22/2002	8:30am-1pm	23	Lighting
Building Operator Certification				
(BOC)	11/26/2002		26	Basics/General EE
Lighting Fixture Maintenance				
Workshop	12/04/2002		24	Lighting
High Intensity Discharge (HID)				
Lighting	12/05/2002	1pm- 8:30pm	12	Lighting
Energy Management Systems				
(EMS)	12/10/2002	8:30am-4pm	23	HVAC
How to Manage your Business's		8:30am-		
Energy Costs	12/12/2002	12:30pm	10	Audits
Building Operator Certification				
(BOC)	12/17/2002		21	Basics/General EE

Table 3-3 ETC Seminars Offered in Program Year 2002

	ı			
			Number of	
Seminar name	Date	Time	attendees	Seminar category
Duct Installation Standards	04/08/2002	1pm-5pm	6	Title 24
10/4000 17/1 1 1 11/1	0.4/4.0/0.000		4.5	111/40
HVAC Quality Installation	04/16/2002	9am-5pm	15	HVAC
House as a System	4/17-19/2002	9am- 5pm	9	Basics/General EE
riodes de d'Oysteni	1717 1072002	Jan opin		Bacico, Coriorai EE
Equipment Sizing and Selecting	04/22/2002	9am-5pm	10	Title 24
Duct Design	04/23/2002	9am-5pm	6	Title 24
Zaning Loads and Duet Design	04/24/2002	Oom Enm	0	Title 24
Zoning Loads and Duct Design	04/24/2002	9am-5pm	8	Title 24
Duct Installation Standards	04/26/2002	9am-12pm	12	Title 24
Biggest Energy Mistakes Made in				
Residential Construction	04/29/2002	9am-5pm	15	Basics/General EE
- North Control Control	0 1/20/2002	Julii Julii		
HVAC Quality Installation	05/02/2002	9am-5pm	17	HVAC
HVAC Quality Installation	05/03/2002	9am-5pm	15	HVAC
Duct Installation Standards	05/06/2002	1pm-5pm	2	Title 24
Duct mistaliation standards	03/00/2002	трін-эрін	2	Title 24
Air Distribution Diagnostic Testing	05/07/2002	9am-5pm	4	Title 24
Equipment Sizing and Selecting	05/08/2002	9am-5pm	9	Title 24
Duet Design	05/09/2002	9am-5pm	10	Title 24
Duct Design	03/09/2002	эапт-эрпт	10	Title 24
Zoning Loads and Duct Design	05/10/2002	9am-5pm	9	Title 24
Advanced AC/HP Diagnostic Tune-				
Up Overview	05/21/2002	8:30am-5pm	9	HVAC
Advanced AC/HP Diagnostic Tune-				
Up Overview	05/22/2002	8:30am-5pm	19	HVAC
Advanced AC/HP Diagnostic Tune-		·		
Up Overview	05/23/2002	8:30am-5pm	19	HVAC
Duct Installation Standards	06/10/2002	1pm-5pm	4	Title 24
Residential Title 24 Duct Installation				
Standards & Diagnostic Testing	06/11/2002	9am-5pm	3	Title 24
			_	
Equipment Sizing and Selecting	06/12/2002	9am-5pm	5	Title 24
Duct Design	06/13/2002	9am-5pm	7	Title 24
Daor Design	00/13/2002	Jam-Jpm	ı	1 1u 5 44

Table 3-3, continued ETC Seminars Offered in Program Year 2002

	5 /		Number of	
Seminar name	Date	Time	attendees	Seminar category
High Performance Windows	06/13/2002	9am-5pm	4	Basics/General EE
- ing. i enemiance rimacine		Jan. Spin.	<u> </u>	240.00/ 2010141 22
Zoning Loads and Duct Design	06/14/2002	9am-5pm	7	Title 24
Duct Installation Standards	09/30/2002	1nm Enm	2	Title 24
Duct installation Standards	09/30/2002	1pm-5pm		Title 24
Air Distribution Diagnostic Testing	10/01/2002	9am-5pm	5	Title 24
Faurings and Salasting	40/00/0000	0000 5000	E	T:U. 04
Equipment Sizing and Selecting	10/02/2002	9am-5pm	5	Title 24
Turn Trash into Cash	10/02/2002	9:30am-4pm	22	Title 24
HVAC Quality Installation	10/08/2002	9am-5pm	10	HVAC
HVAC Quality Installation	10/09/2002	9am-5pm	5	HVAC
		·		
Insulate Right	10/10/2002	9am-3pm	6	Basics/General EE
Pool Filtration at Half the Cost	10/16/2002	9am-5pm	16	Pool Pumping
FOOI FILL ALL OF ALL THAIL THE COST	10/10/2002	эапт-эртт	10	Fooi Fullipling
High Performance Windows	10/17/2002	9am-5pm	18	Basics/General EE
Equipment Sizing and Selecting	10/21/2002	9am-5pm	6	Title 24
Advanced AC/HP Diagnostic Tune-	10/21/2002	эапт-эртт	0	Title 24
Up Overview	10/22/2002	8:30am-5pm	9	HVAC
Op Overview	10/22/2002	0.50am-5pm	<u> </u>	IIVAO
Duct Design	10/22/2002	9am-5pm	8	Title 24
Advanced AC/HP Diagnostic Tune-				
Up Overview	10/23/2002	8:30am-5pm	6	HVAC
Air Distribution Diagnostic Testing	10/24/2002	9am-5pm	8	Title 24
All Distribution Diagnostic Testing	10/24/2002	Jani-Spin	0	Tide 24
Duct Installation Standards	10/25/2002	9am-12pm	13	Title 24
See the Heat	10/29/2002	9am-5pm	8	Basics/General EE
2002 Home Energy Efficiency	10/20/2002	Jan opin	_	
Rebate Program	10/30/2002	9am-10:30am	2	Basics/General EE
		22		= =====================================
The Geoexchange Alternative	10/30/2002	9am-5pm	13	HVAC
Equipment Sizing and Selecting	11/04/2002	9am-5pm	9	Title 24
Equipment oizing and oelecting	11/07/2002	- Запт-ортп	<u> </u>	TIUO ZT
Duct Design	11/05/2002	9am-5pm	9	Title 24

Table 3-3, continued ETC Seminars Offered in Program Year 2002

Caminan nama	Data	Time	Number of	Saminar acta name
Seminar name	Date	Time	attendees	Seminar category
Pool Filtration at Half the Cost	11/06/2002	9am-5pm	20	Pool Pumping
Zoning Loads and Duct Design	11/06/2002	9am-5pm	4	Title 24
Air Distribution Diagnostic Testing	11/07/2002	9am-5pm	7	Title 24
Principles of Energy	11/07/2002	9am-4pm	2	Basics/General EE
Duct Installation Standards	11/08/2002	9am-12pm	4	Title 24
Advanced AC/HP Diagnostic Tune-				
Up Overview	11/13/2002	8:30am-5pm	5	HVAC
Insulate Right	11/13/2002	9am-3pm	8	Basics/General EE
Advanced AC/HP Diagnostic Tune-				
Up Overview	11/14/2002	8:30am-5pm	6	HVAC
High Performance Windows	11/14/2002	9am-5pm	18	Basics/General EE
HVAC Quality Installation	11/14/2002	9am-5pm	3	HVAC
HVAC Quality Installation	11/15/2002	9am-5pm	8	HVAC
Equipment Sizing and Selecting	11/18/2002	9am-5pm	8	Title 24
House as a System Overview	11/18/2002	9am-5pm	11	Basics/General EE
Duct Design	11/19/2002	9am-5pm	10	Title 24
House as a System	11/19-21/2002	9am-5pm	6	Basics/General EE
Zoning Loads and Duct Design	11/20/2002	9am-5pm	3	Title 24
Controlled Ventilation	11/22/2002	9am-5pm	19	HVAC
Duct Installation Standards	11/22/2002	9am-12pm	7	Title 24
Biggest Energy Mistakes Made in				
Residential Construction	11/25/2002	9am-5pm	5	Basics/General EE
Equipment Sizing and Selecting	12/02/2002	9am-5pm	7	Title 24
Duct Design	12/03/2002	9am-5pm	13	Title 24
Principles of Energy	12/03/2002	9am-12pm	7	Basics/General EE

Table 3-3, continued ETC Seminars Offered in Program Year 2002

Seminar name	Date	Time	Number of attendees	Seminar category
				9
Zoning Loads and Duct Design	12/04/2002	9am-5pm	13	Title 24
Air Distribution Diagnostic Testing	12/05/2002	9am-5pm	9	Title 24
3 3				
High Performance Windows	12/05/2002	9am-5pm	13	Basics/General EE
Duct Installation Standards	12/06/2002	9am-12pm	9	Title 24
Advanced AC/HP Diagnostic Tune-				
Up Overview	12/10/2002	8:30am-5pm	32	HVAC
Insulate Right	12/10/2002	9am-3pm	6	Basics/General EE

Table 3-4
ERC Seminars Offered in Program Year 2002

			Number of	
Seminar name	Date	Time	attendees	Seminar category
Character Efficiency Markaban	4/2/2002		F7	111/40
Steam Efficiency Workshop	4/3/2002		57	HVAC
ACCA Manual J Training	4/10/02	9am-4pm	23	T24
Snack Food Expo	4/10/02		47	Food
ACCA Manual D Introduction	4/11/2002	9am-4pm	18	T24
ACCA Manual D Advanced	4/12/02	9am-4pm	14	T24
Equipment Operation and				
Maintenance	4/17/02		21	Food
Hydronic System Sizing	4/24/02	9am-12pm	6	T24
Trydronio Gyddin Gizing	1/2 1/02	oun izpin		121
Challenges of Catering	4/25/02		135	Food
LIVAC Diagnostics	4/25/02		4	T24
HVAC Diagnostics High Performance Ducts & AB970	4/25/02		4	124
Overview	4/26/02	9am-1pm	3	T24
Overview	4/20/02	Jani-Tpin	3	124
ACCA Manual J Training	5/1/02	9am-4pm	7	T24
Title 24 Update: Nonresidential				
Standard	5/1/02		88	T24
ACCA Manual D Introduction	05/02/2002	9am-4pm	18	T24
ACCA Manual D Introduction	03/02/2002	эапт-4рт	10	124
ACCA Manual D Advanced	5/3/02	9am-4pm	3	T24
	_ /= /= 0		4.0	
Combustion Seminar	5/7/02	8am-1pm	13	Basics
Tastes of Hawaii	5/8/02		203	Food
Equipment Operations and				
Maintenance	5/15/02		31	Food
				High-
				performance/Green
Funding Green Buildings	5/16/02		19	buildings
ACCA Manual D Advanced	E/04/00	00m 4===	40	T24
ACCA Manual D Advanced	5/21/02	9am-4pm	18	T24
Combustion Seminar	5/21/02	8am-1pm	26	Basics
Energy Pricing for the Health Care				
Industry	5/21/02		10	Basics

Table 3-4, continued ERC Seminars Offered in Program Year 2002

			Number of	
Seminar name	Date	Time	attendees	Seminar category
EnergyPro:				
Environmental/Lighting/Windows	6/4/02		12	T24
EnergyPro Training Mechanical	6/5/02		1	T24
Designing and Operating an Energy				
Efficient Food Service Facility	6/6/02	9am-12pm	44	Food
LA Steam Operators Training	6/11/02		18	HVAC
Pizza, Pasta, and More	6/12/02		41	Food
EnergyPro Training Mechanical	6/14/02		1	T24
Combustion Seminar	6/18/02	8am-1pm	16	Basics
The Power of Produce	6/26/02		41	Food
Maximizing Your Gas Company				
Partnership	7/1/02		22	Food
Banqueting: From Ideas to Execution	7/16/02		59	Food
EnergyPro Training:				
Environmental/Lighting/Windows	7/31/02	8:30am-4pm	18	T24
EnergyPro Training: Mechanical	7/31/02		15	T24
LEED Intermediate Workshop	7/31/02		67	High- performance/Green buildings
Cuisines of France	8/1/02		40	Food
EnergyPro Training: Advanced	8/1/02		6	T24
EnergyPro Training-Mechanical	8/1/02		11	T24
Mexican Fiesta Vendor Mixer	8/1/02		28	Food
Just for Chefs	8/5/02		47	Food
Municipal Water Pumping	8/7/02		29	Waste
Design Strategies for High				High- performance/Green
Performance Glass	8/14/02	9am-1pm	19	buildings

Table 3-4, continued ERC Seminars Offered in Program Year 2002

		1	I	T
			Number of	
Seminar name	Date	Time	attendees	Seminar category
Combustion Seminar	8/21/02	8am-1pm	7	Basics/General EE
Combustion Seminar	8/22/02	8am-1pm	7	Basics/General EE
Combustian Comings	0/07/00	0.000 1.000	40	Danier
Combustion Seminar	8/27/02	8am-1pm	16	Basics
High Performance Schools: The				High- performance/Green
CHPS Program	8/29/02		35	buildings
Combined Hydronic Systems Sizing	0/29/02		33	buildings
Guidelines	9/4/02	9am-12pm	10	T24
Guidelines	3/4/02	9am-12pm	10	124
CEPE Residential Training	9/10/02	0	16	T24
Combustion Seminar	9/10/02	8am-1pm	29	Basics
Water Treatment for Energy				
Efficiency	9/10/02		12	Waste
The seafood Spectacular	9/12/02		25	Food
Understanding Boiler Basics	9/17/02		41	HVAC
Anything Goes with Dairy	9/18/02		35	Food
Advanced Food Safety Concepts	9/24/02		83	Food
Combustion Seminar	9/24/02	8am-1pm	18	Basics
Costco Product Seminar	9/24/02	0	35	Food
ACCA Manual J Training	9/25/02	9am-4pm	19	T24
_				
ACCA Manual D Introduction	9/26/02	9am-4pm	2	T24
Facilities, Engineering& Healthcare	0/00/00		00	T04
Symposium	9/26/02		63	T24
HVAC System Airflow/Pressure	40/4/00		4	T04
Diagnostics	10/1/02		4	T24
High Performance Ducts & AB970	40/0/00	0 4		T04
Residential Overview	10/2/02	9am-1pm	1	T24
Soil & Groundwater Remediation	10/2/02		125	Basics
Air Compression Seminar	10/3/02	8am-5pm	21	Process

Table 3-4, continued ERC Seminars Offered in Program Year 2002

			Number of	
Seminar name	Date	Time	attendees	Seminar category
Energy-Efficiency Lighting for Food				
Service at CTAC	10/3/02	9am-12pm	60	Food
Combustion Seminar	10/8/02	8am-1pm	14	Basics
ACCA Manual J Training	10/9/02	9am-4pm	16	T24
Selling Energy Efficiency				
Partnership	10/9/02		73	Basics
Thriving Under Title V: Managing				
your Title V Permit	10/9/02		28	Environmental/AQ
ACCA Manual D Introduction	10/10/02	9am-4pm	3	T24
ACCA Manual D Advanced	10/11/02	9am-4pm	1	T24
				High- performance/Green
Turning Green into Gold	10/15/02		87	buildings
Building Operator Certification				
Training	10/16/02		27	Basics
It's All About You	10/16/02		14	Food
HVAC System Air Flow/ Pressure				
Diagnostics	10/17/02		4	T24
Combustion Seminar	10/21/02	8am-1pm	16	Basics
CEPE Nonresidential Training	10/22/02		20	T24
Residential Cooking Seminar	10/22/02		11	Food
High Performance Ducts & AB970				
Overview	10/23/02	9am-1pm	3	T24
SDG&E Technology Forum 2002	10/24/02		7	Basics
ACCA Manual J Training	11/4/02	9am-4pm	40	T24
Building Operators Certification				
Training	11/04/2002	7:30am-5pm	27	Basics/General EE
ACCA Manual D Introduction	11/5/02	9am-4pm	7	T24
Basic Energy 101: Gas Electricity,				
and Water	11/5/02	9am-12pm	28	Food

Table 3-4, continued ERC Seminars Offered in Program Year 2002

Seminar name	Date	Time	Number of attendees	Seminar category
Seminal name	Date	Tille	attendees	High-
				performance/Green
Building Commissioning	11/7/02		36	buildings
Building Commissioning	11/7/02		30	buildings
Hydronic System Sizing	11/12/02		5	T24
Innovative Equipment Solutions	11/13/02		81	Food
Title 24 Update: Advanced ACCA				
Manual D	11/13/02		2	T24
HVAC System Air Flow/Pressure				
Diagnostics	11/14/02		14	T24
LA Steam Operator Training	11/14/02		45	HVAC
High Performance Ducts/AB970				
Residential Overview	11/15/02	9am-1pm	5	T24
Combustion Seminar	11/19/02	8am-1pm	23	Basics
Exploring the World of Grains	11/19/02		13	Food
Building Operator Certification				
Training	11/20/02		17	Basics
CalACCA Manual J8 Training				
Certification	11/20/02	0	10	T24
				High-
				performance/Green
Funding Green Buildings	11/20/02		14	buildings
Advanced Concepts in Kitchen				
Ventilation Systems	12/3/02		27	Food
Combustion Seminar	12/3/02	8am-1pm	29	Basics
All old of Delicate	40/5/00			
Night of Delights	12/5/02		83	Food
Lighting/Daylighting Seminar	12/10/02		24	Lighting
CEPE Residential Training	12/11/02		16	T24
				High-
				performance/Green
High Performance Schools	12/12/02		34	buildings
Title 24 Update: Nonresidential				
Standard	12/12/02		91	T24

Table 3-4, continued ERC Seminars Offered in Program Year 2002

			Number of	
Seminar name	Date	Time	attendees	Seminar category
				High-
				performance/Green
High Performance Schools	12/13/02		10	buildings
				High-
				performance/Green
LEED Advanced Workshop	12/13/02		26	buildings

Table 3-5 SDG&E Seminars Offered in Program Year 2002

			Number of	
Seminar name	Date	Time	attendees	Seminar category
Learn the Ins and Outs of An Energy				
Audit	05/15/2002		61	Audits
Learn the Ins and Outs of An Energy				
Audit	05/16/2002		34	Audits
The Latest in Advanced Lighting	06/19/2002		66	Lighting
The Latest in Advanced Lighting	06/20/2002		44	Lighting
Energy Management Systems	07/17/2002		79	HVAC
Energy Management Systems	07/18/2002		46	HVAC
Understanding Boiler Basics and				
Combustion	08/21/2002		79	HVAC
Understanding Boiler Basics and				
Combustion	08/22/2002		38	HVAC
The Lowdown on Hibay Lighting	09/18/2002		35	Lighting
The Lowdown on Hibay Lighting	09/19/2002		19	Lighting
Simplified Compressed Air Systems	10/16/2002		26	Process
Simplified Compressed Air Systems	10/17/2002		28	Process
Learn the Ins and Outs of An Energy				
Audit	10/23/2002		19	Audits
Energy Management Systems	10/24/2002		16	HVAC
The Lowdown on Hibay Lighting	10/24/2002		7	Lighting
Understanding Boiler Basics and Combustion	10/30/2002		61	HVAC
Understanding Boiler Basics and	10/00/2002		01	11177.0
Combustion	10/30/2002		21	HVAC
Compustion	10/30/2002		<u> </u>	IIVAO
The Latest in Advanced Lighting	11/06/2002		12	Lighting
A Course in Motors & Adjustable				
Speed Drives	11/07/2002	8am-12pm	17	Motors
Simplified Compressed Air Systems	11/07/2002		8	Process
A Course in Motors & Adjustable				
Speed Drives	11/20/2002	8am-12pm	58	Motors

Table 3-5, continued SDG&E Seminars Offered in Program Year 2002

Seminar name	Date	Time	Number of attendees	Seminar category
A Course in Motors & Adjustable				
Speed Drives	11/21/2002	8am-12pm	32	Motors
Understanding Boiler Basics and				
Combustion	12/10/2002		22	HVAC

3.3.2 Exhibits and Displays

The four physical energy centers offer a wide variety of exhibits and displays that range from showcasing equipment to demonstrating technologies in specific applications. Their presence at the centers reinforces information provided by seminars and workshops and provides information in areas that may span beyond what is contained in a specific class that a customer attends. They create an atmosphere of specialized knowledge in energy issues, which lends credibility to the available information. In addition to the displays at the energy centers, the program also has portable exhibits and demonstration equipment that can be utilized at trade shows, off-site seminars, and community events, which allows for the dissemination of information to a large number of attendees at one event.

Staff at the centers are also available to provide consultation to customers and market actors regarding their energy information needs, ensuring that they are advised in the most energy-efficient methods to meet those needs. This is done in person, by phone, and by e-mail, both direct and web-site generated.

At the energy centers, literature is provided and graphics and signage are designed to make connections for the customer between the exhibits and displays and other utility energy-efficiency programs. Links are also created between seminar materials and available programs to ensure customers attending seminars are aware of those offerings.

3.3.3 Partnerships with Third Parties

One of the keys to a successful education and training program is leveraging relationships with local community, government, and trade organizations to increase program awareness and participation. Historically, the program has collaborated with a wide variety of market actors, governmental agencies, educational institutions, and community groups in order to leverage their educational and informational efforts to larger audiences. Since its inception, the program has partnered with numerous vendors and manufacturers, as well as trade and educational organizations to provide customers and key market actors with up-to-date information to assist them in making decisions that reduce their energy costs, increase productivity, and improve installation quality.

Manufacturers and vendors provide much of the equipment on display at the centers. Subject matter experts from a substantial number of non-utility entities provide instruction and/or consultation for seminars, displays, demonstrations, and printed information provided to customers. Third parties also often make use of the centers to facilitate their own energy-efficiency activities.

3.3.4 Marketing and Outreach

The program employs a variety of methods to market their offerings, including:

- Maintenance and development of a comprehensive mailing list for each center,³ including historical program participants and nonparticipants (from Dunn and Bradstreet Market Place and other sources) located in the target market
- Direct mail of semi-annual and quarterly seminar calendars to each center's mailing list
- Target marketing of seminars to appropriate markets, e.g., Title 24 seminar series to new construction contractors
- E-mailing and faxing seminar announcements and enrollment forms to prior participants
- Close involvement with trade allies and leveraging of trade ally communications, e.g., announcements in association newsletters
- Account representatives
- Annual utility energy-efficiency program roll-outs conducted at centers
- Cross-exposure of the centers to customers who conduct meetings and events at the centers
- Other general utility energy-efficiency program marketing such as web sites, call centers, bill stuffers, and utility customer newsletters
- General pamphlets and brochures list and briefly describe all the services available at the centers.

3.3.5 Hard-to-Reach Objectives

Program year 2002 is the first in which the program directly focused on targeting and tracking the attendance of HTR customers.⁴ It should be noted, however, that HTR customers have always been included in the mix of customers served by the program.

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³ Even though SDG&E does not have a physical center, throughout the remainder of this report when we refer to a "center" we are also referring to SDG&E's seminars.

⁴ As defined in Section 2, the CPUC defined HTR nonresidential customers based on the following segments: renters, small businesses, local chain/single-location restaurants, strip malls, convenience stores, rural customers, and "mom and pop" restaurant/groceries. The program defined HTR customers primarily based on geographical location.

Each utility developed its own definition for setting and tracking HTR goals. SCE and SCG proposed a specific number of energy-efficiency seminars that would be designated as HTR, while PG&E proposed a certain percentage of HTR seminar attendees. SDG&E proposed to offer separate HTR events.

Each utility defined a HTR seminar differently. SCG tracked four HTR indicators including the location of the seminar attendee.⁵ If 51 percent or more of attendees of a seminar were HTR, then the seminar was counted as HTR.

SCE used the location of the seminar to determine whether the seminar itself could be characterized as HTR. If 40 percent of the ZIP codes within a 50-mile radius of the location of the seminar were "rural," then the seminar was counted as HTR. Based on this definition, all seminars offered at AGTAC were HTR. Additionally, SCE offered some seminars off site in remote locations of its territories, and these seminars were also counted as HTR based on the above criteria since all customers outside the Los Angeles basin are defined by the California Public Utilities Commission as HTR.

PG&E tracked the location of seminar attendees, characterizing attendees as HTR based on whether they were located outside the San Francisco Bay Area and Sacramento.

SDG&E designed separate HTR events that specifically targeted smaller nonresidential customers. They also tracked energy-efficiency seminar attendees based on size, language, and number of employees, but none of the seminars had more than 50-percent HTR attendance based on these criteria.

3.3.6 Statewide Collaboration

The program continued to increase statewide collaborative activities in 2002. The benefits of coordinating statewide are twofold: ensuring a more consistent energy-efficiency message within the state and reducing seminar development and implementation costs.

The 2002 program continued and expanded past efforts to share course materials and classes, instructors, advertising, and marketing mailing lists. Additionally, each of the four utilities obtained calendars, marketing flyers, and a list of center exhibits and displays for the other utilities and offered them to their participating customers. Finally, in 2002 the collaborative scope was expanded to included SDG&E's program, and all energy-efficiency seminars at any location were offered at no charge to any utility customer.

⁵ The four indicators are whether the business rented their facility, the primary language spoken by the manager/owner was not English, the business was located outside of Los Angeles and Orange Counties, and whether the business was "small" based on the number of employees.

⁶ SCE used a list of ZIP codes from the Statewide Residential Customer Needs Assessment Study (TecMRKT Works July 2001), which provides a rural ZIP code list based on a methodology used by Federal and State grants programs for defining rural areas.

3.4 MARKET BARRIERS

The program seeks to reduce information-related market barriers by offering customers cumulative exposure to measure-specific information. Through its educational seminars, technology demonstrations, and technology showcase environments, the program is designed to reduce four key market barriers for energy-efficient measures, as described in Table 3-6.

Table 3-6
Energy-Efficiency Measure Market Barriers Addressed by the Program¹

Barrier	Barrier Description	Program Intervention
Information Costs	There are costs associated with identifying energy-efficiency products and accessing technical information	The program provided: Credible advocacy and information on a range of energy-efficiency products A convenient, centralized location and flexible schedule of seminars
Performance Uncertainty	Difficulties arise in evaluating the claims about the benefits of energy-efficiency products	The program provided: Objective information, on-site demonstrations, and technical support
Information Asymmetry	End-users face difficulties in evaluating the claims by salespeople for energy-efficiency products, because the sellers may have more information and/or incentives to mislead customers	The program provided: • Unbiased, cutting-edge information on new technologies
Bounded Rationality	Decisions are not always entirely rational, and individuals tend to remain with the status quo even though their stated goals would indicate otherwise	The program provided: Individualized information provided by knowledgeable instructors in an interactive environment to give customers the impetus to depart from the status quo Objective information and on-the-spot technical support

¹We adapted the program theory developed for SCE's energy centers (CTAC and AGTAC) as part of the 1999 market effects study (KEMA-XENERGY) for the 2002 statewide program.

3.5 PROGRAM ACCOMPLISHMENTS

The 2002 Statewide Energy Efficiency and Training Program is an information-only program and, as such, does not have explicit energy savings goals. Program planners specified a projected number of seminars that each utility would offer during the program year as well as specific HTR goals.

The program initially projected a total of 377 seminars and ultimately conducted 444 seminars with more than 7,000 nonresidential utility customers. Likewise, the program exceeded its HTR goals. Table 3-7 presents the overall and HTR program projections and accomplishments. The overall program budget was initially \$7.7 million and, after budget shifts, totaled \$7.6 million. The program spent about 90 percent of its budget, or \$6.9 million. Table 3-8 displays the program budget and expenditures.

Table 3-7
Program Projections and Accomplishments

D		Duning start a	Utility				
Program Component	Units	Projected v. Accomplished	SCE	scg	PG&E	SDG&E	Total
All Commission	Number of	Projected	150	137	80	10	377
All Seminars	Seminars	Accomplished	156	145	119	24	444
	Number HTR of	Projected	45	40	-	-	-
	Seminars	Accomplished	73	67	-	-	-
HTR Seminars	% of Seminar	Projected	-	-	40%	-	-
and Events	attendees	Accomplished	-	-	55%	-	-
	Number of HTR	Projected	-	40	-	32	72
	events	Accomplished	-	25	-	34	59

Table 3-8
Program Budget and Expenditures

	SCE	SCG	PG&E	SDG&E	Total
Initial Budget	\$3,813,000	\$1,674,000	\$1,069,000	\$1,143,000	\$7,699,000
Authorized Budget Shift ¹	\$0	-\$46,000	-\$50,000	\$0	-\$96,000
Revised Budget	\$3,813,000	\$1,634,000	\$1,019,000	\$1,143,000	\$7,609,000
Expenditures	\$3,424,679	\$1,625,059	\$747,774	\$1,120,977	\$6,918,489
Expenditures as a % of Revised Budget	89.8%	99.5%	73.4%	98.1%	90.9%

¹PG&E shifted funds to the Appliance Recycling program, and SCG to the Codes and Standards program.

PROGRAM EFFECTIVENESS

This section presents results from the participant survey that measure indicators of program effectiveness. First, we assess the strength of the linkages between attending program seminars and reducing the relevant market barriers in order to test the program theory. Next, we present evidence of reduced market barriers as a result of attending the program's seminars. Finally, we determine the program's effectiveness in increasing the adoption of energy-efficiency measures and inducing behavioral changes.

Note that the participant survey results were analyzed to assess whether differences existed by certain program and attendee characteristics. Specifically, we measured whether there were differences in program effectiveness that might be due to the following:

- **Center** addresses potential regional differences and the uniqueness of each center's focus [e.g., Agricultural Technology Application Center (AGTAC) on agricultural customers, Pacific Gas and Electric's Energy Training Center (ETC) on residential contractors]
- **Type of attendee** (end-use customer v. upstream market actor) addresses potential differences between restaurants, hotels, and other end-use customers v. contractors and other businesses that provide services to end-use customers
- **Type of seminar** addresses the potential for varying effectiveness of the different types of seminars, (e.g., basic lighting technologies v. advanced HVAC properties)
- **Business type and energy usage of attendees** addresses potential inherent differences across the types of seminar attendees (e.g., experienced contractor v. new city employee, or large v. small end-use customer).

We note throughout this section where significant differences were found by any of these program or attendee characteristics.

4.1 SEMINAR ATTRIBUTES

As discussed in Section 3, the program seeks to reduce information-related market barriers by offering customers cumulative exposure to measure-specific information. Through its educational seminars, technology demonstrations, and technology showcase environments, the program is designed to reduce the following four key market barriers for energy-efficient measures: information costs, performance uncertainty, information asymmetry, and bounded rationality. The specific program attributes that are hypothesized to reduce these barriers are:

- Convenient location and schedule of seminars
- Credible and objective information source
- On-site demonstrations and on-the-spot technical support

• Current and up-to-date information.

To assess whether these program characteristics reduce market barriers, we first determined whether participants prefer seminars to other educational sources for various types of information (e.g., new technologies, equipment energy use, equipment energy efficiency, and vendors and contractors). Then, we asked participants who preferred seminars to other sources of information what makes seminars more valuable.

Just under one-third (28 percent) mentioned "seminars" or "workshops" as their preferred source of information for collecting information on new technologies, energy use, energy efficiency, or vendors/contractors. Trade journals and manufacturer representatives were the most popular methods for collecting information, with 51 and 33 percent of respondents citing these sources as their preferred information channels, respectively.

Respondents who preferred seminars to other information channels tended to regard the hands-on demonstrations and interaction with instructors/participants as attributes that made seminars particularly valuable. Figure 4-1 displays the attributes on which respondents placed value on seminars over other information channels.

We also asked participants to rate the following eight aspects of the program seminar they attended on a scale from 1 to 5, with 1 meaning poor and 5 meaning excellent:

- Convenience of the seminar in terms of location and schedule
- Technical level of the information provided
- Extent to which information was cutting edge or state of the art
- Objectivity of the information provided
- Clarity of the information provided
- Technical knowledge of instructor
- Teaching skill of instructor
- Seminar length
- Usefulness of demonstrations.

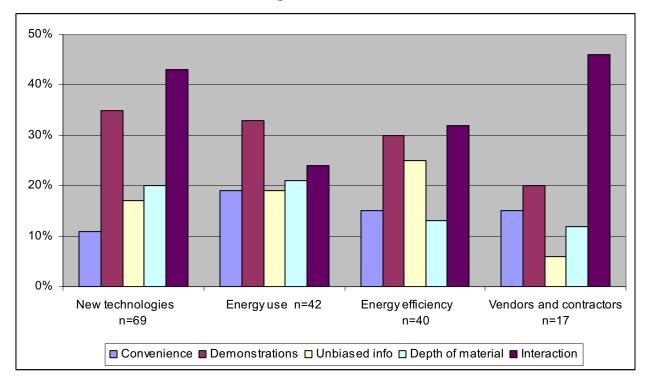


Figure 4-1
Value of Seminars in Comparison to Other Information Channels

As shown in Table 4-1, all eight aspects of the seminars were rated a 4 or 5 by upwards of 75 percent of attendees. The highest rating was given to the "technical knowledge of the instructor," with 66 percent of attendees giving an excellent rating. These results suggest that the seminars exhibit the attributes that are hypothesized to reduce information-related market barriers.

We found that certain types of businesses and seminars garnered relatively higher or lower ratings. End-use customers, with the exception of institutional customers, were more likely to give high ratings to the technical level and the "cutting-edge" information that was provided than upstream market actors. This result may suggest that upstream market actors come into contact with energy-efficiency information more frequently as part of their normal business operations and thus are less inclined to find the seminar information cutting edge.

The ETC's residential contractors gave lower ratings to the convenience of the seminars than other attendees across the program, giving the ETC a slightly lower average rating for convenience (3.7).

Table 4-1
Seminar Attribute Ratings

Seminar Attribute	Poor		Neutral	Excellent		Average
Seminal Attribute	1	2	3	4	5	Rating
Communication of the state of t	1%	4%	13%	33%	48%	4.0
Convenience (location, schedule)	5	5%	13%	81	%	4.2
Tachminal lavel of information	0%	2%	9%	34%	53%	4.4
Technical level of information	2	2%	9%	87	7 %	4.4
"Cutting-edge" or "state-of-the art"	0%	1%	13%	33%	51%	
information	1	%	13%	84	! %	4.4
Ohio ativity of information	0%	1%	12%	31%	53%	4.4
Objectivity of information	1%		12%	84%		4.4
	0%	1%	10%	37%	51%	
Clarity of information	1%		10%	88%		4.4
_ , , , , , , , , , , , , , , ,	0%	2%	3%	28%	66%	1.0
Technical knowledge of instructor	2%		3%	94%		4.6
To achieve alith of instances	0%	1%	8%	36%	52%	
Teaching skill of instructor	1	%	8%	88%		4.4
	1%	2%	13%	35%	42%	4.0
Usefulness of demonstrations	3%		13%	77	′ %	4.3

Number of respondents=346

Finally, we present additional evidence of the association between seminar attributes and a reduction in market barriers in Table 4-2. The table displays the unprompted reasons that participants attended the program's seminars, for both end-users and upstream market actors. As shown, the top two reasons overall given by attendees were that the centers have a good reputation and are a credible source of information. Note that end-users and upstream market actors differed in their reasons for attending the seminars. Convenience was also a draw for end-users, as was helping their business meet energy standards. Objectivity of information was an important attribute for upstream market actors.

	End-Users	UMAs	Total
The center/program has a good reputation for its seminars/courses	44%	12%	32%
The center/program is a credible information source	14%	38%	23%
The program's seminars are convenient	17%	5%	13%
The center/program provides objective information not available elsewhere	5%	18%	10%
To help my company/business meet energy standards	11%	6%	9%
Wanted to learn more about a general topic	8%	7%	8%
Wanted to meet my career goals/get promoted	6%	4%	5%
Wanted to consult with someone about specific issue	1%	6%	3%
Curious about what the program had to offer	1%	7%	3%
Someone at my company asked me to attend	4%	2%	3%
Wanted to learn more about a specific technology (e.g., refrigeration, lighting, motors, HVAC)	2%	1%	2%
I wanted to test/showcase a new product	1%	2%	1%
Total Respondents	216	130	346

Table 4-2
Reasons for Attending the Seminar¹

4.2 EVIDENCE OF REDUCED MARKET BARRIERS

Next we present results that explore whether market barriers were reduced as a result of the program's interventions, i.e., its seminar offerings in 2002. As stated previously in this section, the specific market barriers that the program is hypothesized to reduce are:

- Information search and processing costs
- Performance uncertainty
- Asymmetric information
- Bounded rationality.

To attempt to measure whether these barriers have been reduced as a result of attending a program seminar, we asked 2002 seminar end-user participants whether and to what extent they agreed with a series of statements: "As a result of attending the seminar, …"

- I am more aware of new technologies or practices.
- I am more aware of energy-efficient solutions.

¹ Multiple responses allowed

- I better understand how to improve the energy-efficiency of existing equipment at my facility.
- I have more confidence in the performance of energy-efficient equipment.
- I can promote energy-efficiency to my own management better.
- I am more likely to specify energy-efficient equipment when I have a choice.
- I can more confidently evaluate the energy-efficiency performance claims made by salespeople.
- My company/business has or will change some of its policies related to specifying or selecting energy-efficient equipment.

We also asked upstream market actors a similar battery of questions. Tables 4-3 and 4-4 present the extent to which end-user and upstream market actor participants agreed with these statements. As shown in Table 4-3, **the seminars resulted in changes in awareness, attitudes, and behavior for three-quarters of end-use customers who attended a seminar.** Note that the average rating for almost all statements exceeded 4.0 on a scale from 1 to 5, with 1 meaning strongly disagree and 5 meaning strongly agree.

Table 4-4 presents the extent to which upstream market actor participants agreed with these statements. As shown, **upstream market actors were less likely than end-users to have been influenced by the seminars.** The program was most successful in increasing awareness of energy-efficient practices and technologies and convincing attendees that their companies should regularly specify energy-efficient products. The program was less effective in changing the attendee's behavior (i.e., sales pitch technique and differentiation by specifying energy-efficient products.) However, upwards of half of participating upstream market actors agreed with each of the statements.

Both these and the end-user results suggest that **most seminar participants were able to** overcome a number of significant barriers as a result of their participation in the program.

Examining the results across the various segments of participants, we found minimal differences in the influence of the program in reducing market barriers. Over the centers, we found that AGTAC end-user participants were slightly *more* likely while AGTAC and San Diego Gas & Electric (SDG&E) upstream market actor participants were slightly *less* likely to overcome barriers as a result of participating in the program.

Table 4-3 End-User Responses Regarding Program Influence in Reducing Market Barriers

As a result of attending the	Strongly I	Disagree	Neutral	Strong	Average	
Seminar	1	2	3	4	5	Rating
I am more aware of new	2%	3%	18%	38%	38%	
technologies or practices	5	%	18%	76	6%	4.1
I am more aware of energy-efficient	1%	3%	15%	36%	43%	4.0
solutions	4	%	15%	79	9%	4.2
I better understand how to improve	2%	5%	13%	36%	37%	
the energy-efficiency of existing equipment at my facility	7	7%		73%		4.1
I have more confidence in the	2%	2%	14%	38%	37%	
performance of energy-efficient equipment	4%		14%	75%		4.2
I can promote energy-efficiency to	1%	4%	12%	36%	37%	
my own management better	5	%	12%	73%		4.1
I am more likely to specify energy-	1%	1%	5%	30%	56%	
efficient equipment when I have a choice	2	%	5%	86	6%	4.4
I can more confidently evaluate the	1%	1%	13%	40%	34%	
energy-efficiency performance claims made by salespeople	2%		13%	74%		4.1
My company/ business has or will	1%	7%	17%	33%	27%	
change some of its policies related to specifying or selecting energy-efficient equipment	8	%	17%	60	0%	3.9

Number of respondents=209

Table 4-4
Upstream Market Actor Responses Regarding Program Influence in Reducing Market
Barriers

As a result of attending the	Strongly Di	sagree	Neutral	Strong	ly Agree	Average
Seminar	1	2	3	4	5	Rating
I am more aware of new	2%	5%	18%	31%	44%	4.4
technologies or practices	7%	•	18%	75	5%	4.1
I am more aware of energy-efficient	3%	6%	21%	35%	33%	
products	9%	1	21%	68	3%	3.9
I have more confidence in the	2%	3%	20%	39%	31%	
performance of energy-efficient equipment	5%)	20%	70%		4.0
I have incorporated energy-	7%	2%	14%	31%	28%	
efficiency into my sales pitch	9%	1	14%	59	9%	3.9
My company should consider	2%	1%	8%	24%	56%	
making it common practice to specify energy-efficient products	3%)	8%	80)%	4.4
Our business has differentiated	10%	3%	15%	34%	29%	
itself by specifying energy-efficient products	13%	6	15%	63	3%	3.8

Number of respondents=128

4.3 PROGRAM EFFECTIVENESS

This subsection presents evidence that indicates whether the program was effective in causing actual changes in participants' energy-efficiency practices and behavior. As discussed in Section 3.2, the program sought to disseminate information to utility customers in order to assist them in reducing their energy usage and operation and maintenance (O&M) costs and to help a variety of market actors to specify more efficient products.

First, we present evidence regarding how the program affected purchase decisions that have taken place since the seminars and O&M practices. Then we present evidence regarding the likely sustainability of the changes brought about by the program.

We asked end-use customer seminar attendees whether they had made any equipment purchases since attending the program seminars and whether they would have purchased equipment of the same efficiency level had they not attended the seminar. As shown in Figure 4-2, we found that **the program influenced about one-half of equipment purchases** that occurred since the purchaser participated in the program.

We probed purchasers who said that the program did not influence their purchase decision. Their responses included, "we already knew this information" or "we always look for costeffective measures," "the seminar helped emphasize what we already knew," and "I was not the primary decision-maker," suggesting that purchase decisions that were not directly influenced by the program were still energy-efficient purchases.

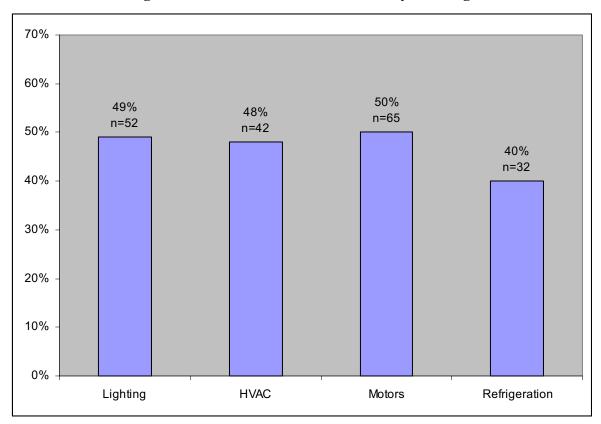


Figure 4-2
Percentage of Purchase Decisions Influenced by the Program

In addition to assessing the effect of the program on recent purchase decisions, we also assessed whether O&M practices were affected. We asked end-use customers whether attending the seminars had affected how their business operates and maintains any of its equipment. Over one-third (39 percent) of participants have changed their O&M practices as a result of participating in the program.

We analyzed whether the extent of O&M changes depended on the center, seminar type, or business type. While one might expect to see varying levels of O&M changes depending on the type of seminar attended, we did not find any significant differences by seminar type. We did, however, see differences across the centers, as shown in Table 4-5. SDG&E and AGTAC seminars were associated with the highest percentage of O&M behavioral changes (over 50 percent).

Table 4-5
Percentage of Seminar End-Use Customer Attendees that Changed Their O&M Practices

Center	Percent	Number of Respondents
SDG&E	52%	32
SCE AGTAC	50%	44
SCE CTAC	39%	41
SCG ERC	33%	51
PG&E ETC	26%	23

We further asked respondents to which equipment had they made changes. We found that the most common equipment for which O&M practices were changed was pumping equipment, followed by motors, lighting, and cooking equipment. Less than 5 percent changed HVAC or refrigeration O&M practices.

In addition to asking about O&M changes, we also asked seminar end-use customer participants to rate the influence of the program on *future* purchase decisions. This question was intended to gauge the likelihood that attitudes and behaviors that had been influenced by the program would be sustained in the future. As shown in Table 4-6 below, **most respondents felt that the information they learned from the seminars would be very influential on future purchase decisions.**

Table 4-6
Influence of the Program on Future Purchase Decisions of End-Use Customers

Influence Rating		Percent of End-Users	
Not at all	1	4%	8%
Influential	2	4%	0 70
Neutral	3	14%	14%
Very	4	36%	67%
Influential	5	31%	07 70
Don't know		11%	
Average Rating		4.0	
Total Responde	ents	191	

We also probed the extent that upstream market actor behaviors changed, as previously reported in Table 4-4. As shown, over 60 percent of upstream market actor program participants incorporated energy efficiency into their sales pitches and differentiated their business by specifying energy-efficient products.

Another indicator of the effectiveness of the seminars on future decisions is whether both enduse and upstream market actor participants retained and shared information they learned from the program. As shown in Figure 4-3, almost all attendees retained the information and more than three-quarters have shared the information with others within or outside of their respective companies.

93% 90% -80% -70% -60% -

Shared information

Figure 4-3
Retention and Sharing of Seminar Information

Number of respondents=346

Retained information

50%

TARGET MARKET ASSESSMENT

This section presents the results of the target market analysis. The objectives of this analysis were to determine the influence of the program on its target audience in terms of awareness, prior participation, and interest in participating in the future.

This section first defines and characterizes the program's target market for each center and presents the current market for energy-efficiency seminars based on target market survey responses. Then, we present target market program awareness and prior participation, followed by interest in participating in the program in the future. The section concludes with a discussion of barriers to participation.

5.1 DEFINITION AND CHARACTERISTICS OF THE PROGRAM'S TARGET MARKET

The Statewide Education, Training and Services Program is unique in the sense that, with the exception of San Diego Gas & Electric (SDG&E), the program provides services through physical energy centers. This characteristic effectively limits participation geographically, assuming that there is an upper limit on the amount of time utility customers would be willing to spend to travel to a center. We addressed this program characteristic in our study design by incorporating geography into our target market analysis. Through the target market survey, we sought to determine the program's influence on a specific range of customers that were likely to be willing to participate in the program. In effect, we removed customers from the program's target market that were assumed to be out of a reasonable driving distance range.

To develop the appropriate definition of "reasonable driving distance" for each center, we worked with program staff and reviewed prior evaluation results. For SDG&E, the target market was assumed to be the entire service territory due to the territory's compact size and that the seminars are conducted throughout the territory at various locations. The target market definitions for each center are described below.

- Pacific Gas and Electric's (PG&E's) Energy Training Center (ETC) (located in Stockton, California in the northern central valley): Within 60 miles of the center plus a 15-mile radius around the City of Fresno
- Southern California Edison's (SCE's) Agricultural Technology Application Center (AGTAC) (located in Tulare, California in the southern central valley): Within 60 miles of the center
- SCE's Customer Technology Application Center (CTAC) (located in Irwindale, California in Los Angeles County): Within 50 miles of the center

¹ CTAC Market Effects Study (1998) by Hagler Bailly, Inc., and CTAC and AgTAC Market Effects Study (2000) by KMA-KNERGY

- Southern California Gas's (SCG's) Energy Resource Center (ERC) (located in Downey, California in Los Angeles County): Within 50 miles of the center
- **SDG&E** (seminars conducted throughout SDG&E's service territory in San Diego County and South Orange County): SDG&E electric service territory.

Figure 5-1 presents the geographic target market used for this analysis. As shown, there are essentially four geographic areas comprising the program's target market, since CTAC and the ERC are located within 10 miles of each other.

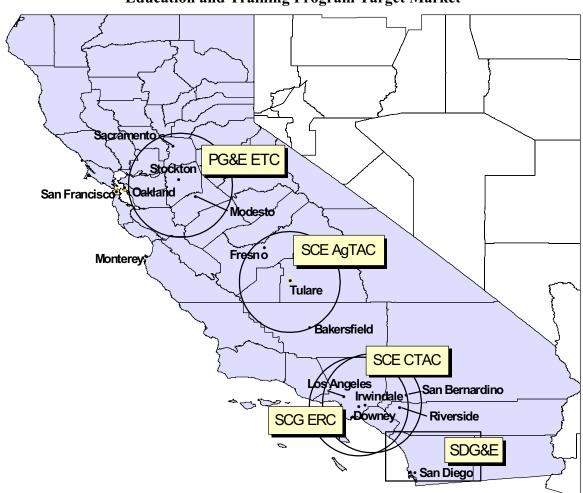


Figure 5-1
Education and Training Program Target Market

Tables 5-1, 5-2, 5-3, and 5-4 define the target populations for each of the target market areas for both end-use customers and upstream market actors. As presented in Section 3, the program targets both end-use customers (to assist them in lowering their energy bills) and upstream market actors (who design buildings and/or conduct energy-efficiency retrofits and renovations). CTAC and the ERC have the potential to reach over 250,000 end-use customers and 35,000 upstream market actors. SDG&E has a smaller target market, consisting of 100,000 end-use

customers and nearly 10,000 upstream market actors. AGTAC and the ETC, both located in the more rural central valley, have smaller target audiences, with less than 25,000 target customers.

Note that we present ETC's upstream market actor target market and AGTAC's end-use customer target market separately. The ETC's upstream market actor target market consists of residential contractors. AGTAC's end-use customer target market includes a separate agricultural segment that is not included for the other centers.

Table 5-1
End-Use Customer Target Market for CTAC/ERC and SDG&E

Business Category	Size	Number of	Accounts
,	Size	CTAC/ERC	SDG&E
la atituti a a	Very small	2,927	1,997
	Small	1,396	565
Institution	Medium	2,164	626
	Large	410	121
	Very small	53,991	34,582
Office	Small	12,886	9,195
Office	Medium	3,260	1,017
	Large	517	171
	Very small	36,467	15,143
Retail	Small	11,648	2,259
Retail	Medium	2,008	510
	Large	336	71
	Very small	12,863	6,116
Doctourant/Crosser/	Small	12909	2,667
Restaurant/Grocery	Medium	1,595	437
	Large	59	7
	Very small	32,959	14,884
Other Commercial	Small	9,417	2,210
Other Commercial	Medium	2,481	743
	Large	308	190
	Very small	16,648	9,314
Industrial	Small	7,305	1,405
muusman	Medium	3,613	621
	Large	1,167	148
	Very small	2,296	1,780
General Agriculture	Small	627	1,520
(SIC codes 07, 08, and 09)	Medium	149	54
	Large	14	0
	Very small	1,667	588
Wastewater	Small	706	324
vvastewater	Medium	829	112
	Large	144	39
Total	Ĭ	235,766	109,416

Table 5-2
End-Use Customer Target Market for AGTAC

Business Category	Size	Number of Accounts
	Very small	123
Institution	Small	135
Institution	Medium	160
	Large	21
	Very small	2,304
Office	Small	645
Office	Medium	93
	Large	12
	Very small	1,523
Retail	Small	470
Netali	Medium	61
	Large	9
	Very small	366
Restaurant/Grocery	Small	545
Restaurant/Grocery	Medium	67
	Large	1
	Very small	2,027
Other Commercial	Small	429
Other Commercial	Medium	76
	Large	7
	Very small	506
Industrial	Small	166
mustrai	Medium	50
	Large	21
	Very small	89
General Agriculture	Small	16
(SIC codes 07, 08, and 09)	Medium	1
	Large	0
Manufacturing-Food processing	Demand	70
Managadaning 1 dod processing	Non-demand	6
Agricultural Production - Crops	Demand	1,648
Agricultural Froduction Crops	Non-demand	1,275
Agricultural Production – Livestock & Animals	Demand	543
	Non-demand	314

Table 5-2, continued
End-Use Customer Target Market for AGTAC

Business Category	Size	Number of Accounts
Agricultural Services	Demand	92
Agricultural Services	Non-demand	40
Irrigation Suppliers	Demand	94
Imgation Suppliers	Non-demand	42
	Very small	213
Wastewater	Small	138
vvastewater	Medium	33
	Large	2
Total		14,433

Table 5-3
Upstream Market Actor Target Market for the ETC

Туре	Size	Number of Establishments
	Small	2,908
Engineering	Medium	1,013
	Large	329
	Small	1,089
HVAC	Medium	423
	Large	120
	Small	94
Insulation Contractors	Medium	64
	Large	30
	Small	318
Pool Contractors	Medium	44
	Large	0
Desidential Duilding	Small	6,694
Residential Building Contractors	Medium	1,362
Contractors	Large	238
	Small	106
Window Contractors	Medium	75
	Large	16
Building inspectors	All	220
Total		15,143

Table 5-4
Upstream Market Actor Target Market for CTAC/ERC, AGTAC, and SDG&E

Type	Size	Numbe	Number of Establishments				
Туре	Size	CTAC/ERC	AGTAC	SDG&E			
	Small	48	13	12			
Ag Pumping	Medium	19	6	5			
	Large	7	0	1			
	Small	61	127	32			
Agriculture	Medium	44	52	21			
	Large	0	14	1			
	Small	2,285	98	655			
Architecture	Medium	529	30	150			
	Large	87	3	18			
	Small	3,576	230	1,171			
Engineering	Medium	1,272	99	409			
	Large	348	21	123			
	Small	1,937	178	331			
HVAC	Medium	579	78	112			
	Large	126	15	37			
	Small	2,074	128	470			
Lighting	Medium	422	40	101			
	Large	92	12	25			
	Small	1,433	98	181			
Motors	Medium	988	54	124			
	Large	218	10	31			
Nonresidential	Small	5,396	511	1,338			
Building Contractors	Medium	2,267	253	507			
Danaing Contractors	Large	670	59	185			
	Small	856	106	166			
Refrigeration	Medium	273	38	61			
	Large	65	4	9			
Posidontial Building	Small	7,727	856	2,320			
Residential Building Contractors	Medium	1,598	162	459			
	Large	243	29	78			
Total		35,240	3,324	9,133			

5.2 CURRENT MARKET FOR ENERGY EFFICIENCY SEMINARS

As part of the target market analysis, we sought to determine the extent to which the target market attends energy-efficiency seminars in general (i.e., not necessarily those offered by the program). As shown in Table 5-5, **over one-third of the target population attends energy-efficiency seminars with some frequency.** We found that seminar attendance varied based on a customer's size, which was defined based on energy usage (see Appendix A, Survey Methodologies, for more details on the sample design). As can be expected, larger end-use

customers were more likely to attend seminars than smaller end-use customers. There are two possible reasons for this:

- 1. Larger customers by definition have higher energy bills and accordingly may have a greater potential for reducing energy costs
- 2. Larger customers are likely associated with more resources to devote to training and may be able to invest in energy efficiency more readily.

We also found that certain upstream market actors were more likely to attend seminars. Specifically, engineers, nonresidential HVAC contractors, and motor vendors and specifiers were more likely to attend seminars than other upstream market actors. Likewise, residential HVAC contractors, nonresidential lighting contractors, and residential builders attend energy-efficiency seminars *less* frequently.

Table 5-5
Frequency with which the Target Market Attends Energy-Efficiency Seminars

Frequency	End-users	UMAs
Attends seminars	35%	40%
Very frequently	2%	7%
Somewhat frequently	14%	16%
Not very frequently	20%	18%
Does not attend seminars	65%	58%
Number of respondents	583	466

Tables 5-6 through 5-9 show these results for each of the four target market areas. We show both the percent of the target market and an estimate of the number of customers. As shown, the fraction of the target market that attends seminars comprises over 120,000 end-use customers and more than 25,000 upstream market actors across the 4 target markets.

Table 5-6
Frequency with which the CTAC/ERC Target Market Attends Energy-Efficiency Seminars

Frequency	End-users		UMA	\s
Attends seminars	87,500	39%	12,600	37%
Very frequently	5,300	2%	3,300	10%
Somewhat frequently	33,600	15%	3,800	11%
Not very frequently	48,700	22%	5,400	16%
Does not attend seminars	138,503	61%	21,200	63%
Total	226,000	100%	33,800	100%
Number of respondents	324		85	

Table 5-7
Frequency with which the SDG&E Target Market Attends Energy-Efficiency Seminars

Frequency	End-users		UMAs		
Attends seminars	30,500	29%	3,700	42%	
Very frequently	700	1%	700	8%	
Somewhat frequently	12,300	12%	900	10%	
Not very frequently	17,500	17%	2,100	24%	
Does not attend seminars	75,400	71%	5,200	58%	
Total	105,900	100%	8,900	100%	
Number of respondents	158		85		

Table 5-8
Frequency with which the AGTAC Target Market Attends Energy-Efficiency Seminars

Frequency	End-u	sers	UMAs		
Attends seminars	4,200	29%	1,600	48%	
Very frequently	600	4%	200	7%	
Somewhat frequently	1,200	9%	600	20%	
Not very frequently	2,300	16%	700	21%	
Does not attend seminars	10,000	71%	1,700	52%	
Total	14,300	100%	3,300	100%	
Number of respondents	101		100		

Table 5-9
Frequency with which the PG&E ETC Target Market Attends Energy-Efficiency Seminars

Frequency	UMAs			
Attends seminars	5,700	38%		
Very frequently	700	5%		
Somewhat frequently	2,900	19%		
Not very frequently	2,100	14%		
Does not attend seminars	9,200	62%		
Total	14,900	100%		
Number of respondents	196			

5.3 AWARENESS OF THE CENTERS AND THEIR SERVICES

This subsection presents the number and percentage of the target market that is aware of the program. We asked end-use customers and upstream market actors located in the four target market areas whether they had heard of their respective energy center. For the ERC/CTAC

geographic area, we asked customers about both centers.² For SDG&E, we asked customers if they were aware that their utility conducts seminars for their customers on energy efficiency.

As shown in Table 5-10 below, the percentage of target market customers that is aware of the centers varies widely depending on the type of customer (end-use v. upstream market actor) and the location, ranging from 14 to 57 percent. The more densely populated area surrounding CTAC and the ERC is associated with, on average, lower awareness rates (14 percent for end-use customers and over 20 percent for upstream market actors). Also, upstream market actors are generally more likely to be aware of a center than end-use customers. Although SDG&E does not have a physical center, its seminars are associated with a relatively high awareness rate, close to 50 percent for upstream market actors and 37 percent for end-use customers. SDG&E offers its seminars throughout its small service territory, which helps to reach a wide geographic audience.

Table 5-10
Awareness of Centers Among End-use Customer and Upstream Market Actor Target
Markets

	End-users			UMAs		
Center	Number of	Percent of	Number of	Number of	Percent of	Number of
Center	Target	Target	Survey	Target	Target	Survey
	Customers	Market	Respondents	Customers	Market	Respondents
CTAC	33,400	14%	324	8,800	26%	85
ERC ¹	30,700	14%	308	7,100	21%	85
AGTAC	8,100	57%	101	1,900	56%	100
ETC	-	-	-	5,200	35%	196
SDG&E	40,400	37%	158	4,300	48%	85

¹Excluding end-use customers who do not have gas service

5.3.1 Center Awareness by Business Type, Size, and Frequency of Attending Seminars

We analyzed awareness by business type, size, and frequency of attending energy-efficiency seminars in general. For CTAC, we found that larger end-use customers and upstream market actors that frequently attended energy-efficiency seminars were more likely to be aware of the center. Moreover, we found that industrial, institutional, and wastewater customers were more likely than office and retail customers to be aware of CTAC.

Another important distinction for CTAC's upstream market actor target audience is whether they are an SCE customer. We included upstream market actors that receive electric service from a utility other than SCE in the sample because these customers serve end-use customers that are in

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² We excluded end-use customers who do not have gas service from the awareness results for the ERC.

SCE's service territory. We found that only 2 percent of non-SCE upstream market actors were aware of CTAC, compared with 39 percent of SCE upstream market actors. This result reflects marketing efforts that were historically focused on SCE customers. Bill inserts, account representatives, and other utility-customer-focused marketing efforts would not address upstream market actors that do not receive service from SCE. We found a similar but less pronounced effect on end-use customers that have SCG gas service and electric service from Los Angeles Department of Water and Power (LADWP). A small sample of LADWP customers were included in the CTAC/ERC sample since a small number of these customers are located within 50 miles of both centers and (receiving gas service from SCG) are eligible to participate in the program. Thirteen percent of LADWP end-use customers are aware of CTAC, versus 21 percent of SCE electric end-use customers.

For the ERC, we found that size was not as important of an indicator of awareness except for the "very small" end-use customers, which were less likely to be aware of the center. We did find that in general those that attend energy-efficiency seminars frequently were more likely to be aware of the ERC. Likewise, institutional and wastewater customers were relatively more aware of the center.

AGTAC awareness was not dependent on size or business type. However, like CTAC awareness, upstream market actors that are SCE customers are far more likely to be aware of AGTAC—74 percent v. 33 percent for upstream market actors that receive electricity from PG&E.

Awareness of SDG&E seminars also does not depend on business type or size. Instead, only whether a customer attends energy-efficiency seminars frequently increases awareness.

Awareness of the ETC does not differ across business types, sizes, or frequency that its target market attends energy-efficient seminars.

5.3.2 Awareness of Specific Center Services

For target market survey respondents who were reportedly aware of a center, we asked them (unprompted) of which services they had heard (e.g., seminars, guided tours, exhibits, etc.). Energy-efficiency seminars and workshops were by far the service of which respondents were most likely aware. Few respondents were aware of other services offered, with the exception of CTAC and AGTAC hands-on product demonstrations (18 and 35 percent, respectively), AGTAC guided tours (27 percent), AGTAC expert advice (35 percent), and AGTAC agricultural-related seminars and services (22 percent).

5.4 Use of Center Services

Next, we present historic usage of the centers by the target market. We asked survey respondents who were reportedly aware of a center whether they had used any of its services. As shown in Table 5-11, about one-third of customers who are aware of the program have used its services, comprising over 35,000 end-use customers and 10,000 upstream market actors.

PG&E's ETC is associated with a very high rate of usage among aware customers, with 70 percent of aware upstream market actors having used ETC's services in the past. ERC- and AGTAC-aware upstream market actor customers are on average less likely to have used their respective centers.

Table 5-11
Use of Center Services Among Aware End-use Customer and Upstream Market Actor
Target Markets

	End-users			UMAs		
Center	Number of		Number of	Number of		Number of
	Target	Percent of	Survey	Target	Percent of	Survey
	Customers	Aware	Respondents	Customers	Aware	Respondents
CTAC	14,000	42%	91	3,900	44%	22
ERC ¹	10,600	35%	84	1,100	16%	17
AGTAC	2,400	30%	62	400	20%	56
PG&E	-	-	-	3,700	70%	82
SDG&E	9,600	24%	67	1,200	27%	45

¹Excluding end-use customers who do not have gas service

Table 5-12 shows historic program participation, but among *all* target market customers. (Table 5-11 showed the percentage of prior usage among *aware* customers. While the numbers are the same for Tables 5-11 and 5-12, the percentages for Table 5-11 are lower since the base includes *all* target market customers.) **Six percent of target end-use customers and 10 percent of target upstream market actors have used the program's services in the past.** We found that both end-use customers and upstream market actors that frequently attend energy-efficiency seminars were more likely to have used the program's services. Likewise, for SDG&E, institutional and office end-use customers were more likely to have attended SDG&E seminars (76 and 43 percent, respectively) than other customer types.

Table 5-12
Use of Center Services Among End-use Customer and Upstream Market Actor Target
Markets

		End-users		UMAs		
Center	Number of	Percent of	Number of	Number of	Percent of	Number of
Center	Target	Target	Survey	Target	Target	Survey
	Customers	Market	Respondents	Customers	Market	Respondents
CTAC	14,000	6%	324	3,900	11%	85
ERC ¹	10,600	5%	308	1,100	3%	85
AGTAC	2,400	17%	101	400	11%	100
PG&E	-	-	-	3,700	24%	196
SDG&E	9,600	9%	158	1,200	13%	85

¹Excluding end-use customers who do not have gas service

We asked prior center attendees what type of services they had used, and we found that, predominantly, the most frequently used service was seminars.

5.5 Interest in Using Center Services

All of the survey respondents were asked about their interest in using the program's services in the future. Those who were aware of the program were asked about their interest in participating in the future, and those who were unaware prior to the survey were read a brief description of their the program's services and then asked about their interest in participating in the future.

As shown in Table 5-13, upwards of half of the program's target market (more than 300,000 end-use customers and almost 50,000 upstream market actors) is interested in using the program's services in the future. Figures 5-2 and 5-3 demonstrate that customers who were already aware of the program and/or had used its services are much more likely to express interest in participating in the future. The figures display the percentage that is interested in participating in the program in the future, first for the total target market, second for the "aware" population, and lastly for those who have participated in the program previously.

We found that size of business was not a factor in future interest in the centers. Interestingly, as reported previously, smaller customers were much less likely to attend energy-efficiency seminars (i.e., seminars in general, not necessarily those offered by the program) than larger customers. However, small customers are just as likely as large customers to be interested in using the program's services in the future. Notably, we did find that business type impacted interest in future program participation for CTAC and ERC target markets. Institutional, other commercial, and wastewater customers were more interested in CTAC and ERC services, while retail customers were less interested in CTAC services, while restaurants, industrial, and retail customers were less interested in ERC services.

Table 5-13
Interest in Using Center Services Among End-use Customer and Upstream Market Actor
Target Markets

	End-users			UMAs			
	Number of	Percent of	Number of	Number of	Percent of	Number of	
	Target	Target	Survey	Target	Target	Survey	
Center	Customers	Market	Respondents	Customers	Market	Respondents	
CTAC	137,500	58%	324	16,900	50%	85	
ERC ¹	123,900	55%	308	14,600	43%	85	
AgTAC	7,200	51%	101	1,900	58%	100	
PG&E	-	-	-	9,600	63%	196	
SDG&E	50,100	46%	158	3,200	36%	85	

¹Excluding end-use customers who do not have gas service

Figure 5-2
End-use Customer Interest in Using Center Services, by Awareness and Prior Use

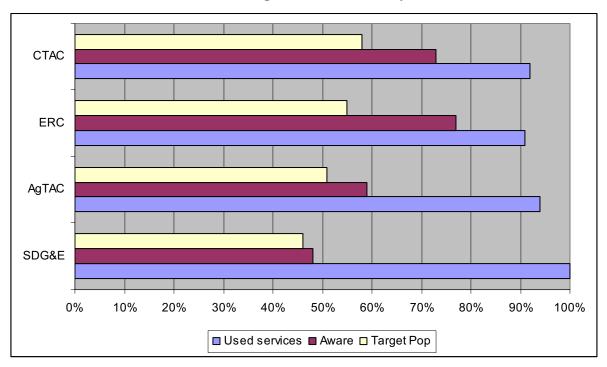
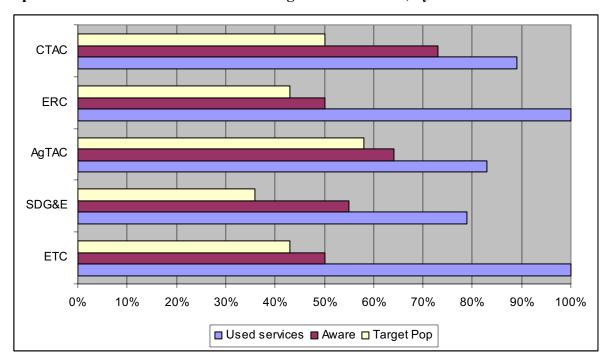


Figure 5-3 Upstream Market Actor Interest in Using Center Services, by Awareness and Prior Use



5.6 BARRIERS TO USING CENTER SERVICES

One of the most significant barriers to increasing participating in the program is awareness. As presented above, only about one-quarter of the target market is aware of the program and its services.

We explored whether additional barriers existed by asking all respondents, once informed of the program and its services, whether they were interested in participating in the future and if not, why not. The most commonly cited reason was that the seminars were not relevant or would not be useful, mentioned by more than half of "uninterested" respondents (or about one-quarter of all respondents). Other variants of this response were, "I am not interested;" "I don't think it would be worthwhile;" "It does not address my issues;" "I don't think it would be beneficial;" "I really don't care enough;" "What they offer is not really relevant to my business;" and "I just don't need it."

The next most commonly cited response was lack of time. About one-quarter of respondents who were not interested in using the program's services cited time constraints as to their lack of interest (or about 13 percent of all respondents). Other reasons provided include:

- My company is too small (around 10 percent of end-users and 6 percent of upstream market actors)
- My energy bills are too low (around 10 percent of end-users)
- I would need more information/I lack information about the seminars (around 5 percent of end-users)
- The center is too far (around 4 percent of end-users)
- My facility is already energy efficient (around 4 percent of end-users).

Notably, a number of AGTAC target market customers said that they were not interested in using AGTAC's services because they were not agricultural customers or did not serve the agricultural industry (15 percent of end-use customers and 40 percent of upstream market actors). Likewise, about 8 percent of end-users located in ERC's target market said they were not interested in visiting the ERC because they were not in the food service industry. These target market customers are not informed of the range of services offered by both the ERC and AGTAC that address all customer segments, not just agricultural or food service customers.

PROCESS EVALUATION

This section presents the process evaluation results. The process evaluation was intended to provide ongoing feedback and corrective guidance regarding program design and implementation. We assessed the effectiveness of the program's implementation strategies and marketing efforts using both the participant and target market survey results, combined with our review of program filings and materials. In-depth program staff interviews added to our understanding of the program and helped to identify areas both where the program is particularly effective and where it could be improved.

The process evaluation results that are presented below are organized by the following topics:

- Administration
- Coordination
- Seminars/technical services
- Tracking
- Marketing
- Hard-to-reach goals
- Participant satisfaction.

6.1 ADMINISTRATION

As described in Section 3, the Statewide Education, Training and Services Program promotes energy efficiency to utility customers through energy centers, both physical and virtual. As such, the program is administered locally at each of the physical centers with the exception of San Diego Gas & Electric (SDG&E), where the program manager is based at the utility and retains the services of a professional event planner to plan seminars. The utilities coordinate the program statewide mostly by conducting regular conference calls.

The program has been offering energy-efficiency seminars for many years. The program benefits from effective communication and coordination within each center¹ due to high retention of staff over time. Likewise, staff members typically "wear many hats" and perform a variety of support functions, often providing administrative, marketing, planning, and technical support. This approach facilitates staff understanding of all of the activities being conducted at the center, minimizing potential communication and coordination issues. Moreover, this approach is indicative of the streamlined operations with which the program is associated. Two

¹ As mentioned in Section 3, when we refer to a center we are also referring to SDG&E's seminars. Note that SDG&E's program is managed and supported by one program manager and a subcontracted event planner. As a result, communication and coordination is effective and efficient for SDG&E.

of the centers in particular could benefit from obtaining additional staff. Both the Agricultural Technology Application Center (AGTAC) and Customer Technology Application Center (CTAC) are currently assessing whether they will request additional staff—AGTAC to replace a full-time employee who left and was not replaced and CTAC to address the need for engineering expertise.

The majority of the program's staff report that local administration within the centers is effective. Program participant survey responses support this assertion, as none identified any issues or problems with regard to program administration.

One area that poses a challenge to center administration is maintaining contact with corporate decision-making. The fact that the centers are geographically apart from their respective utility headquarter buildings increases the possibility that program staff will be "out of the loop" with regard to important decisions that impact the program. In particular, it is important the program stay abreast of regulatory decisions (e.g., approval/modification of program plans) as well as details on other energy-efficiency programs that they may be promoting to customers (e.g., changes to programs, whether rebates are no longer available, etc.). Program staff admit that while this issue continues to pose a challenge, over time communication with utility headquarters has improved. Corporate news is more often passed on to program managers on a timely basis, and program staff are more likely to be in regular contact with relevant utility staff. Of course, this issue is not of concern for SDG&E because its program manager is based at the utility headquarters building.

6.2 COORDINATION

As mentioned above, the programs are well coordinated at the center level (and for SDG&E at the utility's headquarters).² The program also coordinates with other energy-efficiency programs offered by the utilities, so that programs may be cross-promoted, and customer contacts are leveraged as much as possible. The main vehicle for ensuring coordination of energy-efficiency programs is an annual program roll-out that is typically held at each utility's energy center. This roll-out provides energy center staff a chance to learn about the new programs being offered for a given year and to obtain program collateral that can be stocked at the center. The program roll-outs are also an opportunity to market the energy centers and their services internally to energy-efficiency program managers and account representatives. Some of the centers (and SDG&E as well) offer periodic seminars for their customers on the availability of utility rebates through participation in other energy-efficiency programs. Moreover, all seminars that address a technology that is covered under a utility energy-efficiency program will promote the rebates and inform seminar participants of important program parameters (e.g., equipment specifications, eligibility requirements, program end dates, etc.).

The utilities have recently increased coordination at the statewide level to enhance the opportunities that are available through statewide coordination and collaboration. **The most**

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² The program is also well coordinated with PG&E's Pacific Energy Center activities, not evaluated here.

significant benefit to the program as a result of extensive statewide coordination is the ability to share seminars, reducing seminar development costs and expanding the audience to which the seminars are offered. Another benefit from increased statewide coordination is that the program's energy-efficiency message is more consistent across the state.

In 2002, the utilities strengthened relationships among program staff through regular conference calls that addressed implementation, marketing, and regulatory reporting. This periodic communication across the centers resulted in coordination of speakers, seminar schedules, seminar content, and sharing of mailing lists. Regulatory reporting is arguably the most difficult area to coordinate because each center has unique features. For example, the utilities have discussed making consistent the definition of what constitutes a seminar, based on amount of time, content, etc. Likewise, the fact that SDG&E does not have a physical center poses issues with regard to consistent regulatory reporting.

Overall, the utilities agree that statewide coordination has benefited the program. Program staff has been able to introduce new seminars to their customers at little cost due to sharing of seminars across the state. Marketing has been made more effective due to sharing of mailing lists. One example of how statewide coordination has increased the program's service to customers is that AGTAC receives frequent visits from Pacific Gas and Electric (PG&E) account representatives to update AGTAC's PG&E customers on their energy-efficiency programs. Because AGTAC is located near PG&E's service territory, this example of increased coordination effectively expands the services being offered to AGTAC's visitors.

6.3 SEMINARS/TECHNICAL SERVICES

As stated in Section 3, the 2002 program continued to offer its core seminars and workshops, on which it has consistently relied to educate its target markets. These include Commercial and Industrial Lighting, HVAC for Commercial Facilities, Building Envelope Designs, Daylighting, Motors/Adjustable Speed Drives, Energy Efficient Refrigeration, Lighting Fundamentals, Residential and Non-residential Title 24 Compliance, Residential HVAC Qulity Installation, and others. Appendix G provides a catalog of seminars offered in 2002, organized by seminar category, including instructor and seminar target audience where available.

6.3.1 Seminars Offered by Other Entities

The program designs its course offerings to address specific energy-efficiency topics that are not covered by other educational programs. For example, universities and community colleges offer foundation courses on equipment and operations and maintenance but do not focus on energy efficiency. Likewise, some organizations such as the Building Owners and Managers Association, the American Society of Heating, Refrigerating and Air-Conditioning Engineers, and the International Facility Management Association offer some energy-efficiency courses, but typically these courses are only offered on a limited basis and/or are a smaller component of a broader educational objective.

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In PG&E's territory, some programs are offered by third-party implementers that provide training to their customers. The Energy Training Center (ETC) for the most part coordinates with these programs by participating in the training or providing the training. In SDG&E's territory, the San Diego Regional Energy Office has an energy center that offers energy-efficiency seminars. However, the focus of these seminars is narrow (i.e., self-generation, photovoltaic systems, green building design, and incentive programs.)

CTAC and the Energy Resource Center (ERC) are located within 10 miles of each other, and, as such, they closely coordinate their seminars to ensure that they do not duplicate seminars. Moreover, the two centers often coordinate and offer joint seminars, which provide comprehensive training on both gas and electric equipment.

6.3.2 Target Audience

The program targets a wide audience of nonresidential utility customers, including all classes of end-use customers (commercial, industrial, and agricultural) and all types of businesses such as institutions, industry, retail, farmers, food processing, hotels, and restaurants. The seminar offerings address both large and small end-use customers. The program is also targeted at upstream actors such as engineers, architects, contractors, and designers.

6.3.3 New Seminar Development

Each year the program introduces new seminars to address new technologies, changing codes and standards, and to expand upon existing seminars, for example, by adding advanced courses. Program staff develop new seminar topics through a number of mechanisms. The primary method for identifying potentially new seminars is obtaining seminar attendee feedback. Each program participant is asked to fill out a satisfaction card after the seminar has concluded, and instructors encourage participants to suggest topics for new seminars. The program staff are also in close touch with associations and experts in relevant fields, allowing them to monitor product trends and learn about new technologies. Moreover, utility staff engineers also provide input when they learn of topics that might be relevant for new seminars.

The program relies on a combination of paid consultants and in-house staff to develop new seminars. Some recent developments have addressed such topics as green/high-performance buildings (e.g., cool roofs, deconstruction, or "trash into cash"), emerging technologies, sector-specific needs (e.g., energy-efficient refrigeration for supermarkets, merchandising with energy-efficient lighting, air quality management, baking courses), program support (high-efficiency pool filtration), and general customer needs and wants (Light Fair for 2003).

6.3.4 Limitations Facing SDG&E

It should be noted that since SDG&E does not have a physical center, it is uniquely constrained in the types of seminars it can offer. While SDG&E does offer many of the core seminars (e.g., lighting, motors, and basic HVAC), it cannot offer seminars that rely on demonstrations and displays. The program relies on trade ally partnerships to obtain loaned equipment to showcase

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and demonstrate technologies. SDG&E holds its seminars at varying sites, including hotels, where it is unfeasible for manufacturers and distributors to loan equipment for permanent installation.

6.4 TRACKING

The main tracking function that supports program reporting and marketing is recording seminar participants in an electronic database. Each of the centers has its own method for participant tracking, and they each have been continuously improving their database over time. For example, both CTAC and AGTAC are moving from a Microsoft Excel tracking system to an Oracle database, while the ETC is moving to a Microsoft Access database from Excel.

The seminar participant databases are the foundation of the program's marketing database. As such, the utilities store prior participants' names, addresses, and other contact information such as fax numbers and e-mail addresses. Additional functionality that some utilities currently have or are exploring includes tracking of repeat participants, size and business type of participants, hard-to-reach (HTR) characteristics, and customer satisfaction survey responses. Tracking the size and sector of participants allows a custom approach to marketing, so that the program can target market certain seminars to specific sectors.

While the databases that the program utilizes are adequate from the standpoint of marketing to future seminar participants, there is room for improvement in using the databases for evaluation and regulatory reporting purposes. We found that when we requested extracts of seminar participants and a comprehensive list of energy-efficiency seminars offered in program year 2002, it took multiple iterations with the utilities to determine the final list of seminars and to match that up with the list of attendees. Moreover, a small fraction of the seminar attendee lists was not available electronically and was provided in hard copy. A few others were not available at all. This suggested that there is likely room for improvement in the tracking function to facilitate effective marketing and to enable the program to accurately and efficiently track attendees and seminars.

6.5 MARKETING

As stated above, the seminar participant database provides the foundation for marketing the program. The major marketing strategies employed by the program, described in detail in Section 3.3.4, include direct mail of quarterly/yearly course calendars, contact with associations/industry experts, word of mouth, account representatives, the utilities' web sites, blast faxing/e-mails, and utility bill inserts.

The utilities have found that faxing, e-mail, and on-line registration are eliciting an increasingly positive response, particularly among certain segments of customers. As part of the participant survey, we asked 2002 seminar attendees how they learned of the seminar. As shown in Table 6-1, the most prevalent method was receiving a brochure in the mail. The next most common response was e-mail, cited by 16 percent of participants. We found a significant difference in the proportion of participants that heard about the seminar via e-mail across centers,

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with nearly half of SDG&E participants learning of the seminar via e-mail. Only 16 percent of CTAC and less than 10 percent of the other centers' participants heard about the seminar via this method.

Table 6-1
How Participant Heard about the Seminar

Method	End-use	UMA	Total
Brochure in the mail	45%	50%	47%
E-mail	17%	15%	16%
Utility representative	14%	9%	12%
Someone in my company told me about it	11%	9%	10%
Website	8%	6%	7%
Someone outside my company told me about it	6%	2%	5%
Utility bill insert	4%	4%	4%
Given a brochure by someone at my company	4%	2%	3%
Consultant or contractor	3%	2%	3%
Fax	2%	2%	2%
Trade magazine article	1%	1%	1%
Professional organization	1%	1%	1%
Trade show	1%	1%	1%
Number of respondents	216	130	346

Table 6-2 displays the preferred method for informing customers of seminars. **Brochures in the mail are the number-1 preferred source for being informed about seminars.** For upstream market actors, over one-half prefer to be faxed information about upcoming seminars. Responses differed significantly by center. AGTAC participants' top three preferences were brochure, e-mail, and bill insert; CTAC's were brochure, fax, and e-mail; ERC's were brochure, account representative, and fax; ETC's were brochure, fax, and bill insert; and SDG&E's were e-mail, brochure, and fax.

Table 6-2
How Participant Would Prefer to be Informed about Seminars

Method	End-use	UMA	Total
Brochure in the mail	45%	53%	48%
Fax	3%	55%	22%
E-mail	17%	2%	12%
Utility representative	13%	1%	9%
Colleagues outside my company	11%	0%	7%
Website	8%	3%	6%
Utility bill insert	4%	7%	5%
Consultant or contractor	6%	0%	4%
Others at my company	4%	1%	3%
Number of respondents	216	130	346

6.6 HARD-TO-REACH GOALS

As reported in Section 3.3.5, 2002 was the first year that the utilities tracked HTR customer participation, although these customer segments have always been included in the program's target audience.

The utilities are setting and tracking HTR goals using different methods. PG&E and Southern California Edison are using the geographic HTR criterion only, while Southern California Gas (SCG) and SDG&E are using a combination of all criteria. (PG&E targets contractors only, and as such, the other criteria do not apply since they are relevant for end-use customers only.) PG&E tracks the geographic location of attendee, while the other utilities track the geographic location of the seminar. SDG&E also offered separate HTR "events" to HTR customers, which were counted towards HTR accomplishments. As a result of the different methods being employed to set HTR goals and track HTR accomplishments, it is difficult to summarize HTR accomplishments across the whole program and to compare accomplishments by center.

It should be noted that it is more difficult for this program in particular to track HTR criteria because customers attending seminars do not have to be screened as thoroughly as participants of other utility programs, such as to receive rebates or incentive payments. The easiest HTR criterion that can be tracked is the rural v. urban definition. The other criteria may be collected as part of the customer satisfaction survey, but not all attendees will provide the information, and the information may not be able to be verified against utility records.

Each of the utilities engaged in specific activities to attempt to reach a broader audience to expand the participation among HTR segments. For both AGTAC and the ETC, which historically have focused on rural areas due to their locations, promotional efforts were not significantly expanded. CTAC and SCG made special efforts to customize their seminars to attract HTR customer segments (e.g., modifying the schedule to accommodate longer driving distances and offering seminars off site in remote locations) and to reach out to professional associations that are associated with small customers (e.g., Krean grocers association). SDG&E designed special HTR "events" that were tailored to small customers.

6.7 Participant Satisfaction

To assess participant satisfaction with the program, we asked participants two overarching questions. First, we asked them to rate the overall usefulness of the seminar, and second, their overall satisfaction with the program. As shown in Table 6-3, the majority of participants found the seminars to be very or extremely useful. Likewise, an even greater majority were very or extremely satisfied with the program overall, as shown in Table 6-4.

Table 6-3 Usefulness of the Seminars

Usefulness Rating		Percent of E	End-users
		When making purchase decision	For rationalizing certain decisions
Not at all	1	3%	4%
Useful	2	4%	3%
	3	13%	12%
Extremely	4	30%	34%
Useful	5	32%	34%
	Don't know	17%	12
	Average Rating	4.0	4.0
	Total Respondents	181	190

Table 6-4
Overall Satisfaction with the Program

Satisfaction Rating		Percent of Respondents
Not at all	1	1%
Satisfied	2	1%
	3	8%
Extremely	4	35%
Satisfied	5	53%
	Don't know	2%
	Average Rating	4.4
	Total Respondents	346

We did find some differences in overall satisfaction by center and seminar category. The ERC's basics and general energy-efficiency seminars were not as highly regarded as those offered by the other centers. SDG&E's participants were less satisfied with HVAC, motor, and lighting seminars as other centers' participants. Finally, the ETC's Title 24 seminar participants were slightly less satisfied than the average participant. The reader should keep in mind that our sample sizes were not very large at the center/seminar category level. But the lower overall score for SDG&E could be interpreted to indicate that seminars are more effective delivered from a physical center.

We asked respondents who rated their satisfaction lower than 4 on a scale from 1 to 5 (10 percent of respondents) to explain the reason for their dissatisfaction. The two most commonly cited responses for dissatisfaction with the program were "the seminar was average" and "the seminar was not applicable to my situation," both cited by one-quarter of dissatisfied participants who rated the seminars a 1, 2, or 3. Around 10 percent said the course was not what they expected or it was not specific enough. Other reasons cited by only one respondent included the following: the respondent was already knowledgeable about the subject, the information was not as technical as expected, the information was not new or up to date, the coverage was too broad, the information was presented in a confusing fashion, and either the presentation was not of high quality or the instructors were biased and inexperienced.

We concluded the participant survey by asking for suggestions for improving the program. **About half of respondents said the seminars were fine as is and do not need improving.** Center-specific recommendations given by 5 percent or more of respondents included:

- Five percent of AGTAC participants wanted more seminars offered and/or a greater variety of seminars
- Six percent of CTAC participants complained about the quality and/or quantity of food
- Six percent of CTAC, 4 percent of ETC, and 8 percent ERC participants wanted courses closer to where they lived
- Six percent of ERC participants wanted seminars to be more in-depth, offering more topic-specific information.

This section presents conclusions from the program effectiveness assessment, the target market analysis, and the process evaluation.

7.1 PROGRAM EFFECTIVENESS

The program effectiveness assessment was intended to determine how the program affected participants' attitudes and behaviors with regard to energy efficiency. In particular, we collected evidence from a survey of seminar participants that indicated whether the relevant market barriers, i.e., information costs, performance uncertainty, information asymmetry, and bounded rationality, were reduced as a result of attending the program's seminars.

The program is hypothesized to possess a number of attributes that reduce information-related market barriers, namely, a convenient location and schedule of seminars; being a credible and objective information source; providing on-site demonstrations and technical support; and providing up-to-date information.

The participant survey that supported the program effectiveness assessment was designed to first test the linkages between attending program seminars and reducing market barriers, then to provide evidence of reduced market barriers as a result of attending the program's seminars, and finally to determine whether the program was effective in changing behavior.

7.1.1 Does attending program seminars reduce market barriers?

We tested the hypothesis that the program's seminars reduce the relevant market barriers using a three-pronged approach. First, we asked seminar participants what types of information they rely on for energy-related decision-making, and when they said seminars, we asked them what made seminars more valuable than other sources of information. Next, we asked seminar participants to rate nine aspects of the seminars they attended on a scale from 1 to 5, with 1 meaning poor and 5 meaning excellent. Finally, we asked them why they had attended the seminar. Note that respondents were not prompted for the first and final set of questions; instead, these questions were open-ended.

As demonstrated below, the study results prove that attending the program's seminars reduced information costs and performance uncertainty and addressed information asymmetry. The evidence is less persuasive that the program addressed bounded rationality.

Information Costs

The program theory that we adapted for this study posits that the program's credibility and convenience reduce the costs associated with identifying energy-efficient products and accessing

technical information. As shown below, almost all participants regard the seminars highly in terms of their convenience and credibility, providing evidence that information costs are reduced as a result of attending the program's seminars. The program's credibility and reputation is also a major driver leading customers to attend seminars. Convenience is less important in motivating customers to attend seminars.

Convenience

Twenty-one percent of respondents who preferred to use seminars to gain information as opposed to other information sources (e.g., trade magazines or manufacturer representatives) stated (unprompted) that the convenience of seminars was what made them more valuable. A slightly smaller percentage (13 percent) of all respondents stated (again, unprompted) that the convenience of the program's seminars is one of the main reasons they attended. These results suggest that convenience is not the major reason that most program participants rely on attending seminars to gain information.

When prompted with a series of potential seminar attributes to rate, however, we found that almost all seminar participants found the seminars convenient. Over 80 percent of respondents rated the seminars' convenience a 4 or 5 on a 1-to-5 scale, with 5 meaning excellent.

We conclude that while the great majority of program participants found the seminars convenient as far as their location and schedule, this attribute is a primary driver for only a small percentage of customers in determining whether they attend a seminar.

Credibility and Objectivity

Thirty percent of respondents who preferred to use seminars to gain information as opposed to other information sources stated that the objectivity of seminars and the fact that they were unbiased was what made them more valuable. Over half (59 percent) of all respondents stated that the either the credibility, the objectivity, or the reputation of the program's seminars are reasons for their attendance. Furthermore, attributes such as the objectivity of the information provided, the technical knowledge of the instructor, and the technical level of the information were rated a 4 or 5 by a very high percentage of respondents, 84 percent, 94 percent, and 87 percent, respectively.

These results suggest that almost all program participants find the seminars to be credible, and moreover, the program's reputation and credibility are significant motivating factors for more than half of program participants.

Performance Uncertainty

The program is intended to reduce the uncertainty surrounding the benefits of energy-efficient products through providing objective information, on-site demonstrations, and technical support. As described above, objectivity, credibility, and reputation are major motivating factors behind participation in the program. Likewise, objectivity, technical knowledge of the instructor, and technical level of the information were rated as excellent by most participants. As discussed

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below, hands-on demonstrations and the interactive nature of the seminars were also major drivers of participation. These highly regarded attributes suggest that the seminars act to reduce performance uncertainty for participants.

Hands-on Demonstrations

Almost all respondents (96 percent) who preferred to use seminars to gain information as opposed to other information sources stated that either the hands-on demonstrations or the ability to interact with the instructor and other participants were what made them more valuable. Likewise, most respondents found the demonstrations to be very useful, with 77 percent giving a 4 or 5 rating for this seminar attribute. However, almost no respondents (2 percent) stated that they specifically attended the seminar to test or showcase a product. These potentially disparate results suggest that seminar participants value hands-on instruction as a valuable method for learning new information, but they are not necessarily motivated to attend seminars so that they can test out products themselves.

Information Asymmetry

The program attempts to address the difficulties that utility customers encounter due to lack of information when evaluating claims made by salespeople for energy-efficient products. The seminar attributes that are hypothesized to reduce information asymmetry are its unbiased information and the cutting-edge information it provides on new technologies. As presented previously, about 30 percent of participants prefer seminars to other information sources because they regard them as unbiased. Furthermore, more than half of participants attend the seminars because of their objectivity, good reputation, and their credibility. As indicated below, the seminars are regarded by almost all participants as providing cutting edge or state-of-the-art information. However, reputation and credibility motivate many more participants to attend seminars. In sum, both of these results suggest that the program's seminars reduce information asymmetry by providing up-to-date and credible information on new technologies.

Current and Up-to-Date Information

About 22 percent of seminar participants said that they preferred seminars to other sources of information when learning about new technologies, making them the second most preferred information source. A much higher percentage (43 percent) preferred trade journals. However, a very high percentage of respondents (84 percent) regard the seminars highly based on the cutting-edge or state-of-the-art information they provide, rating this attribute a 4 or 5.

These results suggest that, like convenience, almost all participants value the current and up-todate information provided by the seminars, but only a small percentage are motivated to attend seminars because of this attribute.

Bounded Rationality

The program seeks to address bounded rationality, the tendency of some utility customers not to act on their stated goals, by providing customized, objective, and technical information to help

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customers take action. As demonstrated above, the program is successful in providing objective and technical information, with most participants rating these seminar attributes highly. However, as shown below, there is less evidence that the program is successful in providing customized information. As a result, we conclude that the program is only partially successful in reducing bounded rationality among participants.

Customized Information

We did not ask customers to rate how "customized" or relevant the seminar information was to their needs; however, we did find that 13 percent of participants attended the seminars to help them solve a particular problem (e.g., to consult with someone about a specific issue, to learn about a specific technology, or to help their company meet energy standards). Another possible indicator of the relevance of the seminar information is the percentage of respondents (25 percent) who stated that they were dissatisfied with the seminar because they did not find it applicable or relevant to their situation. These results suggest that seeking customized information is less of a driver of participation than other seminar attributes such as credibility and a good reputation. And while we did not directly assess relevance of the information, we did find that a small but significant fraction of respondents was dissatisfied with the seminar due to lack of relevance. Likewise, many target market respondents who were not interested in using the program's services in the future cited relevance or applicability as reasons for their lack of interest.

7.1.2 Were market barriers reduced as a result of attending the program's seminars?

We examined what effect the program had on reducing the relevant market barriers by asking participants whether their attitudes and behaviors had changed as a result of attending the seminars. The results that established linkages between the seminars and reductions in market barriers help explain *why* one would expect to see evidence of reduced market barriers. The following discussion concerns *whether* we saw any evidence of reduced market barriers.

We found that around three-quarters of end-use customer seminar participants:

- Are more aware of new technologies or practices and energy-efficient solutions
- Better understand how to improve the energy efficiency of existing equipment at their facility
- Have more confidence in the performance of energy-efficient equipment
- Can promote energy efficiency to management better
- Are more likely to specify energy-efficient equipment when given a choice
- Can more confidently evaluate the energy-efficiency performance claims made by salespeople
- Will change some of their company's policies related to specifying or selecting energy-efficient equipment.

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Likewise, slightly less than three-quarters of upstream market actor seminar participants:

- Are more aware of new technologies or practices
- Have more confidence in the performance of energy-efficient equipment
- Have incorporated energy efficiency into their sales pitch
- Feel that their company should consider making it common practice to specify energy-efficient products
- Have changed their company's business strategy by differentiating itself by specifying energy-efficient products.

These results support the conclusion that by addressing information-related market barriers, the program resulted in an increase in awareness of and an improvement in attitudes towards energy-efficient practices for the great majority of participants.

7.1.3 Was the program effective in changing behaviors?

Ultimately, the program's objective is to help end-use customers reduce their energy usage and operation and maintenance (O&M) costs through reducing market barriers for end-use customers and the market actors who serve them. Above, we presented evidence that market barriers have been reduced. The following discussion concerns increases in energy-efficient behaviors that resulted from the reduction in market barriers caused by the program.

The study results showed that about half of end-use customers who made equipment purchases since attending the seminars were influenced by the program to purchase energy-efficient equipment. Likewise, 39 percent of end-use customers were influenced by the program to change their O&M practices.

Of those end-use customers whose purchase decisions were not influenced by the program, respondents were more likely to say they selected energy-efficient equipment (and were not influenced by the program to do so) as opposed to selecting inefficient technologies. That is, very few end users who purchased equipment since the seminar purchased inefficient equipment. Respondents who said the program did not influence their decision reported, "We always choose the more efficient product" or "The seminar reinforced what I already knew."

We also presented evidence that well over half of upstream market actors had changed their behaviors, specifically how they specify energy-efficient products and how their business positions itself with regard to its energy-efficiency specification practices.

As far as future behavior, around two-thirds of end-use customers said that the seminars will be very influential in affecting their future purchase decisions. This result is underscored by the fact

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that almost all respondents (93 percent) have retained the seminar information and 81 percent have shared it with others.

These results indicate that the program is effective in changing a significant number of attendees' behavior. And where the program does not reportedly impact decisions, its information helps emphasize and reinforce knowledge, helping to support the continuation of energy-efficient practices.

7.2 PROGRAM TARGET MARKET

The target market analysis was intended to determine the influence of the program on its target audience in terms of awareness, prior participation, and interest in participating in the future. For the purposes of this study, the target market is defined as a geographic area surrounding each center equal to a reasonable driving distance. While the program effectiveness assessment focuses on the program's impact on 2002 seminar participants, the target market assessment expands the scope of analysis to the program's target audience. This analysis attempts to answer the following questions: What percentage of the target market is aware of the program? What is the extent of prior participation among the target audience? How much interest exists among the target market for using the program's services?

The answers to these questions are crucial to understanding the impact of the program on a wider audience beyond the most recent program participants. As described in the previous subsection, the program is very effective in addressing market barriers among customers who attend its seminars. This target market assessment essentially broadens the evaluation of the program to determine its impact on the target market of utility customers. A secondary goal of this effort is to identify barriers to expanding the scope of the program beyond prior participants.

7.2.1 Awareness of and Participation in the Program

We found that **awareness of the centers varied widely**. In the target market area surrounding both Customer Technology Application Center (CTAC) and the Energy Resource Center (ERC) (the greater Los Angeles metropolitan area), awareness levels were low (less than 25 percent). In the less densely populated central valley, awareness of Agricultural Technology Application Center (AGTAC) (located in Tulare in the southern end of the valley) and the Energy Training Center (ETC) (located in Stockton in the northern end of the valley) was higher—56 and 35 percent, respectively. Nearly half of San Diego Gas & Electric's target market is aware that the utility conducts seminars throughout its service territory.

Among the target market that is aware of the program, participation rates are fairly high—about one-third on average. However, over the entire target market, just over 5 percent have participated, or about 45,000 customers.

These results suggest that there remains tremendous potential for expanding the reach of the program to customers who are not yet aware of and have not yet participated in the program.

7.2.2 Interest in and Barriers to Participating in the Future

Reported interest in using the program's services in the future is high—upwards of half of the target market expressed interest in using at least one of the program's services in the future. The most commonly cited reason for lack of interest was that the seminars are not relevant or would not be useful (mentioned by one-quarter of respondents). Lack of time was another commonly cited response (mentioned by one-eight of respondents).

These results indicate that when made aware of the program, the majority of customers is interested in participating in the program in the future. The two most significant barriers to increasing participation are awareness and relevance of the seminars, suggesting that the program needs to generally inform customers of its services, but also to educate customers on the types of services it offers to convince them that their offerings are indeed relevant.

7.3 PROCESS EVALUATION

The process evaluation was conducted to provide feedback and guidance regarding program design implementation. This assessment addressed program administration, coordination, technical services offered by the program, tracking and marketing, hard-to-reach (HTR) goals, and participant satisfaction.

7.3.1 Administration and Coordination

We found that administration and coordination of the program are effective. The programs are administered locally at the center level, with each center operating efficiently, with staff members often performing multiple roles. The program benefits from a high rate of staff retention and effective local communication and coordination. Maintaining contact with corporate decision-making (since the centers, with the exception of SDG&E, are geographically apart from their respective utility headquarter buildings) can sometimes prove challenging, although this has improved over the years. Statewide coordination has benefited this program in particular, resulting in cost savings and expanded seminar offerings.

One area that poses a challenge to center administration is maintaining contact with corporate decision-making. The fact that the centers are geographically apart from their respective utility headquarter buildings increases the possibility that program staff will be "out of the loop" with regard to important decisions that impact the program. In particular, it is important the program stay abreast of regulatory decisions (e.g., approval/modification of program plans) as well as details on other energy-efficiency programs that they may be promoting to customers (e.g., changes to programs, whether rebates are no longer available, etc.). Program staff admit that while this issue continues to pose a challenge, over time communication with utility headquarters has improved. Corporate news is more often passed on to program managers on a timely basis, and program staff are more likely to be in regular contact with relevant utility staff. Of course, this issue is not of concern for SDG&E because its program manager is based at the utility headquarters building.

7.3.2 Seminars

The program continues to rely on a core set of seminars offered to a wide variety of customer sizes and segments, addressing lighting, HVAC, motors, refrigeration, and codes and standards, while introducing new seminars each year to address new technologies, advanced concepts, and new codes and standards. These seminars fill a gap in the market, as no other entity offers a broad curriculum of seminars dedicated to energy efficiency.

7.3.3 Tracking and Marketing

The program could improve its tracking capabilities to increase the effectiveness of marketing efforts and to improve its ability to report on its accomplishments and conduct evaluations. We found that, while the program was effective in tracking the contact information of 90 percent or more of seminar attendees, some attendee lists were not entered into the database and it was difficult to "true up" lists of energy-efficiency seminars with participant lists extracted from the databases. Each of the centers is working to improve its tracking capabilities, including adding functionality to track repeat attendance, HTR characteristics, customer satisfaction scores, and size and segment of the customer to enhance target market capabilities.

The program has relied on prior participants as the foundation of its marketing list, with partnerships with associations and industry experts also providing a link to wider target audiences. Most participants heard about the seminar they attended through a brochure mailed to them, and this approach continues to be the preferred approach for informing prior attendees about upcoming seminars. As demonstrated in the prior subsection, awareness remains low among the target audience of the centers' services, particularly in the Los Angeles area for CTAC and the ERC. The dense, urban setting that is associated with the CTAC/ERC target market could account for lower than average awareness as compared to the other target market areas. First, there are many more customers to make aware in this area. The less-dense target markets may benefit much more from word of mouth from prior participants to other target customers. Moreover, urban customers are challenged with a much more dynamic business environment, with many more service providers competing for their services.

7.3.4 Hard-to-Reach Goals

The utilities began tracking HTR customer participation for the first time in 2002, although these customer segments have always been included in the program's target audience. The program defined HTR participation based on either the seminar or seminar attendee location, using the California Public Utilities Commission's (CPUC's) definition for HTR as a starting point for developing a working definition tailored to each center. **The HTR definitions developed for the 2002 program are not consistent statewide.** However, it should be noted that it is difficult for this program to collect accurate and complete data on attendees. Since attendees do not have to be customers of the sponsoring utility, the program must solicit HTR data from participants as part of the optional customer satisfaction form they provide at the end of the seminar. Therefore, any statewide definition that includes tracking of criteria beyond geographic HTR (which is

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easily tracked using attendee address) should be flexible so that the utilities are not negatively impacted with respect to meeting HTR goals due to incomplete attendee information.

Reliance on the geographic HTR criterion may not be appropriate given that seminars are conducted at physical energy centers with fixed locations. While the program offers a limited number of seminars off-site to reach remote areas of the state, the core program relies on seminars conducted at the energy centers to take advantage of the permanent displays and demonstrations.

7.3.5 Participant Satisfaction

Results presented earlier in this section suggested that the seminars are regarded as valuable and effective in addressing several information-related market barriers. We also asked participants to rate the seminars on their usefulness and to rate their overall satisfaction. Almost all participants were very satisfied with the seminars and found them to be very or extremely useful. The most common reason for dissatisfaction was that the seminar was described as "average" or "not applicable to my situation."

We also asked participants to provide suggestions for improving the program. Over one-half said that the program does not need improving.

7.4 RECOMMENDATIONS

Below, we provide recommendations based on the study conclusions for improving the program design and performance.

• Emphasize in program marketing materials the program's attributes that participants respond to most favorably, i.e., its credibility and objectivity and use of hands-on demonstrations.

These research results suggested that the program's reputation, credibility, and objectivity as well as the seminar format that provides hands-on demonstrations and interactivity are the main reasons customers choose to attend seminars. These attributes should be emphasized in marketing materials.

• Continue and expand statewide coordination.

The centers have benefited from statewide collaboration by increasing the number of new seminars offered at reduced cost. Moreover, sharing of marketing databases where the centers serve an overlap target audience (e.g., CTAC and ERC and AGTAC and ETC), has greatly

¹ SDG&E does not have a physical center and instead offers seminars throughout its territory. SDG&E does not use the geographic criterion for tracking HTR goals due to the small size of its territory.

expanded the marketing capabilities of the centers. The program should continue and expand these efforts in order to improve its technical offerings and its marketing capabilities.²

• Ensure that the program is adequately staffed with the appropriate personnel.

There was some evidence that some of the centers might lack staff, especially technically skilled staff. Ensuring adequate resources is important to maximizing the effectiveness of the program.

• Improve tracking of seminar participants.

The program could improve upon its tracking of seminar participants, to support marketing, evaluation, and reporting efforts. We found that, while upwards of 90 percent of seminar attendees were comprehensively tracked in 2002, there remains the potential for improving tracking functions.

• Develop a consistent HTR definition that is not limited to geographic HTR criteria.

As the utilities continue to coordinate the program statewide, they should consider collaborating on how they define, track, and report on HTR attendance. A consistent definition of a HTR participant, not limited to geographic location of attendee or seminar, should be developed and instituted on a statewide basis. The utilities should begin tracking HTR attendance to determine a baseline level of HTR participation. This baseline information could then be used to develop appropriate center-specific HTR attendance goals in the future. Existing efforts to expand participation to HTR segments should be continued and expanded to address the CPUC goal of serving HTR customers.

• Continue and expand existing marketing efforts to increase awareness of the program among the target audience.

Less than half the target market is currently aware of the program and its services. There remains potential for increasing program participation by addressing the most important participation barrier, lack of awareness. The target market survey results suggested that a very high percentage of "aware" customers had used the program's services in the past, suggesting that once made aware of the program, customers are likely to use its services.

Methods for increasing awareness include expanding existing market efforts (e.g., tracking of prior participants and using Dunn and Bradstreet Market Place data to target market certain seminars) and further collaborating statewide on the sharing of market databases and successful marketing methods. Many of the centers have close relationships with trade allies such as

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² Note that although this evaluation did not include PG&E's Pacific Energy Center (PEC), extensive coordination occurs between the Statewide program and the PEC. This evaluation did not assess the effectiveness of this coordination, but we might assume that some of the same benefits are being realized from coordination with PEC as coordination between the other centers, and as such, coordination between the Statewide program and the PEC should also continue.

professional associations and trade organizations. The utilities should leverage these relationships statewide so that all of the centers benefit.

Participant tracking databases are being continuously improved, and there remains the potential for further leveraging the information from prior participants. For example, the utilities are adding functionality to their tracking systems to record business type, size, HTR characteristics, etc., in order to expand their target market capabilities. These practices should be considered statewide, and the utilities should collaborate on the effectiveness of target marketing.

• Ensure that marketing efforts address customers' concerns about the potential relevance of the program's seminars.

After awareness, the perception that the program is irrelevant and not applicable to the target audience's needs is the second most significant barrier affecting the expansion of participation. Seminar design and marketing strategies should be assessed as far as their effectiveness in addressing this barrier.

The utilities might consider conducting further research to determine if there are seminar topics that are not being offered or changes to existing seminars that could be made to increase their applicability to the target audience. One of the centers has conducted focus groups periodically to evaluate new seminar concepts. Conducting focus groups might help to tease out more specifics from uninterested customers since telephone surveys are limited in their ability to probe deeply on specific issues. As reported previously, the program was less successful in providing customized information to address market barrier of bounded rationality, and qualitative research could provide an opportunity for probing how the program might more effectively address this market barrier.

• Attempt to address customers' time constraints through marketing and program design.

The third most significant barrier to expanding program participation is customers' lack of time. While this barrier may be very difficult to address given the inherent nature of the program, marketing strategies and program design should be examined to ensure that the program is being promoted effectively to customers with time constraints. For example, seminars could be offered during off-peak traffic times and could be marketed as such. Likewise, certain seminars that provide benefits to customers with only one visit could also be strategically marketed to address customers who do not attend due to time constraints.

This barrier could also be explored through qualitative research to determine whether customers who say they do not have enough time could benefit from the program. That is, certain customer segments may have time but do not perceive enough benefits from participating to warrant their time, e.g., customers who do not pay their energy bills or who have very low fixed energy bills. These customers should probably not be targeted by the program. However, customers who could benefit from the program but perceive that they cannot afford to spare staff or their own

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time to attend seminars could be probed to determine how best to address their needs. For example, the program might be able to expand its off-site seminars to reduce driving time. Or the program could offer mini-seminars or traveling demonstrations to specific segments to disseminate information to customers who could never make the time commitment for a regular seminar.

• Incorporate Pacific Gas & Electric's (PG&E's) Pacific Energy Center (PEC) and the nonresidential seminars that the Energy Training Center offers into the Statewide program evaluation.

Currently, PG&E's PEC is considered a local program, and as such, it is evaluated separately from the Statewide program. Both the PEC's services and its target audience are very similar to those of the Statewide program, and accordingly, the Statewide program evaluation would benefit from broadening its scope to include the PEC and the nonresidential seminars offered by the ETC.



SURVEY METHODOLOGIES

A.1 PARTICIPANT SURVEY

The participant survey was designed to assess the effectiveness of the program and customer satisfaction. A total of 346 surveys were conducted with 2002 seminar attendees during the months of July and August, 2003.

A.1.1 Survey Design

A telephone survey was administered to program seminar participants to evaluate the success of seminars at reducing market barriers. In general, the survey instrument was designed to assess participants' attitudes regarding the effectiveness of the seminar(s) they attended in increasing the market demand for and thus the market adoption of energy-efficiency measures.

There were two versions of the participant questionnaire, one for end-use customers and another for upstream/midstream market actors. See Appendix B for the participant questionnaires.

The end-use customer survey addresses the extent to which seminar participants:

- Have increased their interest in, awareness of, and knowledgeability about energyefficient equipment; if so, what components of the seminars were most informative;
- Have been influenced by the seminars to consider and/or purchase and install energy-efficiency equipment; if so, what components of the seminars were most important;
- Have experienced an increased ability to assess their equipment needs as well as acquire and understand the necessary information to successfully negotiate an equipment purchase; if so, what components of the seminars were most helpful;
- Have experienced a decline in their concerns about how energy-efficient equipment will perform as a result of the seminars; if so, what components of the seminars were most useful; and
- Have utilized (and continue to utilize) knowledge they gained from participating in the seminars as part of ongoing energy management decision-making.

The upstream/midstream market actor survey was designed to address similar issues from the perspective of participating architects, engineers, contractors and equipment suppliers.

A.1.2 Sample Design

The sample frame consists of seminar participants from 2002. Although the program year officially began on April 1, 2002, SCE and PG&E included the first quarter seminars in the sample frame to increase the size of the sample. Table A-1 presents the seminars included in the participant sample frame.

Table A-1 Seminars In Participant Sample Frame

Center	Seminar category	Seminar name	Date	Attendees
AgTAC	Basics/General EE	Money Making Maintenance Practices	2/7/2002	6
AGTAC	Irrigation/Pumps/Wells	World Ag Expo: FSU-CIT Irrigation Workshop	2/12/2002	10
AGTAC	Irrigation/Pumps/Wells	World Ag Expo: CPSLO Irrigation Workshop	2/13/2002	15
AGTAC	Process	Compressed Air Workshop	2/28/2002	6
AGTAC	Lighting	Basic Lighting Workshop	3/5/2002	17
AgTAC	HVAC	Basic HVAC Workshop	3/6/2002	21
AgTAC	Irrigation/Pumps/Wells	Groundwater Wells and Pumps Workshop	3/7/2002	32
AGTAC	Refrigeration	Efficient Technologies for Commercial Refrigeration	3/21/2002	3
AgTAC	Water/wastewater	Instrumentation and Sensors Workshop	5/8/2002	3
AgTAC	Irrigation/Pumps/Wells	Introduction to Drip/Micro Irrigation System Design	5/14/2002	13
AgTAC	Irrigation/Pumps/Wells	Chemigation and Legal Requirements Compliance	6/11/2002	19
AgTAC	Lighting	Basic Lighting Workshop	6/19/2002	5
AgTAC	Lighting	Commercial Industrial Lighting	6/19/2002	5
AgTAC	HVAC	Basic HVAC Workshop	6/20/2002	7
AgTAC	Refrigeration	Industrial Refrigeration	6/25/2002	3
		Introduction to Well and Deep Well Turbine Pump		
AGTAC	Irrigation/Pumps/Wells	Design	7/9/2002	47
AgTAC	Lighting	Skylighting for Commercial & Industrial Buildings	7/15/2002	4
AGTAC	Irrigation/Pumps/Wells	Introduction to Pumping Plant Design	8/15/2002	13
AgTAC	HVAC	Packaged HVAC Workshop	8/21/2002	10
AgTAC	Process	Compressed Air Workshop	8/22/2002	14
AgTAC	Irrigation/Pumps/Wells	Frost Protection Systems	9/10/2002	10
AgTAC	Basics/General EE	Technology Review Workshop	9/17/2002	11
AGTAC	Refrigeration	Efficient Technologies for Commercial Refrigeration	9/18/2002	21
AGTAC	Water/wastewater	Instrumentation and Sensors Workshop	10/24/2002	9
AgTAC	Motors	Motors and ASDs	10/30/2002	45
AgTAC	Irrigation/Pumps/Wells	Matching Pump Capacity to Irriagation System Demand	11/14/2002	22
	High-performance/Green			
AGTAC	buildings	Collaborative for High Performance Schools	12/3/2002	16
		High Performance Duct Systems and 2001 Residential		
AGTAC	HVAC	Energy Standards Overview	12/12/2002	15
CTAC	Lighting	California Conservation Corps Lighting Set	1/22/2002	11
CTAC	Basics/General EE	Technology Update	1/23/2002	16
CTAC	Lighting	Lighting & Daylighting for Architects & Designers	1/29/2002	30
CTAC	Lighting	Commercial & Industrial Lighting	2/5/2002	19
	High-performance/Green			
CTAC	buildings	Design Strategies for High Performance Glass	2/6/2002	14
CTAC	Lighting	High Intensity Discharge (HID) Lighting	2/6/2002	30
CTAC	HVAC	Basic Heating, Ventilation & Air Conditioning (HVAC)	2/7/2002	32
		Technology 101- Lighting Systems, HVAC & Building		
CTAC	Basics/General EE	Envelope	2/13/2002	132
		Package Unit Heating, Ventilation & Air Conditioning		
CTAC	HVAC	(HVAC)	2/14/2002	43
		Lighting Retrofit Strategies & Project Management		
CTAC	Lighting	Techniques	2/20/2002	28
CTAC	Refrigeration	Efficient Technologies for Commercial Refrigeration	2/26/2002	25
CTAC	HVAČ	Chilled Water @ Marriot LAX	3/6/2002	32

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Center	Seminar category	Seminar name	Date	Attendees
CTAC	Lighting	California Conservation Corps Lighting Set	3/11/2002	12
CTAC	Lighting	Advanced Lighting Technologies	3/13/2002	34
CTAC	Lighting	Lighting Controls for Energy Management	3/13/2002	38
CTAC	HVAC	Air Handling Systems	3/14/2002	57
CTAC	Basics/General EE	Industrial Maintenance	3/14/2002	35
CTAC	Refrigeration	Industrial Refrigeration	3/19/2002	12
CTAC	Lighting	Skylighting for Commercial & Industrial Buildings	3/22/2002	32
CTAC	HVAC	Basic Heating, Ventilation & Air Conditioning (HVAC)	3/27/2002	20
CTAC	Refrigeration	EE Supermarket Refrigeration	3/27/2002	29
CTAC	Lighting	Commercial & Industrial Lighting	3/29/2002	26
CTAC	Lighting	California Conservation Corps Lighting Set	4/8/2002	11
CTAC	Lighting	Lighting Fixture Maintenance Workshop	4/9/2002	28
CTAC	Lighting	Hibay Lighting	4/11/2002	68
CTAC	Basics/General EE	Express Efficiency Vendor Kick Off and Fair	4/15/2002	178
CTAC	Lighting	Lighting Fixture Maintenance Workshop	4/16/2002	31
CTAC	Food	Advanced Food Service Refrigeration	4/18/2002	68
CTAC	Lighting	Advanced Lighting Technologies	4/23/2002	19
CTAC	Lighting	Lighting Controls for Energy Management	4/23/2002	27
CIAC	High-performance/Green	High Performance Commercial Building Facades	4/23/2002	21
CTAC	buildings	Roundtable	4/29/2002	28
CTAC	High-performance/Green	High Performance Commercial Building Facades	4/29/2002	
CTAC	buildings	Roundtable	4/29/2002	60
CTAC	Motors	Electric Motors & Adjustable Speed Drives	5/7/2002	59
CTAC	Basics/General EE		5/8/2002	68
-		Association of Professional Energy Managers	5/8/2002	23
CTAC	Lighting	Commercial & Industrial Lighting	5/8/2002	23
CTAC	HVAC	Basic Heating, Ventilation & Air Conditioning (HVAC)	5/9/2002	37
CTAC	HVAC	Energy Management Systems (EMS)	5/9/2002	22
CTAC	Process	Compressed Air Systems	5/14/2002	13
CTAC	Flocess	Lighting Retrofit Strategies & Project Management	3/14/2002	13
CTAC	Lighting	Techniques	5/15/2002	21
CTAC	Lighting	Lighting for Offices and Schools	5/16/2002	41
CTAC	Irrigation/Pumps/Wells	Pumping System Assessment	5/16/2002	64
	Basics/General EE	Industrial Maintenance		34
CTAC CTAC			5/22/2002	12
	Lighting	California Conservation Corps Lighting Set	5/28/2002	
CTAC	HVAC	Owning & Operating an Efficient Cooling Tower	5/30/2002	30
CTAC	Refrigeration	Refrigeration Vendor Event - CTAC	6/4/2002	17
CTAC	Basics/General EE	EE Vendor Rebate - Cathedral City	6/19/2002	23
CTAC	Lighting	Lighting & Daylighting for Architects & Designers	6/19/2002	24
CTAC	Lighting	Commercial & Industrial Lighting	6/25/2002	5
CTAC	Lighting	Commercial and Industrial Lighting Offsite Mammoth	7/2/2002	3
CTAC	Basics/General EE	Faith Based Organization Program Offsite Ridgecrest	7/2/2002	12

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Center	Seminar category	Seminar name	Date	Attendees
CTAC	Refrigeration	Efficient Technologies for Commercial Refrigeration	7/9/2002	24
CTAC	HVAC	Basic Heating, Ventilation & Air Conditioning (HVAC)	7/10/2002	31
01710		Date Healing, Vermianer, a.r.ii. Certainerining (1177.10)	1710/2002	
CTAC	Lighting	Commercial and Industrial Lighting Offsite Mammoth	7/12/2002	11
CTAC	Lighting	California Conservation Corps Lighting Set	7/15/2002	12
CTAC	HVAC	Chilled Water @ Marriot LAX	7/16/2002	30
CTAC	Basics/General EE	EE Training - Thousand Oaks	7/16/2002	8
CTAC	Lighting	California Conservation Corps Lighting Set	7/22/2002	13
CTAC	Basics/General EE	EE Vendor Training - Victorville	7/23/2002	1
CTAC	Lighting	Lighting Fixture Maintenance Workshop	7/24/2002	34
CTAC	Basics/General EE	Non Profit Energy Forum	7/24/2002	21
CTAC	Basics/General EE	Industrial Maintenance	7/31/2002	24
CTAC	Lighting	Commercial & Industrial Lighting	8/6/2002	11
CTAC	Basics/General EE	Technology Update	8/6/2002	16
	High-performance/Green			
CTAC	buildings	Building Sustainable Libraries	8/13/2002	63
CTAC	Lighting	Successful Merchandising with Efficient Lighting	8/14/2002	17
	High-performance/Green			
CTAC	buildings	Sustainable Building	8/21/2002	46
CTAC	Lighting	Lighting & Daylighting for Architects & Designers	8/28/2002	27
CTAC	Food	Energy Audits & Management for Foodservice	9/5/2002	34
CTAC	Refrigeration	Industrial Refrigeration	9/11/2002	30
CTAC	Basics/General EE	New Energy Technology Series	9/12/2002	30
CTAC	Lighting	Hibay Lighting	9/17/2002	50
	High-performance/Green			
CTAC	buildings	Design Strategies for High Performance Glass	9/19/2002	19
CTAC	HVAC	Air Handling Systems	9/25/2002	46
CTAC	Food	EE Lighting for Foodservice	10/3/2002	47
CTAC	Lighting	C/I Lighting - Kern River Valley	10/3/2002	7
		How to Manage your Business's Energy Costs -		
CTAC	Audits	Victorville	10/11/2002	16
CTAC	Basics/General EE	Building Operator Certification (BOC)	10/22/2002	29
CTAC	Water/wastewater	9th Annual Water Conference	11/1/2002	62
CTAC	Process	Compressed Air Systems	11/6/2002	24
0740	10/40	Package Unit Heating, Ventilation & Air Conditioning (HVAC)	44/40/0000	00
CTAC	HVAC		11/13/2002	63
CTAC	Lighting	Skylighting for Commercial & Industrial Buildings	11/19/2002	23
CTAC	Lighting	Lighting Fixture Maintenance Workshop	11/21/2002	27
CTAC	Lighting	EE Lighting Systems & Controls (Victor Valley College)	11/22/2002	23
CTAC	Basics/General EE	Building Operator Certification (BOC)	11/26/2002	26
CTAC	Lighting	Lighting Fixture Maintenance Workshop	12/4/2002	24
CTAC	Lighting	High Intensity Discharge (HID) Lighting	12/5/2002	12

Center	Seminar category	Seminar name	Date	Attendees
CTAC	HVAC	Energy Management Systems (EMS)	12/10/2002	23
CTAC	Audits	How to Manage your Business's Energy Costs	12/12/2002	10
CTAC	Basics/General EE	Building Operator Certification (BOC)	12/17/2002	21
ERC	HVAC	Steam Efficiency Workshop	4/3/2002	71
ERC	Title 24	ACCA Manual J Training	4/10/2002	23
ERC	Food	Snack Food Expo	4/10/2002	47
ERC	Title 24	ACCA Manual D Introduction	4/11/2002	18
ERC	Title 24	ACCA Manual D Advanced	4/12/2002	18
ERC	Food	Equipment Operations and Maintenance	4/17/2002	21
ERC	Title 24	Hydronic System Sizing	4/24/2002	13
ERC	Title 24	HVAC Diagnostics	4/25/2002	13
ERC	Food	Challenges of Catering	4/25/2002	141
	1	High Performance Ducts & AB970 Residential		
ERC	Title 24	Overview	4/26/2002	12
ERC	Title 24	ACCA Manual J Training	5/1/2002	8
ERC	Title 24	Title 24 Update: Nonresidential Standard	5/1/2002	90
ERC	Title 24	ACCA Manual D Advanced	5/3/2002	13
ERC	Basics/General EE	Combustion Seminar	5/7/2002	7
ERC	Food	Tastes of Hawaii	5/7/2002	223
ERC	Food	Equipment Operations and Maintenance	5/15/2002	32
	High-performance/Green		0/10/2002	
ERC	buildings	Funding Green Buildings	5/16/2002	20
ERC	Basics/General EE	2002 Energy Efficiency Partners Update	5/21/2002	78
ERC	Basics/General EE	Combustion Seminar	5/21/2002	26
ERC	Basics/General EE	Energy Prices for the Healthcare Industry	5/21/2002	15
ERC	Title 24	EnergyPro Training: Env/Lighting/Windows	6/4/2002	18
ERC	Title 24	EnergyPro Training: Mechanical	6/5/2002	14
ERC	Food	Designing and Operating Energy EFF FS Facility	6/6/2002	59
ERC	HVAC	LA Steam Operators Training	6/11/2002	31
ERC	Food	Pizza. Pasta and More	6/11/2002	65
ERC	Basics/General EE	Combustion Seminar	6/18/2002	19
ERC	Food	The Power of Produce	6/25/2002	58
ERC	Food	Maximizing your Gas Company Partnership	7/1/2002	28
ERC	Food	Banqueting: From Ideas to Execution	7/16/2002	95
ERC	Title 24	EnergyPro Training: Env/Lighting/Windows	7/31/2002	16
	High-performance/Green		170172002	
ERC	buildings	LEED Intermediate Workshop	7/31/2002	61
ERC	Title 24	EnergyPro Training: Advanced	8/1/2002	21
ERC	Basics/General EE	Mexican Fiesta Vendor Mixer	8/1/2002	29
ERC	Food	Cuisines of France	8/1/2002	60
ERC	Food	Just for Chefs	8/2/2002	76
ERC	Water/wastewater	Municipal Water Pumping Solutions	8/7/2002	32
	High-performance/Green	Maniopai Water i uniping colutions	0/1/2002	J2
ERC	buildings	Design Strategies for High Performance Glass	8/14/2002	25
ERC	Basics/General EE	Combustion Seminar	8/27/2002	18

Center	Seminar category	Seminar name	Date	Attendees
	High-performance/Green			
ERC	buildings	High Performance Schools: The CHPS Program	8/29/2002	42
ERC	Basics/General EE	Combustion Seminar	9/10/2002	31
ERC	Water/wastewater	Water Treatment for Energy Efficiency	9/10/2002	48
ERC	Food	The Seafood Spectacular	9/11/2002	51
ERC	HVAC	Understanding Boiler Basics	9/17/2002	58
ERC	Food	Anything Goes& With Dairy	9/17/2002	50
ERC	Basics/General EE	Combustion Seminar	9/24/2002	18
ERC	Food	Advanced Food Safety Concepts	9/24/2002	112
ERC	Title 24	ACCA Manual J Training	9/25/2002	20
ERC	Title 24	ACCA Manual D Introduction	9/26/2002	17
ERC	Title 24	HVAC System Air Flow/Pressure Diagnostics	10/1/2002	11
	1	High Performance Ducts & AB970 Residential		
ERC	Title 24	Overview	10/2/2002	5
		Soil and Groundwater Remediation: Challenges &		
ERC	Basics/General EE	Advanced Solutions	10/2/2002	139
ERC	Process	Air Compression Seminar	10/3/2002	31
ERC	Basics/General EE	Combustion Seminar	10/8/2002	14
ERC	Title 24	ACCA Manual J Training	10/9/2002	26
ERC	Basics/General EE	Selling Energy Efficiency Partnership	10/9/2002	83
ERC	Title 24	ACCA Manual D Introduction	10/10/2002	13
ERC	Title 24	ACCA Manual D Advanced	10/11/2002	7
	High-performance/Green			
ERC	buildings	Turning Green into Gold	10/15/2002	88
ERC	Basics/General EE	Building Operators Certification Training	10/16/2002	27
ERC	Food	Its All About You	10/16/2002	28
ERC	Title 24	HVAC System Air Flow/Pressure Diagnostics	10/17/2002	8
ERC	Basics/General EE	Combustion Seminar	10/21/2002	17
ERC	Food	Residential Cooking Seminar	10/22/2002	11
		High Performance Ducts & AB970 Residential		
ERC	Title 24	Overview	10/23/2002	8
ERC	Title 24	ACCA Manual J Training	11/4/2002	40
ERC	Food	Basic Energy 101 Gas Electricity & Water	11/4/2002	38
	High-performance/Green	,		
ERC	buildings	Building Commissioning: Who, What, When & Why	11/7/2002	45
ERC	Title 24	Combined Hydronic Systems Sizing Guidelines	11/12/2002	10
ERC	Title 24	ACCA Manual D Advanced	11/13/2002	8
ERC	Food	Innovative Equipment Solutions	11/13/2002	104
ERC	Title 24	HVAC System Air Flow/Pressure Diagnostics	11/14/2002	43
_	1	High Performance Ducts & AB970 Residential		
ERC	Title 24	Overview	11/15/2002	36
ERC	Basics/General EE	Combustion Seminar	11/19/2002	23
ERC	Food	Exploring the World of Grains	11/19/2002	41
ERC	Basics/General EE	Building Operators Certification Training	11/20/2002	26

Center	Seminar category	Seminar name	Date	Attendees
	High-performance/Green			
ERC	buildings	Funding Green Buildings	11/20/2002	13
ERC	Basics/General EE	Combustion Seminar	12/3/2002	29
ERC	Food	Advncd Concepts in Kitchen Vent Systems	12/3/2002	37
ERC	Food	Night of Delights	12/5/2002	121
ERC	Lighting	Lighting/Daylighting Seminar	12/10/2002	38
	High-performance/Green			
ERC	buildings	High Performance Schools: The CHPS Program	12/12/2002	107
	High-performance/Green			
ERC	buildings	High Performance Schools: The CHPS Program	12/13/2002	16
ETC	Title 24	Equipment Sizing and Selecting	2/20/2002	4
ETC	Title 24	Duct Design	2/21/2002	7
ETC	Title 24	Zoning Loads and Duct Design	2/22/2002	7
ETC	Title 24	Air Distribution Diagnostic Testing	2/25/2002	5
ETC	Title 24	Duct Installation Standards	2/26/2002	4
ETC	HVAC	HVAC Quality Installation	2/26/2002	14
ETC	Basics/General EE	House as a System Overview	2/27/2002	5
ETC	Title 24	Equipment Sizing and Selecting	3/6/2002	17
ETC	Title 24	Duct Design	3/7/2002	34
ETC	Title 24	Zoning Loads and Duct Design	3/8/2002	11
ETC	Basics/General EE	High Performance Windows	3/14/2002	23
ETC	Basics/General EE	House as a System Overview	3/15/2002	6
ETC	HVAC	Advanced AC/HP Diagnostic Tune-Up Overview	3/19/2002	18
ETC	HVAC	Advanced AC/HP Diagnostic Tune-Up Overview	3/20/2002	8
ETC	HVAC	Advanced AC/HP Diagnostic Tune-Up Overview	3/21/2002	9
ETC	Title 24	Equipment Sizing and Selecting	3/25/2002	23
ETC	Title 24	Duct Design	3/26/2002	21
ETC	Title 24	Zoning Loads and Duct Design	3/27/2002	7
ETC	Title 24	Air Distribution Diagnostic Testing	3/28/2002	16
ETC	Title 24	Duct Installation Standards	3/29/2002	5
ETC	Title 24	Duct Installation Standards	4/8/2002	6
ETC	HVAC	HVAC Quality Installation	4/16/2002	15
ETC	Basics/General EE	House as a System	4/17/2002	9
ETC	Title 24	Equipment Sizing and Selecting	4/22/2002	10
ETC	Title 24	Duct Design	4/23/2002	6
ETC	Title 24	Zoning Loads and Duct Design	4/24/2002	8
ETC	Title 24	Duct Installation Standards	4/26/2002	12
		Biggest Energy Mistakes Made in Residential		
ETC	Basics/General EE	Construction	4/29/2002	15
ETC	HVAC	HVAC Quality Installation	5/2/2002	17
ETC	HVAC	HVAC Quality Installation	5/3/2002	15
ETC	Title 24	Duct Installation Standards	5/6/2002	2
ETC	Title 24	Air Distribution Diagnostic Testing	5/7/2002	4
ETC	Title 24	Equipment Sizing and Selecting	5/8/2002	9
ETC	Title 24	Duct Design	5/9/2002	10

Center	Seminar category	Seminar name	Date	Attendees
ETC	Title 24	Zoning Loads and Duct Design	5/10/2002	9
ETC	HVAC	Advanced AC/HP Diagnostic Tune-Up Overview	5/21/2002	9
ETC	HVAC	Advanced AC/HP Diagnostic Tune-Up Overview	5/22/2002	19
ETC	HVAC	Advanced AC/HP Diagnostic Tune-Up Overview	5/23/2002	19
ETC	Title 24	Duct Installation Standards	6/10/2002	4
		Residential Title 24 Duct Installation Standards &		
ETC	Title 24	Diagnostic Testing	6/11/2002	3
ETC	Title 24	Equipment Sizing and Selecting	6/12/2002	5
ETC	Title 24	Duct Design	6/13/2002	7
ETC	Basics/General EE	High Performance Windows	6/13/2002	4
ETC	Title 24	Zoning Loads and Duct Design	6/14/2002	7
ETC	Title 24	Duct Installation Standards	9/30/2002	2
ETC	Title 24	Air Distribution Diagnostic Testing	10/1/2002	5
ETC	Title 24	Equipment Sizing and Selecting	10/2/2002	5
ETC	Title 24	Turn Trash into Cash	10/2/2002	22
ETC	HVAC	HVAC Quality Installation	10/8/2002	10
ETC	HVAC	HVAC Quality Installation	10/9/2002	5
ETC	Basics/General EE	Insulate Right	10/10/2002	6
ETC	Pool Pumping	Pool Filtration at Half the Cost	10/16/2002	16
ETC	Basics/General EE	High Performance Windows	10/17/2002	18
ETC	Title 24	Equipment Sizing and Selecting	10/21/2002	6
ETC	Title 24	Duct Design	10/22/2002	8
ETC	HVAC	Advanced AC/HP Diagnostic Tune-Up Overview	10/22/2002	9
ETC	HVAC	Advanced AC/HP Diagnostic Tune-Up Overview	10/23/2002	6
ETC	Title 24	Air Distribution Diagnostic Testing	10/24/2002	8
ETC	Title 24	Duct Installation Standards	10/25/2002	13
ETC	Basics/General EE	See the Heat	10/29/2002	8
ETC	Basics/General EE	2002 Home Energy Efficiency Rebate Program	10/30/2002	2
ETC	HVAC	The Geoexchange Alternative	10/30/2002	13
ETC	Title 24	Equipment Sizing and Selecting	11/4/2002	9
ETC	Title 24	Duct Design	11/5/2002	9
ETC	Title 24	Zoning Loads and Duct Design	11/6/2002	4
ETC	Pool Pumping	Pool Filtration at Half the Cost	11/6/2002	20
ETC	Title 24	Air Distribution Diagnostic Testing	11/7/2002	7
ETC	Basics/General EE	Principles of Energy	11/7/2002	2
ETC	Title 24	Duct Installation Standards	11/8/2002	4
ETC	HVAC	Advanced AC/HP Diagnostic Tune-Up Overview	11/13/2002	5
ETC	Basics/General EE	Insulate Right	11/13/2002	8
ETC	HVAC	Advanced AC/HP Diagnostic Tune-Up Overview	11/14/2002	6
ETC	Basics/General EE	High Performance Windows	11/14/2002	18
ETC	HVAC	HVAC Quality Installation	11/14/2002	3
ETC	HVAC	HVAC Quality Installation	11/15/2002	8
ETC	Title 24	Equipment Sizing and Selecting	11/18/2002	8
ETC	Basics/General EE	House as a System Overview	11/18/2002	11
ETC	Title 24	Duct Design	11/19/2002	10

Center	Seminar category	Seminar name	Date	Attendees
ETC	Basics/General EE	House as a System	11/19/2002	6
ETC	Title 24	Zoning Loads and Duct Design	11/20/2002	6 3 7
ETC	Title 24	Duct Installation Standards	11/22/2002	
ETC	HVAC	Controlled Ventilation	11/22/2002	19
		Biggest Energy Mistakes Made in Residential		
ETC	Basics/General EE	Construction	11/25/2002	5
ETC	Title 24	Equipment Sizing and Selecting	12/2/2002	5 7
ETC	Title 24	Duct Design	12/3/2002	13
ETC	Basics/General EE	Principles of Energy	12/3/2002	7
ETC	Title 24	Zoning Loads and Duct Design	12/4/2002	13
ETC	Title 24	Air Distribution Diagnostic Testing	12/5/2002	9
ETC	Basics/General EE	High Performance Windows	12/5/2002	9 13 9
ETC	Title 24	Duct Installation Standards	12/6/2002	9
ETC	HVAC	Advanced AC/HP Diagnostic Tune-Up Overview	12/10/2002	32
ETC	Basics/General EE	Insulate Right	12/10/2002	6
SDGE	Audits	Learn the Ins and Outs of An Energy Audit	5/15/2002	61
SDGE	Audits	Learn the Ins and Outs of An Energy Audit	5/16/2002	34
SDGE	Lighting	The Latest in Advanced Lighting	6/19/2002	66
SDGE	Lighting	The Latest in Advanced Lighting	6/20/2002	44
SDGE	HVAC	Energy Management Systems	7/17/2002	79
SDGE	HVAC	Energy Management Systems	7/18/2002	46
SDGE	HVAC	Understanding Boiler Basics and Combustion	8/21/2002	79
SDGE	HVAC	Understanding Boiler Basics and Combustion	8/22/2002	38
SDGE	Lighting	The Lowdown on Hibay Lighting	9/18/2002	35
SDGE	Lighting	The Lowdown on Hibay Lighting	9/19/2002	19
SDGE	Process	Simplified Compressed Air Systems	10/16/2002	26
SDGE	Process	Simplified Compressed Air Systems	10/17/2002	28
SDGE	Audits	Learn the Ins and Outs of An Energy Audit	10/23/2002	19
SDGE	HVAC	Energy Management Systems	10/24/2002	16
SDGE	Lighting	The Lowdown on Hibay Lighting	10/24/2002	7
SDGE	HVAC	Understanding Boiler Basics and Combustion	10/30/2002	61
SDGE	HVAC	Understanding Boiler Basics and Combustion	10/30/2002	21
SDGE	Lighting	The Latest in Advanced Lighting	11/6/2002	12
SDGE	Motors	A Course in Motors & Adjustable Speed Drives	11/7/2002	17
SDGE	Process	Simplified Compressed Air Systems	11/7/2002	
SDGE	Motors	A Course in Motors & Adjustable Speed Drives	11/20/2002	8 58
SDGE	Motors	A Course in Motors & Adjustable Speed Drives	11/21/2002	32
SDGE	HVAC	Understanding Boiler Basics and Combustion	12/10/2002	22

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Table A-2 presents the initial target allocation for the participant survey. We specified a modified proportional sample allocation by seminar category to ensure a minimum number of completions by strata.

Table A-2
Participant Survey Target Allocation

		Target	
Center	Seminar Category	Completes	
AGTAC	Basics/General EE	2	
AGTAC	HVAC	4	
AGTAC	High-performance/Green buildings	3	
AGTAC	Irrigation/Pumps/Wells	23	
AGTAC	Lighting	4	
AGTAC	Motors	8	
AGTAC	Process	7	
AGTAC	Refrigeration	12	
AGTAC	Water/wastewater	7	
CTAC	Audits	4	
CTAC	Basics/General EE	13	
CTAC	Food	2 7	
CTAC	HVAC		
CTAC	High-performance/Green buildings	8	
CTAC	Irrigation/Pumps/Wells	2	
CTAC	Lighting	17	
CTAC	Motors	1	
CTAC	Process	1	
CTAC	Refrigeration	8	
CTAC	Water/wastewater	7	
ETC	Basics/General EE	12	
ETC	HVAC	20	
ETC	Pool Pumping	20	
ETC	Title 24	18	
SDGE	Audits	16	
SDGE	HVAC	22	
SDGE	Lighting	10	
SDGE	Motors	11	
SDGE	Process	11	
ERC	Basics	12	
ERC	HP	10	
ERC	HVAC	4	
ERC	Lighting	1	
ERC	Process	1	
ERC	Title 24	13	
ERC	Waste	1	
ERC	Food	28	
Total 350			

A.1.3 Survey Implementation

The survey was administered during the months of July and August 2003 by an experienced survey research firm, which was selected as a result of a competitive bid process. The survey was pre-tested, and minor changes were made to incorporate the pre-test results.

As shown in Table A-3, a total of 346 surveys were completed.

Table A-3
Participant Survey Completions

	Target		
Center	Seminar Category	Completes	Completes
AGTAC	Basics/General EE	2	4
AGTAC	HVAC	4	6
AGTAC	High-performance/Green building	3	3
AGTAC	Irrigation/Pumps/Wells	23	27
AGTAC	Lighting	4	5
AGTAC	Motors	8	10
AGTAC	Process	7	4
AGTAC	Refrigeration	12	5 2
AGTAC	Water/wastewater	7	2
CTAC	Audits	4	1
CTAC	Basics/General EE	13	16
CTAC	Food	2	5
CTAC	HVAC	7	11
CTAC	High-performance/Green building	8	10
CTAC	Irrigation/Pumps/Wells	2	2
CTAC	Lighting	17	16
CTAC	Motors	1	2
CTAC	Process	1	1
CTAC	Refrigeration	8	4
CTAC	Water/wastewater	7	2
ETC	Basics/General EE	12	18
ETC	HVAC	20	23
ETC	Pool Pumping	20	5
ETC	T24	18	24
SDGE	Audits	16	11
SDGE	HVAC	22	25
SDGE	Lighting	10	13
SDGE	Motors	11	11
SDGE	Process	11	10
ERC	Basics	12	12
ERC	HP	10	10
ERC	HVAC	4	4
ERC	Lighting	1	1
ERC	Process	1	1
ERC	T24	13	13
ERC	Waste	1	1
ERC	Food Total	28	28
	350	346	

A.1.4 Weights

We weighted participant survey respondents based on their center, as shown below in Table A-4. Note that the population numbers are equal to the total number of individuals, and due to the incidence of multiple seminar attendance, do not reflect the total number of attendees in the list of seminars above.

Table A-4
Participant Survey Weights

	I	Survey	
Center	Population	Completions	Weight
CTAC	1855	70	2.084337
AGTAC	336	66	0.400422
SDGE	553	70	0.621368
ETC	496	70	0.557321
ERC	1159	70	1.302289
Total	4399	346	

A.2 TARGET MARKET SURVEY

The target market survey was designed to determine the influence of the program on its target audience. The survey results were used to support both the assessment of program effectiveness and the process evaluation.

A.2.1 Survey Design

In particular, the survey assessed whether the target market audience:

- Is aware of the program
- Is aware of specific services offered by the program (e.g., seminars focused on energy-efficient technologies and building design principals)
- Has participated in program activities
- Would be interested in participating in program activities in the future (or, if not, why not).

A.2.2 Sample Design

We developed two sample frames for each target market area, one for **end-use customers** and another for **upstream market actors** (UMA). ^{1,2} The same geographic definition was used for both frames but different SIC code definitions were used reflecting the different target population.

The end-user sample frame was developed using utility non-residential customer information system data. These data were limited to the target market areas defined in Section 5 using a list of zip codes for the five geographic target markets. Different frames were maintained for each target market.

The end-use frame was stratified by business categories and size. Four-digit SIC code definitions were used to place end-users into business categories. A combination of energy, demand and rate codes were used to place end-users into size categories.

Table A-5 provides the SIC code definitions used for end-use customers. Tables A-6 through A-8 present the end-user target market sample frame

Table A-5
End-User SIC Code Definitions

Business Category	SIC Code Definition			
	4720, 4724, 4725, 4729, 6011-6799, 7310-7389, 8080-8099,			
Office	8111, 8320-8399, 8610-8699, 8710-8721, 8740-8748, 8999-			
	9661			
Restaurant/Grocery	5400-5499, 5800-5899			
Retail	5210-5399, 5510-5736, 5910-5999, 7210-7299, 7620-7699			
Institution	8050-8079, 8210-8219, 8220-8222,8240-8299			
	4220-4222, 4225-4226, 4311, 5010-5199, 7000-7099, 7510-			
Other Commercial	7549, 7810-8099, 8231, 8410-8422, 8730-8734, 8811, 8999,			
	9711, 9721			
Wastewater	4941, 4952			
Industrial	1000-1799, 2000-3999			
Agriculture	0100-0999			
Crops	0100-0199			
Livestock	0200-0299			
Services	0711, 0721, 0722, 0723, 0724, 0751, 0762,			
Irrigation System	4971			
Manuf Food Processing	2000-2099			

Upstream market actor refers to a customer segment whose business activities are conducted in support of other businesses, such as engineers, architects, designers, and building contractors. Their needs differ from end-use customers, who typically attend seminars to learn how about using energy-efficient technologies in their business. Upstream market actors typically attend seminars to understand how energy-efficient technologies can help them improve their business through the specification and/or endorsement of such products to end-use customers.

² For the PG&E Energy Training Center, we did not develop an end-user sample frame because the Center's seminars that were being evaluated as part of this effort targeted only upstream market actors, specifically residential contractors. A separate evaluation addressed PG&E seminars offered by the ETC targeted to non-residential upstream market actors and non-residential end-use customers.

Table A-6
AGTAC End-User Target Market Sample Frame

	Business Category	Accounts		GWh	
Size		Number	Percentage	Total	Percentage
	Institution	123	0.9%	1.7	0.1%
	Office	2,304	16.0%	26.9	1.6%
	Retail	1,523	10.6%	21.9	
Very small (<20 kW)	Restaurant/Grocery	366	2.5%	12.4	0.7%
very siriali (*20 kvv)	Other Commercial	2,027	14.0%	22.7	1.4%
	Industrial (excluding SIC code 20)	506	3.5%	6.1	0.4%
	Other Agriculture (remaining 07, 08, 09)	89	0.6%	1.0	
	Wastewater	213	1.5%	1.3	0.1%
	Institution	135	0.9%	13.6	0.8%
	Office	645	4.5%	45.7	2.7%
	Retail	470	3.3%	50.0	3.0%
Small (20-100 kW)	Restaurant/Grocery	545	3.8%	79.6	4.7%
Omaii (20-100 kw)	Other Commercial	429	3.0%	34.9	2.1%
	Industrial (excluding SIC code 20)	166	1.2%	11.7	0.7%
	Other Agriculture (remaining 07, 08, 09)	16	0.1%	0.9	0.1%
	Wastewater	138	1.0%	23.3	
	Institution	160	1.1%	66.0	3.9%
	Office	93	0.6%	40.1	2.4%
	Retail	61	0.4%	38.3	2.3%
Medium (100-500 kW)	Restaurant/Grocery	67	0.5%	71.0	4.2%
Wediam (100-300 KW)	Other Commercial	76	0.5%	36.7	2.2%
	Industrial (excluding SIC code 20)	50	0.3%	26.8	1.6%
	Other Agriculture (remaining 07, 08, 09)	1	0.0%	1.0	
	Wastewater	33	0.2%	24.9	1.5%
	Institution	21	0.1%	68.2	4.0%
	Office	12	0.1%	55.7	3.3%
	Retail	9	0.1%	44.3	2.6%
Large (>500 kW)	Restaurant/Grocery	1	0.0%	9.1	0.5%
Large (> 300 KVV)	Other Commercial	7	0.0%	21.2	1.3%
	Industrial (excluding SIC code 20)	21	0.1%	101.4	6.0%
	Other Agriculture (remaining 07, 08, 09)	0	0.0%	0.0	0.0%
	Wastewater	2	0.0%	18.6	
	Ag: 20 Manufacturing-Food processing	6	0.0%	0.0	0.0%
	Ag: 01 Agricultural Production - Crops	1,275	8.8%	8.1	0.5%
Non-demand	Ag: 02 Agricultural Production - Livestock & Animals	314	2.2%	2.3	0.1%
	Ag: selected 07 Agricultural Services	40	0.3%	0.3	0.0%
	Ag: 4971 Irrigation Suppliers	42	0.3%	0.1	0.0%
	Ag: 20 Manufacturing-Food processing	70	0.5%	264.0	15.7%
	Ag: 01 Agricultural Production - Crops	1,648	11.4%	191.1	11.3%
Demand	Ag: 02 Agricultural Production - Livestock & Animals	543	3.8%	149.6	
	Ag: selected 07 Agricultural Services	92	0.6%	49.3	
	Ag: 4971 Irrigation Suppliers	94 14.433	0.7% 100%	43.0	
	Total			1,685.0	100.0%

Table A-7
CTAC End-User Target Market Sample Frame

			Acco	ounts	Energy (GWh	or therms)
Zip	Size	Business Category	Number	Percentage	Total	Percentage
		Institution	1,685	0.7%	27.4	0.1%
		Office	46,820	19.9%	587.0	
		Retail Restaurant/Grocery	32,073 7,555	13.6% 3.2%	486.1 276.1	
	Very small (<20 kW)	Other Commercial	28.708	12.2%	415.7	
		Industrial	13,601	5.8%	189.0	
		Agriculture	2,143	0.9%	28.0	
		Wastewater	1,656	0.7%	8.3	0.0%
		Institution	1,183	0.5%	139.8	
		Office	12,401	5.3%	1,156.3	
		Retail Restaurant/Grocery	11,336 11,915	4.8% 5.1%	1,194.6 1,685.6	
	Small (20-100 kW)	Other Commercial	9,119	3.9%	860.8	
		Industrial	7,152	3.0%	632.3	39.0 0.5% 28.0 0.1% 8.3 0.0% 39.8 0.4% 36.3 3.2% 34.6 3.4% 35.6 4.7% 32.3 1.8% 34.6 0.2% 32.4 0.3% 37.1 2.7% 36.4 5.3% 37.9 4.0% 37.9 6.0% 37.8 0.2% 37.8 3.4% 37.1 0.8% 37.8 26.8% 37.8 26.8% 38.7 1.7% 465 1.1% 6612 3.8% 942 0.9% 172 7.2% 653 1.9% 645 1.2% 936 0.1% 860 0.0% 236 2.0% 102 4.2% 9953 3.4% 799 7.8% 661
SCE only or		Agriculture	621	0.3%	64.6	0.2%
SCE only or SCE/SCG		Wastewater	704	0.3%	102.4	0.3%
customers		Institution	2,118	0.9%	971.1	2.7%
		Office	3,183	1.4%	1,886.4	
		Retail Restaurant/Grocery	1,977	0.8%	1,417.9 1,731.9	
	Medium (100-500 kW)	Other Commercial	1,571 2,414	0.7% 1.0%	1,509.0	
		Industrial	3,516	1.5%	2,137.9	
		Agriculture	146	0.1%	87.8	
		Wastewater	827	0.4%	674.9	1.9%
		Schl/Coll/Hlth/Gov	380	0.2%	1,884.7	5.3%
		Office	510	0.2%	1,961.8	
		Retail	330	0.1%	1,197.8	
	Large (>500 kW)	Restaurant/Grocery Other Commercial	58 295	0.0% 0.1%	271.1 1.872.7	0.1% 1.6% 1.4% 0.8% 1.2% 0.1% 0.1% 0.0% 0.4% 1.32% 0.34% 1.7% 1.8% 0.2% 1.9% 1.9% 1.9% 1.1% 0.1% 0.1% 0.1% 0.1% 0.1% 0.1% 0.1
		Industrial	1,145	0.1%	9,537.8	
		Agriculture	1,140	0.0%	64.6	
		Wastewater	143	0.1%	588.7	1.7%
		Schl/Coll/Hlth/Gov	1,242	0.5%	2,548,465	1.1%
		Office	7,171	3.0%	8,748,612	3.8%
		Retail	4,394	1.9%	2,022,942	
	Very small (<10,000 therms)	Restaurant/Grocery Other Commercial	5,308 4,251	2.3% 1.8%	16,567,172 4,300,653	
	(<10,000 therms)	Industrial	3,047	1.3%	2,651,645	
		Agriculture	153	0.1%	140,936	
		Wastewater	11	0.0%	14,860	
		Schl/Coll/Hlth/Gov	213	0.1%	4,620,236	2.0%
		Office	485	0.2%	9,630,102	4.2%
	0	Retail	312	0.1%	7,708,953	
	Small (10,000-49,999 therms)	Restaurant/Grocery	994 298	0.4% 0.1%	17,882,799 6,662,661	
	(10,000-49,999 therms)	Industrial	153	0.1%	3,575,000	
		Agriculture	6	0.0%	135,241	0.1%
LADWP/		Wastewater	2		62,799	0.0%
SCG customers		Schl/Coll/Hlth/Gov	46	0.0%	4,514,745	2.0%
Customers		Office	77	0.0%	6,888,483	3.0%
	Medium	Retail	31	0.0%	2,945,741	
	(50,000-249,999	Restaurant/Grocery	24	0.0%	1,793,871	
	therms)	Other Commercial Industrial	67 97	0.0% 0.0%	6,938,350 11,037,223	
		Agriculture	3	0.0%	251,940	
		Wastewater	2	0.0%	174,450	0.1%
		Schl/Coll/Hlth/Gov	30	0.0%	53,444,117	23.3%
		Office	7	0.0%	5,187,548	2.3%
		Retail	6	0.0%	2,512,494	1.1%
	Large	Restaurant/Grocery	1	0.0%	283,825	0.1%
	(>=250,000 therms)	Other Commercial	13	0.0%	8,398,624	
1		Industrial	22	0.0% 0.0%	34,766,779	
		Agriculture Wastewater	0 1	0.0%	2,633,611	
	Total	v v asiewaiei	235,766	100.0%	۷,000,011	1.170
			_55,.50	. 55.570		

Table A-8
SDG&E End-User Target Market Sample Frame

		Acc	ounts		GWh
Size	Business Category	Number	Percentage	Total	Percentage
	Schl/Coll/Hlth/Gov	1,997	1.8%	27.7	0.4%
	Office	34,582	31.6%	1,318.1	18.0%
	Retail	15,143	13.8%	213.5	2.9%
Very small (<20 kW)	Restaurant/Grocery	6,116	5.6%	107.5	1.5%
very Siliali (~20 kvv)	Other Commercial	14,884	13.6%	1,140.1	15.6%
	Industrial	9,314	8.5%	153.2	2.1%
	Agriculture	1,780	1.6%	18.7	0.3%
	Wastewater	588	0.5%	4.4	0.1%
	Schl/Coll/Hlth/Gov	565	0.5%	30.1	0.4%
	Office	9,195	8.4%	294.8	4.0%
	Retail	2,259	2.1%	197.1	2.7%
Small (20-100 kW)	Restaurant/Grocery	2,667	2.4%	107.2	1.5%
3111aii (20-100 KVV)	Other Commercial	2,210	2.0%	150.3	2.1%
	Industrial	1,405	1.3%	87.7	1.2%
	Agriculture	1,520	1.4%	45.1	0.6%
	Wastewater	324	0.3%	28.5	0.4%
	Schl/Coll/Hlth/Gov	626	0.6%	91.9	1.3%
	Office	1,017	0.9%	252.5	3.4%
	Retail	510	0.5%	121.9	1.7%
Medium (100-500 kW)	Restaurant/Grocery	437	0.4%	73.8	1.0%
iviedium (100-300 kvv)	Other Commercial	743	0.7%	230.4	3.1%
	Industrial	621	0.6%	210.8	2.9%
	Agriculture	54	0.0%	17.3	0.2%
	Wastewater	112	0.1%	59.3	0.8%
	Schl/Coll/Hlth/Gov	121	0.1%	344.3	4.7%
	Office	171	0.2%	732.1	10.0%
	Retail	71	0.1%	68.6	0.9%
Large (>500 kW)	Restaurant/Grocery	7	0.0%	3.2	0.0%
Large (>500 kW)	Other Commercial	190	0.2%	779.5	10.6%
	Industrial	148	0.1%	329.5	4.5%
	Agriculture	0	0.0%	0.0	0.0%
	Wastewater	39	0.0%	84.5	1.2%
Tot	al	109,416	100%	7,323.4	100%

The upstream market actor sample frame was generated using data from Dunn & Bradstreet Sales and Marketing Solutions (D&B). The same target market zip code lists were used to geographically limit the sample frame as with the enduser sample. Business type was selected by an 8-digit SIC code available through D&B. Size categories were created by collapsing D&B size categories into three categories. Tables A-9 provides the 8-digit SIC code definitions used. Tables A-10 through A-13 present the upstream market actor sample frames.

Table A-9
Upstream Market Actor Business Type SIC Code Definitions

Business Type	SIC code	SIC code description
	8748-9901	Agricultural consultant
	7699-1401	Farm machinery repair
	7699-1400	Agricultural equipment repair services
Agriculture	0723-0206	Grain Drying Services
	5999-0800	Farm equipment and supplies
	5083-0308	Irrigation equipment
	8712-0000	Architectural services
Architecture	8712-0100	Architectural engineering
	7389-1800	Design services
	8711-0000	Engineering services
	8711-9903	Consulting engineer
	8748-9905	Environmental consultant
	8711-9905	Electrical or electronic engineering
	8711-0404	Structural engineering
	8711-0202	Mechanical engineering
	8711-0200	Industrial engineers
	8711-0400	Construction and civil engineering
Engineering	8711-0401	Building construction consultant
Linginicering	8711-0402	Civil engineering
	8748-9904	Energy conservation consultant
	8711-9906	Energy conservation engineering
	8711-0403	Heating and ventilation engineering
	8742-0402	Construction project management consultant
	8742-0400	Industry specialist consultants
	8742-0100	Industrial and labor consulting services
	8742-0102	Industrial consultant
	8742-0105	Management engineering
	1711-0405	Warm air heating and air conditioning contractor
	1711-0400	Heating and air conditioning contractors
	1711-0000	Plumbing, heating, air-conditioning
	1711-0401	Mechanical contractor
	1711-0404	Ventilation and duct work contractor
HVAC	7623-9901	Air conditioning repair
	7699-0301	Boiler repair shop
	7699-0300	Boiler and heating repair services
	1731-0202	Energy management controls
	1731-0201	Computerized controls installation
	1711-0402	Process piping contractor
	8748-9907	Lighting consultant
Lighting	1731-9904	Lighting contractor
5 * 5	1731-0000	Electrical work
	7349-0105	Lighting maintenance service
	7699-0504	Industrial machinery and equipment repair
	7699-0500	Industrial equipment services
	7694-0201	Electric motor repair
	3599-0303	Machine shop, jobbing and repair
	7699-0501	Compressor repair
	5084-0701	Controlling instruments and accessories
	5063-9905	Motors, electric- distributor Rewinding stators
Motoro	7694-0102	<u> </u>
Motors	7694-0000	Armature rewinding shops
	5999-0700	Engine and motor equipment and supplies
	5999-0701	Engines and parts, air-cooled
	59990702	Motors, electric
	7699-0502	Engine repair and replacement, non-automotive
	7694-0200	Motor repair services
	5251-9903	Pumps and pumping equipment
	5084-0708	Recording instruments and accessories
	7694-0100	Rewinding services

Upstream Market Actor Business Type SIC Code Definitions, continued

Business Type	SIC code	SIC code description
	1731-9903	General electrical contractor
	1711-0200	Plumbing contractors
	1542-0101	Commercial and office building, new construction
	1542-0000	Nonresidential construction
	1542-0103	Commercial and office buildings, renovation and repair
	1542-0100	Commercial and office building contractors
	1541-0000	Industrial buildings and warehouses
	1541-9905	Industrial buildings, new construction
	8741-9902	Construction management
	1542-0105	Shopping center construction
	1542-0102	Commercial and office buildings, prefabricated erection Concrete work
	1771-0000 1541-9909	Renovation, remodeling and repairs: industrial buildings
	1542-0104	Restaurant construction
	1761-0103	Roofing contractor
	1542-0302	Service station construction
Nonresidential Building	1542-0400	Specialized public building contractors
Contractors	1542-0200	Agricultural building contractors
	1542-0201	Farm building construction
	1751-9901	Framing contractor
	1542-0202	Greenhouse construction
	1542-9903	Institutional building construction
	1741-0000	Masonry and other stonework
	1741-0100	Foundation and retaining wall construction
	1741-0101	Foundation building
	1741-0102	Retaining wall construction
	1741-9900	Masonry and other stonework
	1741-9901	Bricklaying
	1741-9903	Concrete block masonry laying
	1771-9903	Flooring contractor
	1771-9904	Foundation and footing contractor
	1542-0406	School building construction
	1541-9910	Steel building construction
	7699-2209	Pumps and pumping equipment repair
Ag Pumping	7699-2206	Hydraulic equipment repair
	1799-9922	Hydraulic equipment, installation and service
	5084-0903 7623-0000	Compressors, except air conditioning Refrigeration service and repair
	1711-9901	Refrigeration contractor
	7623-9902	Refrigeration repair service
	7623-9903	Refrigerator repair service
	5722-0000	Household appliance stores
	5078-9902	Ice making machines
	5078-0000	Refrigeration equipment and supplies
5.61	5722-0202	Electric household appliances, major
Refrigeration	3585-0203	Ice boxes, industrial
	5078-0301	Cold storage machinery
	3585-0402	Compressors for refrigeration and air conditioning equipment
	7359-0701	Appliance rental
	1796-0000	Installing building equipment
	5999-9916	Plumbing and heating supplies
	3585-0200	Refrigeration equipment, complete
	5078-0303	Refrigerators, commercial (reach-in and walk-in)
	5087-9908	Restaurant supplies
	1521-0000	Single-family housing construction
	1521-9901	New construction, single-family houses
	1521-0101	General remodeling, single-family houses
,	1522-0000	Residential construction
Residential Building	1522-0101	Apartment building construction
Contractors	1522-0201	Remodeling, multi-family dwellings
	6552-0000	Sub-dividers and developers
	6552-9902	Land sub-dividers and developers, commercial
	1521-0100	Single-family home remodeling, additions, and repairs
	1531-9904	Speculative builder, single-family houses

Table A-10 AGTAC Upstream Market Actor Sample Frame

		Establishments		
Size	Туре	Number	Percentage	
Large		0	0.0%	
Medium		6	0.2%	
Small	Ag Pumping	13	0.4%	
Large		14	0.4%	
Medium		52	1.6%	
Small	Agriculture	127	3.8%	
Large		3	0.1%	
Medium		30	0.9%	
Small	Architecture	98	2.9%	
Large		21	0.6%	
Medium		99	3.0%	
Small	Engineering	230	6.9%	
Large		15	0.5%	
Medium		78	2.3%	
Small	HVAC	178	5.4%	
Large		12	0.4%	
Medium		40	1.2%	
Small	Lighting	128	3.9%	
Large		10	0.3%	
Medium		54	1.6%	
Small	Motors	98	2.9%	
Large		59	1.8%	
Medium	Nonresidential	253	7.6%	
Small	Building Contractors	511	15.4%	
Large		4	0.1%	
Medium		38	1.1%	
Small	Refrigeration	106	3.2%	
Large		29	0.9%	
Medium	Residential Building	162	4.9%	
Small	Contractors	856	25.8%	
	Total	3,324	100%	

Table A-11 CTAC Upstream Market Actor Sample Frame

		Establishments		
Size	Туре	Number	Percentage	
Large		7	0.0%	
Medium		19	0.1%	
Small	Ag Pumping	48	0.1%	
Large		0	0.0%	
Medium		44	0.1%	
Small	Agriculture	61	0.2%	
Large		87	0.2%	
Medium		529	1.5%	
Small	Architecture	2,285	6.5%	
Large		348	1.0%	
Medium		1,272	3.6%	
Small	Engineering	3,576	10.1%	
Large		126	0.4%	
Medium		579	1.6%	
Small	HVAC	1,937	5.5%	
Large		92	0.3%	
Medium		422	1.2%	
Small	Lighting	2,074	5.9%	
Large		218	0.6%	
Medium		988	2.8%	
Small	Motors	1,433	4.1%	
Large		670	1.9%	
Medium	Nonresidential	2,267	6.4%	
Small	Building Contractors	5,396	15.3%	
Large		65	0.2%	
Medium		273	0.8%	
Small	Refrigeration	856	2.4%	
Large	-	243	0.7%	
Medium	Residential Building	1,598	4.5%	
Small	Contractors	7,727	21.9%	
	Total	35,240	100%	

Table A-12 SDG&E Upstream Market Actor Sample Frame

		Establishments		
Size	Туре	Number	Percentage	
Large		1	0.0%	
Medium		5	0.1%	
Small	Ag Pumping	12	0.1%	
Large		1	0.0%	
Medium		21	0.2%	
Small	Agriculture	32	0.4%	
Large		18	0.2%	
Medium		150	1.6%	
Small	Architecture	655	7.2%	
Large		123	1.3%	
Medium		409	4.5%	
Small	Engineering	1,171	12.8%	
Large		37	0.4%	
Medium		112	1.2%	
Small	HVAC	331	3.6%	
Large		25	0.3%	
Medium		101	1.1%	
Small	Lighting	470	5.1%	
Large		31	0.3%	
Medium		124	1.4%	
Small	Motors	181	2.0%	
Large		185	2.0%	
Medium	Nonresidential	507	5.6%	
Small	Building Contractors	1,338	14.7%	
Large		9	0.1%	
Medium		61	0.7%	
Small	Refrigeration	166	1.8%	
Large		78	0.9%	
Medium	Residential Building	459	5.0%	
Small	Contractors	2,320	25.4%	
	Total	9,133	100%	

Table A-13
PG&E Upstream Market Actor Sample Frame

		Establishments		
Size	Туре	Number	Percentage	
Large		329	2.2%	
Medium		1,013	6.7%	
Small	Engineering	2,908	19.2%	
Large		120	0.8%	
Medium		423	2.8%	
Small	HVAC	1,089	7.2%	
Large		30	0.2%	
Medium	Insulation	64	0.4%	
Small	Contractors	94	0.6%	
Large		0	0.0%	
Medium		44	0.3%	
Small	Pool Contractors	318	2.1%	
Large		238	1.6%	
Medium	Residential Building	1,362	9.0%	
Small	Contractors	6,694	44.2%	
Large		16	0.1%	
Medium	Window	75	0.5%	
Small	Contractors	106	0.7%	
All	Building inspectors	220	1.5%	
	Total	15,143	100%	

Tables A-14 and A-15 present the initial target allocation for the end-user and upstream market actor target market survey. A modified proportional sample allocation was specified to ensure a minimum number of survey completes for each stratum. As shown, 159 completes were allocated to the end-use survey, and 470 to the upstream market actor survey.

Table A-14
Target Market End-User Survey Sample Allocation

			Target
Center	Business Category	Size	Completes
AGTAC	Institution	ML	2
AGTAC	Manufacturing-Food processing	L	3
AgTAC	Crops	L	11
AGTAC	Crops	S	9
AGTAC	Office	М	1
AGTAC	Office	S	3
AGTAC	Office	V	11
AgTAC	Livestock	L	3
AgTAC	Livestock	S	2
AGTAC	Retail	ML	2 2
AGTAC	Retail	S	7
AGTAC	Retail	V	
AGTAC	Restaurant/Grocery	ML	2
AGTAC	Restaurant/Grocery	V	3
AGTAC	Agricultural Services	SL	3 3
AGTAC	Irrigation Suppliers	SL	3
AGTAC	Other Commercial	ML	2
AGTAC	Other Commercial	S	1
AGTAC	Other Commercial	V	8
AGTAC	Industrial	ML	2
AGTAC	Industrial	S	1
AGTAC	Industrial	V	3
AGTAC	Wastewater	ML	1
AGTAC	Wastewater	S	2
AGTAC	Wastewater	V	2
DWP/SCG	Institution	SML	3
DWP/SCG	Institution	V	3
DWP/SCG	Office	SML	3
DWP/SCG	Office	V	8
DWP/SCG	Retail	SML	3
DWP/SCG	Retail	V	5
DWP/SCG	Restaurant/Grocery	SML	3
DWP/SCG	Restaurant/Grocery	V	7
DWP/SCG	Other Commercial	SML	2
DWP/SCG	Other Commercial	V	5
DWP/SCG	Industrial	SML	2
DWP/SCG	Industrial	V	3
DWP/SCG	Agriculture	VSML	2 2
DWP/SCG	Wastewater	VSML	
SCE/SCG	Wastewater	L	5
SCE/SCG	Wastewater	М	5
SCE/SCG	Wastewater	S	5
SCE/SCG	Wastewater	V	5
	Total		159

Table A-15
Target Market Upstream Market Actor Survey Sample Allocation

			Target
Center	Business Category	Size	Completes
AgTAC	Ag Pumping	All	5
AgTAC	Agriculture	Med/Large	5
AGTAC	Agriculture	Small	10
AGTAC	Architecture	Med/Large	3
AgTAC	Architecture	Small	5
AGTAC	Engineering	Med/Large	3
AgTAC	Engineering	Small	5
AgTAC	HVAC	Med/Large	3
AgTAC	HVAC	Small	5
AGTAC	Lighting	Med/Large	3
AGTAC	Lighting	Small	5
AGTAC	Motors	Med/Large	3
AgTAC	Motors	Small	5
AGTAC	Nonresidential Building Contractors	Med/Large	5
AgTAC	Nonresidential Building Contractors	Small	10
AgTAC	Refrigeration	Med/Large	3
AGTAC	Refrigeration	Small	5
AGTAC	Residential Building Contractors	Med/Large	3
AGTAC	Residential Building Contractors	Small	14
CTAC/ERC	Ag Pumping	Med/Large	2
CTAC/ERC	Ag Pumping	Small	4
CTAC/ERC	Agriculture	Med/Large	2
CTAC/ERC	Agriculture	Small	4
CTAC/ERC	Architecture	Med/Large	2
CTAC/ERC	Architecture	Small	6
CTAC/ERC	Engineering	Med/Large	4
CTAC/ERC	Engineering	Small	7
CTAC/ERC	HVAC	Med/Large	2
CTAC/ERC	HVAC	Small	5
CTAC/ERC	Lighting	Med/Large	2
CTAC/ERC	Lighting	Small	5
CTAC/ERC	Motors	Med/Large	3
CTAC/ERC	Motors	Small	3
CTAC/ERC	Nonresidential Building Contractors	Large	2
CTAC/ERC	Nonresidential Building Contractors	Medium	4
CTAC/ERC	Nonresidential Building Contractors	Small	8
CTAC/ERC	Refrigeration	Med/Large	2
CTAC/ERC	Refrigeration	Small	4
CTAC/ERC	Residential Building Contractors	Med/Large	4
CTAC/ERC	Residential Building Contractors	Small	10

Target Market Upstream Market Actor Survey Sample Allocation, continued

			Target
Center	Business Category	Size	Completes
SDG&E	Agriculture	All	5
SDG&E	Architecture	Med/Large	5
SDG&E	Architecture	Small	5
SDG&E	Engineering	Med/Large	5
SDG&E	Engineering	Small	5
SDG&E	HVAC	Med/Large	5
SDG&E	HVAC	Small	5
SDG&E	Lighting	Med/Large	5
SDG&E	Lighting	Small	5
SDG&E	Motors	Med/Large	5
SDG&E	Motors	Small	5
SDG&E	Nonresidential Building Contractors	Med/Large	5
SDG&E	Nonresidential Building Contractors	Small	5
SDG&E	Refrigeration	Med/Large	5
SDG&E	Refrigeration	Small	5
SDG&E	Residential Building Contractors	Med/Large	5
SDG&E	Residential Building Contractors	Small	5
PG&E	Engineering	Large	4
PG&E	Engineering	Medium	13
PG&E	Engineering	Small	20
PG&E	HVAC	Large	5
PG&E	HVAC	Medium	10
PG&E	HVAC	Small	25
PG&E	Insulation Contractors	Large	3
PG&E	Insulation Contractors	Medium	5
PG&E	Insulation Contractors	Small	5
PG&E	Pool Contractors	Medium	5
PG&E	Pool Contractors	Small	5
PG&E	Residential Building Contractors	Large	5
PG&E	Residential Building Contractors	Medium	18
PG&E	Residential Building Contractors	Small	55
PG&E	Window Contractors	Large	2
PG&E	Window Contractors	Medium	5
PG&E	Window Contractors	Small	5
PG&E	Building Inspectors	All	10
	Total		470

A.2.3 Survey Implementation

The target market survey was conducted in two phases from June – September 2003. The first phase was coordinated with a survey that Quantum Consulting implemented in support of three concurrent non-residential program evaluations. We essentially added our questions to their survey, which was conducted with a representative sample of non-residential end-use customers statewide. The second phase of the survey was a "stand-alone" effort that was also implemented

by Quantum Consulting, and attempted to reach additional end-use customers and a sample of upstream market actors.

Tables in the next subsection will show the number of surveys completed as well as the resulting weights.

A.2.4 Weights

The weights employed in the analyses are the standard sampling weights. That is, the ratio of target market population size to the number of survey completes in a stratum. It is possible to employ the standard sampling weight even for strata that include completes from phase 1 as long as (i) the probability of being selected for the phase 1 sample is the same for all companies in the same target market stratum and (ii) the probability of being selected for the phase 2 sample is the same for all companies in the same target market stratum. (In order to employ the standard sampling weights it is not necessary these two probabilities are the same.) By defining the phase 2 strata in the same manner as the phase 1 strata, requirements (i) and (ii) were met.

Tables A-16 and A-17, below, include both the survey completes and the resulting weights for the end-user and target market surveys. The two surveys had a combined total of 1049 completed surveys.

Table A-16
Target Market End-User Survey Weights

							Total	
				Survey	Phase 1	Phase 2	Survey	
Center	Business Category	Size	Population	Allocation	Completes	Completes	Completes	Weight
AGTAC	Institution	ML	181	2	0	2	2	
AGTAC	Institution	s	135	0	1	0	1	135.0
AGTAC	Institution	V	123	0	3	0	3	41.0
	Manufacturing-Food							
AGTAC	processing	L	70	3	0	3	3	23.3
AGTAC	Crops	L	1,648	11	0	11	11	149.8
AGTAC	Crops	S	1,275	9	0	10	10	127.5
AGTAC	Office	L	12	0	1	0	1	12.0
AgTAC	Office	М	93	1	0	1	1	93.0
AgTAC	Office	S	645	3	0	3	3	215.0
AGTAC	Office	V	2,304	11	0	11	11	209.5
AgTAC	Livestock	L	543	3	0	3	3	181.0
AgTAC	Livestock	S	314	2	0	2	2	157.0
AGTAC	Retail	ML	70	2	0	2	2	35.0
AgTAC	Retail	s	470	2	1	2	3	156.7
AGTAC	Retail	V	1,523	7	0	7	7	217.6
AgTAC	Restaurant/Grocery	ML	68	2	0	2	2	34.0
AgTAC	Restaurant/Grocery	S	545	0	2	0	2	272.5
AGTAC	Restaurant/Grocery	V	366	3	0	3	3	122.0
AgTAC	Agricultural Services	SL	132	3	0	3	3	
AgTAC	Irrigation Suppliers	SL	136	3	0	3	3	
AGTAC	Other Commercial	ML	83	2	0	2	2	41.5
AgTAC	Other Commercial	S	429	1	1	1	2	214.5
AgTAC	Other Commercial	V	2,027	8	1	8	9	225.2
AGTAC	Industrial	ML	71	2	0	2	2	35.5
AGTAC	Industrial	S	166	1	1	1	2	83.0
AGTAC	Industrial	V	506	3	0	3	3	168.7
AgTAC	Wastewater	ML	35	1	0	1	1	35.0
AgTAC	Wastewater	S	138	2	0	2	2	69.0
AGTAC	Wastewater	V	213	2	0	2	2	
DWP/SCG	Institution	SML	289	2	0	2	2	144.5
DWP/SCG	Institution	V	1,242	3	0	3	3	414.0
DWP/SCG	Office	SML	569	3	0	3	3	189.7
DWP/SCG	Office	V	7,171	8	0	8	8	896.4
DWP/SCG	Retail	SML	349	3	0	3	3	116.3
DWP/SCG	Retail	V	4,394	5	0	5	5	878.8
DWP/SCG	Restaurant/Grocery	SML	1,019	3	0	3	3	339.7
DWP/SCG	Restaurant/Grocery	V	5,308	7	0	7	7	758.3
DWP/SCG	Other Commercial	SML	378	2	0	2	2	189.0
DWP/SCG	Other Commercial	V	4,251	5	0	6	6	
DWP/SCG	Industrial	SML	272	2	0	2	2	
DWP/SCG	Industrial	V	3,047	3	0	3	3	
DWP/SCG	Agriculture	VSML	162	2	0	2	2	,
DWP/SCG	Wastewater	VSML	16	2	0	0	0	

Target Market End-User Survey Weights, continued

	1	1	T	I	I		Total	I
				Survey	Phase 1	Phase 2	Survey	
Center	Business Category	Size	Population	Allocation	Completes	Completes	Completes	Weight
SCE/SCG	Institution	ı	380	0	7	0	7	54.3
SCE/SCG	Institution	M	2,118	0	13	0	13	162.9
SCE/SCG	Institution	S	1,183	0	8	0	8	147.9
SCE/SCG	Institution	V	1,165	0	7	0	7	240.7
SCE/SCG	Office	l Ľ	510	0	5	0	5	102.0
SCE/SCG	Office	IM	3.183	0	10	0	10	318.3
SCE/SCG	Office	S	-,	0	10	0	11	1,127.4
SCE/SCG	Office	V	12,401 46,820	0	13	0	13	3,601.5
SCE/SCG		L		0		0		110.0
	Retail Retail		330		3	0	3	
SCE/SCG		M	1,977	0	9		9	1.259.6
SCE/SCG	Retail	S	11,336	0	9	0	9	.,
SCE/SCG	Retail	V	32,073	0	21	0	21	1,527.3
SCE/SCG	Restaurant/Grocery	L	58	0	1	0	1	58.0
SCE/SCG	Restaurant/Grocery	M	1,571	0	11	0	11	142.8
SCE/SCG	Restaurant/Grocery	S	11,915	0	10	0	10	1,191.5
SCE/SCG	Restaurant/Grocery	V	7,555	0	14	0	14	539.6
SCE/SCG	Other Commercial	L	295	0	6	0	6	
SCE/SCG	Other Commercial	M	2,414	0	10	0	10	241.4
SCE/SCG	Other Commercial	S	9,119	0	11	0	11	829.0
SCE/SCG	Other Commercial	V	28,708	0	12	0	12	2,392.3
SCE/SCG	Industrial	L	1,145	0	10	0	10	114.5
SCE/SCG	Industrial	М	3,516	0	11	0	11	319.6
SCE/SCG	Industrial	S	7,152	0	12	0	12	596.0
SCE/SCG	Industrial	V	13,601	0	10	0	10	1,360.1
SCE/SCG	Agriculture	L	14	0	0	0	0	0.0
SCE/SCG	Agriculture	М	146	0	5	0	5	29.2
SCE/SCG	Agriculture	s	621	0	8	0	8	77.6
SCE/SCG	Agriculture	V	2,143	0	6	0	6	357.2
SCE/SCG	Wastewater	L	143	5	0	5	5	28.6
SCE/SCG	Wastewater	М	827	5	0	5	5	
SCE/SCG	Wastewater	S	704	5	0	7	7	100.6
SCE/SCG	Wastewater	V	1,656	5	0	5	5	331.2
SDGE	Institution	Ti T	121	4	4	0	4	30.3
SDGE	Institution	M	626	6	6	0	6	
SDGE	Institution	S	565	6	6	0	6	
SDGE	Institution	V	1,997	8	8	0	8	
SDGE	Office	T <u>i</u>	171	3	3	0	3	57.0
SDGE	Office	M	1.017	6	6	0	6	169.5
SDGE	Office	S	9,195	8	7	0	7	1,313.6
SDGE	Office	V	34,582	9	10	0	10	3,458.2
SDGE	Retail	Ť	71	2	2	0	2	35.5
SDGE	Retail	M	510	4	4	0	4	127.5
SDGE	Retail	S	2,259	6	6	0	6	
SDGE	Retail	V	15,143					
SDGE	Restaurant/Grocery	M	437	6		0		
SDGE	Restaurant/Grocery	S	2,667	6		0		
SDGE	Restaurant/Grocery	V	6,116					
SDGE	Other Commercial	l'	190				3	
SDGE	Other Commercial	M	743		7	0	7	106.1
SDGE	Other Commercial				4			
	Other Commercial	S V	2,210		10	0		
SDGE	Industrial	l V	14,884					
SDGE			148 621			0	4	
SDGE	Industrial	M		6		0	6	
SDGE	Industrial	S	1,405			0	6	
SDGE	Industrial	V	9,314		7	0		1,330.6
SDGE	Agriculture	М	54					
SDGE	Agriculture	S	1,520		7	0	7	
SDGE	Agriculture	V	1,780		5		5	356.0
I	Total		358,433	317	422	161	583	1

Table A-17
Target Market Upstream Market Actor Survey Weights

	1	1	1	Survey	Survey	
Center	Business Category	Size	Population	Allocation	Completes	Weight
AGTAC	Ag Pumping	All	19	5	3	6.3
AGTAC	Agriculture	Med/Large	66	5	5	13.2
AGTAC	Agriculture	Small	127	10	8	15.9
AGTAC	Architecture	Med/Large	33	3	6	5.5
AGTAC	Architecture	Small	98		8	12.3
AGTAC	Engineering	Med/Large	120		2	60.0
AGTAC	Engineering	Small	230	5	5	46.0
AGTAC	HVAC	Med/Large	93	3	3	31.0
AGTAC	HVAC	Small	178	5	5	35.6
AGTAC	Lighting	Med/Large	52	3	4	13.0
AGTAC	Lighting	Small	128	5	3	42.7
AGTAC	Motors	Med/Large	64	3	2	32.0
AGTAC	Motors	Small	98	5	5	19.6
AGIAC	Nonresidential Building	Official	30			19.0
AGTAC	Contractors	Med/Large	312	5	5	62.4
AGTAC	Nonresidential Building	ivieu/Large	312		3	02.4
AGTAC	Contractors	Small	511	10	10	51.1
AGTAC	Refrigeration	Med/Large	42	3	3	51.1 14.0
AGTAC	Refrigeration	Small	106		5	21.2
AGTAC	Residential Building	Smail	100	3	3	21.2
AGTAC	Contractors	Mad/Lana	191	١ ,	,	47.0
AGTAC	Residential Building	Med/Large	191	3	4	47.8
AOTAC	1	0	050	44	4,4	C1 1
AGTAC CTAC	Contractors	Small	856	14	14	61.1
CTAC	Ag Pumping	Med/Large Small	26 48	4	4	13.0 12.0
CTAC	Ag Pumping				3	
CTAC	Agriculture	Med/Large Small	44	2		14.7
CTAC	Agriculture		61	2	4 6	15.3
	Architecture	Med/Large	616		6	102.7
CTAC	Architecture	Small	2,285			380.8
CTAC	Engineering	Med/Large	1,620		5	324.0
CTAC	Engineering	Small	3,576	7	4	894.0
CTAC	HVAC	Med/Large	705	2	3	235.0
CTAC	HVAC	Small	1,937	5	5	387.4
CTAC	Lighting	Med/Large	514	2	6	85.7
CTAC	Lighting	Small	2,074	5	6	345.7
CTAC	Motors	Med/Large	1,206		1	1206.0
CTAC	Motors	Small		3		
0740	Nonresidential Building	l.				407.5
CTAC	Contractors	Large	670	2	4	167.5
	Nonresidential Building	l			_	
CTAC	Contractors	Medium	2,267	4	4	566.8
	Nonresidential Building					
CTAC	Contractors	Small	5,396		6	
CTAC	Refrigeration	Med/Large	338		3	
CTAC	Refrigeration	Small	856	4	3	285.3
	Residential Building					
CTAC	Contractors	Med/Large	1,841	4	5	368.2
	Residential Building					,
CTAC	Contractors	Small	7,727	10	5	1545.4

Target Market Upstream Market Actor Survey Weights, continued

				Survey	Survey	
Center	Business Category	Size	Population	Allocation	Completes	Weight
SDG&E	Agriculture	All	54	5	5	10.8
SDG&E	Architecture	Med/Large	168	5	5	33.6
SDG&E	Architecture	Small	655	5	8	81.9
SDG&E	Engineering	Med/Large	532	5	5	106.4
SDG&E	Engineering	Small	1,171	5	5	234.2
SDG&E	HVAC	Med/Large	149	5	5	29.8
SDG&E	HVAC	Small	331	5	5	66.2
SDG&E	Lighting	Med/Large	126	5	5	25.2
SDG&E	Lighting	Small	470	5	6	78.3
SDG&E	Motors	Med/Large	155	5	5	31.0
SDG&E	Motors	Small	181	5	3	60.3
	Nonresidential Building					
SDG&E	Contractors	Med/Large	692	5	5	138.4
	Nonresidential Building					
SDG&E	Contractors	Small	1,338	5	3	446.0
SDG&E	Refrigeration	Med/Large	70	5	5	14.0
SDG&E	Refrigeration	Small	166	5	5	33.2
	Residential Building					
SDG&E	Contractors	Med/Large	537	5	5	107.4
	Residential Building					
SDG&E	Contractors	Small	2,320	5	5	464.0
PG&E	Engineering	Large	329	4	4	82.3
PG&E	Engineering	Medium	1,013	13	14	72.4
PG&E	Engineering	Small	2,908	20	20	145.4
PG&E	HVAC	Large	120	5	5	24.0
PG&E	HVAC	Medium	423	10	9	47.0
PG&E	HVAC	Small	1,089	25	25	43.6
PG&E	Insulation Contractors	Large	30	3	3	10.0
PG&E	Insulation Contractors	Medium	64	5	5	12.8
PG&E	Insulation Contractors	Small	94	5	4	23.5
PG&E	Pool Contractors	Medium	44	5	5	8.8
PG&E	Pool Contractors	Small	318	5	5	63.6
	Residential Building					
PG&E	Contractors	Large	238	5	5	47.6
	Residential Building					
PG&E	Contractors	Medium	1,362	18	18	75.7
L	Residential Building					
PG&E	Contractors	Small	6,694	55	53	126.3
PG&E	Window Contractors	Large	16		2	8.0
PG&E	Window Contractors	Medium	75		5	15.0
PG&E	Window Contractors	Small	106		5	21.2
PG&E	Building Inspectors	All	220	10	9	24.4
	Total		61,389	470	466	



PARTICIPANT SURVEY QUESTIONNAIRE

INTRODUCTION

Hello, I'm [fill name] from respondent name]?	in	, May I plea	ase speak with [fill
1 CONTINUE 2 CALLBACK			
[WHEN RESPONDENT IS	ON THE PHONE]		
Hello, I'm [fill name] from research firm hired by [UTI NAME]. You probably know yourself who may have attent workshops but are simply he seminars. Your answers are projects that will be useful to minutes of your time.	w it as [CENTER] \ nded a seminar/work elping [CENTER] fi completely confider	We are interested in the opinkshop at [CENTER]. We an igure out how to improve the ntial and will be used to help	nions of people like re not selling eir workshops and p them plan future
1 CONTINUE 2 CALLBACK 3 REFUSED	<u>. </u>		
[IF ASKED WHAT [CENT located in [CENTER LOCA efficient electric technologie challenges.]	TION]. This center	r offers customers informati	ion on energy-
SDG&E INTRODUCTION	:		
Hello, I'm [fill name] from research firm hired by San I efficiency seminars that they may have attended a semina are simply helping SDG&E answers are completely combe useful to customers like y time.	Diego Gas & Electricy offer. We are inter r/workshop offered figure out how to infidential and will be	te Company to help them ever rested in the opinions of peo by SDG&E. We are not se improve their workshops and the used to help them plan future	aluate energy ople like yourself who elling workshops but d seminars. Your are projects that will

APPENDIX B

- 1 CONTINUE
- 2 CALLBACK
- 3 REFUSED

[NOTE: FOR EACH QUESTION ASKED, THE INTERVIEWER WILL HAVE THE OPTION OF RECORDING A "D" FOR DON'T KNOW AND A "R" FOR REFUSED. THESE OPTIONS WILL NOT BE OFFERED TO THE RESPONDENT UNLESS THEY ARE LISTED IN THE INSTRUMENT AS A VALID RESPONSE]

SCREENER

S1	According to our records you attended a seminar/workshop called [COURSE NAME]. Is this information correct?
	1 Yes 2 No
S2	Have you taken [any/ any other] seminars or workshops from [CENTER]?
	1 Yes
	2 No [IF NO IN S1, TERMINATE SURVEY. OTHERWISE SKIP TO S5.]
S3	How many others?
	# of seminars/workshops attended
S4	What was the topic of the other seminars or workshops?
	 New Construction - Title 24 Workshop (building codes, standards) Refrigeration - Energy Efficient Refrigeration, Refrigeration Fundamentals, Industrial Refrigeration HVAC - Basic HVAC, HVAC Fundamentals Lighting - Commercial/Industrial Lighting, HID Lighting Motors and ASDs Pumping, Hydraulic Systems Dairy Milking Technologies PLCs Food equipment, cooking Air quality Swimming pool pumps Water or wastewater Other C/I Equipment/Issues - SPECIFY: Other Agricultural Equipment/Issues - SPECIFY: Other - SPECIFY:
	[IF S1=NO AND S2=YES, ATTEMPT TO RECATEGORIZE AT LEAST ONE SEMINAR INTO ONE OF THE PRE-EXISTING SEMINAR CATEGORIES]

I'd like to get some background information about your firm and your job responsibilities to help me better understand your responses. I'd like to remind you that all of your answers will be kept confidential.

- S5 What is the <u>main</u> business activity of your firm?
 - apartment building, condominium, or other multi-family residential facility
 - 2 commercial office building
 - 3 government/community services facility (includes offices, police/fire stations, prisons, and military bases)
 - 4 retail sales
 - 5 grocery store/convenience store
 - 6 restaurant/deli/tavern
 - 7 health services (hospital, nursing home, health care facility, clinic)
 - 8 hotel/motel
 - 9 manufacturing/industrial facility
 - 10 food processing facility
 - 11 warehouse
 - school, college or university
 - other **end user**[specify]
 - 14 architect
 - 15 engineer
 - 16 HVAC contractor/vendor
 - lighting contractor/vendor
 - 18 pool contractor/maintenance/vendor
 - 19 window contractor/vendor
 - 20 insulation contractor/vendor
 - 21 refrigeration supply
 - 22 motor/ASD vendor
 - 23 pumping/hydraulic equipment specifiers and vendors
 - other upstream/midstream market actor (UMA) [specify]
 - 25 unknown [IF PG&E, GO TO UMA SURVEY; OTHERWISE GO TO S6]

[IF <=13 GO TO END USER SURVEY; IF >13 GO TO UMA SURVEY]

S6 Does your company provides consulting, engineering, design or contracting services to Agriculture or Commercial/Industrial customers?

[IF YES, THEN UMA, GO TO GO TO **UMA** SURVEY; IF NO, THEN EU, GO TO **END USER** SURVEY.]

End User Participant Survey

BACKGROUND

Bl	How	months and/oryears
B2	Wha	t is your current job title? [DO NOT READ]
	1	owner
	2	president/vice-president/CEO
	3	energy manager
	4	facility manager
	5	chief engineer
	6	plant engineer
	7	plant manager
	8	property manager
	9	store manager
	10	chef
	11	research & design personnel
	12	dietician
	13	director
	14	franchisee
	10	other [specify]
В3	other effic	often do you or others in your company attend seminars, workshops or training courses that address energy efficiency – [IF NEEDED: such as energy ient lighting, refrigeration or air conditioning technologies, or energy efficient ling design and construction?]

1 Very frequently, i.e., once a month

CHECK ONLY ONE RESPONSE]

- 2 Somewhat frequently, i.e., once a season/year
- 3 Infrequently, i.e., once every other year or less
- 4 Not at all

NEW PRODUCTS AND SERVICES

Would you say you or your staff attend these types training courses....[READ LIST.

NP1	In this next series of questions, I'd like to better understand your role in making and/or implementing decisions about new equipment purchases for this facility. Are you involved in ? [READ LIST]
	1 yes 2 no
	 a. identifying new equipment needs at this facility? b. evaluating the technical or economic potential of new purchases? c. giving final approval for new purchases? d. selecting a supplier or vendor to install the new equipment?
NP2	What source of information do you or other decision makers at your facility prefer to use to collect information on? [READ A-D. DO NOT READ LIST OF RESPONSES. CHECK ALL THAT APPLY]
	trade journals manufacturers reps distributors or other sales staff seminars or workshops colleagues within company/ other businesses colleagues outside company/other businesses consultants (engineers, architects) utility company other [specify]
	a. new technologies b. energy use at your facility c. energy efficiency d. vendors and contractors
NP3	(ASK FOR EACH ITEM IN WHICH SEMINARS OR WORKSHOPS IS MENTIONED IN NP2) When collecting new information on [FILL NP2A-D], what makes seminars or workshops more valuable to you than some other source of information? [PROBE ONLY FOR THOSE WHERE SEMINARS/WORSHOPS ARE THE PREFERRED SOURCE] [DO NOT READ. CHECK ALL THAT APPLY]
	1 convenience 2 hands on demonstrations 3 unbiased/objective information 4 depth of material 5 ability to interact with instructor/other participants 6 other [specify]

PARTICIPATION

- You mentioned that you attended a [CENTER] seminar. How did you hear about [CENTER] and the seminars/workshops they offer? (PROBE: Anywhere else?) [DO NOT READ. CHECK ALL THAT APPLY. RECORD FIRST MENTION.]
 - 1 from a utility company representative
 - 2 from information inserted in my utility bill
 - received a brochure in the mail regarding a seminar offered at [CENTER]
 - 4 received an email from [CENTER]
 - 5 received a fax from [CENTER]
 - 6 saw the seminar listing on the [CENTER]'s website
 - 7 saw an article in a trade magazine
 - 8 received information through professional organizations
 - 9 saw display at trade show
 - someone at my company gave me a brochure regarding a seminar or seminars offered at [CENTER]
 - someone at my company told me about [CENTER]
 - a colleague outside my company told me about [CENTER]
 - a consultant or contractor told me about [CENTER]
 - 14 other [specify]
- C2 What would be the <u>best</u> way to inform you or others in your position about future [CENTER] seminars and workshops? [DO NOT READ. CHECK ALL THAT APPLY]
 - 1 from a utility company representative
 - 2 from information inserted in my utility bill
 - through a brochure in the mail regarding a seminar offered at [CENTER]
 - 4 via fax
 - 5 via email
 - 6 through the [CENTER] website
 - 7 through articles in a trade magazine
 - 8 through information available from professional organizations
 - 9 through a display at trade show
 - through others at my company
 - through colleague outside my company
 - through consultants or contractor who works with me or my company
 - other [specify]
- C3 What are the main reasons why you took the [CENTER] course(s)? (PROBE: Why else?) [Note: if needed, remind respondent of the name of the seminar/workshop we are calling about.] [DO NOT READ. CHECK ALL THAT APPLY]
 - 1 [CENTER] is a credible information source

2

	3	[CEN]	TER]ha	s a goo	d reput	ation for its se	minars/co	urses		
	4		ΓERIco							
	5	_	_			thinking about	nurchasir	าฮ รดฑล	e equinment	and I
										, una i
	6	went to [CENTER] to learn more about a specific technology My company/business was thinking about purchasing some equipment, and I wanted to learn more about a general topic (i.e., lighting, HVAC, environmental								
	U									
				11 111010	about	a general topi	ic (1.c., 11g)	nung, 1	i vac, ciivii	omnemai
	7	regula		1,	1.1	, FOEN	ITTD 1	1.	٠.٠	1: 4:
	7					neone at [CEN	N I EK Jrega	arding a	specific ap	plication of
	0		m for m	•						
	8					new product	22			
	9					ENTER]had to				
	10					ısiness asked 1				
	11	To hel	p my co	mpany	/busine	ess meet energ	y standard	ls		
	12	To me	et my ca	areer go	oals/get	t promoted				
	13	Other	[SPEC	CIFY]						
	_	ng aspe		-		poor" and 5 is ENTER] [CO			•	
		1	2	3	4	5			8	
		POOR	_			EXCELLEN	VΤ		NA	
	c. "cu that wa d. obj e. cla f. tec g. tea	chnical latting eas proving city of the ching state	dge" or	"state-orinformation dige of the instr	of-the-a ation provide he instructor		on			
C5	where		ot at all			usefulness of t is "extremely		_		
	1	2	3	4	5					
	ma at 1	king en my faci usefuli	nergy-us lity ness of	sing equ the info	uipmen ormatio	n for you when t purchase dec n in helping yo	ou ou			
	ex	plain to	others i	in my c	ompan	y the rationale	;			

[CENTER]provides objective information that I can't get anywhere else

	behind certain choices
C6	Overall, on a scale from 1 to 5, with 1 being "not at all satisfied" and 5 being "extremely satisfied", how satisfied would you say you were with the [fill with [CENTER] [COURSE NAME]] you took?
	1 2 3 4 5
C 7	[If C6<4] Why do you say that?
	The next few questions ask about any effects that your visit to [CENTER]or the [CENTER]course(s) you took may have had on decisions to purchase or upgrade energy-using equipment at your facility.
C8	Using a 1 to 5 scale, where 1 means "strongly disagree" and 5 means "strongly agree", please tell me how much you agree or disagree with each statement. As a result of taking the [CENTER] course(s)
	1 2 3 4 5 STRONGLY STRONGLY DISAGREE AGREE
	 a. I am more aware of new technologies or practices b. I am more aware of energy efficient solutions c. I better understand how to improve the energy efficiency at my facility d. I have more confidence in the performance of energy efficient equipment C8d1 [IF <=3 ASK] Why do you say that?
	e. I can promote energy efficiency to my own management better C8e1 [IF <= 3 ASK] Why do you say that?
	f. I am more likely to specify "energy efficient" equipment when I have a choice C8f1 [IF <= 3 ASK] Why do you say that?
	g. I can more confidently evaluate the energy efficiency performance claims made by salespeople C8g1 [IF <=3 ASK] Why do you say that?

	h.		specify	ing or s	has or will change some of its policies selecting energy efficient equipment K] Why do you say that?
С9	Sir	nce your vi	sit to [C	CENTE	ER], has your company purchased any? [READ LIST]
		1 2	Yes No		
	a. b.	lighting e HVAC (if			ing, ventilation and air conditioning) equipment
	c. d. e. f. g. h.	refrigeration (AGTAC (AGTAC (SCG ON	ion equ ONLY ONLY (LY) co	ipment) pumpi) other a oking o	le speed drives (ASDs) t ping and hydraulic equipment agricultural equipment or food preparation equipment ipment (SPECIFY:)
[ASK	C10	and C11 I	FOR E	АСН ТҮ	YPE OF EQUIPMENT PURCHASED IN C9]
C10		•	-		the same type and efficiency level of [fill with equipment if you had not visited [CENTER]?
	1 2	Yes No			
	C1	1 Why	do you	say that	at?
C12	lik wh	ely to be of	n your i ot at all	future e influen	a say the information you received from [CENTER] is equipment purchase decisions. That is, on a scale of 1 to 5, ential" and 5 is "very influential," how influential is this
		2 ot at all luential	3	4	5 Very Influential
C13		d your visi uipment?	ts to [C	ENTER	R] affect how your business operates or maintains any of its

	1	Yes							
	2	No	[SKIP TO C16]						
C14		what equ . THAT A	nipment did you change the operations? [DO NOT READ LIST. CHECK APPLY]	ζ.					
	1 2 3 4 5 6 7	HVA0 pump motor refrig cooki	ng equipment C equipment bing and hydraulic equipment rs and/or adjustable speed drives geration equipment ing/food preparation equipment [SPECIFY]						
C15			have you changed how you operate or maintain this equipment as a resul [CENTER]?	t of					
C16	Do y	ou still l	have the information you received from the [CENTER] seminars?	_					
	1 2	Yes No							
C18			ared any of the information you received from the [CENTER] seminar(s) ither within or outside of your company?						
	1 2	Yes No							
C20	Finally, any other improvements regarding [CENTER] that you can suggest?								
[THA	NK Y	OU ANI	D END SURVEY.]						

Upstream/Midstream Market Actor Participant Survey

BACKGROUND

	B1 How many locations total does your company have in [GREATER CENTER LOCATION]?
	locations
B2	How many years has your company been in business?
	years
В3	Approximately what were the total sales of all products and services for your company in 1999 <u>at this location</u> ?
	\$ (Actual Total)
[IF RE	ELUCTANT OR REFUSES, ASK WHICH RANGE THEY WOULD FALL IN.]
B4	1 < \$50,000 2 \$50,000 - \$249,999 3 \$250,000 - \$499,999 4 \$500,000 - \$1 million 5 \$1 million - \$5 million 6 > \$5 million What percent of your sales revenue is generated from doing business with:
	% contractors% vendors/suppliers% other (SPECIFY:)0 [TOTAL SHOULD ADD TO]
B5	For how long have you worked in the [INSERT INDUSTRY FROM SCREENER S5] industry??
	months and/oryears
В6	What is your current job title?

- 1 owner
- 2 president/vice-president/CEO
- 3 field technician
- 4 sales representative/vendor
- 5 purchasing agent
- 6 architect/designer
- 7 engineer
- 8 contractor
- 9 pool maintenance/contractor
- 10 farmer
- 11 other farming
- irrigation/water purveyor
- 8 other [SPECIFY]
- B7 How often do you or others in your company attend seminars, workshops or other training courses that address energy efficiency such as '':
 - IF S5 = 14-17, 'the design of energy efficient new commercial or industrial buildings?'
 - IF S5 = 18, 'energy efficient HVAC equipment
 - IF S5 = 19, 'energy efficient lighting equipment
 - IF S5 = 20, 'energy efficient refrigeration equipment
 - IF S5 = 21, 'energy efficient motors and ASDs
 - IF S5 = 22, 'energy efficient pumping and hydraulic systems
 - IF S5 = 23, 'energy efficient agricultural equipment
 - IF S5 = 24, 'energy efficiency equipment

Would you say you attend energy efficiency training courses....[READ LIST. CHECK ONLY ONE RESPONSE]

- 1 Very frequently, i.e., once a month
- 2 Somewhat frequently, i.e., once a season/year
- 3 Infrequently, i.e., once every other year or less
- 4 Not at all

NEW PRODUCTS AND SERVICES

[NP1 LEFT INTENTIONALLY BLANK]

- NP2 What source of information do you or other decision makers at your facility prefer to use to collect information on...? [READ A-C. DO NOT READ LIST OF RESPONSES. CHECK ALL THAT APPLY.]
 - 1 trade journals
 - 2 manufacturers reps
 - distributors or other sales staff

- 4 seminars or workshops
- 5 colleagues within company/ other businesses
- 6 colleagues outside company/other businesses
- 7 consultants (engineers, architects)
- 8 utility company
- 9 other [specify]

a.	new technologies	
b.	equipment energy use	
c.	equipment energy efficiency	

NP3 (ASK FOR EACH ITEM IN WHICH SEMINARS OR WORKSHOPS IS MENTIONED IN NP2) When collecting new information on [FILL NP3A-C], what makes seminars or workshops more valuable to you than some other source of information? [PROBE ONLY FOR THOSE WHERE SEMINARS/WORSHOPS ARE THE PREFERRED SOURCE] [DO NOT READ. CHECK ALL THAT APPLY]

- 1 convenience
- 2 hands on demonstrations
- 3 unbiased/objective information
- 4 depth of material
- 5 ability to interact with instructor/other participants
- 6 other [specify]

PARTICIPATION

- You mentioned that you attended a [CENTER] seminar. How did you hear about [CENTER] and the seminars/workshops they offer? (PROBE: Anywhere else?) [DO NOT READ. CHECK ALL THAT APPLY. RECORD FIRST MENTION.]
 - 1 from a utility company representative
 - 2 from information inserted in my utility bill
 - received a brochure in the mail regarding a seminar offered at [CENTER]
 - 4 received an email from [CENTER]
 - 5 received a fax from [CENTER]
 - 6 saw the seminar listing on the [CENTER]'s website
 - 7 saw an article in a trade magazine
 - 8 received information through professional organizations
 - 9 saw display at trade show
 - someone at my company gave me a brochure regarding a seminar or seminars offered at [CENTER]
 - someone at my company told me about [CENTER]
 - a colleague outside my company told me about [CENTER]

- a consultant or contractor told me about [CENTER]
- 11 other [specify]
- C2 What would be the <u>best</u> way to inform you or others in your position about future [CENTER] seminars and workshops? [DO NOT READ. CHECK ALL THAT APPLY]
 - 1 from a utility company representative
 - 2 from information inserted in my utility bill
 - received a brochure in the mail regarding a seminar offered at [CENTER]
 - 4 via fax
 - 5 via email
 - 6 through the [CENTER] website
 - 7 through articles in a trade magazine
 - 8 through information available from professional organizations
 - 9 through a display at trade show
 - through others at my company
 - through colleague outside my company
 - through consultants or contractor who works with me or my company
 - other [specify]
- C3 What are the main reasons why you took the [CENTER] course(s)? (PROBE: Why else?) [Note: if needed, remind respondent of the name of the seminar/workshop we are calling about.] [DO NOT READ. CHECK ALL THAT APPLY]
 - 1 [CENTER] is a credible information source
 - 2 [CENTER] provides objective information that I can't get anywhere else
 - 3 [CENTER] has a good reputation for its seminars/courses
 - 4 [CENTER] courses are convenient
 - My company/business was thinking about purchasing some equipment, and I went to [CENTER]to learn more about a specific technology
 - 6 My company/business was thinking about purchasing some equipment, and I wanted to learn more about a general topic (i.e., lighting, HVAC, environmental regulations)
 - I wanted to consult with someone at [CENTER]regarding a specific application or problem for my company/business
 - 8 I wanted to test/showcase a new product
 - 9 I was curious about what [CENTER]had to offer
 - 10 Someone in my company/business asked me to attend
 - To help my company/business meet energy standards
 - To meet my career goals/get promoted
 - 13 Other [SPECIFY]
- C4 Using a scale of 1 to 5, where 1 is "poor" and 5 is "excellent", how would you rate each of the following aspects of the {fill with [CENTER] [COURSE NAME] you took? [READ LIST. ROTATE LIST.]

		1 2 POOR	3	4	5 EXCELLENT	8 NA	Δ		
	sched b. te c. "c that w d. ol e. cl f. te g. te	lule echnical level o	of informor "state- ne information edge of the inst	nation post-of-the- nation provi the instructor	-art" information				
[C5 I	NTENT	TIONALLY LI	EFT BL	ANK]					
C6	satisf	*	sfied wo	uld you	th 1 being "not at all a say you were with		•		
	1	2 3	4	5					
C7	[If Co	5<4] do you say tha	nt?						
	The next few questions ask about any effects that your visit to [CENTER]or the [CENTER]course(s) you took may have had on your business' decision to promote energy efficiency.								
C8	please	Using a 1 to 5 scale, where 1 means "strongly disagree" and 5 means "strongly agree", please tell me how much you agree or disagree with each statement. As a result of taking the [CENTER] course(s) [READ LIST]							
		1 2 STRONGLY DISAGREE		4	5 STRONGLY AGREE				
	a. b. c.	I am more a I have more	ware of confide	energy nce in 1	chnologies and pract efficient products the performance of e do you say that?		equipment		

- d. I have incorporated energy efficiency into my sales presentation C8d1 [IF <= 3 ASK] Why do you say that?
- e. My company should consider making it common practice to specify energy efficient products

 C8e1 [IF <= 3 ASK] Why do you say that?
- f. Our business has differentiated itself by specifying energy efficient products C8f1 [IF <= 3 ASK] Why do you say that?

[C9-C15 LEFT INTENTIONALLY BLANK]

- C16 Do you still have the information you received from the [CENTER] seminars?
 - 1 Yes
 - 2 No
- C18 Have you shared any of the information you received from the [CENTER] seminar(s) with others either within or outside of your company?
 - 1 Yes
 - 2 No
- C20 Could you suggest improvements to the seminar(s) information and materials that might make it more useful?

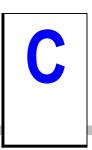
[SPECIFY]

C21 Are there any other improvements to the [CENTER] seminar you can suggest?

[SPECIFY]

- C22 How could [CENTER]help you make decisions more effectively? [PROBE] How else? [DO NOT READ. CHECK ALL THAT APPLY]
 - 0 Nothing
 - 1 More detailed information through higher level seminars
 - 2 On-going technical support
 - 3 Someone readily available to answer questions
 - 4 Update information about new technologies
 - 5 Other [SPECIFY]
- C23 Finally, any other improvements regarding [CENTER] in general that you can suggest?

[THANK YOU AND END SURVEY.



TARGET MARKET SURVEY QUESTIONNAIRE

Target Market Survey Statewide Education & Training Evaluation- PY2002

Screener for End-Use Customers

Hello, my name is ___ and I'm calling from ____. We're conducting a VERY BRIEF survey on behalf of [UTILITY]. May I please speak with the person at this location who is most knowledgeable about decisions affecting your energy using equipment (such as cooling and lighting systems, or pumping equipment for agriculture)?

[IF ASKED ABOUT PURPOSE OF STUDY, READ] [UTILITY] is/are interested in studying the market for energy efficient equipment and design practices in its service territory. Your participation in this effort will help [UTILITY] design programs that better serve its customers' needs. This is not a SALES CALL; no one will attempt to sell you anything as a result of this call.

[IF ASKED ABOUT CONFIDENTIALITY, READ] Your responses to this survey will be used to assess the markets for energy efficient products & services in California. Your answers will be held in strict confidence and reported in our study only at the aggregate level.

[IF ASKED ABOUT SURVEY LENGTH, READ] The length of this survey depends on your answers, but shouldn't take more than 5-10 minutes. [ARRANGE CALL-BACK IF NOT A GOOD TIME]

[WHEN APPROPRIATE RESPONDENT IS ON PHONE, RE-INTRODUCE YOURSELF AND READ] We're conducting a VERY BRIEF survey on behalf of [UTILITY] who is interested in studying the market for energy efficient equipment and design practices. Your participation in this effort will help [UTILITY] design programs that better serve its customers' needs. This survey should only last about 5-10 minutes, depending on your answers, and all of your responses will be strictly confidential. Do you have time now to continue? [IF NOT, ARRANGE CALL-BACK]

[IF AGFLAG=1 THEN CONTINUE, OTHERWISE GO TO MAIN SURVEY QUESTIONS] Great, before we get started, let me just confirm that your company is involved in [Ag Bus]:

If business category= agricultural production – crops then [Ag Bus]= "agricultural crop production"

If business category= agricultural production – livestock then [Ag Bus]= "agricultural livestock & animals"

If business category= manufacturing-food processing then [Ag Bus]= "food processing"

If business category= irrigation suppliers then [Ag Bus]= "irrigation"

If business category= agricultural services then [Ag Bus]= "agriculture"

If business category= other agriculture then [Ag Bus]= "agriculture"

[IF CUSTOMER IS NOT IN AGRICULTURAL INDUSTRY, THANK AND TERMINATE.]

Continue using the add-on survey depending on utility (PG&E, SCE/SCG, and SDG&E)

Target Market Survey Statewide Education & Training Evaluation- PY2002

Screener for Upstream/Midstream Market Actors

Hello, my name is ____ and I'm calling from ____. We're conducting a VERY BRIEF survey on behalf of [UTILITY]. May I speak with the person most knowledgeable about your predominant line of business?

[IF ASKED ABOUT PURPOSE OF STUDY, READ] [UTILITY] is/are interested in studying the market for energy efficient equipment and design practices in its service territory. Your participation in this effort will help [UTILITY] design programs that better serve its customers' needs. This is not a SALES CALL; no one will attempt to sell you anything as a result of this call.

[IF ASKED ABOUT CONFIDENTIALITY, READ] Your responses to this survey will be used to assess the markets for energy efficient products & services in California. Your answers will be held in strict confidence and reported in our study only at the aggregate level.

[IF ASKED ABOUT SURVEY LENGTH, READ] The length of this survey depends on your answers, but shouldn't take more than 5-10 minutes. [ARRANGE CALL-BACK IF NOT A GOOD TIME]

[WHEN APPROPRIATE RESPONDENT IS ON PHONE, RE-INTRODUCE YOURSELF AND READ] We're conducting a VERY BRIEF survey on behalf of [UTILITY] who is interested in studying the market for energy efficient equipment and design practices. Your participation in this effort will help [UTILITY] design programs that better serve its customers' needs. This survey should only last about 5-10 minutes, depending on your answers, and all of your responses will be strictly confidential. Do you have time now to continue? [IF NOT, ARRANGE CALL-BACK]

CONFUMA. Which of the following is your predominant line of work? [PROMPT FIRST WITH THE "UMATYPE" VARIABLE CONTAINED IN THE SAMPLE]

CONFUMA	TYPE	READ:	Yes	No	DK
1	ARCH	designs new buildings in Southern California?			
2 (not for PG&E)	NONRES BC	builds new commercial buildings in Southern California?			
3	RES BC	builds new single-family homes in Southern California?			
4 (not for PG&E)	ENG	provides engineering services for new buildings or major			
		renovation projects involving technologies such as air			
		conditioning systems, refrigeration equipment, lighting, and motors?			
5 (not for PG&E)	HVAC	specifies, sells or installs new air conditioning equipment?			
6 (not for PG&E)	MOTOR	specifies, sells or installs new motors and adjustable speed drives (ASDs)?			
7 (not for PG&E)	REFRIG	specifies, sells or installs new refrigeration equipment?			
8 (not for PG&E)	PUMP	specifies, sells or installs new pumping and hydraulic			
		equipment for agricultural applications or irrigation?			
9 (not for PG&E)	AG	specifies, sells or installs new equipment used for			
		agricultural processes or irrigation, such as motors,			
		adjustable speed drives and pumps?			
10 (not for PG&E)	LITE	specifies, sells or installs new lighting equipment?			
11 (PG&E only)	INSUL	specifies, sells or installs insulation in residential homes?			
12 (PG&E only)	POOL	specifies, sells or installs pool pumps for residential			
		homes?			
13 (PG&E only)	WINDO W	specifies, sells or installs windows in residential homes?			
14 (PG&E only)	INSPECT	inspects new residential homes?			
15 (PG&E only)	HVAC-R	specifies, sells or installs new heating and/or air conditioning equipment for residential homes?			

[Whichever answer is yes, then code according to "TYPE" that matches. GO TO S2 with appropriate type]

Screener for Upstream/Midstream Market Actors

S2 Approximately what percent of your company's annual revenue last year was for: [READ AS APPROPRIATE]

TYPE	READ:	%
ARCH	designing new buildings in Southern California?	
NONRES BC	building new commercial buildings in Southern California?	
RES BC	building new single-family homes in Southern California?	
ENG	providing engineering services for new buildings or major renovation	
	projects involving technologies such as air conditioning systems,	
	refrigeration equipment, lighting, and motors?	
HVAC	specifying, selling or installing new air conditioning equipment?	
MOTOR	specifying, selling or installing new motors and adjustable speed drives (ASDs)?	
REFRIG	specifying, selling or installing new refrigeration equipment?	
PUMP	specifying, selling or installing new pumping and hydraulic equipment	
	for agricultural applications or irrigation?	
AG	specifying, selling or installing new equipment used for agricultural	
	processes or irrigation, such as motors, adjustable speed drives and	
	pumps?	
LITE	specifying, selling or installing new lighting equipment?	
INSUL	specifying, selling or installing insulation in residential homes?	
POOL	specifying, selling or installing pool pumps for residential homes?	
WINDOW	specifying, selling or installing windows in residential homes?	
INSPECT	inspecting new residential homes?	
HVAC-R	specifying, selling or installing new heating and/or air conditioning	
	equipment for residential homes?	

IF >= 25% CONTINUE. OTHERWISE THANK AND TERMINATE.

If S2 = DK then ask:

S2A Would you say it was less than 25%?

1. yes

2. no

if 1 then T&T

Add:

- 1. Who is your electric utility?
 - 1. Southern California Edison (SCE)
 - 2. Pacific Gas & Electric (PG&E)
 - 3. San Diego Gas & Electric (SDG&E)
 - 4. Los Angeles Department of Water & Power (LADWP)
 - 5. Other: specify
 - 6. Don't know
- 2. Do you have natural gas service?
 - 1. Yes [CONTINUE]
 - 2. No [SKIP TO MAIN SURVEY]
 - 3. Don't know
- 3. Who is your natural gas utility?
 - 1. The Gas Company/Southern California Gas Company (SCG)
 - 2. Pacific Gas & Electric (PG&E)
 - 3. San Diego Gas & Electric (SDG&E)
 - 4. Long Beach Gas Company
 - 5. Southwest Gas Company
 - 6. Other: specify
 - 7. Don't know

Modify question #1:

- 1. How often do you or others in your company attend seminars, workshops or other training courses that address energy efficiency such as [READ AS APPROPRIATE]
 - ... energy efficient new building design and construction practices applicable to the Southern California area? (ARCH, NONRES BC, RES NC, INSPECT)
 - ... specifying technologies like energy efficient air conditioning systems, refrigeration equipment, lighting, and motors? (ENG)
 - ... energy efficient lighting systems and technologies? (LITE)
 - ... energy efficient air conditioning equipment? (HVAC and HVAC-R)
 - ... energy efficient refrigeration systems and equipment? (REFRIG)
 - ... energy efficient motors or adjustable speed drive applications? (MOTOR)

- ... energy efficient agricultural or irrigation pumping technologies and hydraulic equipment? (PUMP)
- ... energy efficient equipment used for agricultural processes or irrigation, such as motors, adjustable speed drives, or pumps? (AG)
- ... installing insulation? (INSUL)
- ... installing and specifying pool pumps? (POOL)
- ... installing windows? (WINDOW)

Continue using the add-on survey depending on utility (PG&E, SCE/SCG, and SDG&E)

PG&E Main Survey Questions

1. How often do you or others in your company attend seminars, workshops or other training courses that address energy efficiency – such as the specification or ordering decisions related to lighting, HVAC, refrigeration, motors, food service equipment, or agricultural equipment?

Would you say you attend energy efficiency seminars or training courses...[READ LIST. CHECK ALL THAT APPLY]

- 1 Very frequently, i.e., once a month
- 2 Somewhat frequently, i.e., once a season/year
- 3 Infrequently, i.e., once every other year or less
- 4 Not at all
- 2. Have you heard of Pacific Gas and Electric Company's Energy Training Center, located in Stockton?
 - 1 Yes
 - 2 No

[IF NO TO 2, SKIP TO 7.]

[Questions 3 and 4 intentionally left blank]

- 5. What types of services do you recall being offered by PG&E's Energy Training Center? [PROBE] Any others? [DO NOT READ. CHECK ALL THAT APPLY]
 - a. Seminars, workshops, classes
 - b. Special exhibits and product displays
 - c. Hands-on product demonstrations and showcases
 - d. Computer lab, specialized energy-related software
 - e. Guided tours of the facility and its exhibits/displays
 - f. Expert advise from PG&E energy specialists
 - g. Other (SPECIFY)

6.	Which if any of these services have you used or participated in? [PROBE] Any others? [DO NOT READ. CHECK ALL THAT APPLY]
	 a. Seminars, workshops, classes b. Special exhibits and product displays c. Hands-on product demonstrations and showcases d. Computer lab, specialized energy-related software e. Guided tours of the facility and its exhibits/displays f. Expert advise from PG&E energy specialists g. Other [SPECIFY] h. None [ASK 6a: Why not?]
7.	[READ ONLY IF NO TO 2. OTHERWISE GO TO 8] PG&E operates the Energy Training Center-located in Stockton. It is designed to share information about the benefits of energy efficient technologies and building design practices. PG&E's Energy Training Center offers seminars for their commercial and industrial customers. Hearing about this energy center now,
[A:	SK ALL RESPONDENTS] Which if any of the following services would you want to use in the future from PG&E's Energy Training Center:
b.c.d.e.	Seminars, workshops, and classes Special exhibits and product displays Hands-on product demonstrations and showcases Computer lab with specialized energy-related software Guided tours of the facility and its exhibits & displays Expert advise from PG&E energy specialists
[IF	YES TO ALL ITEMS IN 8 SKIP TO END]
9.	[IF NO TO AT LEAST ONE SERVICE IN 8 ASK] Why wouldn't you be interested in using some of these services?
EN	D [THANK RESPONDENT AND END SURVEY]

SCE Main Survey Questions

1. How often do you or others in your company attend seminars, workshops or other training courses that address energy efficiency – such as the specification or ordering decisions related to lighting, HVAC, refrigeration, motors, food service equipment, or agricultural equipment?

Would you say you attend energy efficiency seminars or training courses...[READ LIST. CHECK ALL THAT APPLY]

- 1 Very frequently, i.e., once a month
- 2 Somewhat frequently, i.e., once a season/year
- 3 Infrequently, i.e., once every other year or less
- 4 Not at all
- 2. Have you heard of Southern California Edison's Customer Technology Application Center located in Irwindale? You may know it better as "C-TAC"? [Interviewer instructions: pronounce "See-tac".] [CENTER=CTAC; UTILITY=SCE]
 - 1 Yes
 - 2 No
- 3. Have you heard of Southern California Edison's Agricultural Technology Application Center, or "AG-TAC," located in Tulare? [Interview instructions: pronounce "Ag-tac".] [CENTER=AGTAC; UTILITY=SCE]
 - 1 Yes
 - 2 No
- 4. Have you heard of Southern California Gas Company's Energy Resource Center, located in Downey? [CENTER=The Gas Company's Energy Resource Center; UTILITY=The Gas Company]
 - 1 Yes
 - 2 No

[IF NO TO 2, 3 AND 4, SKIP TO 7.]

[ASK 5-6 FOR EACH CENTER THAT THEY HAVE HEARD OF IN 2-4. OTHERWISE SKIP TO 7]

- 5. What types of services do you recall being offered by [CENTER]? [PROBE] Any others? [DO NOT READ. CHECK ALL THAT APPLY]
- a. Seminars, workshops, classes
- b. Special exhibits and product displays
- c. Hands-on product demonstrations and showcases
- d. Computer lab, specialized energy-related software
- e. Guided tours of the facility and its exhibits/displays
- f. Expert advise from [UTILITY] energy specialists
- g. Other (SPECIFY)
- 6. Which if any of these services have you used or participated in? [PROBE] Any others? [DO NOT READ. CHECK ALL THAT APPLY]
- a. Seminars, workshops, classes
- b. Special exhibits and product displays
- c. Hands-on product demonstrations and showcases
- d. Computer lab, specialized energy-related software
- e. Guided tours of the facility and its exhibits/displays
- f. Expert advise from [UTILITY] energy specialists
- g. Other [SPECIFY]

h. None [ASK 6a: Why not?

7. [READ ONLY IF NO TO 2 or 3 or 4. OTHERWISE GO TO 8] Southern California Edison operates two energy centers – CTAC is centrally located in Irwindale, and the other, AgTAC, is located in the heart of the agricultural community in Tulare. Southern California Gas Company also operates an Energy Resource Center- located in Downey. These energy centers are designed to share information about the benefits of energy efficient technologies and building design practices. Each of the energy centers offers seminars for their non-residential customers. Hearing about these energy centers now,

[ASK ALL RESPONDENTS]

8.	Which if any of the following CTAC services would you want	to use in the future:
		CTAC
a.	Seminars, workshops, and classes	
b.		
c.		
d.	•	
	Guided tours of the facility and its exhibits & displays	
f.	•	
[IF	F YES TO ALL ITEMS IN 8 SKIP TO 10]	
	[IF NO TO AT LEAST ONE CTAC SERVICE IN 8 ASK] Why wo using some of these CTAC services?	uldn't you be interested in
10	, c	ure:
	[READ LIST. CHECK ALL THAT APPLY]	
		AgTAC
a.	Seminars, workshops, and classes	_
b.	Hands-on product demonstrations and showcases	
c.	Guided tours of the facility and its exhibits & displays	
d.	Expert advise from SCE energy specialists	
e.	Agricultural seminars, displays, and demonstrations	
[IF	F YES TO ALL ITEMS IN 10 SKIP TO 12]	
11	I. [IF NO TO AT LEAST ONE AgTAC SERVICE IN 10 ASK] W interested in using some of these AgTAC services?	hy wouldn't you be

12. Which if any of The Gas Company's Energy Resource Center services would you want to use in the future:

[READ LIST. CHECK ALL THAT APPLY]

END [THANK RESPONDENT AND END SURVEY]

		SCG ERC
a. S	Seminars, workshops, and classes	
b. S	Special exhibits and product displays	
c.]	Hands-on product demonstrations and showcases	
	Computer lab with specialized energy-related software	
	Guided tours of the facility and its exhibits & displays	
	Expert advise from the Gas Company's energy specialists	
g.	Food service seminars, displays, and demonstrations	
[IF`	YES TO ALL ITEMS IN 12 SKIP TO END]	
13.	[IF NO TO AT LEAST ONE ERC SERVICE IN 12 ASK] Why interested in using some of these Energy Resource Center service	•

C-13

SDG&E Main Survey Questions

1. How often do you or others in your company attend seminars, workshops or other training courses that address energy efficiency – such as the specification or ordering decisions related to lighting, HVAC, refrigeration, motors, food service equipment, or agricultural equipment?

Would you say you attend energy efficiency seminars or training courses...[READ LIST. CHECK ALL THAT APPLY]

- 1 Very frequently, i.e., once a month
- 2 Somewhat frequently, i.e., once a season/year
- 3 Infrequently, i.e., once every other year or less
- 4 Not at all
- 2. Did you know that San Diego Gas and Electric Company conducts seminars for their commercial and industrial customers on energy efficiency? [If needed: these seminars are usually held at hotels throughout San Diego and Orange Counties.]
 - 1 Yes
 - 2 No

[IF NO TO 2, SKIP TO 9.]

[Questions 3, 4 and 5 intentionally left blank]

- 6. Have you ever attended any of these seminars offered by SDG&E?
 - 1 Yes
 - No [ask 6a: Why not? _____

[Question 7 intentionally left blank.]

8. [READ ONLY IF NO TO 2. OTHERWISE GO TO 8] San Diego Gas and Electric Company conducts seminars for its commercial and industrial customers. These seminars are held throughout San Diego and Orange Counties. These seminars are designed to share information about the benefits of energy efficient technologies and building design practices. Hearing about these seminars now,



PROGRAM STAFF INTERVIEW GUIDE

Statewide Education & Training Program Process Evaluation Interview Guide

Introductions

Explanation of evaluation, other research activities (participant and target market survey)

I. Overview of Interview Objectives

- Clarify our understanding of the 2002 program
- Explore ideas for program improvement

II. 2002 Program

- Overview of program components, e.g., seminars, demonstrations, and facility tours
- Confirm our understanding of program accomplishments for 2002 (e.g., # seminars offered, # hard-to-reach seminars offered)
- Discuss other programs/activities conducted at the Center (i.e., not funded by the Statewide program)

III. Roles & Responsibilities

- Utility staff
- Contractors seminar instructors, coursework development
- Associations, trade groups, universities, other non-utility entities

IV. Administration, Communication and Coordination

- Is the Center administration effective? Locally, with PG&E corporate (adequate resources- staff, budget)
- Is communication effective between Center staff? Locally, with PG&E corporate
- Is the Program well-coordinated with other utility energy efficiency programs? (e.g., SPC, Express Efficiency, SF Rebates) How are these programs cross-promoted?
- What coordination activities has the Center been engaged in with the other utilities? How effective has these coordination activities been?

• How might program administration, communications and coordination be improved going forward?

V. Effectiveness of Seminars and Other Technical Services

- How are the Center's services developed? (cover the basics, cutting edge, support other utility EE programs) (how is need gauged in the target market, other organizations offering seminars?) How are they evaluated?
- What is the target market for seminars and other services? What portion of the target market has been reached by the program? (Have the big players been reached? What distance is covered?)
- Are all of the different segments of the target market addressed by the Center's services? (e.g., end-use customers v. contractors, engineers, government; small v. large customers)
- Do other organizations (e.g., colleges, private schools) offer energy efficiency seminars to the target market?
- How is customer use of services tracked? Which are the most utilized by customers? The least?
- What new seminars were offered in 2002? Are any new services being planned for the future?
- What changes might be made to improve identification of and understanding of the target market?
- Are there any improvements that might be made to the Center's services to more effectively serve the target market? (e.g., meet the needs)

VI. Program Marketing, Outreach

- How are the Center's services promoted? Have promotional efforts and materials been effective?
- Approximately what percentage of seminar attendees are "repeat customers"? (how are repeat customers promoted to? And what strategies are used to attract new customers?)
- What changes might be made to improve program marketing to attract new customers and to continue to attract repeat customers?

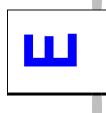
VII. Hard-to-Reach (HTR)

- What is the definition of HTR that is being used? How do you track HTR attendance? (has this changed/been done over time?)
- What strategies are being used to target HTR customers? Have these strategies been effective? (has this changed/been done over time?)

- (How are HTR needs identified?) How might understanding of the specific needs of HTR customers be improved?
- How might HTR targeting strategies be improved to maximize HTR attendance?

VIII. Customer Satisfaction

- What are customers' expectations when using the Center's services? (depending on the seminar- learn about another program, learn the basics, learn about cutting edge technology)
- How is customer satisfaction tracked? Is this information used to modify/add seminars and services?
- What changes could be made to improve participant satisfaction and encourage greater participation levels? To encourage further usage of materials/lessons learned? Retention of knowledge?



PARTICIPANT SURVEY CROSS-TABULATIONS

SEMINAR CATEGORY

Business Type

			CENTEF	CENTER NAME				Basic	 	, д; Д, 	High perf/ I	 Irr/		į	!	į	Ref-			TYPE	
	Total A	Total AgTAC SDGE CTAC	AGTAC SDGE CTA	CTAC	ETC	ERC	Au- dits G	/Gen EE I H	Food F	G HVAC b		Pumps I Wells - L	Light M -ing t M	Mo- tors i	pump- P. ing ce	Pro- cess at	riger ation Q	T24 W. -R		END USER T	UMA U
Total	346 26 43 14 C%100.0 100.0 100.0 100.	26 100.0	43	90	39	91	100.00	61	47	60	35	15 100.0 1	44 15 100.0 100.0 1	15	3	1100.00 10	10 100.0	29	8 100.0 1	131 100.0 1	215
Architect/Engineer/ Consultant	64 C% 18.4	19.7	17.1	35 24.3	12.9	10 11.4 D	0.0	15.3	8 4 Q Z	13.4 M	18	2	16 35.9 HIJR	4.1	00.	11.1	3.0	13.5 M	0.0	63 47.7	0 1.4 T
Commercial end-user	37 C% 10.6	1.5 DF	8.6	15 10.0	2 F 0 H	17 18.6 BE	7.0	2. E 9	19 41.1 HJMR	6.5 T	3.7	0.0	7.0 H	4.1	20.0	5.5	20.2	4.5 T	0.0	1.0 U	35 16.5
Facility management end -user	d 30 C% 8.7	3.0	20.0 BEF	17 11.4 F	7.1 C	1.4 CD	20.9	9 14.9 R	2.8 ±	13.3 R	0.0	2.7	8 17.9 IR	12.4	0.0	0.0	0.0	0.0 HJM	0.0	0.0	30 14.1 T
Industrial/Ag end-user	62 C% 17.8	21.2	17.1	21 14.3 EF	2 4.3 BCDF	26 28.6 DE	7.0	12.1 I	17 36.1 HMR	12 19.4 R	11.9	16.0	13.2 I	23.4	00:0	44.5	24.0	н н орн	17.2	3.8 U	57 26.4 T
Institutional end-user	89 C% 25.9	10 37.9 DE	13	31 21.4 B	8 20.0 B	27	51.2	9 14.5 R	8.3 JR	15 24.9 IR	12 33.8	32.6	9 21.2 R	8 8 9 9	140.0	14.7	11.6	13 43.6 HIJM	82.8	1 0.4 U	89 41.4
Nonres Contractor/ Vendor	40 C% 11.6	13.6 E	7.1	25 17.1	1.1 BD	8 9.	13.9	15 24.3 IJM	2.8 H	6 10.4 H	0.0	30.0	2 7.7 H	0.0	20.0	3 24.2	40.3	e 0.	0.0	40 30.5	0 O H
Res Contractor/Vendor	20 C% 5.8	0.0 E	0 E00	0 0 0	20 51.4 BCDF	0 0 0 0	0.0	9.5	0.0 RP	12.2 IM	0.0	0.0	0.0 JR	0.0	20.0	0.0	0.0	7 23.1 IM	0.0	20 15.3	0 O H
Don't know/Refused	4 C% 1.2	3.0	0.0	1. 4	0.0	т 4.	0.0	4.1	0.0	0.0	0.0	2.7	00.	0.0	0.0	0.0	0.0	1.5	0.0	1.3	1.22
													,								

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Seminar Category

SEMINAR CATEGORY

			Ċ	CENTER NAME	NAME		1 6		Basic		i E Å,						1	Ref-	- W		TYPE	
	TC	Total Agrac AB		SDGE (CTAC	E E E	ERC	Au- dits G	EE E	Food H7 I	HVAC bı	build We	Fumps Li Wells -j L	Light Mo- -ing tor MN	ω	j.	Cess at	ation T2 QR	4	S t c	« ¦	UMA U
Total	C%10	346 26 43 1 C%100.0 100.0 100.0 100	26	43	.0 1	39	91	9 100.01	61	47	60	35	15	44	15	3 0.0 1	11	10	29	8 0.0	131	215
Audits	O %	0 9.	0.00	7 15.7 BDEF	1. 24.0	00.0	00.0	100.0	0.0	00.	00.	00.	0.0	00.	00.	0.0	00.	00.	00.0	0.0	. 0	
Basiscs/General EE	61 C% 17.5		2 6.1 CDEF	0 0.0 BDEF	33 22.9 BC	10 25.7 BC	16 17.1 BC	0.0	61 .00.0 IJMR	0.0 H	0 O H	0 0	0.0	0.0 H	0.0	0.0	00.	0 0	0.0 H	0.0	30 2.8 U	31 14.3 T
Food	47 C% 13.6		0.0 DF	0.0 DF	10 7.1 BCEF	0.0 DF	36 40.0 BCDE	0.0	0.0 H	47 .00.0 HJMR	0 о н	0.0	0.0	0.0	0.0	0.0	00.	00.0	00н	0.0	9 7.1 1	38 17.5
HVAC	°°°	60	0.1 CE E	16 37.1 BDF	23 15.7 CE	13 32.9 BDF	5.7 CE	0.0	00.0	0.0	60 .00.0 HIMR	0.0	0.0	00.0	0.0	0.0	00.	00.0	00.5	0.0	22 6.7 1	38
High-performance/Green building	35 C% 10.1		1.5	0.0 DF	21 14.3 CE	0.0 DF	13 14.3 CE	0.0	0.0	0.0	0.0 10	35	0.0	0.0	0.0	0.0	00.0	00.0	0.0	0.0	18	178.1
Irrigation/Pumps/Wells	%	15 4.3 4	11 40.9 CDEF	0.0 0	2.0 B	0.0 0	00.0	0.0	0.0	0.0	0.0	0.0 10	15.00.0	0.0	0.0	0.0	00.0	00.	00.0	0.0	9 .	8 0.
Lighting	44 C% 12.7		2 7.6 DE	7 17.1 EF	33 22.9 BEF	0.0 BCD	1.1 CD	0.0	0 . 0 0 . 0	0 . 0 0	0.0 M	0.0	0.0 10	44 .00.0 HIJR	0.0	0.0	00.0	00.0	οοΣ	0.0	4.1	26 11.9
Motors	%	15 4.3 1	15.2 DEF	7 15.7 DEF	2.9 BC	0.0 BC	0.0 BC	0.0	0.0	0.0	0.0	00.0	0.0	0.0 10	15	0.0	00.	00.	0.0	0.0	0.5 U	14 6.7
Pool pumping	%	e 8.	O.O	0 0 0	0 0 0 1	3 7.1 BCDF	о. О	0.0	0.0	00.0	0.0	00.0	0.0	0.0	0.0 10	e o . o	00.0	00.	0.0	0.0	0.8	0.8
Process	%	3 12	6.1.2 E.1.2	6 14.3 DEF	1.4 2	0.0 BC	Н Н 4. О	0.0	00.0	00.0	00.0	00.0	0.0	00.0	00.	0.0 10	1100.00	00.	00.	00.0	3.0	7. 4.

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E-2

APPENDIX E

Seminar Category

	Total	CENTER NAME	CENTER NAME	i	H H H H H H H H H H H H H H H H H H H	ERC 0	Au- , dits ,G	Basic /Gen EE E	Food F	HVAC B	High perf/ I Green E build W	Irr/ Pumps I Wells -	Light M -ing t M	Mo- p tors i N	Pool pump- P ing c	Pro- ri cess at	Ref- riger ation	Wa Wa T24 Wa R	Water Waste EN water US	TYPE END USER U	.E
D %	10	2 7.6 CEF	0.0 BD	5.7 CEF	0 0.0 BD	0.0 BD	0.0	0.0	0.0	0.0	00.0	0.0	0.0	00.	00.0	0 10 0	10	0.0	0.0 3.5	3.5	2.7
O %	8.4	0 0 1 1	0.0 E.F.	0.0 EH	13 16 34.3 17.1 BCDF BCDE	16 17.1 BCDE	0.0	00.0	00.8	00.0	0.0	00.0	00.4	00.	00.	00.	0 29 0.0 100.0 HIJM	29 00.00 HIJM	0.0	16 12.0	6.2
0%	2.28	3.0	00.	2.9	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	00.	0.0	0.0 100.0		0.0	8. 8 2 E

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APPENDIX E

Center Names

		UMA U	215	18	32 15.1	39.8 39.8	13 6.0	90.9 T
	TYPE	END USER T	46 39 91 9 61 47 60 35 15 44 15 3 11 10 29 8 131 215	6.7	11 8 . 5	60 46.0	26 19.9	25 18.8 U
	Water	waster water S	8	10.6	0.0	55.0	0.0	34.4
		T24R	29	0.0	0.0 9.0	0.0 HIJM	13 46.1 HIJM	16 53.9 HIJM
	Ref-	ation 2	100.0	19.4	0.0	80.8	0.0	0.0
	Ĺ	1 0 L L L L L L L L L L L L L L L L L L	1100.0	14.3	55.5	18.6	0.0	11.6
	Pool	puii ing 0	3	0.0	0.0	00.0	0.0 100.0	0.0
FEGORY		tors N	15	4 26.7	7	4 27.8	0.0	0.0
SEMINAR CATEGORY		Ling Ling LML-	44	4.5	7 16.9 HIR	33 75.6 IJR	0 0.0 HJR	3.0 HIR
SEMI		Fumps Wells L	15	11 72.2	0.0	427.8	0.0	0.0
	High perf/	build K	35	3.4	0.0	21 59.4	0.0	13
		HVAC J	60	4.0	16 27.1 HIR	23 38.5 MR	13 21.5 IMR	5 8.8 HIR
		Food I	47	0.0	0.0 M	10 22.2 HMR	0.0 HJR	36 77.8 HJMR
	Basic	EE	61	2.6	0.0 MT	33 55.0 IR	10 16.6 IMR	16 25.8 IJMR
	 	Au- dits G	0.001	0.0	76.6	23.4	0.0	0.0
		ERC	91	0.0	00.0	0.0	0.0 E	91 100.0 BCDE
		ETC	39	0.0	00.0	0.0	39 100.0 BCDF	0.0
	CENTER NAME	Total AgTAC SDGE CTAC	146	0.0 0	00.0	0 146 0.0 100.0 D BCEF	0 0 E	0.0
	CENTE	SDGE	43	0.0	43 100.0 BDEF	0.0	0.0	0.0
		AgTAC	26 100.0	26 100.0 CDEF	00.0	0.0	0 .00 E	0.0
		Total A	346 26 43 146 C%100.0 100.0 100.0	26 26 0 C% 7.6 100.0 0.0 CDEF B	C% 12.6 0.0 100.0 C BDEF	146 C% 42.2	39 C% 11.3	91 0 C% 26.3 0.0
			Ö	ΰ	ΰ	ΰ	ΰ	ΰ
			Total	AgTAC	SDGE	CTAC	ETC	ERC

E-4

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S5. What is the MAIN business activity of your firm?

	UMA -U	215	2.4	25 11.7 T	52 24.0	3.68	1.6	15 6.8	12 5.6	80°E	47 22.0 T	3.0 H
TYPE	1	131	0.0	0.0 U	1 0.4 2	0.0	0.0	1.0 U	0.0	0.0	3 2.3 U	0.0
	waste END water USER ST	8	0.0	00.0	5.6	0.0	0.0	00.0	0.0	0.0	7.2	0.0
Ma.	4	29	00.	0.0 MUM	10 34.6 6	00.	00.	4. T T T	. 0.0 H	00.	1.9 1. I.O. 1.	00.н
	₽	10 .0 100	· ·	00.	г 9.	00.	00.	· ·	00.	00.	0 0	00.
1	riger ation Q	1 1	0	0	0 111	0	0 20	0	0	5 0	5 24	0
1	Cess Cess	100.	0	0	0	0	0	0	9	5	44.	0
Pool	ing ing 0	3	0.0	00.	20.0	0.0	0.0	0.0	0.0	20.0	0.0	0.0
	Mo- tors N	15	0.0	12.4	7	4.1	0.0	0.0	6.8	0.0	3 20.7	0.0
	Light -ing M	44	4.	13.2 R	10.4 R	0.0	0.0	0 о	0.0	6.1	9.5	0.0
	Fumps I Wells -	15 100.0 1	00.	2.7	30.0	0.0	0.0	00.	0.0	0.0	5.3 1	5.3 1
High perf/ I		35	0.0	00.0	5.0	00.0	0.0	0.0	0.0	00.0	11.9	0.0
H Q	HVAC b	60	1.0	12.2 R	10.1 R	3.5	0.0	0 O H	7.9 H	3.0	12 19.4 R	0 о н
	Food H I	47	0.0	2 . 8 H	0.0 HR	5.6	2 .8	14 30.0 HJMR	2.8	2 . 8	10 22.22 R	5 11.1 HJR
Basic	Gen EE F	61	H 80	13.1 R	14.5 IR	3.2	0.0	0 O H	0.0 JR	2 1 1	96.	0 O H
-	Au- dits G	9	13.9	7.0	30.3	0.0	0.0	7.0	13.9	00.0	7.0	0.0
1	ERC d	91 00.00	0.0	1.4 CD	14 15.7 B	. s	1.4	9 10.0 BCE	4.3	. o .3	18 20.0	5 5.7 CDE
	H H H H H H H H H H H H H H H H H H H	39	2 .	4 2 % D	11.4 B	0.0	0.0	0 0 14	1.4	2 0 1	2 4.3 CDF	0 0 4
NAME	CTAC	46	1. 2	15 10.0	12.9 B	2.9	1. 4. 2	6. 8.	2.9	1.2	21 14.3	0.0
CENTER NA	SDGE	26 43 1 100.0 100.0 100	2 8.	7 15.7 BEF	14.3 B	1. 4.	0.0	1. 4. H	5.7	2.2 B.7.2	14.8 E.3	0.0
Ü	AgTAC	26 00.0 1	0.0	H O U	8 31.8 CDEF	1.5	0.0	0.0 F	3.0	000	12.1	4.5
	Total A A	346		25	52 15.1	2.3 %	1.0	16	3.4	2 . 4 8	50	1.9
	E I	346 C%100.0	O %	O %	°°°	%	%	O %	O %	O 9/6	Q %	%
		Total	Apartment/Condo/Other Multi Family	Commercial office building	Government/Community services facility	Retail sales	Grocery store/ Convenience store	Restaurant/Deli/Tavern	Health services	Hotel/Motel	Manufacturing/ Industrial facility	Food processing facility
		Ĭ	Ar	or Dr.	S G	R	υΩ	Re	He	НС	Mē ⊥r	F,

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oa:scee0009:report:final:e part tabs

S5. What is the MAIN business activity of your firm?

		UMA U	0.0	25 11.8	0 1,0	0 O H	0 O H	0 O H	0.0	0.0	0.0 H	0 O H	0.0
	TYPE	USER I-I	1.5	0.0	31 23.3 U	19 14.5 U	31 23.4 U	6.8 U	0.5	0.4	3.9 U	8 6.0	1.6
		waster T	0.0	17.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		T24 .	0.0	0 0 0 0	3 9.6 HJ	1.9 H	7 23.7 IM	0.0 H	00.	0 0	0 0	8 3 2	0.0
	Ref-	ation 2	0.0	0 0	0.0	0.0	20.2	0.0	0.0	0.0	0.0	20.2	0.0
		1 0 1 1 0 1 1 0 1 1 0 1	0.0	5.5	0.0	5.5	3 24.2	0.0	0.0	0.0	0.0	0.0	0.0
		ing 0	0.0	20.0	0.0	00.	00.	0.0	00.	0 0	0.0	0.0	0.0
CATEGORY		mo- tors N	0.0	4.1	00.	4.1	00.	00.0	00.	0.0	0.0	00.	0.0
	-1 -1 -1	Ling -ing M	2.8	5 10.9 HR	11 24.2 HIJ	1.1 H	0 0.0 HJR	4.7	00.	0 0	00.	00.	00.
SEMINAR	Irr/	rumps Wells L	0.0	2.7	2.7	5.3	00.	0.0	00.	0 0	0.0	0.0	13.9
	1	build K	0.0	10	15 43.1	00.0	00.	0.0	00.	0 0	0.0	0.0	0.0
		HVAC J	0.0	4 0.	0.0 MR	11.7 I	14.0 IM	0.0 H	00.	0 0.	4. 8. 4.	2 8 5	0 0.
		Food	2.8	5.6	4. 4. M	0.0 HJ	0 0.0 HJR	0.0	00.	0.0	2.8	0.0	0.0
	Basic	EE H	2.1	0 0 0 0	0.0 MR	9 14.6 IMR	11 17.6 IM	6 10.3 JR	00.	0.0	1.8	2 8 5	00.
	 	Au- dits G	0.0	7.0	0.0	0.0	0.0	7.0	7.0	0.0	0.0	0.0	0.0
		ERC F	2 .	10.0	5.7	. N N O D	4 .3 4	0.0	00.	0 0.	1. 4.	2 .9	0 0.
		ETC	0.0	7.1	7.1	2.0	14 37.1 BCDF	0.0	00.	1.4	4 8 8	7.1 C	0 0.
	NAME	CTAC	0.0	5.7	21 14.3	5.7	10 7.1 BE	5.7 BEF	0.0	0.0	1.4	1.4	1.4
	CENTER NAME	SDGE	2.9	10.0	1.1 D	6 14.3 BEF	4 8.3 E E	1.4	1.4	0.0	00.	0 0 0 E	00.
		AgTAC B	0.0	. u	6.1	3° C	0.0 DE	0.0	0 0.	0.0	0.0	1.5	0.0
		Total A	1.1	7.3	31.	1.9	31.8	2.6	0.2	0.2	1.5	2.38	0.6
			°°	Ω %	ů	O %	C%	ů	O %	O %	%	°°	0%
			Warehouse	School/College/ University	Architect	Engineer	HVAC contractor/Vendor	Lighting contractor/ Vendor	Pool contractor/ Maintenance/Vendor	Window Contractor/ Vendor	Insulation contractor/ Vendor	Refrigeration supply	Motor/ASD vendor
			Wč	Sc Ur	A ₁	Ē	H	Z C	P.	W	II	X.	M

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S5. What is the MAIN business activity of your firm?

TYPE	END USER UMA TU		1 0.0		7.0 0.2 U	
ate	waste En water US S	0.0	0.0	0.0		
M :	T24 w R	0.0			0.0	т
Ref-	riger ation 0	0.0	00.0	0.0	0 m	0.0
	1 C F C C C C C C C C C C C C C C C C C	0.0	00.	0.0	5.5	00.
	pump- ing 0	120.0	0.0	0 1 0 0 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.0	0.0
	Mo- tors N	00.	2.7	0	0	0.0
	Light -ing M	0.0	0.0	0.0	5.3 5.6	4.7
Irr/	Fumps Wells L	2	8 .0	0.0	5.3	2.7
High perf/	Green build K	0.0	0.0 0.0	0.0	7.4	m m
	HVAC	0.0	0.7	1.3	0.0	0.0
	Food I-I	0.0	0.0	0.0	4 2 4.	0.0
	EE H	0.0	0.0	0.0	0.0	0 0
	Au- dits G	0.0	0.0	0.0	0.0	0.0
	ERC F	0.0	0.0	0.0	2.03	1.4
	ETC	1.4 B		1.4		Т
CENTER NAME	CTAC D	0.0	0.0	0.0	2.9	1.4
CENTE	Total AgTAC SDGE ABC	00.0	00.0	0.0	1.4	0.0
	AGTAC	2 9.1 CDEF	2 9.1 CDEF	3.0	6.1	1.5
	Total A	0.0	0.7	8 0.4	10 2.8	C% 1.3
		δ. Ο	<u>0</u>	°C	Ö	υ
		Pumping/Hydraulic equipment specifiers	Agriculture	Construction	Consultant	Other

1.0

0.0 1.3

Don't know

 $\operatorname{Bl.}$ How long have you been employed by your firm? $\operatorname{BASE:}$ End Users

	 -U	215	64 29.8	61 28.3	57	33 15.5	1.7
TYPE	1 1	0.0 100.0	0.0 29	0.0 28	0.0 26	0.0 15	*
	SE END SE USER						rs.
	Water Water	3 100.	3 7 27.	0 55.	4.0	1 9 17.	ω m
	T24	100.	. 61	31.	39.	· o	11.
1 4	riger ation T24 QR	100.0	36.1	20.8	06.	36.1	25.8
	Pro- cess P	100.0	8.6	32.0	345.3	14.1	13.3
	pump- Pro- 1	2	0.0	8 9 9 ⊢ 8	33°.	33.3	16.0
	O-O-CO-CO-CO-CO-CO-CO-CO-CO-CO-CO-CO-CO-	14	38.9	25.3	11.4	24.4	11.3
	Light Mo- F -ing tors i MN	26	3 17 2 9 9 16 7 2 6 6 0 1 2 3 2 2 26.1 25.5 32.4 30.0 22.9 41.4 39.1 23.6 25.2 38.9 0.0 8.6 36.1 19.7 27.5	24.3 38.7 24.3 28.8 14.3 48.1 17.9 25.3 33.3 32.0 20.8 31.0 55.3	1 5 14 10 7 2 7 2 1 3 0 5 0 8.1 17.7 36.8 27.0 39.1 18.9 27.6 11.4 33.3 45.3 6.9 39.4 0.0	1 8 3 4 6 1 1 1 7 4 1 1 2 1 1 4 4 33.3 14.1 36.1 9.9 17.2	11.0 9.8 13.9 11.3 16.0 13.3 25.8 11.3 8.5
	Pumps L Wells	8 0.00	3.6	4.1.4	2 6.	1 4.	8.
High	Green Pu build We	17	7.0	4.3	9.1	7.5	1.0
Hi		38	16	1118.8	10	2.1	3.3 1
	d HVAC J	38	00.	o m.	.8 2.	90.	9.3 13.2 11.4 10.1 14.2 8.3 M
	- HOG - HOG	31 0 100	0 22	.2	5 36	4 6 16	1 14
	/Gen EE	0 100.	2 30.	3 38.	1 17.	2 13.	4 10.
	Au- dits	100	32.	24.		35.	11.
	ERC -	100.0	17	14 21.6	27 41.2 D	11.88	13.2
	ETC EEC	13	3 26.1	7 6 14 7 43.5 21.6 B	3 26.1	4.3	9.3
ENGL	CTAC	85	27	31.7	13 14.6	19	11.8
9 1 1	CENTER NAME	32	13 40.4 B	19.2 B	28.8	11.5	8.
(Total Agrac SDGE CTAC ETC	215 18 32 85 13 66 8 31 38 38 17 8 26 14 2 7 6 13 8 C%100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0	20.5 C	8 6 43.2 19.2 CF B	4 9 22.7 28.8	33 2 4 C% 15.5 13.6 11.5	11.7 11.0 9.8
	 A	215	64 4 C% 29.8 20.5	618.3		33	1.7
	E I	C%10	%	61 C% 28.3	57 C% 26.3	%	MEAN: 1
			φ			ω H	MEAI
			5 уеаг	S	s r s	20 yea	
			Less than 5 years	10 years	11 - 20 years	More than 20 years	
		Total	Less	5 - 1	111	More	

EB2. What is your current job title? BASE: End Users

													SEMINAR	R CATEGORY	GORY							
			_	CENTER NAME	NAME				Basic		, μ; Ω, 	High Perf/I	Irr/		i Ā	Pool	, X	Ref-	A	 Water -	TYPE	-
	ΗI	Total A	AgTAC	SDGE	CTAC	ETC	ERC	Au- dits G	/Gen EE] H	Food 1	G HVAC b		Pumps L Wells - L	Light M -ing t	Mo- p tors i: N	pump- Pi ing ce	Pro-r cess a	riger ation 7 Q	M T24 w R	Waste E water U S	END USER T	UMA U
Total	C %	215	18	215 18 32 85 C%100.0 100.0 100.0		13	66	8	31	38	38	17	8	26 00.0	14 100.0 1	2	7	6 100.0 10	13	8	0.0	215
Owner	%	13	4.5	0.0 F	4.	13.0	0 0	0.0	1.8 1	17.4	1.5	0.0	0 4.7	8 2 2	0 8 0	33. 11	0 0	36.1	0.0	0.0	0.0	6.1
President/ Vice-president/CEO	Ö %	1.6	0.0	00.	2 4.	00.	2.0	0.0	0.0	. ∪	5.6	0.0	00.	0.0	00.	0.0	0.0	0.0	00.	00.	00.0	1.6
Energy manager	0%	13	2.3	7.7	7.3	2 17.4	2.0	8 1 1	3 10.4	0.0	5.6	7.5	0 4.7	3.0	4.3	0.0	0.0	0.0	8.4	0.0	0.0	5.0
Facility manager	0%	32	13.6 C	11 32.7 BDF	σ ω ω υ	13.0	13.7 C	3 40.5	16.0	3.57	16.7	0.8	₽ ₽ 4.	23.6	33.0	00.0	26.5	0.0	∪ o	00.	0.0	32 15.0
Chief engineer	Ω %	188	13.6	15.4	7.3	0.0	5.9	88	15.3	. ∪	13.8	0.0	14.1	1.0	7.1	0.0	0.0	0.9	0.0	27.5	0.0	18
Plant engineer	0%	23	0 1 2	e 9.	12.2	2 17.4	7.8	8	17.8	3.	20.8	0.0	34.0	0.0	5.6	33.1	17.1	0.0	4.2	17.2	0.0	23 10.5
Property manager	%	2.5	0.0	0.0	4.0	0.0	2.0	0.0	0.0	3.5	5.6	0.0	00.	8 2 2	0.0	0.0	0.0	0.0	0.0	00.0	0.0	2.5
Store manager	0%	3.5	0.0	0.0	7.3	0.0	2.0	0.0	6.8	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	36.1	0.0	0.0	0.0	3.58
Chef	O %	1.8	0.0	0.0	0.0	0.0	5.9	0.0	0.0	10.4	0.0	0.0	00.	0.0	0.0	0.0	0.0	0 0	0.0	0.0	0.0	1.8
Research & Design personnel	%	1.9	0.0	00.	4.9	0.0	0.0	0.0	0.0	5.6	0.0	0.0	00.	0.0	00.	0.0	0.0	0.0	0.0	27.5	0.0	1.9
RESEARCH AMERICA INC										ιΩ	SIGNIFICANCE TESTING AT	ANCE I	TESTING AT	٠. ا	D.							

SIGNIFICANCE TESTING AT .95 BCDEF/GHIJKLMNOPQRS/TU

APPENDIX E

EB2. What is your current job title? BASE: End Users

				, ,	Ę				-		14		ì		ſ	-	t	Ų	1	_	TYPE	
	- I	Total 7	AgTAC	SDGE CTAC	CTAC	ETC	ERC	Au- , dits G	basic /Gen EE I	Food F	HVAC K	peri/ L Green B build W	irr/ Pumps L Wells -	Light M -ing t M	Mo-Pr tors in	pump- P. ing co	CGESS - P - P	riger ation 7	T24 W	a ster ster S-1	END USER T	UMA
Director	0%	12 5.5	0.0	Θ.	7.3	13.0	т о	0.0	8	e 0.	1.5	12.0	0.0	2.4	0.0	0.0	8.6 1	00.0	2 14.1	0.0	0.0	12 5.5
Groundskeeper	%	0.0	6.8	0.0	0.0	0.0	0.0	0 0	0.0	0.0	0.0	0.0	14.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maintenance manager	%	0.8	2.3	3.8	0.0	0.0	0.0	0 0	0.0	0.0	0.0	0.0	0.0	1.6	0.0	00.	17.1	0.0	0.0	0.0	0.0	0.8
Maintenance mechanic	0,000	ω ω.	4 20.5 DF	7.7	2 2 4 E	0.0	0.0 BC	0.0	0.0	0.0	11.6	0.0	0.0	0.0	u o	00.	16.6	0 6.	0.0	10.6	0.0	∞ ∞
Electrician	0%	2.2	1.5	1.0	2 . 4	0.0	2.0	00.	00.	00.	00.0	0.0	00.0	8 8	٩.	0.0	0.0	0 0	H 6.	0.0	0.0	2.25
Engineer	00	10	6.8	7.7	2.4	4.3	5.9	0.0	8.53	0.0	5.0	2 12.0	0.0	2.4	8.6	00.	14.1	13.9	0.0	0.0	0.0	10
Sales rep/sales manager	G. C.	3.3	0.0	1.0	2 4.	4. L &	5.9	0 0	0.0	10.4	1.5	12.0	0.0	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3
Environmental specialist	0%	0.0	0.0	0.0	0.0	4 · .	2.0	0 0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	0.0	00.	0.0
Project manager	0%	0.8	2.3	0.0	0.0	0.0	2.0	00.	0.0	3.5	0.0	0.0	0 4.7	0.0	00.0	0 0	0.0	0.0	0.0	0.0	0.0	0.8
Irrigation/water specialist	%	1.2	2.3	0.0	2.4	0.0	0.0	0 0	0.0	0.0	0.0	0.0	0 4.7	0.0	2 14.5	0.0	0.0	0.0	0.0	0.0	0.0	1.22
Analyst	%	2.0	2.3	0.0	2.4	1.4	2.0	27.2	1.8	0.0	0.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	17.2	0.0	2.0
RESEARCH AMERICA INC										.ς.	IGNIFIC	SIGNIFICANCE TESTING AT	ESTING	AT .95	2							

EB2. What is your current job title? BASE: End Users

			O	CENTER NAME	NAME		,		asic		Е Д.	igh erf/ I								ater	TYPE	-
	ΗI	 Total AgTAC AB	ogtac -B	Total AgTAC SDGE CTAC		ETC I	ERC A	Au- //dits] G	/ Gen EE Fo	Food H	HVAC b	Green Fl build We K	Fumps L. Wells -:	Light Mo -ing to M	Mo- tors in N	pump- Fr ing ce 0	Cess at	riger ation T 2	T24 wa	waste Er water US S	END USER U	UMA U
Inspector	Ö	1.7	2 3 0	1.0	00.	00.	т б	00.	0 0	00.	2.7	0.0	00.	0.0	00.	00.	0.0	0.0				4
Service tech/rep/ manager	O %	3.1	3 0	0.0 0			0.0	00.	. 8 . 9	00.	1.1	0 1 12.0	0.0	.2 2	00.	00.	00.0	00.0				3.1
Manager	% O	9°.	2 3	. 8 2	00 4		0.8 D	8 . 1	0 0	. 5 ⊥	1.7	1 3 0 7 15.0 4.7	0 4.7	0.0	4.3	. s	0.0	0.0				φ. 6.
Equipment specialist	%	1.23	0.0	0.0				0.0	0.0	e.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				1.23
Other	O %	e o.	3 0	0.0			2.0	00.	. 8	. ⊔ .	0.0	12.0	0 7.	6.3	00.	00.0	00.	00.	00.	00.	00.	6.0
Don't know	%	2.8	0.0	0.0	2.4	0.0	5.9	0.0	0.0		5.6	7.5	0.0	0.0	0.0			0.0				2.8

B6. What is your current job title?

	Total A	 AgTAC B	1	CENTER NAME	E E E	ERC	Au- dits G	Basic /Gen EE	F000d	HVAC B	High Perf/ I Green P build W	Irr/ Pumps L Wells -	Light M	MO- Pi tors ii	Pool pump- Pring co	Pro- r: cess at	Ref- riger ation '	T24 W	Water	TYPE END USER (E UMA U
Total	131 9 11 6 C%100.0 100.0 100.0 100.	100.0	1100.0	60		26 25 100.0 100.0	100.0	30	100.00	30 9 22 18 100.0 100.0 100.0 100.0		6	100.001	100.001	100.001	4	5	16	0.0	131	0.0
Owner	27 C% 20.9	22.7	11.1	15 24.1	31.9	5.3	00.	17.6	22.2	522.4	21.4	344.5	33.7	00.0	1 20.0	115.7	0.0	7.1	00.0	27	0.0
President/ vice-president/CEO	20 C% 15.5	13.6	11.1	10	8.5	21.1	00.	∞ 8	3 27.8	7.6	7.3	12.3	8 42.5	0.0	0.0	00.0	2 45.6	8 2 1	00.	20	0.0
Field technician	0% 5 8 8	0.0	5.6	6.0	3	0.0	150.0	7.0	0.0	3 14.6	0.0	0.0	0.0	0.0	0.0	0.0	0 0	2	00.0	5.8	0.0
Sales representative/ vendor	C% 7.1	0.0	5.0	10.3	4.3	5.3	00.	4.3	22.2	5.4	0.0	0.0	2 11.2	0.0	0.0	00.0	2 45.6	3.5	00.	7.1	0.0
Purchasing agent	2% 1.6	0.0	0.0	3.4	0.0	0.0	00.	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	00.	1.6	0.0
Architect/designer	14 C% 11.0	18.2	5.6	10.3	12.8	10.5	00.	0.0	00.	0.0	33.1	12.3	2 12.5	00.	00.	2 52.8	00.	3 21.2	00.	11.0	00.0
Engineer	14 C% 10.3	4.5	33.4	4.0	0.0	21.1	00.	17.0	0.0	23.6	0.0	0.0	0.0	100.0	0.0	0.0	00.	3	00.	14	0.0
Contractor	C% 0.4	0.0	00.	00.	2.1	0.0	00.	00.0	00.	0.0	0.0	0.0	0.0	00.	1 20.0	0.0	00.	00.	00.	0.4	00.0
Other farming	C% 1.3	4.5	00.	00.0	0.0	5. 3. H	00.	4.3	00.	1.8	0.0	0.0	0.0	00.	00.	0.0	00.	00.0	00.	1.3	00:0
Irrigation/water purveyor	1 C% 0.6	1 1 6 9.1	0.0	0.0	0.0	0.0	00.	0.0	0.0	0.0	0.0	12.3	0.0	0.0	0.0	0.0	0.0	0.0	00.	0.0	0.0
RESEARCH AMERICA INC									ώ	SIGNIFICANCE BCDEF/GHIJK	GNIFICANCE TESTING AT BCDEF/GHIJKLMNOPQRS/TU	TESTING AT LMNOPQRS/TI	o.	Ŋ							

B6. What is your current job title? BASE: UMAs

			Ü	CENTER NAME	NAME				Basic		 - - - - - -	High Perf/ I	1			1	1	Ref-	- Ma		TYPE	
	Ηİ	Total AgTAC AB		SDGE	CTAC CTAC	ETC	ERC	Au- / dits G	/Gen EE E	Food F	G HVAC b J		Pumps Li Wells -i L	Light Mo- -ing to: M]	N	pump- Pr ing ce 0	Pro- ri cess at P	riger ation 7 2	Wa: T24 wa: -R:	S C C C C C C C C C C C C C C C C C C C	END USER T	UMA U
Operations manager	%	0.0	1 1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	6.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Project manager	O %	4.5	4.5	5.6	8.4.2	4.3	5.3	0.0	1.0	0.0	2.5	19.1	6.2	0.0	00.0	0.0	15.7	00.0	00.	0.0	4.2	0.0
Energy specialist/ consultant	ů °	0.7	0 4.5	00.0	00:	2.1.	00.0	0.0	1.3	0.0	0.0	0.0	00.	0.0	00.0	00.0	0.0	00.0		00.0	1 0.7	0.0
General manager	%	0.7	0 . 5	00.0	0.0	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0 8 .	3.5	0.0	1 0.7	0.0
Account manager	%	2.0	0.0	00.0	3 .4 .2	2.1	0.0	0.0	7.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	00.0	0.0	0.0	2.0	0.0
Manager	°%	3.2	00.	11.1	0.0	6.4	5.3	1 20.0	6.2	0.0	2.5	0.0	00.	0.0	0.0	0.0	15.7	0.0	3.5.	0.0	£ 2.	0.0
Estimator	O %	1.4	00.	00.	0.0	2.1	5.3	0.0	1.0	13.9	0.0	0.0	00.	0.0	00.0	0.0	0.0	00.0	00.0	0.0	1.4	0.0
Sheet metal foreman	°%	0.8	00.	00.0	00.	4.3	0.0	0.0	0.0	0.0	0.0	0.0	00.	0.0	00.0	00.0	0.0	00.0	7.1	0.0	0.0	0.0
Other	0%	14 C% 10.4	0.5	H H		4. L &	3 3 10.5	0.0	13.9	13.0	15.1	19.1	0.5	0.0	00.0	0.0	0.0	00.0	7.1	0.0	14 10.4	0.0
Don't know	%	1.4	0.0	0.0	0.0	2.1	5.3	0.0	н о.	0.0	0.0	0.0	0 0	0.0	0.0	0.0	0.0	0.0	.2 1	0.0	1.4	0.0

B1. How many locations, in total does your company have in the area? $\ensuremath{\mathsf{BASE}}\xspace$. UMAs

			CENTER NAME	NAME		1		0 0				/ L					 	[M	1 4 0 1 + 1	TYPE	
	Total A	Total AgTAC SDGE CTAC	SDGE	CTAC	- ETC	ERC C	Au- / dits G	/Gen EE E	Food HVAC IJ		Green F Build W	ω ω ί	Light M -ing t M	Mo- tors i N	pump-Pi ing ce	Pro- cess a.	riger ation	T24 W	Waste E water U	END USER T	UMA U
Total	131 C%100.0	131 9 11 6 C%100.0 100.0 100.0 100.	11	60	60 26 25 1 30 9 22 18 6 19 1 1 4 5 16 3.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0	25	1.00.00	30	9 .001	22 100.0 1	18	6.00.00	19	100.00 1	10.00	4 00.00	5		0 131 0.0 100.0	131	0.0
1 location	9.69 %2	92 7 9 38 C% 69.6 77.3 77.8 62.1	9 77.	38	23	16 1 20 63.2 100.0 67.2	1.00.0	20	50.05	16 74.1	12	81.5	13	0.0	12 5 13 0 1 1 2 15 66.2 81.5 70.8 0.0 50.0 31.5 54.4 92.9	31.5	54.4	15 92.9	0.0	9.69	0.0
2 locations	16 C% 11.8	0.0	5.6	13 1 20.7 4.3	4°.	5.3	0 0	13.9	13.9	13.9 13.9 19.0 11.8 0.0 14.6 0.0 50.0 0.0 0.0 3.5	11.8	0.0	3 14.6	0.0	150.0	0.0	0.0		0.0	16 11.8	0.0
More than 2 locations	15 C% 11.5	15 22.7 16.7	2 16.7	6.9	6.9 2.1 26.3 0.0	7 26.3	0.0	11.9	13.9	11.9 13.9 1.8 14.7 18.5 3.3 100.0 0.0 68.5 45.6 0.0	3 14.7	18.5	3.3.1	100.00	0.0	. 5.3	2 45.6	0.0	0.0	15 11.5	0.0
Don't know	6.6	0.0	0	0 6 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	4°.	 	0.0	7.0 22.2	22.2	2.5	7.3 0.0 11.2 0.0	0.0	11.2	0.0	0.0	0.0	0.0		0.0	6.9	0.0
Refused	1 C% 0.4		0.0	0.0	2.1	00.	0.0	0.0	0.0	2.5	0.0	0.0	0.0000	0.0	0.0	0.0	0.0	0.0	0.0	1 0.4	0.0
MEAN	MEAN: 1.83 5.14 2.06 1.38	5.14	2.06		0.77 DF	0.77 2.61 0.50 1.77 1.89 1.19 2.00 5.75 1.50 3.00 DF E R	0.50	1.77 R	1.89	1.19	2.00	5.75	1.50	3.00	1.00	3.47	2.37		*	1.83	*

CATEGORY

SEMINAR

been in business? BASE: UMAs

UMA --U--TYPE 131 13 16 12.5 43 32 22 16.7 END USER Water Waste Water Water U 0.0 0.0 0.0 0.0 0.0 0.0 --S--16 100.0 2 11.8 24.7 4 25.9 T24 --R--0 m 4 4 15. 22. 0.0 Ref-riger ation 100.0 0.0 0.0 2 54.4 2 45.6 15.7 31.5 0.0 0.0 2 52.8 Pro-19 1 1 4 100.0 100.0 100.0 100.0 Pool pumping ---0--0.0 150.0 0.0 0.0 0.0 Light Mo- 1 -ing tors :--M-- --N--00.0 00. 0.0 0.0 0.0 3 14.6 31.6 0.0 5 25.8 5 28.0 12.3 Pumps Wells 0.0 4 56.8 0.5 18.5 9 22 18 6 100.0 100.0 100.0 100.0 /rrI Green B build V 7.3 7.3 9 2 14.0 High perf/ 19.1 13.0 18.9 9 42.0 HVAC 11.0 7.2 13.9 0.0 36.1 3 27.8 0.0 Food --I--30 m ∞. ∞ 6 18.4 7 11 36.3 4 /Gen EE --H--Basic 0.0 1 50.0 00.0 150.0 00.0 26 25 1 100.0 100.0 100.0 Au-dits --G--31.6 15.8 ERC --F--3 7 26.3 15.8 14.9 8.5 7 25.5 31.9 12.8 ETC --E--100.00 6.9 10.3 23 15 17.2 CTAC --D--CENTER NAME SDGE 11 100.0 11.1 33.3 22.2 5.6 2 16.7 0.0 18.2 9 1001 31.8 2 27.3 AgTAC 18.2 131 C%100.0 16 C% 12.5 22 C% 16.7 Total --A--13 C% 10.1 43 32 % % years than 40 years years 2 than Greater 20 40 10

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MEAN:

E-15

B3B. What were the total sales from all products and services for 2002 at this location? $BASE:\ UMAs$

			CENTER NAME	NAME		I		Basic		E Q	High perf/ I	Irr/				1	Ref-			TYPE	
	Total A			CTAC	ETC	ERC d	Au- / dits G	/Gen EE F H	Food	HVAC B	Green P build W	Pumps L Wells - L	Light M -ing t M	Mo- tors N	pump- Ping ci	Cess at	riger ation 7 2	Wa T24 wa: R	ste S-r	END USER T	UMA U
Total	131 9 11 6 C%100.0 100.0 100.0 100.	100.0	11	0 0	26 100.0 1	25	100.00 1	30	9 100.01	22 100.0 1	18	100.00 1	19 100.01	1 100.0 1	100.01	4	5	16 00.0	0.0	131	0.0
<\$50 , 000	0%	4.5	11.1	0.0	6.4	5.3	00.0	. 2 2	0.0	5.1	00.0	6.2	3.3 ₽	0.0	0.0	115.7	0.0	0.0	0.0	3.55	0.0
\$50,000 - \$249,999	12 C% 9.1	9.1	11.1	4.0	17.0	5.3 1	00.	5.0	00.0	7.9	11.8	12.3	11.2	00.0	1 20.0	15.7	00.	2 15.3	0.0	12	0.0
\$250,000 - \$499,999	% % %	4.5	00.0	10.3	6.4	0.0	00.0	1.30	22.2	3 14.6	0.0	32.1	0.0	0.0	0.0	0.0	0.0	3.5	0.0	8 8	0.0
\$500,000 - \$1 million	10 C% 7.8	1.	5.61	6.0	3 12.8	∪ w	00.	3 .	13.9	9.7	00.	0.0	11.2	00.0	50.0	00.0	2 45.6	7.1	00.	10	0.0
\$1 million - \$5 million C%	n 20 C% 15.5	9.1	2 16.7	13	14.9	5.3	00.	28.3	13.9	2	2.3	6.2	4 22.5	0.0	00.0	2 52.8	0.0	7.1	00.	20 15.5	0.0
> \$5 million	20 C% 15.3	18.2	22.2	10	6.4	15.8	50.0	15.6	13.9	14.1	11.8	18.5	3 17.9	00.0	00.0	00.0	2 45.6	2 10.6	00.	20 15.3	0.0
Don't know	42 C% 32.0	36.4	33.3	31.0	7.7.2	36.8	50.0	28.4	22 .2	32.5	52.2	12.3	4 22.6 1	100.0	00.0	15.7	08.	8 49.4	00.	42 32.0	0.0
Refused	14 C% 10.4	9.1	0.0	6.9	8.5	7 26.3	0.0	1 3 3	13.9	5.1	4 22.0	12.3	11.2	00.0	00.0	0.0	0.0	7.1	0 0	14 10.4	0.0

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				CENTER NAME	NAME				Basic		1 11 12		 Irr/		I Д	Pool		 Ref-		 Water -	TYPE	-
	-· ·	Total A	Total AgTAC SDGE CTAC	SDGE	1	ETC -	ERC F	Au- dits G	/Gen EE] H	Food	HVAC b	Green E build V K	w w I	Light M -ing t M	Mo- tors i N	1 1	Cess at	51 C 1	Wa T24 wa R	ster S-1	END USER T	UMA -U
Total	 V	131	131 9 11 60 C%100.0 100.0 100.0 100.0	11		26 100.0	25 100.0	100.0	30	9 1001	26 25 1 30 9 22 18 100.0 100.0 100.0 100.0 100.0 100.0	18	6 100.0 1	19	100.00	19 1 1 4 100.0 100.0 100.0 100.0	4	5	16 100.0	0.0	131	0.0
Less than 10%	ů U	28 C% 21.3		2 2 27.3 16.7	13	12.8	31.6	0.0	8 25.8	13.9	14.6	33.1	18.5	17.9	00.0	00.0	1	0 8 .	4 27.1	0.0	28 21.3	0.0
10 - 25%	% O	13	0.1	22.2	10.3	6.4	5.3	1 50.0		0.0	12.8	7.3	0.5	11.2	00.0	0.0	0.0	2 45.6	3.5	0.0	13	0.0
26 - 50%	ů	10	0 T T.	5.6	0.0	3	21.1	0.0	12.4	13.9	7.6	7.3	12.3	3 .3	0.0	0.0	0.0	0.0	3.5	0.0	10	0.0
51 - 75%	ů V	10	0.0	5.6	10.3	3	0.0	0.0	3 10.7	0.0	17.4	0.0	0.0	0.0	00.0	00.0	2 52.8	0.0	3.5	0.0	10	0.0
76 - 100%	ర	50	45.5	22.2	27	10	7 26.3	1 50.0	10	72.2	25.2	8 44.9	4	8 42.9 1	100.0	150.0	0.0	2 45.6	4 24.7	0.0	50	0.0
Don't know	O 0/6	1118.7	0 1.	11.1	3 4.	12.8	15.8	00.0	m ∞ ∞	00.	1.7	7.3	0.0	2 5 0	00.0	00.	15.7	00.	34.1	00.0	111	00.0
Refused	Ö W	10	00.	2	10.3	6.4	0.0	0.0	0.0	0.0	17.7	0.0	0.0	22.5	00.	50.0	115.7	0.0	3.5	00.0	10	0.0
	MEAN:	57	55	46	62	65	43	63	52	78	54	53	70	62	100	100	28	20	47	*	57	*

E-17

B4B. BASE

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				CENTER NAME	NAME				Basic		H H	1				1	1	Ref-	We		TYPE	
	2. 1	rotal A	Total AgTAC SDGE CTA	SDGE	CTAC	ETC	ERC	Au- , dits G	/Gen EE F	Food F	HVAC b	Green F build W K	Pumps I Wells -	Light M -ing t M	Mo- tors i N	pump- Pi ing co	Pro-ri cess at P	riger ation 7 2	Wa T24 wa R	ster S-ir	END USER 1	UMA U
Total	0	131	131 9 11 6 C%100.0 100.0 100.0 100.	1100.00	0 0	26 100.0 1	25	100.001	30	9 100.001	22	18	100.00	190.001	100.001	100.001	4	5	16 00.0	0.0	131	0.0
Less than 10%	O/0	90 8.8	7 6	50.0	44	17	17	1 20.0	22 73.7 1	9	12 12 53.1	15 85.3	6	11 60.8 1	100.0	50.0	68.5	54.4	8 21.8	00.	90	0.0
10 - 25%	ů	15 C% 11.4	9 1 T	22.2	13.8	12.8	00.	150.0	m ω ω	0.0	5 22.0	0.0	0.5	3.14.6	00.	0.0	0.0	2 45.6	2 10.6	00.	15 11.4	0.0
26 - 50%	ů	2.7	4.5	0.0	0.0	2.1	3 10.5	0.0	4.3	0.0	2.5	7.3	0.5	0.0	00.	0.0	0.0	0.0	0.0	0.0	2.7	0.0
51 - 75%	% O	1.0	0.0	0.0	0.0	0.0	3 H	00.	4.3	0.0	0.0	0.0	0.0	0.0	00.	00.0	0.0	0.0	0.0	0.0	1.0	0.0
Don't know	% O	1118.7	4 .	11.1	8.2	3 12.8	15.8	00.	m ω ω	0.0	1.7	7.3	0.0	2 0 .	00.	00.	1	00.	34.1	0.0	1118.7	0.0
Refused	0)0	10	00.0	2 16.7	10.3	6.4	00.	00.	00.	0.0	17.7	0.0	0.0	22.5	00.	50.0	15.7	0.0		00.0	10	0.0
	MEAN:	4.5	3.7	7.3	3.0	3.6	8	12.5	7.4	0.0	6.3 IP	2.4	4.0	4.1	0.0	0.0	0.0	4.6	2.8	*	4.5	*

E - 18

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			J	CENTER NAME	NAME				Basic		E Q	High perf/I	 Irr/		į		1	Ref-	Wa		TYPE	-
		 Total AgTAC AB	AgTAC SDGE		CTAC	ETC	ERC C	Au- , dits G	/Gen EE F H	Food H	G HVAC b J		Pumps L Wells - L	Light M -ing t	Mo- Pu tors in N	pump- Pı ing ce 0	Pro- ri cess at P	riger ation ' 2	Was T24 wat -R9	1 E C	END USER 1	UMA U
Total	ů	131	131 9 11 6C C%100.0 100.0 100.0 100.C	11		26	25	100.0	30	9 100.001	22 100.0 1	18 100.0 1	6 100.0 1	19 100.01	100.001	100.001	4	5	16 100.0	0.0	131	0 0.
Less than 10%	Ö	78 C% 59.2	68.2	5 44.4	40	13 48.9	14	150.0	16 53.6	86.1	11 52.1	14	81.5	11 60.8 1	100.0	1 20.02	15.7	54.4	6 40.0	0.0	78	0.0
10 - 25%	ů	17 C% 12.6	9.1	22.2	10.3	17.0	3.010.5	150.0	7 21.9	13.9	15.1	0.0	0.0	3.14.6	0.0	00:	2 25.8	0.0	0.0	0.0	17	0.0
26 - 50%	Ö	4.1	13.6	5.6	0.0	8.5	5.3	0.0	1.4	0.0	1.5.4	0.0	18.5	0.0	0.0	0.0	0.0	0 0	2 10.6	0.0	4.1	0.0
51 - 75%	ů	1.0	0.0	0.0	0.0	0.0	5.3	0.0	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
76 - 100%	Ö	7.0	0.0	0.0	10.3	6.4	5.3	0.0	7.0	0.0	5.1	11.8	0.0	0.0	0.0	0.0	0.0	2 45.6	11.8	0.0	7.0	0.0
Don't know	ů Ö	1118.7	0.1	11.1	3.6	12.8	15.8	0.0	ω ω ω	0.0	1.7	7.3	00.0	2.2	0.0	0.0	15.7	00.0	34.1	0.0	118.7	0.0
Refused	Ö	10	0.0	16.7	10.3	6.4	0.0	0.0	0.0	0.0	17.7	0.0	00.0	4 22.5	00.0	1 20.02	115.7	0.0	3.5	0.0	10	0.0
	MEAN:	13.8		9.6 14.0	14.0	17.4	13.7	12.5	18.8 IM	1.4 HJR	12.9 I	12.7	8.1	4.1 H	0.0	0.0	15.4	36.5	24.2 I	*	13.8	*

B4D. What percent of your sales revenue is generated from doing business with: vendors/suppliers? BASE: UMAs

				CENTER NAME	NAME				Basic] 		 Irr/		i ŭ			Ref-	M	 Water -	TYPE	
	<u>. </u>	Total A	AGTAC	SDGE CTAC	CTAC	E E E	ERC C	Au- , dits G		Food I	HVAC B	Green P build W K	Pumps L Wells -	Light M -ing t	Mo- pi tors ii N	1 1	Pro- cess a	51 C 1	T24 w R		END USER T	UMA U
Total	C%1	131	131 9 11 C%100.0 100.0 100.0 100	11	90.	26 100.0	25	100.00	30	9 10001	22 18 100.0 100.0 100.0	18	6 100.0 1	100.001	100.001	100.01	100.00	5	16	0.0	131	0.0
Less than 10%	ů	91	777.3	7	42	18	17	100.0	19	86.1	12	16 92.7	6 87.7	12 64.1 1	100.0	50.0	3 8.5 1	5	747.0	0.0	91	0.0
10 - 25%	ů Ů	14 C% 10.9	0.5	11.1	13.8	6.4	3 10.5	0.0	20.1	0.0	15.1	0.0	6.2	11.2	00.	0.0	0.0	0.0	2 15.3	00.	14	0.0
26 - 50%	Ö	1.7	0 4.5	0.0	0.0	2 1 1	5.3	0.0	0.0	13.9	2.5	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0
51 - 75%	°°	1 0.4	0.0	0.0	0.0	2.1	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1 0.4	0.0
76 - 100%	ű	1.0	0 4.5	0.0	3.4	0.0	0.0	0.0	7.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
Don't know	ů V	1118.7	o H H	11.	3.4	12.8	15.8	0.0	∞ ∞	0.0	1.7	7.3	0.0	2.0	00.0	0.0	15.7	00.0	34.1	0.0	11.8	0.0
Refused	O O	10	0.0	2	10.3	6.4	0.0	0.0	0.0	0.0	17.7	0.0	00.0	422.5	00.	1 20.0	115.7	00.0	3.5	00.	10	0.0
	MEAN:	6.1	7.5	3.5	7.2	4.4	5.3	0.0 HJR	12.5 GKQ	6.2	8.5 GKQ	0.0 HJR	4.0	3.0	0.0	0.0	9.0	0.0 HJR	4.3 GKQ	*	6.1	*

B4E. What percent of your sales revenue is generated from doing business with: others? BASE: UMAs

																1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1						
			-	CENTER NAME	NAME				Basic		<u>ш</u> , <u>ы</u> ,	High perf/I	Irr/					Ref-	3 2		TYPE	
	'	Total A	Total AgTAC SDGE CT? ABCD-	SDGE		 日日 日日 日日	ERC C	Au- dits G	KE H	Food F	HVAC B	Green build W	Fumps r Wells -	Light M -ing t M	Mo- tors i N	pump- ing 0	Cess - P	riger ation 2	T24 w	waste E water U S	END USER T	UMA U
Total	0	131	131 9 11 6	11	00.	26 25 1 30 100.0 100.0 100.0 100.0	25	100.0	30	. 00.001	22	18	.00.00	19	1.00.00.	9 22 18 6 19 1 1 4 100.0 100.0 100.0 100.0 100.0 100.0	4 000.0 1	5 16 100.0 100.0	16	0.0	131	0.0
Less than 10%	ů Ö	79 79.8	63.6 38.9	38.9	40	17	12	150.0	20	86.1	11 50.5	10	81.5	9 1		1 20.0	2 2 2 8	91.2	7 47.0	0.0	79	0.0
10 - 25%	Ö	108.0		0.0 11.1	10.3	6.4	5.3	150.0	15.0	0 0	14.9	0.0	0.0	11.2	0.0	0.0	0.0	0.0	0.0	0.0	108	0.0
26 - 50%	Ö	3.1	0 4.5	0.0	0.0	1.8	3 10.5	0.0	6.2	0.0	0.0	7.3	0.5	0.0	0.0	0.0	0.0	0.0	3.5	0.0	3.1	0.0
76 - 100%	Ö	13.0	17 2 2 2 C% 13.0 22.7 22.2		10.3	4°.3	21.1	0.0	3.2	13.9	12.3	5 28.7	12.3	3 17.9	0.0	0.0	15.7	0 8	11.8	0.0	17	0.0
Don't know	Ö	118.7	o □ □	11.11	3.4	12.8	15.8	0.0	m ω ω	0.0	1.7	7.3	0.0	2.2	0.0	0.0	15.7	00.0	34.1	0.0	11 8.7	0.0
Refused	ů V	10		0.0 16.7	10.3	6.4	0.0	0.0	0.0	00.	17.7	0.0	0.0	22.5	0.0	50.0	15.7	00.0	3.57	0.0	10	0.0
	MEAN:		18.2 25.5 33.5	33.5	14.0	9.2	29.4	12.5	9.2	13.9	18.3	31.8	14.2	26.8	0.0	0.0	23.0		21.4	*	18.2	*

B5. How long have you been employed by your firm? BASE: UMAs

			CENTER NAME	NAME				3asic		14 14 	High perf/ I	 Irr/				i .	-Jə	M	ater	TYPE	
	Total A	Total AgTAC SDGE CTAC	SDGE	CTAC	ETC	ERC C	Au- / dits G	/Gen EE F H	Food F	HVAC b	Green E build F K	Pumps I Wells -	Light -ing M	Mo- tors i	pump- P ing c 0	Pro- cess P	riger ation 2	T24 w R	Waste E water U	END USER T	UMA U
Total	131 C%100.0	131 9 11 60 C%100.0 100.0 100.0 100.0	11		26 25 1 30 9 22 18 6 19 1 1 4 5 16 16.0 100.0 10	25	1.00.00	30.00.	0.00	22	18	9 0.001	19	1	1000.00	4	5.00.0		0 131 0.0 100.0	131	0.0
Less than 5 years	30 C% 22.7	30 3 1 C% 22.7 31.8 11.1	11.	17	4 5		0.0	12 39.3	0.0	0.0 22.0 33.1 12.3	33.1	12.3	00.	0.0	0.0	0.0	0 8.8	38.8	0.0	30	0.0
5 - 10 years	19 C% 14.3	19 2 C% 14.3 27.3	11.1	3.42	4 9 14.9 36.8	36.8	0.0	5	13.9	13.9 7.6 14.7 24.7	3 14.7	24.7	2 12.5	0.0	0.0	15.7	1 0 115.7 0.0	22.4	0.0	14.3	0.0
11 - 20 years	36 C% 27.2	36 2 4 C% 27.2 27.3 38.9		17 27.6	31.9	15.8	1 50.0	6	50.0	6 5 7 2 2 5 5 118.7 50.0 30.2 11.8 24.7 24.6	11.8	2 24.7	5 24.6	0.0	1 3 2 4 50.0 84.3 45.6 24.7	384.3	2 45.6	4 24.7	0.0	36	0.0
More than 20 years	47 C% 35.4	47 1 C% 35.4 13.6	38.9	25 41.4	36.2	36.2 26.3 50.0	1 50.0	7 25.0	36.1	37.6	7	38.3	12 62.9	7 3 8 7 2 12 1 1 1 2 55.0 36.1 37.6 40.5 38.3 62.9 100.0 50.0	1 50.0	0.0	0.0 45.6 14.1		0.0	47	0.0
Refused	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.0	0.0	0.0	2.1	0.0	0.0	0.0	0.0	2.5	00.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.4	0.0
MEAI	MEAN: 17.1	17.1 10.7 18.0 19.2 DE E	18.0	19.2 B	17.5 B	13.3	18.5	12.8 M	21.3 R	17.5 13.3 18.5 12.8 21.3 19.1 15.4 16.8 B R R R	15.4 M	16.8	25.9 HKPR	21.0	21.0 30.0 13.6 19.5	13.6 M		10.5 IJM	*	17.1	*

B3. How often do you or others in your company attend seminars, workshops or other training courses that address energy efficiency?

			CENTER NAME	NAME			. B	asic		H Q	 High perf/I	rr/		i ŭ	001	. Re			ateri	TYPE	
	Tota.		SDGE	CTAC		ERC d	Au- dits G	/Gen EE F H	Food H I	Green F HVAC build V JK	reen uild W -K 1	Fumps L Wells -	Light Mo- 1 -ing tors :MN	0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 -	pump- Fi ing ce	Cess at	riger ation Q	on T24 w	waste E water U S	END USER T	UMA U
Total	34. C%100.	346 26 43 146 39 91 9 61 47 60 35 15 44 15 3 11 10 29 8 131 C%100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0	43	146	39	91	9 0.00.	61	47	60	35	15	44	15	3	11 0.0.0	10	29	8	131	215
About once a month	95 C% 27.5	5 22.7	12 28.6 E	30.0	6 14.3 CDF	27 30.0	20.9	13	33.9	32.5	24.2	19.3	12	23. 1.3	20.0	1.3	20.2	8 27.6	38 .⊥ 3	43	52 24.3
About once a season/ year	197 C% 56.8		16 25 60.6 58.6	54.3	25 64.3	51 55.7	65.2	40	24 51.7	32	18 51.7	10	25	1172.8	2 0.09	5 24.0	51.9	15 51.9	5		129 60.3
Once every other year or less often	% 9 9.0	1 4 4 0 13.6	8 .6	8 13	8 6 5 1 5 0 8 7 2 5 0 0 1 0 2 0 14 5 15.7 5.7 13.9 8.3 0.0 13.5 19.3 16.0 10.4 0.0 0.0 9.1 3.9 5.8 0.0 10.8	5.7	13.0	8 3 5	00.0	13.5 I	19.3	2 16.0	10.4	00.0	00.	⊢ .	0 0.	. 8 2	0.0	10.8	177
Not at all	. 3 8 . 3 8	3 0.0	00.	4.8	1.4	1.4	00.0	00.0	4.4	00.	3.7	00.	2 4.7	00.	1 20.0	00.	20.2	00.	0.0	3.2	1. 4.8
Don't know	15 C% 4.3	3 3.0	4.3	2.9	4.3	7.1	0 3 5 1 0.0 5.6 10.0 1.0	5.6	10.0	1.0 IR	1.10	0.0	1 0 0 0 0 0 0 0 0 0 0 0 1.1 0.0 0.0 R	4.1.1	1 0 1 0 4 4.1 0.0 5.5 3.9 14.7 JM	1.5.5	00.	4 14.7 JM	0.0 3.1	2.13	12

ENPIA. Are you involved in . . Identifying new equipment needs at this facility? $\mathsf{BASE}\colon \mathsf{End-USers}$

SEMINAR CATEGORY	High TYPE CENTER NAME Basic perf/ Irr/ Pool Ref- Water		$\begin{array}{cccccccccccccccccccccccccccccccccccc$	65 6 46 5 20 28 30 14 7 18 9 1 5 5 6 6 0 154 75.6 47.8 68.6 64.8 63.9 73.6 80.7 80.5 81.1 70.7 63.0 33.3 74.9 93.1 43.7 82.8 0.0 71.7	60 6 7 21 7 20 3 11 9 7 3 2 7 5 1 2 0 7 1 0 60 C% 27.7 31.8 21.2 24.4 52.2 29.4 35.2 36.1 22.9 19.3 19.5 18.9 29.3 37.0 66.7 25.1 6.9 56.3 17.2 0.0 27.7	0 0 1 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0
SEMI	High Basic perf/Irr/ /Gen Green Pumps	0-1-7X£HH	8 31 38 38 17 8	5 20 28 30 14 7 7 .8 63.9 73.6 80.7 80.5 81.1	3 11 9 7 3 2 .2 36.1 22.9 19.3 19.5 18.9	0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	CENTER NAME	ABCDEFGGEFG	215 18 32 85 13 66 C%100.0 100.0 100.0 100.0 100.0 100.	154 12 25 65 6 46 C% 71.7 68.2 78.8 75.6 47.8 68.6 64.	60 6 7 21 7 20 C% 27.7 31.8 21.2 24.4 52.2 29.4 35.	C% 0.6 0.0 0.0 0.0 2.0 0.
			Total	Yes	No	Don't know

ENPIB. Are you involved in . . . Evaluating the technical or economic potential of new purchases? BASE: $\operatorname{End-Users}$

CENTER NAME
Total AgTAC SDGE CTAC ETC ERC dits EE Food HVAC build Wells ing tors ing cess ation T24 water USER UMA ABCDEFGHIJKLMNOPQRTU
215 18 32 85 13 66 8 31 38 38 17 8 26 14 2 7 6 13 8 0 215 C%100.0 100.0
152 12 25 60 9 44 5 20 25 31 11 7 19 9 1 5 5 7 6 0 152 C% 70.6 70.5 78.8 70.7 69.6 66.7 64.8 65.8 66.7 82.1 63.9 85.9 73.1 63.0 66.7 66.3 93.1 52.1 82.8 0.0 70.6
63 5 7 25 4 22 3 10 13 7 6 1 7 5 1 2 0 6 1 0 63 C8 29.4 29.5 21.2 29.3 30.4 33.3 35.2 34.2 33.3 17.9 36.1 14.1 26.9 37.0 33.3 33.7 6.9 47.9 17.2 0.0 29.4

ENPIC. Are you involved in . . . Giving final approval for new purchases? BASE: End-Users

94 44.0 117 0 215 0.0 100.0 0.0 0.0 0.0 0 0 0 2 4 0.0 2.0 0.0 0.0 3.5 0.0 12.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 117 14 19 42 7 35 5 16 16 19 11 6 12 10 1 5 2 11 3 C% 54.4 79.5 57.7 48.8 56.5 52.9 67.6 52.0 42.4 50.9 63.1 71.7 47.1 68.5 33.3 73.5 27.8 81.7 45.0 CDF B B $215 \quad 18 \quad 32 \quad 85 \quad 13 \quad 66 \quad 8 \quad 31 \quad 38 \quad 38 \quad 17 \quad 8 \quad 26 \quad 14 \quad 2 \quad 7 \quad 6 \quad 13 \quad 8 \quad 8 \quad 100.0 C% 44.0 20.5 42.3 48.8 43.5 45.1 32.4 48.0 54.2 49.1 24.8 28.3 52.9 31.5 66.7 26.5 72.2 18.3 55.0 CDF B B Don't know Total Yes No

ENPID. Are you involved in . . . Selecting a supplier or vendor to install the new equipment? BASE: End-Users

Z T D S C T S		
ASE: PIIC		

										田	High									TYPE	
	Total A	CENTER NAME	CENTER NAME	CTAC		ERC d	Nu- / lits G	Gen Gen EE	700d E	F G HVAC B	erf/ I green F uild W	[rr/ Pumps] Wells -	perf/ Irr/ Pool Ref- Water Green Pumps Light Mo- pump- Pro- riger Waste END Food HVAC build Wells -ing tors ing cess ation T24 water USER UMAIKKMNOPRSTU	Ors Dr	ool ump- Pi ig ce -o	Re Sss at	f- ger ion T Q	W6 W6 W6 W6 W6 W6	ater aste EN ater US	JD SER	 JMA -U
Total	215 C%100.0	215 18 32 85 C%100.0 100.0 100.0	32		13	66.00.0	8	31	38	38	17	8.00.00.	13 66 8 31 38 38 17 8 26 14 2 7 6 13 8 0 215 100.0 100	14 00.0	2	7	6.0.10	13	8 0.00	0.0	215
Yes	133 12 22 56 C% 62.2 65.9 69.2 65.9	12 65.9	22 69.2		7 52.2	36 54.9	56.7	20	22 57.6	31 82.3	29.4	51.9	7 36 4 20 22 31 5 4 20 8 0 4 5 4 6 0 133 52.2 54.9 56.7 65.8 57.6 82.3 29.4 51.9 77.3 55.6 0.0 52.2 93.1 28.2 82.8 0.0 62.2	8	0.0	4 4 9	3.1.2	8.2 8	82.8	0.0	133
	77 6 10 27 C% 35.7 34.1 30.8 31.7	34.1	10	31.7	6 47.8	27	3 43.3	10	13	17.7	10	4 48.1	6 27 3 10 13 7 10 4 6 6 2 3 0 9 1 0 77 47.8 41.2 43.3 34.2 35.4 17.7 58.6 48.1 22.7 44.4 100.0 47.8 6.9 71.8 17.2 0.0 35.7	6 44.4 1	20.00	3	0.9	0.17	17.2	0.0	77
Don't know	5 0 0 2 C% 2.2 0.0 0.0 2.4	0.0	0.0	2 4.	0.0	т е	0.0	0.0	e .	0.0	2 12.0	0.0	0 3 0 0 3 0 2 0 0 0 0 0 0 0 0 0 0 0 0 0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2

NP2A. What source of information do you or other decision makers at your facility prefer to use to collect information on . . . New technologies?

															i :							
			CE	CENTER NAME	JAME				Basic		шд	High perf/ I						Ref-	M	rer	TYPE	
	TO1	 Total Ag1 AE	AgTAC SI	SDGE	CTAC 1	ETC	ERC C	Au- dits G	/Gen EE	Food F	HVAC b		Pumps I Wells - L	Light M -ing t M	Mo- p tors i	pump- P ing c	Pro- r: cess at P	riger ation 7 2	Wa: T24 wa: -R:	S te	END USER T	UMA -U
Total	C%100	346 26 43 146 C%100.0 100.0 100.0	26 0.0 10	43		39	91	9	61	47	60 100.0 1	35	15 100.0 1	44	15 100.0 1	3	11	10 100.0 10	29	8	131	215
Trade journals	C% 42	146	12 47.0 3	16 37.1 4	69	13	38.6	34.8	31 31	21 43.9	26 43.8	10	6 40.1	20	7 47.9	20.0	20.2	48.1	10	55.0	55 41.5	91
Manufacturers reps	60 C% 17.4		4 16.7 2:	10 22.9 1	23	6	17	7.0	10 15.9	13	13	0.0	24.6	7	3 19.0	00.0	2 16.6	44.2	14.1	0.0	24 18.3	36 16.9
Distributors or other sales staff	0%	39	50 03	10.01	10.0	18.6	8 9	0.0	10.6	18.3 M	11 18.2 M	0.0	13.4	1.1 1.4 IJR	13.6	20.0	00.	27.9	14.1 M	10.6	10 7.8	29 13.3
Seminars or workshops	G% 53	76 22.1 21	9 7.	20.02	42 28.6	6	14	30.3	12	18.3	14.8 M	12 34.9	2 16.0	16 36.8 JR	32.8	140.0	3 3 29.7	0 0 .	12.8 M	0.0	31	45 21.0
Colleagues within company	36 C% 10.5	36 0.5 12	∞ ⊣.	5.7 1	15	11.4	12.9	20.9	6.5	11.	9.4	8 21.5	4 24.6	2.7	0.0	0.0	0.1	00.0	14.7	27.5	3.7 U	32 14.7
Colleagues outside company/other business	%	21 6.2 13	13.6 13	12.6 FJ 6	4. 6.	e 9.	7.0 BC BC	13.9	7.4	2 . 8	7.9	1.1	2 10.7	11.3	15.1	0.0	0.0	0.0	0.0 0.0	5.3	4.3	16
Consultants (engineers, architects)	% O	188	3.0 1	10.0	2.9	2.9	8 9.	7.0	3.7	3.6	1.0 H	6.7	0.0	7.0	2	0.0	0.0	00.0	30.01	0.0	2.4	157.1
Utility company	%	22 6.4	6.1	5.7	5.7 8	8.03	7.1	7.0	0.	7 15.6 H	7.5	5.0	.3 1	4.7	. 8 ⊔	0.0	0.0	0 0.	. 8 2	17.2	9 1.7	13
The Internet	C% 31	108	7 25.8 2	11 25.7 3	52 35.7	11	27	27.9	26 42.6 I	17.2 H	17	16 46.9	2	14	29.0	00.0	28.3	5 44.2	10	5.3	42	30.7
Don't know/Refused	%	8 31	6.1 1.	11.4	107.1	8	10	0.0	11.8	12.8	9.5	7.4	2.7	6.1	∞ . w	20.0	18.2	0.0	ω	17.2	15	16

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NP2B. What source of information do you or other decision makers at your facility prefer to use to collect information on . . . Energy use at your facility?

SEMINAR CATEGORY

 AGTAC B
346 26 43 146 39 91 9 C%100.0 100.0 100.0 100.0 100.0
6 7 33 3 18 3 21.2 15.7 22.9 8.6 20.0 30.3 E BD
2 6 27 7 18 9.1 12.9 18.6 18.6 20.0 13
2 4 8 7 5 9.1 10.0 5.7 18.6 5.7 0 E DF E
3 6 23 2 16 12.1 12.9 15.7 5.7 17.1 13
2 2 15 2 10 1 7.6 5.7 10.0 5.7 11.4 7.0
1 1 8 1 0 4.5 1.4 5.7 1.4 0.0 0
7.6 8.6 4.3 4.3 4.3 0
6 13 33 4 21 24.2 30.0 22.9 10.0 22.9 48 E E BCDF E
16.7 11.4 14.3 17.1 7.1 7
19.7 21.4 17.1 24.3 21.4 0.0

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NP2C. What source of information do you or other decision makers at your facility prefer to use to collect information on . . . Energy efficiency?

			Ü	CENTER NAME	NAME		. '		Basic		H Q	High perf/I				1	1		M	re 1	TYPE	
	O I	Total Ag A	AgTAC 8	SDGE	CTAC	ETC -	ERC	Au- dits G	/Gen EE F H	000d -I-I-	HVAC b	Green F build W K	Fumps L Wells - L	Light M Ling t	Mo- tors il N	pump- Fr ing ce 0	Cess ri	riger ation Q	T24 wa:	S C C C	END USER T	UMA U
Total	C%10	346	26 30.0 10	346 26 43 146 C%100.0 100.0 100.0	146	39	91	9 100.001	61	47	60	35	15	44	15	3	11 00.0 10	10	29	8	131	215
Trade journals	60 C% 17.5		22.7 E	10 22.9 正	23	3 8.6 BC	18	51.2	16.1	16.7	14.4	15.6	18.7	20.2	23.1	0.0	20.7	0 0 .	14.7	27.5	20	40 18.9
Manufacturers reps	62 C% 17.9		3 10.6	12.9	25 17.1	8 20.0	21.9	7.0	11 17.7	12 25.0	13 21.5	5 15.6	4 24.6	10.5	⇔	20.0	5.5 4	5 44.2	18.6	0.0	28 21.3	34
Distributors or other sales staff	O %	33	13.6	12.9	107.1	7	7.1	00.0		15.6	10	00.0	8 H 0	3 7.5	ص د ت	20.0	00:	3 27.9	α .	00.0	10.0	20
Seminars or workshops	°°°	43	15.2	11.4	12.9	8	12 12.9	7.0	12.2	8 .3 4	11.6	5 14.5	5.3 ⊔	15.6	4 26.0	0.0	3 3 29.7	7.7	3	0.0	14	29 13.5
Colleagues within company	35 C% 10.2	35	7.6	1 2.9 DF	17 11.4 C	5.7	14.3 C	7.0	13.7	2 8 R	10.1	14.5	2	4.7	2.7	0.0	0.1	00.0	19.00 10.01	27.5	6.4	27
Colleagues outside company/other business C%		3.1	3.0	1. 4.	8 5.7	2 .9	0.0 D	7.0	3.4.2	0 O Z	0 0 ×	0.0	5.3	6 14.2 1J	0.0	0.0	0.0	0.0	ц. С.	0.0	2 . 4 . 3	3.6
Consultants (engineers, architects)	9/0	30	6.1	12.9	11.4	5.7	4 4	0.0	5.0 M	10.0	12.2	2.3	2.7	10 23.1 HR	12.4	0.0	5.5	0.0	3.8 M	0.0	17 12.9 U	6.1 T T
Utility company	% 5	72 20.7 1	19.7	11 24.3	20.02	11.4 CF	22 24.3	441.8	12.1	10	13	24.2	5.3	10	37.0	0.0	5.5	20.2	17.3	50.0	12 8.8 U	60 27.9
The Internet	G %	48	12.1	7	23	6 15.7	10.0	13.9	16 26.2 I	4 . 4 H	15.2	6.7	5.3	9.5	24.8	20.0	28.3	00.0	12.8	5.3	20	28 13.2
Don't know/Refused	64 C% 18.5		16.7	188.6	23	20.0	21.9	0.0	14.9	15 32.8	13.4 I	10	2	13.2	4. T.	1 40.0 2	. 8 3.	00.	25.0	17.2	23 17.3	41 19.2

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NP2D. What source of information do you or other decision makers at your facility prefer to use to collect information on . . . vendors and contractors?

BASE: End-users

	Total A	 al AgTAC B		CENTER NAME	'	HH	A ERC d	Au- / dits /	Basic /Gen EE E	FOO H	HVAC B	High Perf/I Green F build W	Irr/ Pumps I Wells -	Light P -ing t M	M M M M M M M M M M M M M M M M M M M	Pool Pool ing c	Pro- R Cess a	Ref- riger ation '	TZ4 W W	Water Water Uwater U	TYPE END USER (E UMA U
Total	3 C%100	346 26 43 14 C%100.0 100.0 100.0 100.	26 0.0 100	43	0 1	39	91	100.001	61	47	60 100.0 1	35	15 100.0 1	44	15 100.0 1	3	110.00	100.01	29	8 0.00	131	215
Trade journals	42 C% 12.1		6 21.2 EF	~ ~	21 14.3	5.7 B	7.1 B	37.3	7.8	13.9	14.6	1.1	13.4	4 0.	30.2	0.0	5.5	11.6	3. ₩	5	0.0	42 19.6
Manufacturers reps	43 C% 12.5		4. 4. 5. Fr	5.7 1	21 14.3 E	2 4.3 DF	17 18.6 BCE	7.0	10	13 26.7	6.5 H	13.4	0.0	9.5	9 .5	0.0	0.0	20.2	3	5.3	0.0	43 20.1
Distributors or other sales staff	% 0	31 8.9 9	9.1.	8 .6	8 13	2 . 2	10 11.4	7.0	90.	15.6	10.9	0.0	19.3	6.1	9.5	0.0	5.5	0 %	6.4	5.3	0.0	31 14.3
Seminars or workshops	%	23 6.5 1	1.50	7.1 E	8 13 E E E	0 0.0 CDF	7.1 E	0.0	5.6	11. R	3.5	5.9	00.	12.3 R	3	0.0	11.	00.	0.0 MI	0.0	0.0	23 10.5
Colleagues within company	35 C% 10.2		15.2 15	7 15.7 E	13	4.3 BC	11.4	20.09	6.2	11.1	11 18.4	5.9	2.7	5.1	12.1	120.0	12.7	0 6.	6.0	27.5	0.0	35 16.5
Colleagues outside company/other business C%		26	0 .12 E12	8 .6	107.1	1.1 BF	10.0	20.9	4.4	11.	6.4	3.7	8 0.0	15.1	6.8	0.0	11.	0.0	4.5	0.0	0.0	26 12.2 T
Consultants (engineers, architects)	%	2.0 0	000	2 5.7 BD	000	1.4	4.3	0.0	3.1	2.8	1.0	0.0	0.0	1. 4.	∞ 	0.0	0.0	00.0	1.4	0.0	0.0	3.2 T
Utility company	%	21 6.2 3	. o .	5.7	10	2.0	7.1	13.9	6.5	2.8	5.5	00.	2.7	6.1	13.9	0.0	0.0	24.0	e o.	17.2	0.0	0. 0. 10.
The Internet	% U	30	2 6.1 11	. 4	17	7.1	4.3	7.0	13.4 I	0.0	10.6	11.9	2.7	10.4	6.8	0.0	2 17.2	0.0	8 3 2	5.3	0.0	30 14.0
Don't know/Refused	35 C% 10.2		15.2	7.1	10	e 9.	14 15.7	0.0	4.0 T	10 21.1 HJ	3° 5 H	19.3	2	10.9	∞ .3 ⊔	140.0	12.7	0.0	6.4	17.2	0.0	35 16.4 T
RESEARCH AMERICA INC										ίς	SIGNIFICANCE BCDEF/GHIJK		TESTING AT LMNOPQRS/T	S AT .9	5							

NP3A. When collecting new information on new technologies, what makes seminars or workshops more valuable to you than some other source of information? BASE: Respondents who used Seminars/Workshops

!	a'	.0	04	19	7 1.	n 0	18	90.	⊣ o.	00.0	т 4.
TYPE	UMA U	100	3 4.	4	6 9 16.	7 10.	36	13.	0 0	7 0.	
	USER T	31	19.	25.6	17.9	32.7	15	0.0	0.0	9	1.8
Water	waster S	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	T24 R	100.0	50.0	35.0	0.0	0.0	2 50.0	0.0	0.0	0.0	0.0
Ref 2	ation 0	100.0	00.	100.0	0.0	0.0	0.0	0.0	00.	00.	0.0
1	7 0 1 7 0 1 0 0 0 1 0 1	3 100.0	00.	18.7	2 62.6	18.7	18.7	0.0	0.0	00.	0.0
	ing ind	100.00	150.0	150.0	0.0	0.0	0.0	150.0	0.0	0.0	0.0
1	tors N		16.2	2 50.4	2 50.4	28.9	3 54.9	0.0	0.0	0.0	0.0
1 4	ling t	16 5 100.0 100.0	3. 8 □	37.2	3	12.8	12	3.8 ₽	0.0	0.0	0.0
 Irr/	Fumps . Wells . L	2 100.0	00.0	0.0	33.3	33.3	33.3	16.7	0.0	0.0	0.0
High perf/		100.00	2 17.0	0.0	10.6	10.6	34.0	3 27.7	0.0	0.0	0.0
	HVAC }	9 100.0	00.	43.4	7.0	30.0	36.3	00.0	00.	00.	13.4
	Food	9 100.001	00.	45.5	0.0	15.2	0.0	15.2	15.2	24.2	0.0
Basic	EE]	1200.00	2 17.4	6.2	3 24.1	5 41.6	53.8	00.0	00.0	00.0	0.0
	Au- dits G	3	00.0	277.0	0.0	0.0	123.0	0.0	0.0	0.0	0.0
	ERC	14	9.1	36.4	9.1	18.2	18.2	18.2	9.1	00.	0.0
	E E	100.0	18.2	36.4	0.0	0 1 T	36.4	0. 1.	00.0	00.	0.1
NAME	CTAC	0 0	10.0	15 35.0	20.0	20.0	23	5.0	00.	5.0	0.0
CENTER NAME		76 6 9 4 C%100.0 100.0 100.	7.1	35.7	14.3	14.3	42.9	7.1	00.0	00.	7.1
	AgTAC SDGE BC	100.0	14.3	28.6	35.7	2 2	121.4	7.1	0.0	00.	0.0
	Total AgTAC AB	76	C% 10.5	, 27 C% 35.0	13 C% 16.9	15 C% 19.8	33	8.2	1.7	2.7	1.5
		%	Ö	ons C%	°°	%	w/ ntsC%	to G	°S ⊼	ů	ů Ö
			nce	Hands on demonstrations	Unbiased/objective information	Depth of material	Ability to interact w/ 33 instructor/participantsC% 42.8	Pertain specifically to what I need	Incentive progam they offer	Required to take courses for credits	Don't know/Refused
		Total	Convenience	Hands on	Unbiased/ob information	Depth of	Ability instruct	Pertain spew what I need	Incentiv	Required courses	Don't kn

NP3B. When collecting new information on energy use at your facility, what makes seminars or workshops more valuable to you than some other source of information?

BASE: Respondents who used Seminars/Workshops

SEMINAR CATEGORY

															1							
			Ü	CENTER NAME	NAME			 	Basic	 	III 121 				 	ı	!	Ref-	I ⊠ I I I		TYPE	
	Αİ	Total A	AgTAC	SDGE	CTAC	ETC -	ERC	Au- dits G	/Gen EE H	Food I	HVAC P	Green E build W K	Pumps I Wells - L	Light N -ing t M	Mo- p tors i N	pump- P ing c 0	- F - F - F - F - F - F - F - F - F - F	riger ation 2	W T24 w R	Waste E water U	END USER T	UMA U
Total	C %	50	3.00.00	50 3 6 C%100.0 100.0 100	.03	2	16 100.0	100.0	9	5	100.00	3 100.0 1	100.00	9 100.001	100.0	0.0	3 100.0 1	100.00	100.0	0.0	25	25 100.0
Convenience	Ů %	C% 18.6	37.5	22.2	18.2	0.0	3	0.0	0.0	00.	24.2	13.3	0.0	0.0	9.6	00.	18.7 1	100.0	. 3	00.	23.1	14.1
Hands on demonstrations	ons C%.	. 16 C% 32.7	37.5	33.3	27.3	75.0	33.3	0.0	50.3	3	13.7	0.0	0.0	23.3	1 22.6	0.0	81.3	0.0	2 41.7	0.0	31.5	33.8
Unbiased/objective information	000	18.3	37.5	33.3	9.1	0.0	25.0	0.0	4.2	0.0	7.2	3 86.7 1	100.0	30.2	1 22.6	0.0	00.0	0.0	29.2	0.0	5 22.0	14.6
Depth of material	%	10 19.8	37.5	33.3	18.2	0.0	3	150.0	26.3	0.0	0.0	143.3	0.0	30.2	31.4	0.0	0.0	0.0	1 29.2	0.0	6 26.3	3.5
Ability to interact w/ 12 instructor/participantsC% 23.6	1/ 1tsC% .		12.5	33.3	27.3	1 25.0	3 16.7	150.0	4.2	0.0	30.7	0.0	0.0	46.5	127.4	0.0	0.0	0.0	58.3	0.0	27.9	19.3
Pertain specifically to what I need	ر 0 0	o	0.0	0.0	9.1	0.0	3	0.0	0.0	1 25.0	0.0	143.3	0.0	23.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.9
Incentive progam they offer	%	2.6	0.0	0 0	0.0	0.0	∞ 	0.0	0.0	1 25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.2
Required to take courses for credits	0%	4.2	0.0	0.0	9.1	0.0	0.0	0.0	0.0	0.0	24.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8 2 4.	0 0 0
Don't know/Refused	%	9.5	0.0	0.0	9.1	0.0	3	0.0	3 27.6	0.0	24.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	5.2
RESEARCH AMERICA INC										S	SIGNIFICANCE TESTING	ANCE T	ESTING	ΑT	. 95							

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NP3C. When collecting new information on energy efficiency, what makes seminars or workshops more valuable to you than some other source of information?

BASE: Respondents who used Seminars/Workshops

CATEGORY	
SEMINAR (

	UMA -U	29	13.5	10	28.9	7.8	38.9	m 0.	1.0	e 0.
TYPE	END USER T	14	2	3 20.2	15.1	3 22.3	16.2	00.	0.0	33.00
	Waste E water U S	0.0	0.0	0.0	0.0	0.0	00.	0.0	0.0	0.0
	T24 w	3	1 41.2	1 41.2	58.8	0.0	58.8	00.	0.0	00.
 Ref-	riger ation 2	100.001	100.0	00.	00.	0.0	00.	0.0	00.	0.0
1	C Prol	3	18.7	18.7	0.0	18.7	00.	0.0	0.0	2 62.6
1	pump- ing 0	0.0	0.0	0.0	0.0	0.0	00.0	00.0	0.0	0.0
-	Mo- tors N	100.0	63.6	0.0	10.2	10.2	15.9	00.	10.2	0.0
1	Light -ing M	7	0.0	30.3	39.4	9.0	91.0	0.0	0.0	0.0
 Irr/	Pumps Wells L	100.0	0.0	0.0	50.0	0.0	50.0	0.0	0.0	0.0
High perf/	Green build K	100.0	7.9	2 41.0	1 25.6	0.0	2 41.0	25.6	0.0	1 25.6
	HVAC J	7	4.0	43.9	18.8	10.6	26.9	00.	00.	30.1
	Food	100.0	00.	3	00.	0.0	00.	33 	00.	00.0
Basic	/Gen EE H	7	0.0	13.0	33.6	33.6	5.4	0.0	0.0	25.2
	Au- dits G	100.0	0.0	0.0	0.0	100.0	0.0	00:	0.0	0.0
	ERC	12	11.1	5 44.4	33.3	0.0	22.2	22.2	0.0	22.2
	ETIC	100.0	0.0	50.0	16.7	0.0	33.3	0.0	0.0	16.7
NAME	CTAC	100.00	11.1	22.2	22.2	11.1	8 44.4	0.0	0.0	22.2
CENTER NAME	SDGE	5	125.0	125.0	12.5	2 2 20.0	12.5	0.0	00.	00.0
	AGTAC	4	2 40.0	10.0	30.0	20.0	20.0	0.0	10.0	0.0
	Total A	43 4 5 C%100.0 100.0 100.0 100	6 C% 14.6	s 13 C% 29.7	10 C% 24.4	5 C% 12.5	31.5	6.1	0.0	7 C% 17.1
		ΰ	ΰ	tions		ΰ	t w/ pantsC§	ly to C%	ney C%	
				Hands on demonstrations	Unbiased/objective information	cerial	Ability to interact w/ 13 instructor/participantsC% 31.5	Pertain specifically to what I need	Incentive progam they offer	Don't know/Refused
			Convenience	on der	Unbiased/ob	Depth of material	ty to : uctor/	Pertain spec what I need	tive p	know/}
		Total	Conve	Hands	Unbia infor	Depth	Abili instr	Perta what	Incen	Don't

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NP3D. When collecting new information on vendors and contractors, what makes seminars or workshops more valuable to you than some other source of information?

BASE: End users who used Seminars/Workshops

			CENTE	CENTER NAME				Basic		H i	High Perf/Irr,	1				1		Water		TYPE	
	Total A	 Total AgTAC AB	SDGE	CTAC	E E E	ERC	Au- dits G	/Gen EE I H	Food H	HVAC bu		Fumps Li Wells -i: L]	Light Mo- -ing tor: MN	Mo- pump- tors ing NO	- Pro-	riger s ation 2	T2 	Waste 4 water S	te END er USER T-	i .	UMA -U
Total	2 C%100.	23 0 3 13 C%100.0 100.0 100.0	3	13	00.0	7	00.0	3 100.0	5.00.0	2	2	0.0 10	5	3 0.001	0.0 100.0		0 0 0 0	00.	0.0	0.0 10	23
Convenience	3 C% 14.8	0.0	1 40.0	16.7	0.0	0.0	0.0	0.0	0.0	00.0	0.0	0.0	11.5 6	2 67.1 0	0.0 50.0		0 0 0 0	0	0.0	0.0	3.14.8
Hands on demonstrations	1S C% 19.	; C% 19.6 100.0	20.0	16.7	0.0	20.0	0.0	0.0	1 25.0 1	2	0.0	0.0	0.0	0 0 12.9 0	0.0 50.0		0 0 0	00.	0.0	0.0	19.6
Unbiased/objective information	C% 5.5	1 0 0 2	40.0	00.	00.0	0.0	0.0	0.0	00.	00.	00.	0.0	23.0	0 0 0 0 0	0 0 0	0.0	0 0 0	0 0.0	0.0	0.0	5. 5.
Depth of material	3 C% 12.0	3 0.0	20.0	2	0.0	0.0	0.0	0.0	0.0	2	0.0	0.0	1.5	0 0 0	0 0.0	0.0	0 0 0	0 0.0	0.0	0.0	3
Ability to interact w/ 10 instructor/participantsC% 45.6	/ 1 :sC% 45.	10 0.0	20.0	8	00.0	20.0	0.0	61.5	25.0 1	2 100.0 10	2	0.0	38.5	20.0	0	0.0	0	00.	00:0	0.0	10
Pertain specifically to what I need	to 3 C% 11.6	3 0.0	00.	00.	00.0	3 40.0	0.0	0.0	3	00.	00.	0.0	00.0	0 0.0	0.00	00.0	0 0 0	0 0 0	0.0	0.0	11.6
Don't know/Refused	3 C% 15.0	0.0	00.	16.7	00.0	20.0	0.0	38.5	00.	00.0	00.	0.0	38.5	0 0 0 0	0.0	0.0	0.0	0.0	0.0	0.0	3

C1. How did you hear about center and the seminars/workshops they offer?

	-	UMA U	215	29 13.5	4.1	96 44.8	37 17.4	1.6	17	0.5	0.8	0.0	4. 9 .
	TYPE	END USER T	131	9.4	6.2	67	18 14.0	1.6	5.8	1.4	1.0	0.7	2.1.3
		S C C	8	0.0	5.00	61.9	27.5	0.0	0.0	0.0	0.0	0.0	00.
		T24R	29	16.7	1.0	14 48.7	17.3	0.0	5.82	00.	0.0	0 0	1 6
	Ref-	ation 0	100.00	9.00	0.0	84.5	0.0	0.0	0.0	9°0	0.0	0.0	00.
	1	0 4 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1	1100.0	3 26.3	0.0	2 2 2 2 3 2 8	5 40.8	0.0	5.5	5.5	0.0	0.0	
	1	rdimd ing 0	3	1 40.0	20.0	1 40.0	00.	0.0	00.	00.	00.	00.	00.
CATEGORY		tors N	15	6.8 1	2 .7	4 26.0	4 27.5	4.1	4.	2.7	0.0	00:	3 20.7
		-ing -ing M	44	21.2	9.5	1943.5	18.8	4.7	10.9	0.0	0.0	0.0	0.0
SEMINAR		Fumps Wells L	15	0.0	8 .0 .	7	5.3	5.3	5.3	5.3	0.0	0.0	5. 3. H
	High perf/	build K	35	0.0	3.7	18 51.7	16.7	0.0	11.9	00.	0.0	0.0	7.1
		HVAC J	60	8.55	5.1	27	12 19.7	0.0	6.7	0.0	0.0	0.0	6.5
		Food I-I	47	11.1	4.4	22 47.8	7.2	0.0	2.8	00.	2 . 8	2.8	0.0
	Basic	EE H	61	15.5	0.0	29	12.2	3.4	10.2	0.0	2.1	0.7	0.0
	 	Au- dits G	100.0	20.9	0.0	65.2	27.9	0.0	7.0	7.0	0.0	0.0	7.0
		ERC	91	13 14.3	1.4 B	49 54.3	7.1 C	0.0	5.7	0.0	2.03	1.4	0.0 BC
		E E E	39	14.3	5.7	20 51.4	7.13	0.0	7.1	0.0	0.0	1.4	2 6.
	CENTER NAME	CTAC	346 26 43 146 C%100.0 100.0 100.0	11.4	5.7 C.C	45.7	23 15.7	2.9	13	0.0	0.0	0.0	4.3
	CENTE	SDGE	43	10.0	0.0 BDE	15 34.3 EF	21 48.6 BDEF	1.4	7.1	2 . 9	0.0	0.0	7.1
		AGTAC	26 100.0	6.1	9.1 CF	12	0 0 1 0	3.0	4.5	2 6.1 DEF	1.5	1.5	6.1 F
		Total A	346 %100.0	41 C% 11.9	14 8 4.1	163	56 C% 16.1	8 1.6	25 % 7.2	. 0 %	% 0.0	% 0.7	3.5
			Total	From utility company representative C	Information inserted in my utility bill C%	Received brochure in mail regarding seminar C%	Received email from center	Received fax from center C%	Saw seminar listing on center's website C%	Saw article in trade magazine	Info through profession -al organization C%	Saw display at trade show C%	Someone at my comp gave me brochure on semiars C%

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Cl. How did you hear about center and the seminars/workshops they offer?

ATEGORY	
EMINAR C.	
S	

High Basic perf/Irr/ Pool Ref- Water		3 19 3 7 0 5 3 6 5 1 5 6 0 0 0 4 (0 0 0 5 1 3 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.0 0.0 0.9 0.0 1.0 0.0 0.0 0.0 4.1 0.0 0.0 0.0 0.0 0.0	0.0 2.9 1.4 1.4 0.0 7.8 0.0 0.0 3.7 8.0 0.0 0.0 0.0 0.0 3.9 0.0 0.0
	ERC	7.1	10.0 BC	4.3	0.0	1.4
CENTER NAME	Total AgTAC SDGE CTACABCD	7.1	0 0 1.5 0.0 F EF	0.0 1.4 2.9	0.0 2.9 0.0	6.1 0.0
	Total A	Someone at my company 35 3 told me about center C% 10.1 12.1	Colleague outside comp 16 told me about center C% 4.6	Consultant/contractor 9 told me about center C% 2.7	Have attended for years C% 0.5	Don't know/Refused C% 2.2

C2. Wh

workshops?
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			(!				-						'	,	'		:		TYPE	
	μİ	A	C AgTAC B	CENTER SDGE	NAME CTAC D	ETC	ERC	Au- dits G	Basic /Gen EE H	Food	HVAC K	perf/ J Green B build V K	Irr/ Pumps I Wells -	Light M -ing t M	Mo-p tors i N	Pool pump- Pi ing ce	Pro- r: cess at	Ref- riger ation 7	Ма: Т24 ма: -R:	Ser Ser Ser	END USER	 UMA -U
Total	C%1(346 26 43 146 C%100.0 100.0 100.0	26 00.0 1	43		39	91	9	61 100.0	47	60 100.0 1	35	15 100.0 1	44	15	3	11 00.0 10	10 100.0 10	29	8	131	215
From utility company representative	%	30	4.5	8.6	13	5.7	10	20.9	9.0	8.3.4	7.6	0.0	0.0	15.6	6.8	20.0	20.7	00.	10.9	0.0	0.0	29 13.5
Information inserted in my utility bill	in C%	18	9.1 CF	1. B B	107.1	8	1. B	0.0	8.7	0.0	1.6 M	9.7	8.0	10.5	2.7	20.0	0.0	0.0	3° ±	5.3	7.1	4 6 T
Brochure in the mail regarding a seminar	%	166	15 57.6 C	14 32.9 BEF	65	23 60.0	48 52.9 C	58.2	31	26 55.0	25 41.9	18	8	16 35.3	30.2	40.0	40.4	68.2	15	5	69	96 44.8
Email	%	40	6.12	17 40.0 BDEF	17 11.4 CF	4 0 . 0	2.9 CD	27.9	8.7	7.2	13.6	7.1	2.7	13.2	23.4	00.0	22.2	20.2	2 4.	27.5	3 2.0 U	37 17.4 T
Fax	%	75	13.6	18.6	40	8 21.4	16 17.1	13.9	19 31.1	3 7.2 HM	12	10	2	14 31.2	4 T.	20.0	29.7	20.2	23.1	0.0	72 54.6 U	1.6 T
Through center's website	0%	21 6.2	4.5	7.1	107.1	7.1	4.3	7.0	4.6	2 . 8	6.7	11.9	⊢	10.9	4.1	0.0	5.5	0.0	5.82	0.0	3.24	178.0
Through articles in a trade magazine	00	1 0.4	3.0 ±	1.4	00.	0.0	0.0	7.0	0.0	00.	00.	0.0	2.7	00.0	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.5
Info available from pro -fessional organizationC%	ro onC%	0.5	1.5	0.0	00.	0.0	ц 4.	0.0	0.0	, 8 H	00.	0.0	0.0	0 0	00.	00.0	0.0	0.0	0.0	0.0	0.0	0.8 2
Through a display at trade show	%	0.5	1.5	0.0	0.0	0.0	1. 4.	0.0	0.0	2.8 1	00.	0.0	2.7	00.0	0 0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Through others at my company	0%	10	1.5	2 . 0	4.3	4.3	0.0	0.0	0.0	0.0	5.5	5.02	5.3	0.0	3 20.7	0.0	0.0	0.0		0.0	0.8	4. و د.

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APPENDIX E

C2. What would be the BEST way to inform you or others in your position about future centers seminars and workshops?

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SEMINAR CATEGORY

		ر	д Д	NAMF			1	1 0 1 0 1 0								1	i		1 4	TYPE	1
7	1 6			- 1	- :	7	Au-	/Gen		40,	Green	Fumps 1	Light P	Mo-	pump- E	Pro-	riger	· P ·	Waste E	END	5
) A	1 I	-B	- C	- 1									5 I I I I I I I I I I I I I I I I I I I					- HA	N - N - N - N - N - N - N - N - N - N -	- III	n
	24	m	7	13	7	4	0		m	Ŋ	7	\vdash	m	9	0	0	0	8		\vdash	23
0	6.9	12.1	5.7	9.6	4.3	4.3	0.0	0.0 JR	7.2	8.7 H	5.9	.9 5.3 6.1 4	6.1	5.6	0.0	0.0	3.0	8.3 H	5.3	0.4 U	10.8
	13	0	0	4	⊣	∞	0	0	4	-	m	2	2	0	0	0	0			⊣	13
. ,	ω.	0.0	0.6	2.9	2.9	8.6 BC	0.	0 H	8 H	0.	7.4	13.9	4.7	0.0	0.0	0.0	0.0			0.4 U	2.8
	7	0	⊣	2	0	4	0	2	4	0	0	0	0	T	0	0	0			0	7
. 4	2.0	1.5	1.4	1.4	0.0	4.3	0.0	3.4	8 .3	о.	0.0	0.0	0.0	4.1	0.0	0.0	0.0			0.3	3.1
	⊣	0	\vdash	0	Н	0	0				0	0	0	Η	0		0			0	\vdash
0	C% 0.3	0.0	1.4	0.0	1.4 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.	0.0		0.0	0.0	0.0	0.0	0.5
	\vdash	П	Н	0	0	0	0						0	0	0	0	0			\vdash	П
	0.4	3.0	1.4	0.0	0.0	0.0	0.0	0.0							0.0					0.5	0.4

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C3. What are the main reasons why you took the center's seminar(s)?

	UMA -U	215	13.5 T	4 1.1	96 44.8	37 17.4 T	1.6	17	0 .5 H	. 8 2
TYPE	END USER U	131	50 38.4 1	26 19.7 U	16 12.0 4	6 4.6 1	1.3	6.7	6.9 U	1.00
	ster S-r	0.0	00.	5.3	5 61.9 1	27.5	0.0	0.0	00.	00.0
M M	wa T24 wa -R	29	8 27.6	12.2	28.2	12.8 2	H 6.	8 8	00.	00.
Ref-	riger ation 1 2	10	00.	0.0	44.2	0.0	0.0	20.2	20.2	00.0
	1 0 H	11.00.00.	20.7	0.0	3 27.4	22.2	0.0	5.5	18.6	0.0
1	pump- ing 0	3	40.0	120.0	140.0	00.0	0.0	00.0	00.	00.
	MO- Cors in	15	8 H	2.7	4 26.0	23.4	∞ 	4.1.	2.7	00.
	Light M -ing t M	44	16 35.5	7	10	8	0.0	9.5	2 4.7	0.0
	Fumps L Wells -	15	8 0 1	4 27.3	26.7	2.7	5.3	5.3	0.0	2.7
High Perf/I		35	12 34.9	11.1	33.8	7.1	0.0	11.9	0.0	0.0
Ι ΞΕ ΔΑ.(HVAC b	60	14	5.7	131.8	13.6	0.0	6.7	1.0	3.57
	Food F	47	18.3	2.8 H	19 40.6	7.2	0.0	2.8	2 . 8 H	
Basic	/Gen EE E	61	12 19.5	10 16.7 I	17	11.2	4.4	8.7	1.6	00.
	Au- dits G	9	27.9	0.0	58.2	27.9	0.0	7.0	7.0	00.
	ERC	91	23 25.7 B	10 11.4 C	42 45.7 DE	4. 4.0	0.0	7.1	1.4	т т.
	ETC .	39	10 25.7 B	18.6 C	11 27.1 E	4. 0 % D	2.9	4.3	2.9	00.
NAME	CTAC	.0	33	13	35 24.3 F	12.9	1.2	15	4.3	1.
CENTER NAME	SDGE	43	21.4	2.9 BEF	14	17 40.0 BDEF	2 . 9 1	5.7	1.4	00.
	AGTAC B	346 26 43 1 C%100.0 100.0 100.0 100	12.1 EF	12.1 C	10	6.12	3.0	3.0	3.0	3.0
	Total A	346	79 C% 22.9	35	112 C% 32.4	43 C% 12.5	1.5	26	10	1.2
		O O		info elseC%			υ _.	o% C	bout n C%	O %
			Center is a credible information source	Provides objective info 35 can't get anywhere elseC% 10.0	Center has good rep- utation for courses	Courses are convenient	Learn about specific technology	Learn about general topic	Consult w/someone about specific application	se new
			Center is a information	des ob	r has on for	es are	Learn about technology	. about c	ilt w/s. fic ap	Test/Showcase new product
		Total	Cente infor	Provi can't	Cente utati	Cours	Learr	Learn	Consuspeci	Test/Sho product

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SIGNIFICANCE TESTING AT .95 BCDEF/GHIJKLMNOPQRS/TU

9.4

1.6

0.0

0.0

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0.0

0.0 3

3 2 1 5.5 5.9 5.3

0.0

3.4

0.0

00.0

1.4

5.78

1.5

11 C% 3.3

Some in company asked me to attend

6.7 U

0.0

1.9

0.0

00.0

0.0

0.0

0.0

2.7

1 4 0.9 11.9

2.8

4.1

7.0

1.4

2.9

6.4.3

1.4

3.0

10 C% 2.9

Curious about what center had to offer

C3. What are the main reasons why you took the center's seminar(s)?

SEMINAR CATEGORY

							'				Ξ	ligh									TYPE	
			J	ENTER	NAME		F		Sasic			herf/ I	rr/	1					3	Jater -		
	Ě	otal A	'gTAC	SDGE	Total AgTAC SDGE CTAC ETC	1	ERC d	Au- / dits	/Gen EE F	Food H	HVAC b	Green F build W	Fumps L Wells -	Light M -ing t	Mo- p	pump- Find	cess at	riger ation 7	T24 w	waste END water USER	SER	UMA
	I	- A	- -	- - - -	Q							- - - - -	- - -	 - -						 	 - -	- n-
Help company meet		31	4	т	17	m	4	0	m	Ж	9	2	⊣	2	9	0	0	0		0		23
energy standards	% O	8.9 16.7 F	16.7 F	7.1	11.4	7.1	4.3 B	0.0	5.7	7.2	8.	5.0	5.3	3 11.8 42.6	42.6	0.0	0.0	9.6	10.3	5.3	5.8	10.8
Meet career goals/Get		17		0	9	2	∞	0	0	9	2	М	2	2						0		13
promoted	0/0 0/0	2.0	6.1	0.0 BF	4.3	4.3	0.0 8	0.0	0.7 I	12.8 HJ	2.5 I	9.	5 13.9 5.6	5.6	0.0	0.0	0.0	0.0	6.4	0.0	3.7	5.8
Other		27	2	\vdash	10	9	7	0	m			4	2	4		0	П	0				7
	%	7.7	o. ⊥	2 E 9	7.1	1 15.7 7.1 C	7.1	0.0	3	15.6 J	1.9 HR	10.8 10.7 9.5	10.7	9.5	4.1	0.0	5	о	13.5 J	0.0		м. Н
Don't know/Refused		∞	\vdash	0	9	\vdash	0	0	2	0	m	0	0	0	0	0	0	0				\vdash
	O %	2.4	3.0 0.0	0.0	4.3			0.0									0.0	3.0	0.0	0.0	5.2 U	9. U

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C4A. How would you rate: convenience of the course in terms of location and schedule?

			J	CENTER NAME	NAME			F	Basic			High perf/						Ref-			TYPE	EI
		Total	AGTAC B	SDGE	CTAC	ETC -	ERC	Au- dits G	/Gen EE H	Food I	HVAC	Green build K	rumps . Wells .	Light F Ling t L-M	Mo- tors i N	ramp-rampa sing	C C C C C C C C C C C C C C C C C C C	riger ation 2	T24 v	waster sere sere	END USER T	UMA U
Total	Ö	346	346 26 43 146 C%100.0 100.0 100.0	43	146	39	91	9	61	47	60	35	15	44	15	3 100.0 1	11 100.0 1	10.001	29	8	131	215
1 - Poor	ů	1.2	0.0	0.0	0.0	2 .	2.03	0.0	1.8	2 . 8	0.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	ц. П.	0.0	. s	0.0
2	O O	3.8	E O ⊔	т	1. 4. 2.	6 14.3 BCDF	4. E E	0.0	1.8 H	7.2	3.7	3.7	2.7	1. 4.	0.0	0.0	0.0	0 %	12.2 H	0.0	6.4.7	3.2
m	ů	45 C% 13.1	6.1 E H	8 .	23	8 20.0	0.01	13.9	8.0	12.8	14 24.0 HM	11.9	19.3	5.6	18.0	20.0	0.0	00.	14.7	17.2	12.0	29
4	°° ∪	113	6 22.7	14 31.4	52 35.7	11 28.6	30	34.8	17	11 23.9	37.0	17	6 40.6	16 35.9	10.9	20.0	541.3	20.2	26.9	3 44.7	39.2 U	61 28.6 T
5 - Excellent	% U	167	18 68.2 DEF	25 58.6 E	65 44.3 B	13 32.9 BCF	46 50.0 BE	51.2	36 59.9	25	21 35.3	25.3	37.4	23	11 71.0	2 60.0	7	72.1	13	38.1	51 38.7 U	116 53.9
Don't know	ů	1.2	0.0	0.0	2.9	0.0	0.0	0.0	0.0	0.0	0.0	5.9	0 0	4.7	0.0	0.0	0.0	00.	0.0	0.0	3.2 U	0 0 0 0
	MEAN:	4.24	4.56 DEF	4.47 E	4.26 BE	3.71 BCDF	4.23 BE	4.37	4.43 JK	4.18	4.04 HMNP	3.95 HMNP	4.13 P	4.46 JKR	4.53 JKR	4.40	4.59 JKLR	4.60	3.99 MNP	4.21	4.11 U	4.32 T

C4B. How would you rate: technical level of information provided?

				CENTER NAME	NAME				Basic			High perf/					1	Ref-	X ;		TYPE	
		Total A	Total AgTAC SDGE CTAC	SDGE	CTAC	ETC	ERC -F-	Au- dits G	/Gen EE H	Food I	HVAC 1	Green build W	Fumps . Wells .	Light -ing M	Mo- tors i	pump- P ing c 0	Cess - P - P	riger ation 2	T24 w	Waste E Water U	END USER T	UMA U
Total	ర	346	346 26 43 146 C%100.0 100.0 100.0 100.0	43		39	91	100.0	61	47	60	35	15	44	15	3 11 100.0 100.0	11 00.0	100.0 100.0		8	131	215 100.0
1 - Poor	°°	C% 0.1	1.5	0.0	0.0	0.0	0.0	00.	00.	00.	0.0	0.0	2.7	0.0	00.0	0.0	00.0	00.	00.	0.0	0.0	0.2
0	Ö Ö	2 3 8	3.0	2 . 9	1.4	2.9	2.0	0.0	2.1	0.0	0.00	0.0	5.3	2. 8	0.0	0.0	18.6	00.	8 2 8 5	00.	9.0	1.4
м	Ö %	31 9.1	w 0 ∪	8 18.6 BDE	10 7.1 C	4. 2 w D	11.4	34.8	7 12.2 R	13.9	6 10.7 R	13.4	2.7	w 0 0	00.	0.0	11.11	00.	0 0.0 HIJ	0.0	14	80 H 80 H
ゼ	0%	119 C% 34.3	7 27.3	12 27.1	58	14 35.7	27	13.0	22 35.7	16 34.4	17	17	21.4	11 24.0	7	1 40.0	11.	88 9.4.	12 39.7	27.5	52 39.5	67
5 - Excellent	%	184 C% 53.3	17	22 50.0	73	22 55.7	51	44.3	30	24	36 61.3	11 31.6	10	31	8 54.5	2 60.0	7 59.2	11.6	15	72.5	58 44.1 U	127 59.0
Don't know	o)°	3 0.0 %3	0.0	1.4	1.2	1. 4.	0.0	7.0	0 0	0 0.	0.0	5.9	0 0	0.0	0.0	0.0	0.0	00.	1 6.	0.0	3 2.5 U	0 O H
	MEAN: 4.40 4.52 4.26 4.41	4.40	4.52	4.26	4.41	4.46	4.39	4.10	4.34	4.38	4.51 Q	4.19 MS	4.47	4.60 KQ	4.54 Q	4.60	4.11	4.12 JMNS	4.34	4.72 KQ	4.27 U	4.47 T

C4C. How would you rate: "cutting edge" or "state-of-the-art" information that was provided?

	-	UMA U	215	0.5	0.3	24 11.3	28 28.8 T	124 57.6 T	1.63	4.45 T
	TYPE	END USER U	131	0.0	2.53	21 15.8 1	53 40.1 2 U	53 40.0 5 U	1.6	4.19 4 U
		waste EI water US S	8	00.0	00.0	00.	50.0	50.0	0.0	4.50
	M	T24 w R	29 100.0 1	00.	1.0	14.1	28 8	16 55.8	00.	4.38
	Ref-	riger ation 2	100.00	0.0	0.0	00.	5 48.1	51.9	0.0	4.52 L
	!	Pro-	1100.0	0.0	0.0	29.7	31.8	38.5	0.0	4.09
	Pool	pump- ing 0	3	00.0	0.0	00.0	20.0	80.0	0.0	4.80 LP
CATEGORY		Mo- tors N	15	00.	00.0	16.6	37.3	7	0.0	4.30
IAR CAT		Light -ing M	44	1.4	0.0	6.7	10 22.1	31 69.8 HIJ	0.0	4.59 L
SEMINAR		Pumps Wells L	15	2.7	5.3 1	32.6	13.4	7	0.0	3.95 MOQ
	High perf/	Green build K	35	0.0	0.0	23.0	21.6	17	5.9	4.28
		HVAC J	60	0.0	2.1	6.0	26 43.9 M	29 47.9 M	0.0	4.38
		Food	47	0.0	0.0	8 4 °.	21	21 44.4 M	2 .8	4.37
	Basic	/Gen EE H	61	0.0	2.1	13.0	21	29 47.0 M	3.4	4.31
		Au- dits G	100.0	0.0	0.0	441.8	7.0	51.2	0.0	4.09
		ERC	91	0.0	1.4	14.3	31.3	44	1.4	4.32
		E I I I I I I I I I I I I I I I I I I	39	0.0	1.4	12.9	11 27.1	23	0.0	4.43 C
	NAME	CTAC	146	0.0	0.0	15	35.7	75	2.9	4.43 C
	CENTER NAME	Total AgTAC SDGE CTAC	43	1.4	2 .9	20.0	14	19	0.0	4.14 DE
		AGTAC B	26	1.5	3.0	13.6	7 25.8	15 56.1	0.0	4.35 4.32
		Total A	346 26 43 146 C%100.0 100.0 100.0	C% 0.3	C% 1.1	45 C% 13.0	114 C% 33.1	176 C% 50.9	C% 1.6	
			ပိ	ΰ	ပိ	ပိ	ΰ	ΰ	ΰ	MEAN:
			Total	1 - Poor	N	м	7'	5 - Excellent	Don't know	

C4D. How would you rate: objectivity of the information?

	H		END	USER	- - -
		Water	Waste END	water	S
				T24	R
SEMINAR CATEGORY		Ref-	riger	ation	CDEFGHIJKLMNOPQQRST-
			Pro-	cess	B
		Pool	-dwnd	ing	0
SEMINAR CATEGORY			Mo-	tors	N
NAR CA			Light 1	-ing	W
SEMI		/rrl	Pumps	Wells	T
	High	perf/	Green	build Wells -ing t	K
				HVAC	D
				Food	H
		Basic	/Gen	日日	H
			Au-	dits	G
				ERC	- - -
				ETC	日 日 -
		NAME		CIAC	D
		CENTER NAME	-	SDGE	C
			-	rotal AgTAC	B
				Total	AB

			Ü	CENTER N	NAME				Basic		дд	High perf/ I				!		Ref-	M		TYPE	{
	Ęŧİ	Total F	AgTAC B	SDGE	CTAC	E E E E E E E E E E E E E E E E E E E	ERC	Au- , dits G	/Gen EE 1 H	Food F	HVAC B		Pumps I Wells - L	Light M -ing t M	Mo- tors i N	pump- Pi ing co	ro- ess -P	riger ation ' Q	T24 w -R	Waste E water U S	END USER T	UMA -U
Total	Ω ₩	346	346 26 43 C%100.0 100.0 10	43	146	39	91	0.001	61	47	60 100.0 1	35	15 100.0 1	44	15	3 100.0 1	11 100.0 1	100.001	29 100.01	8	131	215
1 - Poor	O)0	o. ∪ .	1.5	т т.	00.0	00.0	00.0	0.0	0.0	00.	0.0	00.	2.7	т тъ.	00.	00.0	00.0	00.0	00.0	00.0	0.0	0.0
0	Ö,	1.24	0.0	0 0	2 .	0.0	0 0	0.0	8 2 4 2	0 0	0.0	00:	13.9	00.0	00.0	0.0	00.0	0 0	0.0	0.0	1.6	1.0
м	O %	42 C% 12.0	12. 13.	11.4	10.0	11 4 4	15.7	27.9	12.1	10 21.1	6. 4.4. 1.	10.8	10.7	10.0	13.9	20.0	18.6	00.	12.2	00.0	12.1	26 11.9
ひ	8	108	31.8	19 42.9 D	38 25.7	12	31.3	20.9	15	13	23	15 43.5	24.1	12 27.3	30.2	1 40.0	5 40.4	5 44.2	29.5	17.2	47	61 28.4
5 - Excellent	% O	183 53.0	14 53.0	19	83	22 55.7	46	51.2	34	24	32	33.8	7	27	55.9	1 40.0	5 41.0	55.8	17	82.8	61	122
Don't know	%	2.48	1.5	1.4	4.8	2 .9	0.0	0.0	4.3	00.	2.0	11.9	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	.5 3
	MEAN: 4.39 4.37 4.28	4.39	4.37	4.28	4.43	4.46	4.34	4.23	4.39	4.31 S	4.48	4.26 S	3.99	4.47	4.42	4.20	4.22 s	4.56	4.46	4.83 IKLP	4.32	4.43

C4E. How would you rate: clarity of the information provided?

			Ü	CENTER NAME	NAME				Basic			High perf/			i	Pool	!	Ref-	15 		TYPE	[T]
	0 I	 Total AgTAC AB	Total AgTAC SDGE CTA ABCD	SDGE	CTAC	ETC -	ERC ERC F -	Au- dits G	/Gen EE H	Food	HVAC J	Green build I	Fumps . Wells .	Light F -ing t M	Mo- tors i	pump- F ing c	Cess I PI I	riger ation 2	T24 v	waste water S	END USER T	UMA U
Total	C%10	346 0.0 10	346 26 43 146 C%100.0 100.0 100.0	43		39	91	9	61	47	60	35	15	44	15	3	11 100.0	100.00 1	29	100.0	131	215
1 - Poor	C% 0.2		0.0	1.4	0.0	00.	0.0	00.	00.	00.	0.0	00.0	00.	1.4	0.0	0.0	00.	0.0	0.0	0.0	00.	0.3
0	C% 1.0		0.0	1.4	0.0	4.3	1.4	0.0	2.1	00.	2 6.	0.0	0 0	0 0	0.0	0.0	00.	0.0	1.0	0.0	1.4	0.8
м	36 C% 10.3	36	6.1	5.7	10.0	7.1	14	7.0	11.2	10 22.2	5.23	4	5.3	. 8 3	0.0	120.0	18.6	0.0	3 3	27.5	9.4	23
4	127 C% 36.6		933. 9	18 41.4	38.6	16 41.4	30.0	48.8	25 40.9	20.02	23 38.6	19	43.3	15 34.8	30.2	00:	22.2	51.9	1136.5	17.2	55 41.6	72 33.5
5 - Excellent	177 C% 51.2		16	22 50.0	73	18	48	44.3	28	27	32 53.3	10	8 51.3	26 58.0	10 69.8	80.0	7 59.2	48.1	15 51.3	55.3	60	117
Don't know	C% 0.6	0.6	00.	00.	1.4	00.	0.0	0.0	00.	00.	00.0	5.9	00.	00.	0.0	0.0	00.	0.0	00.	00.	1.6	0.0
	MEAN: 4	98.	4.39 4.55 4.37 4.41	4.37	4.41	4.31	4.34	4.37	4.30	4.36	4.42 N	4.19 N	4.46	4.48	4.70 HJKR	4.60	4.41	4.48	4.37 N	4.28	4.34	4.41

C4F. How would you rate: technical knowledge of the instructor?

		Water	Waste	water	S	
				T24	R	
SEMINAR CATEGORY		Ref-	riger	ation	ABCDEFGHIJKIMNOPQRS	
			Pro-	cess	B	
		Pool	I -dwnd	ing	0	
TEGORY			Mo-	tors	N	
SEMINAK CATEGORY			Light Mo-	-ing	M	
SEMI		Irr/	Green Pumps	build Wells	T	
	High	perf/ Irr/	Green		K	
				HVAC	D	
				Food	I	
		Basic	/Gen	日日	H	
			Au-	dits	B	
				ERC	E-	
				EIC	- 一王	
		ENTER NAME		CTAC	D	
		CENTE		SDGE	C	
				AGTAC	B	
				Total	A	

				CENTER NAME	NAME				Basic		ы; Од	High perf/ I						Ref-	W		TYPE	
		Total A	AgTAC	SDGE	CTAC	H H H	ERC	Au- / dits G	/Gen EE F H	Food H	G HVAC b J		Pumps L Wells - L	Light M -ing t M	Mo- tors i N	pump- P ing c 0	Pro- cess a	riger ation Q	T24 W.	Waste E water U S	END USER T	UMA -U
Total	ΰ	346%100.0	26	346 26 43 1 C%100.0 100.0 100.0 100	146	39	91	9 100.001	61	47	60	35	15 100.0 1	44	15 100.0	3 100.0 1	11 100.0 1	100.0 1	29	8	131	215
1 - Poor	Ü	C% 0.2	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1. 4.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3 1
2	O	C% 1.5	0 0	00.	1.4	1.4	2.03	00.	4°.3	00.	0.0	0.0	0.0	00.	0.0	1 20.0	2 18.6	0 0	00.	0.0	3.6 U	0. H & H
m	Ű	C% 2.5	4.	1.4	1. 2	5.7	2.0	0.0	0 O Z	2 .8	3.6	0.0	5.3	3 7.7 H	00.0	0.0	0.0	0.0	⊗	0.0	3.4	2.0
4	Ü	98 C% 28.4	24.2	12 28.6	40	18.6 F	33 35.7 E	34.8	19	18 38.3	12 19.6	10	24.1	10	2	0.0	28.3	48.1	11 36.5	17.2	47 35.8 U	51 23.8
5 - Excellent	Ü	230 C% 66.4	19	30	100	29 74.3	52 57.1	65.2	39	26 56.1	46 76.8	23	1170.6	30	13	80.0	53.1	51.9	17	82.8	73 55.6 U	157 73.0 T
Don't know	U	C% 1.0	0.0	0.0	1.4	0.0	1. 4.	00.	0.0	2 . 8	0.0	5.9	00.	00.	00.0	0.0	0.0	00.0	00.0	0.0	1.6	0.0
	MEAN:	4.61	4.61 4.67 4.63	4.63	4.65	4.66	4.49	4.65	4.55 N	4.55 N	4.73	4.70	4.65	4.56	4.83 HIPR	4.40	4.16 N	4.52	4.56 N	4.83	4.46 U	4.70 T

C4G. How would you rate: teaching skill of the instructor?

	E UMA U	215	0.3	1.2	10 4.9	35.7	120	1.94	4.49
	TYPEEND USER U	131 100.0 1	0.0	1. 2	18 14.0 U	48	61 46.3	1.6	4.30 U
	Water - Waste E Water L	8	0.0	0.0	0.0	22.5	77.5	0.0	4.78 KL
	T24 L	29	0.0	1.9	12.2	32.1	16 53.8	00.	4.38
	Ref- riger ation	100.0	0.0	0.0	3.0	5 44.2	51.9	0.0	4.48
	C P C C C C C C C C C C C C C C C C C C	1100.0	0.0	0.0	5.5	41.3	53.1	0.0	4.48
	Pool pump- ing	3	0.0	0.0	20.0	20.0	60.0	0.0	4.40
CATEGORY	Mor tors	100.001	0.0	0.0	0.0	38.7	9	00.	4.61 KL
	Light I -ing	44	1.4	0.0	10.0	10	29	0.0	4.51 K
SEMINAR	Irr/ Pumps: Wells	150.001	0.0	2.7	13.4	51.9	32.1	00.	4.13 IJNS
	High perf/ Green build V	35	0.0	5.0	10.8	17	24.2	11.9	4.02 IJMNS
	HVAC B	0.001	0.0	00.	7.2	20 32.9	35	1.0	4.52 KL
	1 0 H	47 60 100.0 100.0	0.0	00.0	5.6	38 18	25	2.8	4.49 KL
	Basic /Gen EE	61	0.0	2.1	0.0	23	31	00.	4.38
	Au- dits	9	0.0	0.0	13.9	41.8	44.3	0.0	4.30
	ERC -	91	0.0	1.4	8 9.	36	44	1.1	4.38
	H H H H H H H H H H H H H H H H H H H	39	0.0	1.4	8.03	12 30.0	23	0.0	4.49
	NAME	146	0.0	1.4	107.1	38.6	73	2.9	4.41
		43	1.4	0.0	8.6	14 31.4	25 57.1	1.4	4.45
	CENTER 	346 26 43 146 C%100.0 100.0 100.0	0.0	1.5	13.6	7 25.8	16 59.1	00.	4.42
	Total	346 100.0	0.2	1.4	29	125	181 C% 52.3	1.8	4.42
		ర	Ö	Ö	Ö	%	Ŋ %	Ω %	MEAN:
		Total	1 - Poor	7	m	4	5 - Excellent	Don't know	

C4I. How would you rate: usefulness of demonstrations?

CATEGORY	
SEMINAR	

			CE	CENTER NAME	NAME		1 6		Basic			High perf/			1		1	Ref-	M 2		TYPE	
	Tot A	Total Agl	AGTAC S	SDGE C	CTAC	ETC ETC E	ERC	Au- dits G	EE I	Food I-I	HVAC P	build V	Fumps r Wells -	Ling t	MOT tors i	ing c	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	riger ation Q	T24 w	waster U	END USER T	UMA -U
	3	346 26 43 146 C%100.0 100.0 100.0	26 0.0 10	43		39	91	9 100 1	61	47	60	35	15 100.0 1	44	15 100.0 1	3	11 100.0 1	100.001	29 100.01	8	131	215
	0 %	2 0.6 (0.0	1.4	0.0	0.0	1.4	0.0	0.0	2.8	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°	1.7	3.0	0.0	1. 4. 2	4.3	1. 4.	00.0	5.6	0.0	10.0	0.0	5.3	0 0 0	00.	0.0	0.0	0.0	e . ⊗ ⊢	0.0	3.7 U	0. 14. H
	C% 12	44	7.6 2 C 2	10 22.9 J BF	12.9	14.3	ω ω υ	27.9	15.0	0.0 HM	9.2	17.1	24.6	15.1 I	3 22.2	20.0	3 3 29.7	0 0	7.7	17.2	21	23
	1 C% 34	121 34.9 27	7 27.3 3 D	15 34.3 4	65 44.3 BEF	11 27.1 D	23 25.7 D	27.9	20	16 34.4	2034.3	13 38.3	6 40.6	13	33.1	120.0	322.7	7	10	3 44.7	46 35.1	75
	146 C% 42.3		14 54.5 3 C	16 35.7	56 38.6	18 47.1	42	37.3	23	23	29	24.2	26.7	22 49.5	6 42.0	2 60.0	5 47.6	3 27.9	15 52.6	38.1	47 35.6 U	99 46.3
	C% 57	20 5.7 1	1.50 F. 51	4 F B B	1. 2.4. F	2. FJ 9. TJ	14 15.7 BCDE	7.0	6.4	13.9 R	6.1	10.8	0.0	3.0	0.0	00.0	0.0	0 0	0 O H	0.0	7.2	10 4.8
	C% 2	2.1	6.1	1.4	1.4	4.3	1.4	0.0	2 8 2	0.0	1.0	9.7	2.7	0.0	2.7	0.0	0.0	3.0	0.0	0.0	3.6	1.8
ME AN:		4.27 4.	4.44 4 C	4.09 4	4.24	4.26	4.36	4.10	4.12	4.47 L	4.40	4.09	3.91 IJR	4.31	4.20	4.40	4.18	4.29	4.37 L	4.21	4.14 U	4.34

APPENDIX E

C5A. How would you rate the usefulness of the information for you when making energy-using equipment purchase decisions at your facility? BASE: End-Users

SEMINAR CATEGORY

	END USER UMA TU	0 215 0.0 100.0	0.0 3.0	0.0 9	0 28 0.0 13.0	0 65	0 69	0 37
Water	waster S	8	0.0	0.0	0.0	32.8	32.8	8 4 . 8 4 .
	T24 R	13	4.	0.0	28.2	19.7	3	3 3 3 23.9 34.4
Ref-	ation 0	100.0	0.0	0.0	0.0	3 2 3 43.7 43.1 19.7	3 56.9	0.0
!	0 6 8 8 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	100.0	5.5	0.0	17.1	343.7	288.2	5.5
	ing ing	2	0.0	00.	0.0	33.3	166.7	00.
1	tors N	14	0.0	0 0	13.0	7	3 22.6	17.3
	ingn- -ing	26	2.4 0.0	0.0	4.9	11 44.6	31.8	1 4 9.4 16.3
	Wells .	8	0 4.7	0.0	14.1	18 2	52.8	0. 1.
High perf/	ouild V	13 66 8 31 38 38 17 8 26 14 2 7 6 13 8 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0	0.0	5 0 27.1 0.0	4.1	0.0	36.9	12.0
	HVAC 1	38		8.7	10.7	13 35.0	13	6.4
	Food	38	3.5 3.3	0.0	13.9	13	12 31.2	11 6 2 36.8 16.0 6.4
Basic	EE]	31	4.2	1. 8 H	6.8	21.5	28.9	36.8
	Au- dits G	8	0.0	0.0	340.5	16.2	16.2	27.2
	ERC	66	დ	т о "	13.7	17	33.3	19.6 C
	 	13	8.7	8.7	18.7	30.4	3 26.1	17.4
NAME	CTAC	85	0.0	4.9	88.	27	31.7	19 22.0
CENTER NAME	SDGE	32	5.82	1.0	8 25.0 B	12 36.5	8 25.0 B	2 5.8 DF
	AgTAC	18 100.0	4.5	00.	6.8 L	31.8	8 47.7 C	9.1
	Total AgTAC AB	215 18 32 C%100.0 100.0 100.0 100	3.0	0.4	28 C% 13.0	65 C% 30.4	69 C% 32.2	37 C% 17.5
		Ö %	°°°	0%	°°	O %		O %
		Total	1 - Not at all useful	2	м	4	5 - Extremely useful	Don't know

4.03

4.50

4.27 4.23 4.12 4.67 3.94 4.57 3.56 GKR Q

MEAN: 4.03 4.30 3.78 4.16 3.68 4.00 3.67 4.09 4.08 3.98 3.53 C B

E - 50

APPENDIX E

C5B. How would you rate the usefulness of the information in helping you explain to others in your company the rationale behind certain choices? BASE: End-Users

SEMINAR CATEGORY

			ij	CENTER NAME	NAME		,		Basic			High perf/I	Irr/		į		1	Ref-	M		TYPE	
	E I	Total AgTAC	! '	SDGE	CTAC	ETC	ERC C	Au- , dits G	/Gen EE H H	Food	HVAC b	Green F build W K	Pumps L Wells - L	Light M -ing t M	Mo-Pu tors il N	pump- Pı ing ce 0	Pro- ri cess at P	riger ation 7 2	T24 w R	Waste El water US S	END USER T	UMA U
Total	C%10	215 0.0 1	18 00.0 1	215 18 32 8 C%100.0 100.0 100.0 100.	0 2	13	66	8	31	38	38	17	8	26 100.0 1	14	2	7	6 100.0 10	13 100.0 1	8	0.0	215 100.0
1 - Not at all useful	%	80.	4.5	. 8 2	2.4	8.7	ю .	0.0	6.1	3.5	3.3	12.0	0 4.7	2.4	0.0	0.0	5.5	0.0	4.2	0.0	0.0	80 °.
N	%	3.3	0.0	1.0	2.4	4.3	5.9	0.0	0.0	3.5	7.0	3	0.0	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3
м	26 C% 12.0		11.4	7	7.3	3	11.8	5 67.6	6.1	3.5	11.0	3.5	1.6	1.9	2.8 1	2 000.00	32.0	0.0	₽ 6	27.5	00.0	26 12.0
4	73		36.4	1134.6	35	30.4	16 23.5	24.3	12 39.3	12 31.9	16	24.1	28.3	11	4 27.2	0.0	31.2	3 20.03	28.2	5.3	00.	73
5 - Extremely useful	74 C% 34.4		8 45.5	10	29	3 26.1	23	88	29.6	14	12	5 29.4	57.6	31.8	8	0.0	25.7	3 50.0	38.0	32.8	00.0	74
Don't know	25 C% 11.5	25.1.5	2°.	5.87	88.	8.7	13 19.6 BC	0.0	18.9	7	5.0	0.0	0.0	2 2	14.5	0.0	5.5	00.	3	34.4	00.0	25 11.5
Refused	Ω 0	1.0	00.0	00.	2.4.	0.0	0.0	0.0	0.0	00.	0.0	0.0	0.0	8 7 7	00.0	0.0	0.0	0.0	00.	00.0	0.0	1.0
MEAN	.: 4	MEAN: 4.05 4.21	4.21	3.88	4.17	3.67	4.00	3.40 ILMNQ	4.07	4.22 GO	3.96 NO	3.44 NQ	4.34 GO	4.18 GO G	4.62 GJKOP H	3.00 3 HIJLM	3.76 4	4.50 , GKO	4.19	4.08	*	1.05

C6. Overall, how satisfied would you say you were with the center's course you took?

			CEJ	CENTER NAME	AME				Basic			High perf/	/				!	Ref-	<u> </u>		TYPE	
	Tot 	Total Agrac AB	i '	SDGE C	CTAC E	西田 日田 日田 日田 日田 日田 日田 日田 日田 日田 日田 日田 日田 日田	ERC O	Au-/ dits G	/Gen EE I	Food 1	HVAC K	Green B build V K	Fumps Wells	Light -ing M	MO- tors i	pump- P ing c 0	Pro- cess P	riger ation 2	T24 w	Waste E water U S	END USER T	UMA U
Total	C%100	346 26 43 146 C%100.0 100.0 100.0 100.0	26	43	10.0	39	91 100.0 1	9 100.001	61	47	60	35	15 100.0	44	15 100.0 1	3	1100.01	100.00	29	100.01	131	215
1 - Not at all satisfied	٥ %	2 0.7 1	1.50	1.4	0.0	0.0	1.4	0.0	0.0	2 . 8	00.	0.0	2.7	1.4	00.	0.0	0.0	0.0	0.0	0.0	0.0	1.1
7	C%	1.2	1.5	1.4	0.0	1.4	2.03	0.0	2.1	0.0	1.0	3.7	2.7	0.0	0.0	0.0	0.0	0.0	1.00	0.0	1.8	0.0
б	∞ ∪ ∪	29 8.3 6	6.1 C	7 17.1 BD	5.7 C	e 9.	œ œ	27.9	6.5	5.6	9.3	10.8	8 0 1	9.1	∞ ∴ ∞	0.0	18.6	0.0	. 8 2	0.0	n o	7.3
4	122 C% 35.2		28.8	14 31.4	38.6 4	17 42.9	27	34.8	22 37.0 M	15	22 36.8	20	43.3	6 14.5 HJR	16.6	2 60.0	33.8	48.1	12 39.7 M	17.2	63 47.8 U	59 27.4
5 - Extremely satisfied	9/0	9	16 62.1 4	21 47.1 5	79 54.3 4	18	49	337.3	33	26 56.1	31 51.9 M	10	43.3	33 75.0	9	140.0	5 47.6	51.9	15 52.6	5	53 40.6 U	131 60.9
Don't know	%	1.5	00.	1.4	1.4	0.0	2.03	0.0	0.0	2.8	1.0	0.0	0.0	0.0	13.9	0.0	0.0	0.0	0.0	17.2	0.0	2.5
MEAN	MEAN: 4.	4.41 4.	4.48 4.23 D		4.49 4	4.36	4.37	4.09 S	4.44	4.43	4.41	4.10 MNS	4.22	4.62 K	4.62 K	4.40	4.29	4.52	4.43	4.79 GK	4.27 U	4.50 T

APPENDIX E

C8A. How much do you agree or disagree that as a result of taking the center's course(s) . . . I am more aware of new technologies or practices? BASE: End-Users

SEMINAR CATEGORY

			CENTER NAME	NAME			1	Basic		і ;;; (Д.) 				į		1	Ref-			TYPE	
	Total A	Total AgTAC AB	SDGE	CTAC	ETC -	ERC	Au- dits G	/Gen EE E H	Food F	HVAC b	Green F build W K	Pumps L Wells - L	Light M -ing t M	MO- Tors IN-I	pump- Fi ing ce	Pro- ri cess at P	riger ation 2	T24 w	waste E water U S	END USER T	UMA -U
Total	215	215 18 32 85 C%100.0 100.0 100.0 100.0	32	10.0	13 66 100.0 100.0		8 100.00 1	31	38	38	17	8	26 100.0 1	14 100.0 1	2 7 6 13 100.0 100.0 100.0 100.0	7	6 00.00 1		8	0.0	215 100.0
1 - Strongly disagree	C% 1.8	0.0		0.0	0.0		0.0	4.2	3.5	1.7	0.0	0.0	2.4	0.0	0.0	0.0	0.0	00.	0.0	0.0	1.8
2	C% 3.5	4.5	1.0.	2.4	0.0	5.0	8 1 1	0.0	3.5	3.5	19.5	0 4.7	0.0	0.0	0.0	5.5	0.0	00.	0.0	0.0	3.5
m	39 C% 18.0	2 2 11.4	7	17	30.4	13.7	16.2	10	10	16.8	0.0	43.4	7.3	7.1	33.3	0.0	0.0	14.1	27.5	0.0	39
ਹਾ	81 C% 37.6	31.8	14 44.2	33	3 21.7	25	51.4	10	8 50.8	19 49.9	29.4	23.6	13	8 6 .	33.3	4 60.8 1	13.9	38.0	17.2	0.0	81 37.6
5 - Strongly agree	81 C% 37.9	50.0	28.8 B	33	39.1	25	24.3	28.9	17	10	51.1	23.6	10	34.0	33.3	33.7 8	86.1	6.77	38.1	0.0	81 37.9
Don't know	C% 1.33	2.3	0.0	0.0	8.7	2.0	0.0		0.0	1.5	0.0	0 4.7	0.0	0.0	0.0	0.0	0.0	0 0	17.2	0.0	ლ ო
MEAN	MEAN: 4.08 4.30 3.92 4.15	4.30 C	3.92 B	4.15	4.10	4.00	3.92	8. 83	4.02	3.98 O	4.12	3.69 NQR	4.26 Q	4.27 LQ	4.00	4.23 4 Q GF	4.86 GHIJL	4.34 L	4.13	*	4.08

C8B. How much do you agree or disagree that as a result of taking the center's course(s) . . .I am more aware of energy efficient solutions? BASE: End-Users

			CENTER	CENTER NAME				3asic		μ Ω		 Irr/			Pool	Ä	Ref	M	Water	TYPE	
	Total A		Agrac sdge cra	CIAC	ETC	ERC C	Au- / dits G	/Gen EE F	Food E	G HVAC b	Green P Build W	0 0 1	Light M -ing t M	Mo- pr tors in	1 1	Pro- r: cess al	ו	W T24 w R		END USER T	UMA U
Total	215 C%100.0	215 18 32 8 C%100.0 100.0 100.0 100.	32	85	13	100.0	100.00	31	38	38	17	8	26 100.0 1	14 00.0 1	2	7	100.01	13 100.0 1	8	0.0	215
1 - Strongly disagree	C% 0.0	0.0	ц.	0.0	0.0	2.0	0.0	4.2	0.0	0.0	00.	00.0	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0	C% 3.3	3 0.0	5.8	2 . 4	4.3	e 9.	8 .	0.0	3.5	1.7	19.5	0.0	2.4	0.0	0.0	0.0	0.0	1.2	0.0	0.0	3.3
т	32 C% 14.8	2 2 8 11.4	6	10	3 26.1	10	16.2	7 24.0	e . 9	8 20.2	3	1.6	2.4	14.2	1 66.7	18.0	0.0	18.3	2 27.5	0.0	32
Q.	76 C% 35.6	6 22.7 C	14 44.2 B	36.6	3 26.1	23	43.3	10	13 33.3	15 39.5	12.0	52.8	11 41.5	7	33.3	42.8	13. 0. H	6	17.2	0.0	76
5 - Strongly agree	93 C% 43.1	3 11 1 63.6 CF	10 30.8 B	42	39.1	25 37.3 B	32.4	11 36.2	18 49.3	15	9	33.0	13	39.5	00.0	39.2	86.1	33.8	38.1	0.0	93 43.1
Don't know	C% 2.3	3 2.3	0.0	0.0	4.3	5.9	0.0		e o .	0.0	00.	0 4.7	0.0	0.0	0.0	0.0	0.0	0.0	17.2	0.0	2.3
MEAN:	1: 4.19	9 4.53 CEF	3.96 BD	4.32 C	4.05 B	4.08 B	4.00	3.99	4.38 Q	4.15 Q	3.99	4.25 Q	4.37	4.25	3.33	4.21 , Q GI	4.86 GHIJL	4.07 Q	4.13	*	4.19

C8C. How much do you agree or disagree that as a result of taking the center's course(s) . . .I better understand how to improve the energy efficiency at my facility?

BASE: End-Users

													7	1							
			CENTE	CENTER NAME				Basic		. 五 以 ! !	High perf/I	 Irr/		į		1	Ref-	_ M		TYPE	
	Tota: A	Total AgTAC SDGE CTA	SDGE	CTAC	ETC	ERC C	Au-/ dits G	/Gen EE F H	Food H	HVAC b	Green P build W	Pumps L Wells	Light M -ing t M	Mo- pu tors ir N	pump- Pi ing ce 0	Pro- ri cess at P	riger ation 2	T24 w	Waste El water U: S	END USER T	UMA U
Total	215 18 32 8 C%100.0 100.0 100.	18 100.0	32 100.0	85	13	66 8 100.0 100.0	8	31	38	38	17	8	26 14 100.0 100.0	14	2	7	100.01	13	8	0.0	215
1 - Strongly disagree	C% 2.5	0.0	1.0	2.4	00.0	m on m	0.0	1.2	3.5	0.0	2 12.0	0.0	2.4	0.0	00.0	00.0	0.0	0.0	00.0	0.0	2.5
7	10 C% 4.8	2.3	1.0.1	4.9	0.0	7.8	0.0	0.0	6.9	3.5	19.5	0 4.7	0.0	4.3	0.0	0.0	0.0	0.0	2 27.5	0.0	10
м	27 C% 12.8	7 8 6.8 C	8 25.0 BD	7.3	3	13.7	24.3	17.2	10.4	14.3	19.5	4.7	7.3	7.1	33.3	2 2 2 2 5 5 5	0 0	14.1	0.0	0.0	27
5 '	77 C% 35.7	7 31.8	3 42.3	35 41.5	39.1	17	51.4	11 36.3	10 26.4	18	21.8	52.8	11 41.5	7 47.5	1 66.7 4	3 42.8 1	13.9	14.1	17.2	0.0	35.7
5 - Strongly agree	79 C% 36.8	9 10 8 56.8 CF	28.8 B	38	30.4	18 27.5 B	24.3	10	13	13	5 27.1	33.0	12	641.1	00.	30.6	86.1	38.0	38.13	0.0	79
Don't know	16 C% 7.4	2. 0.EH	0.0 F	0.0 F	18.7	14 21.6 BCD	0.0	10.3	7	00.0	0.0	0 4.7	0.0	0 0.	0 0	0.0	00.0	33.8	17.2	0.0	167.4
MEAN	MEAN: 4.07	4.07 4.47 3.94 4.2 CF B	3.94 B	4.20	4.10	в я	4.00	4.02	4.01	4.14 Q	3.32 MQ	4.20 Q	4.34 A.03	4.25	3.67	4.04 4	4.86 GHIJK	4.36	3.80	*	4.07

APPENDIX E

C8D. How much do you agree or disagree that as a result of taking the center's course(s) . . .I have more confidence in the performance of energy efficient equipment?
BASE: End-Users

															1							
			O	CENTER NAME	NAME				Basic			High perf/I			İ		1	Ref-	M.	Water	TYPE	
	ÐΪ	Total A A	Total AgTAC SDGE CTAC	SDGE	CTAC	E E E	ERC	Au- dits G	EE B	Food F	HVAC b	build F	Fumps L Wells - L	Ling t -ing t M	fors ir	ing ce	Cess at	ation 7	T24 wa		USER	UMA U
Total	C 12 12	215	215 18 32 8 C%100.0 100.0 100.0 100.	32	0 0	13	66	8	31	38	38	17	8	26 100.0 1	14 100.0 10	2	7	6	13 100.0 10	8	0.0	215 100.0
1 - Strongly disagree	%	1.5	0.0	1.0	0.0	0.0	e 0.	0.0	4.2	3.5	0.0	0.0	0.0	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5
7	0%	1.0	0.0	1.0.	2.4	0.0	2.0	0.0	0.0	0.0	0.0	19.5	00.0	2.4	00.0	0.0	0.0	0 0	0.0	0 0	0.0	1.9
м	%	31 C% 14.2	11.4	13.5	13 14.6	30.4	11.8	16.2	3.6	6.9	22.1	2 12.0	14.1	16.3	25.9	33.3 1	18.0	00:	32.4	0.0	0.0	31
4	%	82 C% 38.0	4 20.5 D	12 38.5	38 43.9 B	26.1	25	51.4	16 52.8	16	13 35.6	3	48.1	33.3	28.7	33.3 4	3 42.8 7	79.2	□ 0.	3	0.0	82 38.0
5 - Strongly agree	%	80 C% 37.2	12 65.9 CDF	13 40.4 B	31 36.6 B	34.8	20 29.4 B	16.2	7 22.2	33.3	16 42.4	53.4	33.0	12	7 45.4	. s . s . s	39.2	20.8	43.7	38.1	0.0	80
Don't know	O %	157.1	2 F		2 4.4 F	1 8.7	10 15.7 BCD	16.2	17.1	13.9	0.0	0.0	0 4.7	0.0	0 0	0.0	0.0	00.	14.1	17.2	0.0	15
MEA	MEAN:	4.16	4.56 CDEF	4.18 B	4.17 B	4.05 B	4.02 B	4.00	4.07	4.19	4.20	4.02	4.20	4.17	4.19	4.00 4	4.21 4	4.21	4.13	4.46	*	4.16

C8E. How much do you agree or disagree that as a result of taking the center's course(s) . . . I can promote energy efficiency to my own management better?

BASE: End-Users

SEMINAR CATEGORY

			CENTER NAME	NAME		,		Basic		, Ξ, Ω, 1	1				!	!	 Ref-	M		TYPE	
	Total A	AgTAC	SDGE CTA	CTAC	ETC	ERC C	Au- / dits G	/Gen EE F	Food E	G HVAC b J	Green P build W K	Pumps L Wells - L	Light M -ing t M	Mo- tors i: N	pump- P ing c	Pro- cess P	riger ation 2	T24 w	Waste El water US S	END USER	UMA U
Total	215 18 32 8 C%100.0 100.0 100.0 100.	18	32	0 2	13	66	8 100.001	31	38	38	17	8 100.01	26 100.0	14 100.0 1	100.01	7	6 100.0 1	13 100.0	8	0.0	215
1 - Strongly disagree	0.0 0.0	00.	H 0.	0.0	0.0	2.0	0.0	4.2	00.	0.0	00.	0.0	2.4	0.0	00.0	0.0	00.	00.	00.0	0.0	0.0
7	10 C% 4.5	2.30	5.8	4.9	1 °.	e 0.	. ⊔	. 8 2	.5 ±	1.7	3.5	4.7	0.0	4 °.	0.0	0.0	0.0	1.2	0.0	0.0	10
m	26 C% 12.0	6.8 1	17.3	7.3	2 17.4	10	8	8.03	13.9	10.1	3.5	1 4.	9.7	7.1	33 . 3 ⊢	17.1	00.	14.1	27.5	0.0	26 12.0
4	78	5 27.3	12 38.5	38	39.1	18 27.5	59.5	8 25.0	7	19	8 43.6	57.6	10	4 28.7	1 66.7	4 57.7	43.1	33.8	17.2	0.0	78 36.3
5 - Strongly agree	79 C% 36.7	11 61.4 CDF	11 34.6 B	33 39.0 B	30.4	20 29.4 B	16.2	38.2	17	1436.8	0 8 8	23.6	1142.2	0.00	00.0	25.1	26.93	28.2	38.13	0.0	36.7
Don't know	20 C% 9.4	2°.	1. 9.	4. 9.4	1.8	14 21.6 BCD	8.	15.3	17.4	1.5	7.5	0 4.7	8 2 2	0.0	0.0	0.0	00.0	3	17.2	0.0	20
Refused	C% 0.3	0.0	0.0	0.0	4.3	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
MEAN	MEAN: 4.14	4.51 CEF	4.00 B	4.23	4.05 B	4.00 B	3.91	4.04	4.30 K	4.24 K I	3.47 IJMNQ	4.05	4.27 K	4.44 K	3.67	4.08	4.57 K	4.07	4.13	*	4.14

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C8F. How much do you agree or disagree that as a result of taking the center's course(s) . . . I am more likely to specify "energy efficient" equipment when I have a choice?

BASE: End-Users

			CE	CENTER NAME	AME		1		Basic		 - - - -	High perf/I	1				!	Ref-	_ M		TYPE	
	Tot Z	 Total AgT AB	AgTAC SI	SDGE	CTAC E	ETC	ERC d	Au- / dits G	/Gen EE F H	Food E	HVAC b		Pumps I Wells -	Light N -ing t M	Mo- p tors i N	pump- P ing c 0	Pro- r cess a	riger ation ' 2	T24 w	Waste El water U: S	END USER T	UMA U
Total	, C%100	215 18 32 8: C%100.0 100.0 100.0 100.	18	32	50	13 100.0 10	66	8	31	38	38 17 100.0 100.0		8 100.01	26	14	2 100.0 1	100.01	100.00 1	13	8	0.0	215
1 - Strongly disagree	0%	3 3 7 7 7 7	3.0	3. 8 ⊓	0.0	0.0	2.0	88	4.2	0.0	1.7	0.0	0 4.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4
0	Q %	1.1	2.30	1.0	0.0	0.0	2.0	0.0	0.0	3.5	0.0	0.0	0 4.7	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1
т	% %	10	2.30	3.8 □	4.9	1.	5.9	0.0	e 9	0.0	6.2	15.0	0.0	8 2 2	0.0	0.0	8.6	0.0	0.0	0.0	0.0	10 4.8
ਹਾਂ	64 C% 29.9		4 22.7 2	9 3	27	6 47.8	18 27.5	24.3	7	7	13 33.9	31.6	23.6	33.3	4 25.9 1	2	39.8	43.1	6.77.9	3 44.7	0.0	64 29.9
5 - Strongly agree	C% 22	120 55.9 68	12 68.2 6	20 61.5 5	50 58.5 4	43.5	33	5 67.6	16 52.8	24 65.3	22 58.3	53.4	5 62.3	12 45.5	11 74.1	0.0	51.6	36.9	42.2	38.1	0.0	120 55.9
Don't know	%	14	73.0	1. 1.0 H	4.9	00.	9 13.7 BC	0.0	11.0	13.9	0.0	0.0	0 4.7	10.6	0.0	0.0	0.0	0.0	o. □ o.	17.2	0 0 0	14
Refused	%	0.3 0	0.0	0 0	0.0	4. H &	0.0	0.0	. 8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	00.0	0.0	0.3
MEAN:		4.48 4.	4.56 4	4.43 4	4.56 4	4.41	4.39	4.43	4.36	4.68	4.47	4.38	4.41	4.36	4.74	4.00 IJNR	4.43	4.57	4.47	4.46	*	4.48

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C8G. How much do you agree or disagree that as a result of taking the center's course(s) . . . I can more confidently evaluate the energy efficiency performance claims made by salespeople?

BASE: End-Users

			CEN	CENTER NAME	ME				Basic Gen		, 14, 14, C	High perf/ I	Irr/	T.i.ah	I I	Pool F	і Ф 1 С 1 П	Ref- riger		Mater - Water - Waste -	TYPE F	[1]
	Total A	al AgT? B-	AC SD	Total AgTAC SDGE CTAC ABCD	AC ETC E		1	ro	EE F.	Food H	HVAC b				ω I			ation 2	T24 v		~ !	UMA U
	2 C%100	.0 100.	18	215 18 32 85 C%100.0 100.0 100.0		13	66 8 100.0 100.0		31	38	38	170.001	8	26	14	2 100.0 1	7 6	6.00.00	13	8	00.	215
- Strongly disagree	°°°	1.2	4.5.1	1.0 0.0	0.0	8.7	00.0	0.0	0 %	00.	1.5	0.0	0 4.7	2.4	00.	00.0	00.	00.	1.2	00.0	0.0	1.23
	G %	1.2 0.	0.0	7.7 0.0	0.0	0 0.0	000	8.1.1	0.0	0.0	1.7	0.0	0.0	2.4	4.3	0.0	0.0	0.0	0.0	0.0	0.0	1.2
	28 C% 13.1		0 5 2.3 15.4 C B	\vdash		34.8 11	11.88	16.2 1	14.7	12.5	15.5	5 27.1	0.4.7	10.6	4. H W	100.0	8 .6 H	0.0	8 4.	0.0	0.0	28 13.1
	86 C% 39.9	86 8	8 9 .2 26.9 D	2		3 26.1 33	22 33.3 33	35.2 3	10	11 29.9	18 46.8	8 43.6	337.7	34.9	7	0.0	. 8 5	86.1	33.8	3 44.7	0.0	86 39.9
Strongly agree	72 C% 33.5	72 8 .5 47.7	4	т		3 26.1 27	18 27.5 4	3 40.5 3	36.9	1436.8	13	21.8	48.1	30.8	7	0.0	22.7	13.9	23.9	38.1	0.0	72 33.5
Don't know	24 C% 11.2		2.3	1.9	4	1 4.3 27	18 27.5 BCD	0.0	14.6	8 20.8	0.0	7.5	0 4.7	18.7	0 0	0.0	0.0	0.0	29.6	17.2	0.0	24 11.2
MEAN:		4.16 4.33		4.10 4.21	m	3.64 4. BDF	4.22 4 E	4.08 4	4.21	4.31	4.11	3.94	4.31	4.10	4.32	3.00 GHIJK	4.14	4.14	4.04	4.46	*	4.16

C8H. How much do you agree or disagree that as a result of taking the center's course(s) . . . My company/business has or will change some of its policies related to specifying or selecting energy efficient equipment?

BASE: End-Users

SEMINAR CATEGORY

			Ü	CENTER NAME	NAME		'		Basic		, д. Д. - -	1					1	Ref-	M		TYPE	
	E I	Total AgTAC SDGE CTAC	 gTAC 8 -B		CTAC	ETC -	ERC O	Au- / dits G	/Gen EE H H	Food F	HVAC b	Green F build W	Pumps I Wells - L	Light M -ing t M	Mo- tors in N	pump- Pr ing ce 0	Pro- ri cess at P	riger ation '	T24 w	Waste El water US S	END USER T	UMA U
Total	C%10	215 18 32 85 C%100.0 100.0 100.0	18	32		13	13 66 8 100.0 100.0 100.0		31	38	38	170.001	8 100.001	26 100.01	14 100.0 10	2 7 6 13 100.0 100.0 100.0 100.0	7	6 0.00	13	8	0.0 1	215
1 - Strongly disagree	O %	1.0	2.30	ω	00.	4. T. &	0.0	89 . H	0.0	0.0	00.0	0.0	0 4.7	2.4	0.0	0.0	0.0	0.0	4.2	00.0	0.0	1.0
7	%	157.0	00.0	11.5 B	7.3	8.7	5.9	1 16.2	3.6	3.5	10.5	31.6	0.0	2.4	0.0	0.0	0.0	0.0	□ 6	0.0	0.0	157.0
м	37 C% 17.4		4 20.5 1	19.2	19	2 17.4	6 . 8	43.3	15.4	10.4	23.9	12.0	18.9	16.3	5.0	1 66.7 3	31.2	0 0	14 .1	27.5	0.0	37
4	71 C% 33.2		34.1	30.8	29 34.1	30.4	22	24.3	11136.3	13 33.3	37.2	21.8	23.6	33.3	7 50.3	00:0	31.2	36.1	28.2	27.8	0.0	33.2
5 - Strongly agree	58 C% 26.9		34.1	28	23	30.4	16 23.5	∞.	23.3	11 28.5	25.2	22.5	43.4	7	37.0	e e e e	37.6	30.03	14.1	27.5	00.	58 26.9
Don't know	31 C% 14.5		9. F	5.88	8 8 E	8.7	18 27.5 BCD	0.0	7	24.3	3. T	2 12.0	9.4	18.7	7.1	0.0	0.0	0 0 0	4 29.6	17.2	0.0	31 14.5
MEAN:		3.91 4	4.08	3.73	3.89	3.81	4.03	3.08 HILMN	4.01 G	4.15 G	3.80 N	3.40 N	4.11 G	3.98	4.34 GJK	3.67	4.06 4	4.46 G	3.54	4.00	*	3.91

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C8A. How much do you agree or disagree that as a result of taking the center's course(s) . . . I am more aware of new technologies or practices? BASE: UMAs

SEMINAR CATEGORY

			CENTER	CENTER NAME		1		 Basic		Н Q	1					!	 Ref-	_ M		TYPE	
	Total A	1 AGTAC	SDGE	CTAC	ETC -	ERC d	Au- / dits G	/Gen EE F H	Food H I	HVAC b	Green P build W K	Pumps L Wells -	Light M -ing t	Mo- p tors i	pump- Pr ing ce	Pro- rj cess at	riger ation 2	T24 w	Waste El water U: S	END USER T	UMA -U
Total	133	131 9 11 C%100.0 100.0 100.0 100	11	09	26	25	100.001	30	9	22 100.0 1	18 100.0 1	6 100.0 1	19 100.0 1	100.001	100.010	4	5	16 100.0	0.0	131	0.0
1 - Strongly disagree	C% 1,82	8 4.5	5.6	0.0	0.0	5.3	0.0	4. T. &	00.	2 8 1	0.0	6.2	0.0	0.0	00.0	0.0	00.	0.0	00.0	1.8	0.0
Ν	6 C% 4.6	6 9.1	11.1	3.4	2.1	5.3	150.0	6.2	22.2	2 8 1	2.3	6.2	0.0	0.0	00.0	0.0	0.0	0.0	0.0	4.6	0.0
т	23 C% 17.6	3 2 6 27.3	22.2	13	17.0	5.3	0.0	H 0.	0.0	5 22.5	7.3	4	11.2 1	1.00.0	0.0	3 84.3 10	5	2	00.0	23	0.0
4	41 C% 31.3	1 2 3 18.2	33.3	17	10	36.8	0.0	12 39.6	441.7	34.0	23.5	12.3	5 28.3	0.0	0.0	15.7	00.0	7 44.7	00.0	4131.3	0.0
5 - Strongly agree	57	7 40.9	3 27.8	29	11 42.6	10	150.0	13 43.6	36.1	37.9	12 66.9	12.3	11 60.5	0.0	100.0	0.0	00.	7	00.0	57	0.0
Don't know	C% 1.0	0.0	0.0	0.0	0.0	5.3	0.0	4. T. &	00.	0.0	0.0	00.0	0.0	0.0	00.0	0.0	00.	0.0	00.0	1.0	0.0
MEAN:	1: 4.12	3.82	3.67	4.21	4.21	4.11	3.50	4.17 LOPQ	3.92	4.01 LOPQ	4.55 LPQ H	3.19 HJKMO	4.49 LOPQ	3.00 H	5.00 3 HJIMP HJ	3.16 3 HJKMO HJ	3.00 HJKMO	4.34 LOPQ	*	4.12	*

C8B. How much do you agree or disagree that as a result of taking the center's course(s) . . . I am more aware of energy efficient products? BASE: UMAs

			CENT	CENTER NAME			!	Basic	 		1				1	1	Ref-			TYPE	
	Total A	 Total AgTAC AB	C SDGE	E CTAC	C ETC	ERC F	Au- dits G	/Gen EE H	Food]	HVAC N	Green B build V K	Fumps I Wells -	Light P -ing t M	Mo- tors i N	pump- P ing c 0	Cess at	riger ation 2	T24 W.	waste E water U S	END USER T	UMA U
Total	1 C%100	131 9 11 60 C%100.0 100.0 100.0 100.0	9 11 .0 100.0	1 60 0 100.0	26	25	100.0	30	9	22	18	100.00	19 100.01	100.001	100.01	4	5	16 00.0	0.0	131	0.0
1 - Strongly disagree	G %	3.4 0.0	0 11.1	1 0.0	2.1	3	0.0	8.7	0.0	8 2 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8. 4.4.	0.0
2	, %	8 2 5.8 22.7	2 7 11.1	1 3.4	8 .5 .2	00:	0.0	3.2	0.0	2.8	2 14.0	18.5	0.0	0.0	0.0	15.7	0.0	2 10.6	0.0	8 8	0 0
т	28 C% 21.3	28 2	27.	3 17 8 27.6	7 4 5 17.0	5.3	150.0		22.2	26.9	7.3	4 63.0	11.2	100.0	0.0	3 84.3	2 54.4	3	0.0	28 21.3	0 0.
4	46 C% 34.9	46 27.3	3 33.3	4 19 3 31.0	11 40.4	10	0.0	12 41.5	441.7	36.8	44.9	12.3	28.3	0.0	0.0	00.0	2 45.6	34.1	0.0	46 34.9	0.0
5 - Strongly agree	43 C% 32.7		2 22.7 16.7	2 23 7 37.9	31.9	31.6	150.0	10	36.1	25.3	5 26.4	6.2	11	0.0 1	100.0	0.0	0.0	37.7	0.0	43	0.0
Don't know	C% 2.0	ο · · · · · · · · · · · · · · · · · · ·	0.0	0.0	0.0	3	0.0	4.3	0.0	0.0	7.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0
MEAN:		3.90 3.5	ю	3.50 3.33 4.03 D C	3 3.91	3.94	4.00	3.92 LOP	4.14 LOP	3.68 MOP	3.90 LOP F	3.06 HIKMO	4.49 JLOP	3.00 H	5.00 HIJKL H	2.84 HIJKM	3.46	3.99 LOP	*	3.90	*

C8C. How much do you agree or disagree that as a result of taking the center's course(s) . . . I have more confidence in the performance of energy BASE: UMAs

SEMINAR CATEGORY

			CENTE	CENTER NAME				Basic		# Q	High perf/ I				1	1		W		TYPE	
	Total A		AGTAC SDGE	CTAC	ETC	ERC	Au- , dits G	/Gen EE F	Food H	G HVAC b J		Pumps L: Wells -: L	Light Mo -ing to M	Mo- pump tors ing NO-	()	1	S C I	Wa T24 wa R	Waste EN water US S	END USER ITII	UMA U
Total	13.	131 9 11 6 C%100.0 100.0 100.0 100.	1100.0	60	26 100.0	25	100.0	30	9 22	22	18	6 100.0 10	19	19 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	10.0	4	5	100.00	0.0 10	131	0.0
1 - Strongly disagree	. S . O . S	0.0	0.0	0.0	00.0	10.5	00.	8.7	0.0	0.0	0.0	00.0	0.0	0.0	00:	0.0	00.0	0.0	0.0	2.0	00.0
N	C% 3.0	1 0 0.1	0 0	3.4	4.3	0.0	0.0	1.0	0.0	0.0	2 14.0	6.2	0.0	0.0	0.0	0.0	0.0	3.51	0.0	3.0	0.0
m	26 C% 20.0	2 2 2 7	38.9	13	6 23.4	5.3	1 50.0	3.7	0.0	23.1	9.6	18.5	5 25.8	0.0	0.0	384.3 100	5 100.0 2	4 24.7	0.0	26	0.0
4	51 C% 38.6	1 6 36.4	33.4	25 41.4	31.9	10	00.	15 49.1	72.2	7 29.6	9.64	69.1	3 17.9 10	100.0	0.0	15.7 (0.0	30.6	00.	51 38.6	00.
5 - Strongly agree	40 C% 30.7	31.8	22.2	17	11	31.6	50.0	25.4	3 27.8	10	19.1	0.5	845.0	0.0 100.0		00:0	0.0	7	00.	40	00.
Don't know	7 C% 5.6	0.0	5. 1	6.9	00.0	3 3 10.5	00.	11.3	00.	2.8	7.3	00:	2 11.2	00.0	00:	00:0	00.0	00.	0.0	5.6	00.
MEAN:	3.99	3.91		3.82 4.00	4.09	3.94	4.00	3.91 OPQ	4.28 OPQ	4.22 OPQ	0 0 8 0 8	3.75	4.22 4 OPQ	4.00 5	5.00 3 HIJKL HI	3.16 3. HIJMO HIJ	3.00 4 HIJKL	4.09 OPQ	*	3.99	*

C8D. How much do you agree or disagree that as a result of taking the center's course(s) . . . I have incorporated energy efficiency into my sales BASE: UMAs

Total AgTAC SDGE CTAC ETC ERC dits EE -ABCDEFGH- c%100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 c%100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 c% 10				CENTER NAME	NAME			. Ш ! !	Basic		, 14; CA	High perf/I	1				!	Ref-			TYPE	
Ongly disagree C* 7.4 22.7 5.6 6.9 6.4 5.3 0.0 6.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0		Tota: A		1 '		ETC	1 1				G HVAC b	Green P build W K	Fumps I Wells -	Light M -ing t M	Mo- pu tors ii N	pump- Pi ing ce	Pro- rj cess at P	riger ation 2	Wa T24 wa R	ste S-r	END USER T	UMA U
ongly disagree		13: C%100.(1 00.0	11					30.00.0	100.00	22 100.0 1	18 100.0 1	6 100.0 1	100.00	100.001	100.001	4	5 100.0 1	16 100.0	0.0	131	0.0
C\$ 1.8 0.0 11.1 0.0 4.3 0.0 50.0 0.0 C\$ 14.4 9.1 22.2 13.8 12.8 15.8 0.0 15.0 C\$ 30.6 18.2 16.7 37.9 27.7 26.3 0.0 15.8 C\$ 28.5 27.3 11.1 27.6 40.4 26.3 50.0 32.1 C\$ 15.8 22.7 33.3 10.3 8.5 26.3 50.0 3.98 MEAN: 3.86 3.35 3.25 3.92 4.00 3.93 2.00 3.98	Strongly disagree					6.4	5.3	0.0		0.0	2.8	1.5	12.3	4 22.5	0.0	0.0	0.0	0 8	7.1	0.0	107.4	0.0
C\$ 14.4 9.1 22.2 13.8 12.8 15.8 0.0 15.0 order of the control of t						4.3	0.0	150.0	0.0	0.0	5.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	0.0	1.8	0.0
ongly agree C\$ 30.6 18.2 16.7 37.9 27.7 26.3 0.0 15.8 cm and y agree C\$ 28.5 27.3 11.1 27.6 40.4 26.3 0.0 32.1 cm and y C\$ 15.8 22.7 33.3 10.3 8.5 26.3 50.0 30.9 cm and y C\$ 1.6 0.0 0.0 3.4 0.0 0.0 0.0 0.0 0.0 cm and y C\$ 1.8 3.35 3.25 3.92 4.00 3.93 2.00 3.98 cm and y C\$ 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.		15 C% 14.4				12.8		0.0	15.0	13.9	10.4	19.1	3 44.5	3 .3 1	1	00.	3.5	0.0	3.5	0.0	14.4	0.0
Strongly agree		4(C% 30.6				7.7.7		0.0	2	36.1	38.4	35.3	0.5	32.8	0.0	0.0	0.0	4	7.42.4	0.0	40	0.0
C\$ 15.8 22.7 33.3 10.3 8.5 26.3 50.0 30.9 C\$ 1.6 0.0 0.0 3.4 0.0 0.0 0.0 0.0 WEAN: 3.86 3.35 3.25 3.92 4.00 3.93 2.00 3.98	Strongly agree	3.				11 40.4		0.0	10	50.0	5 25.0	19.1	12.3	38.0	0.0 10	100.00	15.7	0 0	5 29.4	0.0	37	0.0
C\$ 1.6 0.0 0.0 3.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	't know	2: C% 15.8				8 .5 2	7 26.3	150.0	30.9	0.0	8 .5 2	4 22.0	24.7	3.3	0.0	00.0	115.7	0.0	14.1	0.0	21	0.0
3.86 3.35 3.25 3.92 4.00 3.93 2.00 3.98 O						0.0	0.0	0.0	0.0	0.0	9.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0
	MEAN:					4.00	3.93	2.00	3.98	4.36 L	3.94	3.83	3.08 IO	3.66	3.00 E	5.00 HJKLM	3.37	3.74	3.97	*	3.86	*

RESEARCH AMERICA INC

SIGNIFICANCE TESTING AT .95 BCDEF/GHIJKLMNOPQRS/TU

CBE. How much do you agree or disagree that as a result of taking the center's course(s) . . . My company should consider making it common practice to BASE: UMAS

			CENTEF	CENTER NAME				Basic		1 1 1	High perf/I	Irr/		İ		1	Ref-			TYPE	
	Total A	 Total AgTAC AB	SDGE	CTAC	ETC	ERC C	Au- / dits G	/Gen EE F	Food E	HVAC b	Green P build W K	Pumps L Wells - L	Light M -ing t M	Mo- Pu tors in N	pump- Pr ing ce 0	Pro- ri cess at P	riger ation 7	T24 WE	Waste E water U S	END USER T	UMA -U
Total	131 9 11 6 C%100.0 100.0 100.0 100.	100.0	111	00	26	25	100.001	30	9	22	18	6 100.0 1	19	10.00	19 1 1 4 1 100.0 100.0 100.0		5	16 100.0	0.0	131	0.0
1 - Strongly disagree	% 2 .3 3	3 4.5	0.0	3.4.2	2.1	0.0	0.0	1.9	0.0	0.0	0.0	6.2	2 11.2	0.0	0.0	0.0	0.0	00.0	0.0	3 3	0.0
Ø	1 C% 1.0	9.1	0.0	0.0	2 1	0.0	0.0	0.0	0.0	0.0	2.3	6.2	0.0	0.0	0.0	0.0	0.0	3.5	0.0	1.0	0.0
т	11 C% 8.4	13.6	16.7	10.3	6.4	0.0	0.0	0.0	0.0	2 10.7	2 14.0	38.3	0.0	0.0	0.0	15.7	2 54.4	3.5	0.0	11	0.0
4	32 C% 24.3	22 22.7	3 27.8	15	4	31.6	0.0	17.1	3 27.8	30.0	38.2	18.5	. ⊎ .	0.0	0.0	3 68.5 4	2 45.6	4 27.1	00.	32	0.0
5 - Strongly agree	73 C% 55.9	4 40.9	50.0	35	18	10	100.0	18 61.0	72.2	12 54.0	30.9	24.7	15 83.3 1	1 100.00 100.0		15.7	00.	10	00.	73 55.9	0.0
Don't know	11 C% 8.0	9.1	5.6	8.4.2	2.1	7 26.3	0.0	20.0	00.	5.4	3	6.2	2.0	00.	0.0	0.0	0.0	00.	00.	1118.0	00:
MEAN:	. 4.42	3.95	4.35	4.39	4.54	4.57	5.00 JKLQR	4.69 L	4.72 LQ	4.46 GLO	4.14 GO G	3.53 GHIJO	4.51	5.00	5.00 4 JKLQR	4.00	3.46 'GIO	4.55 GLO	*	4.42	*

C8F. How much do you agree or disagree that as a result of taking the center's course(s) . . . Our business has differentiated itself by specifying BASE: UMAs

SEMINAR CATEGORY

										 	 High								-	TYPE	
			CENTER NAME	NAME			I -114	Basic /Gen		<u>, д</u> , С	_ <	Irr/ Dumps I	+ 2 2 2	MO-		Dro-	Ref-	M	Water -		
	Total A		AgTAC SDGE CTA BCD-	CTAC	ETC E	ERC C	ro	H - H	Food F	HVAC b			ing t	. !	ing ing ing ing ing ing ing ing ing ing	1	1	T24 w.		USER T	UMA -U
Total	131 9 11 6 C%100.0 100.0 100.0 100.	100.0	11	0 0	26	25	100.00	30	9 22 100.0	22	18	100.00	19.00.	100.00	19 1 1 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	4	5	16 100.0	0.0	131	0.0
1 - Strongly disagree	13 C% 9.7	22.7	0.0	13.8	4.3	5.3	0.0	13.2	00.	0.0	14.0	18.5	11.2	0.0	0.0	00:	2 54.4	3.5	0.0	13	0.0
8	3 C% 2.7	13.6	5.6	0.0	6.4	0.0	0.0	3.7	0.0	7.2	0.0	12.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.0
т	20 C% 15.2	13.6	33.3	10	3 12.8	5.3	0.0	7.0	00.	23.1	9.6	3 44.5	3 17.9	0.0	0.0	15.7	45.6	14.1	0.0	20	0.0
작	45 C% 34.3	9.1	3 27.8	23	29.8	10	0.0	28.3	63.9	33.2	10 54.4	12.3	4 121.6 100.0	100.00	00.	2 2 2 8	00.	38.8	0.0	45	0.0
5 - Strongly agree	38 29.0	27.3	2 16.7	17	1140.4	7 26.3	1 20.0	11136.0	36.1	5 21.7	7.3	0.5	947.1	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		15.7	00.	6 40.0	00.0	38	00.0
Don't know	12 C% 9.2	13.6	2 16.7	3.42	6.4	21.1	1 20.0	11.9	00.	14.9	3	0.5	2 5 0	0.0	0.0	15.7	00.0	. 5 ⊢	00.0	12	00:
MEAN:	3.77	3.05 E	3.67	3.68	4.02 B	4.07 B	5.00	3.80 LO	4.36 LO	3.82 LO	3.48 O H	2.74 HIJMO	3.95 LO	4.00 H	5.00 4 HIJKL	4.00	1.91	4.16 LO	*	3.77	*

SIGNIFICANCE TESTING AT .95 BCDEF/GHIJKLMNOPQRS/TU

C9A. Since your visit to the center, has your company purchased lighting equipment? BASE: End-Users

			CENTER NAME	NAME		1	. B	asic		D D	High Perf/Ir	/z:		PO	01	R R	-J	W	ater	TYPE	
	Total A	Total AgTAC SDGE CTAC ETC ERC dits ABCDEFG	SDGE	CTAC	ETC -	ERC d	u- its -G	Gen EE F(-H	00d H	VAC bi	reen Pu uild We -K	/Gen Green Pumps Light Mo- pump- Pro- riger Waste END EE Food HVAC build Wells -ing tors ing cess ation T24 water USER UMA HJKLMNOPQRSTU	ght Mo ng to M	ors in	mp- Pr g ce O	0-1 88 at P1	ger ion T 2	24 WE R	aste EN ater US -S	ER T	JMA -U
Total	215 18 32 85 13 66 8 31 38 38 17 8 26 14 2 7 6 13 8 0 215 C%100.0 100.0	18	32	85	13	66	8 00.00	31	38	38	17	8	26	14	20.0	7	6 0.0 10	13	8	0.0	215
Y @ S	82 5 C% 38.3 29.5	29.5 D	13	13 44 3 17 2 15 6 22 8 0 15 5 1 3 1 4 0 0 0 40.4 51.2 26.1 25.5 24.3 49.3 16.0 59.3 46.6 4.7 58.5 34.0 33.3 40.6 13.9 33.8 0.0 0.0 BF	3 26.1	17 25.5 D	24.3	15	16.0	22 .59.3	8	0 4.7 5	8.55	5 24.0 3	3.3 4	0.6	a . a	8. 4.8	0.0	0.0	82 38.3
No	103 9 19 33 8 34 6 8 28 15 7 5 11 6 1 4 5 3 5 0 C% 48.2 52.3 57.7 39.0 65.2 51.0 75.7 25.1 73.6 40.7 41.4 61.3 41.5 44.4 66.7 48.4 79.2 22.5 72.2 0.0	52.3	19	33	8	34	6	. 8 25.1	28	15	7	5	1.5 4	6 6.4 6	1 6.7 4	4 8.4 7	9.2	.5 .3	5	0.0	103
Don't know	29 3 C% 13.5 18.2	18 .2 .0	1.9 BF	ω ω σ	8 1 16 0 8 4 0 2 3 0 3 0 1 0 6 2 0 9.8 8.7 23.5 0.0 25.6 10.4 0.0 12.0 34.0 0.0 21.6 0.0 11.0 6.9 43.7 27.8 0.0	16 23.5 C	0.0	25.6	10.4	00.	2.0.3	34.0	00.0	3.1.6	0.0	1.0	6.9	3.7	27.8	0.0	29 13.5

C9B. Since your visit to the center, has your company purchased HVAC (if needed: heating, ventilation and air conditioning) equipment? BASE: End-Users

		J	CENTER NAME	NAME		1	Д, 	0 0 1 C		H	High perf/ I			Н	0001	Ä	- J -	M	Tater -	TYPE	
	Total A	Iotal AgTAC SDGE CTAC ETC ERC dits ABCDEFG	SDGE	CTAC	ETC -	ERC d	nu- lits -G	Gen EE F -H	000 H	COAC D	/Gen Green Pumps Light Mo- pump- Pro- riger Waste END EE Food HVAC build Wells -ing tors ing cess ation T24 water USER HJKLMNOPQRST	umps L ells - -L	ight M ing t -M	ors N-1	ump- ng -0	101 101 101 101 101	iger tion -2	T24 w -R	Jaste E Tater U S	ND SER -T	UMA U
Total	215 18 32 85 13 66 8 31 38 38 17 8 26 14 2 7 6 13 8 0 C%100.0 100.	18	32	85	13	66	8	31	38	38	17	8	26 00.00	14	200.001	7	6 00.00	13	8 0.00.	0.0	215
	73 6 14 C% 34.1 31.8 42.3 38	31.8	14 42.3	33 5 16 2 13 5 26 3 1 11 6 1 2 1 3 0 0 73 39.0 39.1 23.5 24.3 41.9 13.9 69.2 17.3 9.4 42.4 39.8 33.3 29.0 13.9 23.9 5.3 0.0 34.1	39.1	16 23.5 C	24.3	13 41.9	13.9	26 69.2	3 17.3	o. 1 4.	1142.4	39.8	33. □	29.0	13.0	23.9	5.3	0.0	73
	107 10 18 C% 49.9 54.5 55.8	10	18 55.8	38	7 52.2	35	75.7	11 36.7	27	12	7 35 6 11 27 12 10 7 11 6 1 5 5 4 3 0 52.2 52.9 75.7 36.7 72.2 30.8 58.6 81.1 41.3 38.6 66.7 65.5 79.2 32.4 44.7 0.0	7	11 41.3	38.6	166.7	65.5	79.2	32.4	3 44.7	0.0	107
Don't know	34 2 C% 16.0 13.6 C	13.6 C	2 1 6 1.9 17 C BDF	15 1 16 0 7 5 0 4 1 4 3 0 0 0 6 4 0 17.1 8.7 23.5 0.0 21.4 13.9 0.0 24.1 9.4 16.3 21.6 0.0 5.5 6.9 43.7 50.0 0.0 C	8.7	16 23.5 C	00.0	7	13.9	0.0	24.1	9.4	16.3	3 21.6	0 0	5.5	0 6 .	43.7	4 50.0	0.0	34

C9C. Since your visit to the center, has your company purchased motors an/or adjustable speed drives (ASDs)? BASE: End-Users

											 High	 	[! !			 	TYPE	F-3
			CENTER NAME	NAME				Sasic			perf/	Irr/	1 de 1		Pool	ш,	kef-		Vater		
	Total A	otal AgTAC SDGE CTAC	AGTAC SDGE CTAC	CTAC		1 2 L	Au- dits G	EE H	Food I	HVAC k	build '	Fumps Wells L	Ling Ling L-M	Green Fumps Light MO- pu build Wells -ing tors in KLMN	ing cess a	1 E E E E E E E E E E E E E E E E E E E	tiger - 2-1	ation T24 r	vaster S	USER T	UMA U
Total	215 18 32 85 C%100.0 100.0 100.0 100.0	215 18 30.0 100.0	32		13	99	8	31	38	38	100.00	8	26	13 66 8 31 38 38 17 8 26 14 2 7 6 13 8 0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 0.0	2	7.00.0	6.00.00	13	8	0.0	215
	82 C% 38.2 45.5		14 42.3	38	26.1	20.4	43.3	1137.5	7	21 21 55.1	15.0	57.6	12	3 20 3 11 7 21 3 5 12 7 1 2 1 3 6 0 26.1 29.4 43.3 37.5 17.4 55.1 15.0 57.6 46.4 50.0 33.3 32.0 20.8 23.9 82.8 0.0	33.3	32.0	20.8	23.9	82.8	0.0	38.2
	94 88 C% 43.7 45.5		18 55.8	31.36.6	8 6.09	29 43.1	56.7	8 27.5	26 68.8	16 43.4	7	33.0	12	8 29 4 8 26 16 7 3 12 4 1 5 4 3 0 0 94 60.9 43.1 56.7 27.5 68.8 43.4 41.4 33.0 45.5 31.2 66.7 62.4 72.2 22.5 0.0 0.0 43.7	1 66.7	5	72.2	3 22.5	0.0	0.0	94 43.7
Don't know	37 C% 17.5	9.1 1	1 DF	17 19.5 C	2 17 13.0 25.5 BC	17 25.5 BC	0.0	11 35.0	10.4	1.5 1.	8 43.6	9.4	8 2 2	2 17 0 11 4 1 8 1 2 3 0 0 0 7 1 0 0 13.0 25.5 0.0 35.0 10.4 1.5 43.6 9.4 8.2 18.8 0.0 5.5 6.9 53.5 17.2 0.0 BC	0.0	5.5	0.9	7 53.5	17.2	0 0	37
Refused	1 0 0 0 C% 0.6 0.0 0.0	0.0	0.0	00.0	0.0	2.0	0.0	0.0	3.5	00.0	00.0	0.0	0.0	00.	0.0	0.0	0.0	0.0	0.0	0.0	0.6

C9D. Since your visit to the center, has your company purchased refrigeration equipment? BASE: End-Users

SEMINAR CATEGORY

			CENTE	CENTER NAME				3asic		 E O	ligh erf/I	rr/		. Ä	001	 R	- Je	M.	ater	TYPE	
	Tota A-		SDGE		E E E	ERC 0	Au-/ dits G	/Gen EE Food] HI	700d F	HVAC b	Green P build W K	umps I	ight M ing t M	Pumps Light Mo- pump- Wells -ing tors ing c-LMNO	ump- P: ng c(-0	- Pro- riger cess ation PQ	iger cion	T24 W8	Waste END water USER ST	JER T	UMA U
Total	21 C%100.	215 18 32 85 C%100.0 100.0 100.0	32	85	13	99	8	31	38	38	17	8	26	13 66 8 31 38 38 17 8 26 14 2 7 6 13 8 0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 0.0	2	7	6 0.00	13	8 0.00	0.0	215
Yes	C% 27.	60 4 C% 27.8 22.7	11 34.6	27	13.0	16	24.3	15.4	10	17	21.8	0 4.7	13	2 16 2 5 10 17 4 0 13 2 0 1 3 3 0 0 60 13.0 23.5 24.3 15.4 27.8 44.6 21.8 4.7 49.6 11.4 0.0 19.6 50.0 19.7 5.3 0.0 27.8	00.0	19.6	30.00	3	3.0	0.0	60
No	12 C% 57.	123 11 C% 57.4 61.4	21 83.5	46	73.9	36 54.9	75.7	17	23 61.8	20	11 66.1	7 85.9	1142.2	9 61.4 10	. 0.00	5 74.9	30.00	36.6	3	0.0	123 57.4
Don't know	C% 14.	31 3 C% 14.3 15.9	1.9 BDF	13 14.6 C		13 19.6	0.0	28.2	6.9	1.5	2 12.0	1.6	0 0 0	2 13 0 9 3 1 2 1 2 4 0 0 6 6 4 0 31 13.0 19.6 0.0 28.2 6.9 1.5 12.0 9.4 8.2 27.2 0.0 5.5 0.0 43.7 50.0 0.0 14.3 C	0.0	5.5	0.0	13.7	4	0 0	31
Refused	0%	1 0 0 C% 0.6 0.0 0.0	00.	0.0	0.0	2.0	0.0	0.0	3. 5. 1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

C9E. Since your visit to the center, has your company purchased pumping and hydraulic equipment? BASE: End-Users (AGTAC)

	!	!	8,0
	TYPE	-n	100
	T.T.	IND ISER	0.0
	ter	ter USS	10.0
	W	4 we	0 10
		n 12	0 0
	Ref-	rige atio 2-	100.
		Pro-	2
	001	-0	00.0
ORY	വ്	rs rs i ii	4.0.0
SEMINAR CATEGORY		T. T. Mo.	1 0 10
NAR C		Ligh -ing M-	100.
SEMINAR CATEGORY	rr/	umps Tells	9
	High perf/	iild V	0.0
	H	ှင်း ရှင် ၂ ရှင်	1.0 10
		HV.P.	0 100
		Food I-	0
	Sasic	Gen EE H	0.00.
		1- its -G	0.0
i			0 0 0 0 0 0 0 1 0 6 1 4 0 2 2 0 1 0 180 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
		H - H	0 0.
	Ą	AC E	00
	R NA	CTZ	
	CENTE	SDGE	00.
		gTAC -B	18 0 C%100.0 100.0 0.0
		cal A	18 18 00.0 100.0
		EH	C%10
			Iotal
			Ħ

0 5

0.0 0.0

0.0000

0.0

0.0

5 5 0 C% 27.3 27.3 0.0

Yes

0.0

11 11 0 C% 63.6 63.6 0.0

οN

Don't know

 $\begin{matrix} 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 2 & 1 & 2 & 0 & 1 & 2 & 0 & 1 \\ 0.0 & 0.0 & 0.0 & 100.0 & 0.0 & 100.0 & 37.5 & 66.7 & 60.0 & 0.0 & 75.0 & 100.0 & 0.0 & 100.0 & 63.6 \end{matrix}$

SIGNIFICANCE TESTING AT .95 BCDEF/GHIJKLMNOPQRS/TU

C9F. Since your visit to the center, has your company purchased other agricultural equipment? BASE: End-Users (AGTAC)

0 3 13 TYPE

CENTER NAME

Basic

perf/ Irr/

Green Pumps Light Mo- pump- Pro- riger

Total AgTAC SDGE CTAC ETC ERC dits EE Food HVAC build Wells -ing tors ing cess ation T24 water USER UMA

--A-- --B-- --C-- --D-- --F-- --F-- --H-- --I-- --K-- --L-- --M-- --N-- --O-- --P-- --Q-- --R-- --S-- --T-- --U--0.0 0.0 0.0 100.0 0.0 0.0 0.0 0.0 0.0 0.0 12.5 0.0 10.0 0.0 25.0 0.0 0.0 0.0 00.0 0 1 2 0 0.0 75.0 100.0 0.0 0.0 0.0 0.0 0.0 00.0 00.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 2 0 0.0 0.0 18 18 0 C%100.0 100.0 0.0 13 72.7 3 3 C% 18.2 18.2 13 C% 72.7 2 C% 9.1 Don't know Total Yes No

C90 BA

9 your visit to the center, has your company purchased cooking or food preparation equipment?	
food	
or	
cooking or food prepa	
purchased	
r, has your company pu	
your	
has	
isit to the center,	
the	
to	
visit	(SCG)
our,	rs
Since your	End-User
.9G.	ASE:

											High								}	TYPE	
		İ	CENT	CENTER NAME	E .	 	-11.4				perf/ :	rr/	+ 4 2	Ĭ.	ool jmn- Pr	. Re			ater		
	Tot: A-	al AgTi B-	Total AgTAC SDGE CTACABCD	E CTA	.C ETC	ERCF	dits G	EEH	Food	HVAC	HVAC build W	Vells	-ing t	tors ir	ing ce	cess at	ation T	T24 wa	water US	USER 1	UMA U
Total	C%100	66 0 C%100.0 0.0	0.0	0	00	0 66 0 9 31 5 7 0 0.0 100.0 0.0 100.0 100.0 100.0 0.0	00.0	9	31	100.0	7	0.0	0.0	00.	0 0 1 0 10 3 0.0 0.0 100.0 0.0 100.0 100.0	10.0	0.0 10	10.00		0.0	66 100.0
Yes	14 C% 21.6	14 0.0	0.0	0.	00	0 14 0.0 21.6	00.0	14. 1.	29.2	00.	20.0	0.0	0.0	0 0.	0.0	0 0 0	00.	3	0.0	00.	14
No	29 C% 43.1		0.0	0 0	0.0	25	0.0	42.9	13	50.0	0.0 42.9 41.7 50.0 40.0 0.0 0.0 0.0 0.0 0.0 37.5 100.0 0.0	0.0	0.0	0.0	0.0	0.0	0.0	4 87.5 10	3	00.	29 43.1
Don't know	7 C% 9.8	.8 0.0	0.0	0	0	0.0 9.8	0.0	3 28.6	4.2	25.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.8
Refused	C% 7.8		0.0	0.0		0.0 7.8	0.0	0.0		0.0	5 0 0 3 0 0 0 0 7.8 0.0 0.0 8.3 0.0 0.0 0.0 0.0	0.0	0.0	0.0	0.0	0 0 3 0 0.0 0.0 25.0 0.0	00.0	3	0.0	0.0	7.8

C9H. Has your company purchased any other energy-using equipment? ${\tt BASE:}$ ${\tt End-Users}$

		CENTE	CENTER NAME			f	Basic			igh erf/	. /zzī			9001	щ	- Į-		ater Ter	TYPE	
Tota A-	Total AgTAC SDGE CTAC	C SDGE	CTAC	.ac ETC ERC dits	ERC -	Au- dits G	EE H	Food I	/Gen EE Food HVAC b HJ	reer uilc -K	Fumps J	Light r -ing 1 M	Pumps Light Mo- pu Wells -ing tors in LMN	pump- Fro- riger ing cess ation ' 0PQ	FOI FPI FPI BI	iger tion -Q	r24 -R	waste E water U	END USER T	UMA U
21 C%100.	215 18 32 85 C%100.0 100.0 100.0	8 32 0 100.0	85	13 66 8 31 38 38 17 8 26 14 2 7 6 13 8 0 215 100.0 100	100.0	8	31	38	38	17	8	26	14	2	7	6 00.00 1	13	8	0.0	215
C% 17.	38 3 11 17 C% 17.6 15.9 34.6 19.5 C BF	3 11 9 34.6 3 BF	17 19.5	4 .	0 0.87	51.4	. 8 2	. 5 ⊢	11 29.5	12.0	18.9	30.9	14.2	0.0	32.0	36.1	o. □ o.	1 7 4 2 1 11 2 2 8 2 0 2 2 1 0 0 38 4.3 9.8 51.4 6.8 3.5 29.5 12.0 18.9 30.9 14.2 0.0 32.0 36.1 9.9 0.0 0.0 17.6	0.0	38
142 C% 66.1	42 12 .1 70.5 6	2 20 5 61.5	52 61.0	11 82.6	47	11 47 4 21 82.6 70.6 48.6 69.3	21 69.3	32	25 66.8	11 63.9	71.7	13 52.8	10	166.7	56.9	63.9	6.5	32 25 11 6 13 10 1 4 4 6 4 0 86.1 66.8 63.9 71.7 52.8 67.0 66.7 56.9 63.9 46.5 55.3 0.0	0.0	142
C% 15.	34 2 C% 15.7 13.6	2 1 6 3.8 DF	17 19.5	2 12 0 7 3 1 4 1 4 3 1 1 0 6 3 0 34 13.0 17.6 0.0 23.9 6.9 3.8 24.1 9.4 16.3 18.8 33.3 11.0 0.0 43.7 44.7 0.0 15.7 C	12 17.6	0.0	23.9	e o.	3.8	24.1	1 4.	16.3	18.3	33.3	11.0	0.0	6	3 44.7	0.0	34
°.	1 0 0 0 0 C% 0.6 0.0 0.0	0.0	0.0	0.0	1 2.0	0.0	0.0	.5 ⊔	0.0	0.0	0.0	0.0	00.0	0.0	0.0	0.0	00.	0 1 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.0	0.6

C10A. Would you have purchased the same type and efficiency level of lighting equipment if you had not visited the center? BASE: End-Users who have purchased lighting equipment

			CEN	CENTER NAME	ME		,		Ó		High Perf/ I	h E/ Irr,		;	Poo]		Ref-		Wat	te i	TYPE	
	Tot A	otal AgTAC SDGE CTAC	AC SD	GE CT.	AC ET.	ETC ERC	Au- 3 dits G	/Gen S EE H	Food I	d HVAC }	Green C build K	en Fum] ld Wel.	r Fumps Light Mo- F Wells -ing tors i LMN	nt Mol g tor N	pump- s ing 0	- C - F - C - C - C - C - C - C - C - C	riger ation 2	er on T24 R		waste EN water US S	END USER T	UMA U
Total	C%100	82 5 13 44 3 17 2 15 6 22 8 0 15 5 1 3 1 4 0 C%100.0 100.0	5.0 100	13	44	3 100	.0 100.	2 1 0 100.	.5	6 100	22	.00 100.	.00 100	15	5.0 100.	1 0 100.	3 0 100.	1.0 100	4.0	0.0	0 82	82
Yes	C% 46	38 3 6 C% 46.1 53.8 42.9	. 8 42	96.		.3 69	12 33.	3 58.	9 21	1.7 26	$\begin{array}{cccccccccccccccccccccccccccccccccccc$.2 100.	.0 43.	6 41	.8 2	0 78.	2 9 100.	1.0 70	m &	0.0	00.	38
NO	C% 36	30 2 4 C% 36.1 30.8 33.3	. 8 33	.3 42.	9 9	1.3 23	.1 33.	1 3 41.	6 4 78	5 3 36	1 4 1 6 5 8 0 0 6 2 1 0 0 1 0 0 33.3 23.1 33.3 41.4 78.3 36.2 0.0 0.0 38.9 50.0 100.0 0.0 0.0 29.2 0.0 0.0	0 0.	.00 388.	.9 50	2.0 100.	0 0.	00	0 29	H 2.	00.0		36.1
Don't know	C% 17	14 1 2 C% 17.1 15.4 19.0	1.4 19	2 .0 19	о O.	.3	1.7 33.	3 0.	0	0 37	$\begin{array}{cccccccccccccccccccccccccccccccccccc$. 8	.0 13.	8 8	.2 0.	0 21.	٠.	0	00	00.0		14 17.1
Refused	0%	1 0 C% 0.8 0.0	0 0.	1 4.8 0	0.0	00:	0.0	00	0	00:	$\begin{matrix} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 & 0 &$	00:	0 0.	.2 1	.0	00	00	00.	00:	00.	0.0	0.8

C10B. Would you have purchased the same type and efficiency level of HVAC equipment if you had not visited the center? BASE: End-Users who have purchased HVAC

SEMINAR CATEGORY

		O	ENTER	NAME				Basic			High perf/	Irr/			Pool	щ	Ref-		Water -	TYPE	
	Total AgTAC SDGE CTAC ETC ERC dits EE Food HVAC build Wells ing tors ing cess ation T24 water USER UMA -ABCDEFGHIJKLMNOPQRIU	ogTAC	SDGE	CTAC	ETC	ERC F	Au- dits G	/Gen EE H	Food I	HVAC J	Green build K	Pumps Wells	Light -ing M	Mo- tors N	pump- I	ro-	riger ation 2	T24 v	Waste E water U	ND SER	UMA U
Total	73 6 14 33 5 16 2 13 5 26 3 1 11 6 1 2 1 3 0 0 73 c%100.0 10	.00.00	14	33	100.0	16 100.0	2	13	5	26	3	100.0	11	100.0	100.01	2.00.00.	100.001	3	0	00.	73
Yes	37 2 6 C% 50.7 28.6 45.5	28.6	45.5	19	355.6	8	1 66.7	12 89.9	3 50.0	12 44.5	2 56.7	50.0	30.7	28.7	.9 3 8 1 12 3 12 2 0 3 2 0 1 0 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	61.9	0.0	58.8	0.0	0.0	37
No	22 3 3 10 2 4 1 0 1 7 1 0 5 3 1 1 0 1 0 0 22 C% 29.9 50.0 22.7 31.2 33.3 25.0 33.3 0.0 25.0 28.4 43.3 50.0 44.3 53.5 100.0 38.1 50.0 41.2 0.0 0.0 29.9	3	3 22.7	10	33.3	4 25.0	33.3	0.0	25.0	7	143.3	50.0	5 44.3	53.5	100.0	38.1	50.0	1 41.2	0.0	0.0	22 29.9
Don't know	14 1 4 4 4 C% 19.4 21.4 31.8 12.5	1 21.4	31.8	12.5	11.1	4	0.0	10.1	1 25.0	7 27.1	0.0	0.0	3 25.0	17.8	1 4 0 1 1 7 0 0 3 1 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1	0.0	0 20.0	0.0	0	0.0	14 19.4

C10C. Would you have purchased the same type and efficiency level of motors and/or adjustable speed drives (ASDs) if you had not visited the center? BASE: End-Users who have purchased motors and/or ASDs

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			CENTER NAME	NAME		. '		3asic			High perf/	Irr/			9001	<u>K</u>	-Jej	Δ.	Vater -	TYPE	
	Total A	Total AgTAC SDGE CTAC ETC ERCABCBF	SDGE	CTAC D	ETC -	ERC C	Au- dits G	/Gen EE H	Food I	HVAC J	Green build	Pumps Wells L	Light -ing M	Food HVAC build Wells -ing tors ing or -IKLMO	ing c	1 0 1 1 0 1 1 0 1	iger ition 2	T24 v	Pro- riger Waste END cess ation T24 water USERPQRST	ND SER -T	UMA U
Total	82 C%100.0	82 8 14 38 3 20 3 11 7 21 3 5 12 7 1 2 1 3 6 0 82 C%100.0 10	14	38	3	20	3	11	7	21	3	100.0	12	7	1.00.00.	2.00.00.1	1.00.00	3	0.001	00.0	82
Yes	41 C% 49.7	41 3 9 C% 49.7 35.0 63.6	63.6	17 2 10 3 9 4 12 0 2 4 2 0 2 1 1 1 0 0 4 4 4 4 66.7 53.3 81.3 81.9 60.0 59.9 0.0 32.8 36.7 25.9 0.0 82.8 66.7 17.6 20.8 0.0	2 66.7	10	81.3	91.9	4 60.0	12 59.9	0.0	32.8	36.7	25.9	0.0	82.8	1 66.7	17.6	20.8	0.0	41 49.7
No	23 4 3 10 1 5 1 2 1 3 1 3 3 2 1 0 0 3 2 0 0 C% 27.9 45.0 22.7 27.8 16.7 26.7 18.7 18.1 20.0 16.1 50.0 67.2 22.8 30.9 100.0 17.2 33.3 82.4 33.2 0.0	3 45.0	3 22.7	10	16.7	5 26.7	18.7	18.1	20.0	16.1	150.0	3 67.2	322.8	30.9 1	1.00.0	17.2	33.3	82.4	33.2	0.0	23
Don't know	17 2 2 10 1 3 0 0 0 5 1 0 5 3 0 0 0 3 0 0 0 0 5 0.0 0.0 40.4 43.2 0.0 0.0 0.0 46.0 0.0	3 20.0	2 13.6	10	16.7	13.3	0.0	0.0	0.0	524.0	150.0	0.0	5 40.4	3.2	0.0	0.0	0.0	0.0	3 46.0	0.0	17
Refused	C% 1.6	1 0 0 C% 1.6 0.0 0.0	0.0	0.0	00.	1 6.7	0.0	0.0	1 20.0	0.0	0.0	0.0	0.0	0.0	0 0 1 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.0	0.0	00.0	0.0	0.0	1.6

C10D. Would you have purchased the same type and efficiency level of refrigeration equipment if you had not visited the center? BASE: End-Users who have purchased refrigeration equipment

			CE	CENTER NAME	IAME		l f	Ξ.	asic		 	High perf/I	 :rr/		<u>A</u>	001	 	- G f	_ M	ater -	TYPE	
	Tot 		TAC S B	DGE C	TAC 1	ETC ERC	ERC A	Au- dits G	/ Gen EE F H	Food F	Green HVAC build JK	reen r ouild v K	Wells -	ingh -ingh - M - i	r Fumps Light Mo- p Mells -ing tors i LMN	-dwb -0-	1 0 H	riger ation 2	T24 w	waste El water US S	USER T	UMA U
Total	C%10(60	4	11 0.0 10	27	20.00	16 00.0	2 00.00 1	5	10.00.	17.00.0	.00.00	0.00.0	13	60 4 11 27 2 16 2 5 10 17 4 0 13 2 0 1 3 3 0 C%100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0	0.0	10.00	3	3	0.00	0.0	60
X es	C% 51	30 2 5 C% 51.2 50.0 44.4 53	2 0.0	4.4		1 966.7	8	1 66.7 1	5	37.5	50.5	2 45.0 1	0.00.	36.0	.5 1 8 1 5 4 8 2 0 5 0 0 0 2 3 0 0 0 0 86.1 100.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0	00.0	2 86.1 10	30.00	00.0	0.0	30
ON	C% 25	14 0 4 C% 23.0 0.0 38.9	0.0	8.9	4 4 15.4	0.0	33.3	33.3	0.0	50.0	19.9	0.0	0.0	3 26.2	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0.0	143.7	0.0	00.0	00.0		14
Don't know	14 C% 23.6	14	2 2 50.0 16.7 30.	6.7	∞ ∞	33.1	₩ 8	0.0	0.0	0.0	5 29.7	255.0	0.0	37.8	8 1 1 0 0 0 5 2 0 5 1 0 1 0 0 0 0 8 33.3 8.3 0.0 0.0 0.0 29.7 55.0 0.0 37.8 37.8 0.0 56.3 13.9 0.0 100.0	0.0	156.3	0	0.0	0.00		14
Refused	Ω %	1 0 0 C% 2.2 0.0 0.0	0.0	0 0 0	0 0 0	0 0	∞ 	0.0	0.0	12.5	0.0	0.0	0.0	0.0	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	0.0	0 0	0.0	0 0	0.0	0.0	2.2

C10e. Would you have purchased the same type and efficiency level of pumping and hydraulic equipment if you had not visited the center? BASE: End-User who have purchased pumping equipment

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										T,	ligh									TYPE	
			CENTER NAME	NAME		,		Sasic		у, (erf/	Irr/	-	,	001	ď.	-j-	M	ater -		
	Total AgTAC SDGE CTAC ETCABCDE	AgTAC B	SDGE	CTAC	ETC -ETC	ERC d	Au-/ dits G	/Gen EE F H	Food H I	HVAC b	Green Pumps build Wells KL	Pumps . Wells .	Light -ing M	MO- CORS	pump- Ping control	Cess a	riger ation ' Q	T24 w	Waste END water USER ST	END USER T	UMA U
Total	5 5 0 0 C%100.0 100.0 0.0 0.0	5.00.0	0.0	0.0	0.0 0.0	0.0	0.0	0.0	0.0	0.0	0.0	3	0.001	0 3 0 1 0 0.0 100.0 100.0 100.0 0.0	0.0	0.0	0.0	0.0	0.0	0.0 100.0	5
Y e s	2 2 0 C% 33.3 33.3 0.0	33.3	00.	00.0	0.0	0.0	0.0	0.0	0.0	00.0	0.0	0 1 0 1 0.0 25.0 0.0 66.7	0.0	1 66.7	0.0	00.	0.0	0.0	0.0	0 0 2 0 0 0 33.3	33.2
NO	2 2 0 C% 41.7 41.7 0.0	2 41.7	00.	00.0	0.0 0.0	0.0	0.0	00.	0.0	0.0	00.0	2 50.0	0.0	33.3	0.0 50.0 0.0 33.3 0.0 0.0	0.0	0.0	00.0	00.0	00.0	2 41.7
Don't know	C% 25.0 25.0 0.0 0.0	1 25.0	00.		0.0	0.0	0.0	0.0	0.0	0 0	0.0	1 25.0 1	0 001	0.0 0.0 25.0 100.0 0.0	0.0		0.0	00.	0.0	0 0	1 25.0

C10f. Would you have purchased the same type and efficiency level of other agricultural equipment if you had not visited the center? BASE: End-Users who have purchased other agricultural equipment

		i		!			1	-		Щ	High	,				1		1		TYPE	
		U	CENTER NAME	NAME		K		asic		<u>ы</u> , (berf/ .	Irr/	+ 5 	Li (0001	K 1	ењ. 	X X	ater -		
	Total AgTAC SDGE CTAC ABCD	otal AgTAC SDGE CTAC	SDGE -C		ETC ERC	ERC C	dits G	EE F	Food H I	HVAC b	build V	rumps Wells L	Lingin Ling M	tors i	ing control from the first control con		ation 2	T24 W	waste END water USER ST	SER -T	UMA U
Total	3 3 0 C%100.0 100.0 0.0	3	0.0	0.0	0.0	0.0	0.0 0.0 0.0	0.0	0.0	0.0	0.0	2	100.0	100.0	0.0 100.0 100.0 100.0 0.0	0.0	0.0	0.0	0.0	0 3	3
Yes	1 1 C% 37.5 37.5		0.0	0.0	0.0	0.0	0.0 0.0 0.0	0.0	0.0	0.0	0.0	0.0 40.0 0.0	0.0	50.0	50.0 0.0 0.0	0.0	0.0000	0.0	0.0	0 0.0 37.5	37.5
ON	C% 25.0 25.0	1 25.0	00.	00.	0.0	0.0	0.0	0.0	00:	0.0	0.0	140.0	0.0 40.0 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 25.0	125.0
Don't know	1 1 0 0 C% 37.5 37.5 0.0 0.0	1 37.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0 0 0 0 0 20.00 100.0 50.0	0 20.0	0.0	0.0	0.0	0.0	0.0	0 1 0.0 37.5	1 37.5

C10G. Would you have purchased the same type and efficiency level of cooking or food preparation equipment if you had not visited the center? BASE: End-Users who have purchased cooking or food prep equipment

SEMINAR CATEGORY

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10.00.0	.0 81.8 0.0 1	C* 81.8 0.0 0.0 0.0 0 12 0 1 8 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

C10H. Would you have purchased the same type and efficiency level of other energy-using equipment if you had not visited the center? BASE: End-Users who have purchased energy-using equipment

	E UMA U	38	20 23.5	12 32.9	13.6
	TYPE END USER (0.0	0.0	0.0	0.0
	Water . Waste] Water	0.0	0.0	0.0	0.0
	T24	100.0	100.0	00.	0.0
	Ref- riger ation 2	2	100.0	00.	0.0
	T L L L L L L L L L L L L L L L L L L L	2 00.00	56.0	144.0	0.0
	ool ng c	0.0	00.0	00.0	0.0
GORY	TO-F	2	39.2	30.4	30.4
SEMINAR CATEGORY	TYPE TYPE High	38 3 11 17 1 7 4 2 1 11 2 2 8 2 0 2 2 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	8 0 7 1 2 1 4 2 1 3 1 0 1 2 1 0 0 20 50.0 0.0 100.0 31.5 100.0 100.0 40.4 100.0 50.0 34.3 39.2 0.0 56.0 100.0 100.0 0.0 0.0 53.5	6 0 0 3 0 0 3 0 1 4 1 0 <td>2 1 0 0 0 0 3 0 0 1 1 0 0 0 0 0 0 0 0 25.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 13.6</td>	2 1 0 0 0 0 3 0 0 1 1 0 0 0 0 0 0 0 0 25.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 13.6
SEMINA	rr/ oumps I Wells -	2.00.0	50.0	50.0	0.0
	High perf/ I Green E build W	2.00.0	2 00.00	00.0	0.0
	IVAC b	11.00.00.	40.41	30.1	3 29.5
	ood F	1.00.00.	00.00	00.	00.0
	asic Gen EE F	2.00.0	2 00.00	00.	0.0
	uu- / lits	4 .00.00	31.51	3	0.0
	ERC O	7	7	00.	0.0
		1 000.00	0.0	00:	100.0
	ENTER NAME	17	8	37.5	2 12.5 1
	CENTER NAME	11.00.00.			
	CENTER	3.00.00.1	20 2 4 C% 53.5 57.1 33.3	12 1 5 C% 32.9 42.9 44.4	5 0 2 C% 13.6 0.0 22.2
	otal <i>P</i>	38	20 53.5	12 32.9	13.6
	HI	C%1	00	Ö	%
					MOM:
		Total	Yes	No	Don't know

C12. How influential would you say the information you received from the center is likely to be on your future equipment purchase decisions? BASE: End-Users

			CENTER NAME	NAME				Basic		H Q	High perf/ I			į		1	Ref-	M		TYPE	
	Total A			CTAC	ETC - E E E E E E E E	ERC C	Au- , dits G	/Gen EE F H	Food E	G HVAC b J		Pumps L Wells	Light Me -ing te M	Mo- pu tors ir N	pump- Pr ing ce 0	Pro- ri cess at P	riger ation 7 2	T24 w	Waste El water U: S	END USER T	UMA U
Total	215 18 32 8 C%100.0 100.0 100.0 100.	18	32	0 2	13	66	100.0	31	38	38	17	8	26 100.0 10	14	2	7	6 100.0 10	13	8	0.0	215
1 - Not at all influential	C% 4.1	. 8	1.0	2.4	17.4	e 0.	8.1	16.5	0.0	1.5	00.	14.1	00.0	00.	0.0	0.0	00.	o	00.0	0.0	e 1.
7	8 8 8 9	2.3	3.	4.9	1.8	2.0	0.0	6.8	0.0	5.6	7.5	0 4.7	4.9	00.0	0.0	0.0	0.0	8.4	0.0	0.0	ω ω κ
м	31 C% 14.4	11.4	9 26.9 D	დ დ დ ე	3 21.7	13.7	59.5	6.1	10.4	14.3	31.6	9.	3 13.0	8.6	1 66.7 1	14.1	0.9	4.2	17.2	0.0	31
な	76 C% 35.5	31.8	26.9	38	2 17.4	33.3	16.2	12 38.8	15 38.9	12 32.6	31.6	23.6	35.8	29.9	00.	4 52.2	86.1	33.8	27.5	0 0	76
5 - Very influential	66 C% 30.7	43.2	12 36.5	23	3 21.7	21 31.4	8	12.9	10	17	17.3	43.4	30.08	8 57.1	33.1	28.2	06.9	33.8	55.3	0.0	66
Don't know	25 C% 11.4	4. 1.		12.2	13.0	10 15.7 C	89 H H	18.9	22.0		12.0	0 7.	16.3	4. H &	00.	5.5	0 0	o ⊢ o	0.0	0.0	25 11.4
MEAN:		3.96 4.07	3.96 4.00 E	4.00 E	3.20 BCDF	4.02 E J	3.18 IJMNP	3.31 IJMNP	4.23 GH	4.15 GH	3.67 N	3.81	4.09	4.51 3 GHKQ	3.67 4	4.15 4 GH	4.00 GN	3.81	4.38 GH	*	3.96

C13. BASE

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your visits to the center affect how your business operates or maintains any of its equ	
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		J	CENTER NAME	NAME			Щ	asic		- 2	High perf/	lrr/			2001		Ref-		Vater -	TYPE	
	Total A	Cotal AgTAC SDGE CTAC	SDGE CIA	CTAC	AC ETC ERC dits	ERC C	Au- lits G	Gen EE F	F00d	HVAC]	Green build K	Pumps Wells	Light -ing M	Mo- tors	I -dmnc	L P I	riger ation 2	T24	/Gen Green Pumps Light Mo- pump- Pro- riger Waste END EE Food HVAC build Wells -ing tors ing cess ation T24 water USER UMAHIJKLMNDPQRSTU	ND SER	UMA U
Total	215 18 32 85 C%100.0 100.0 100.0 100.0	215 18 32 00.0 100.0 100.0	32		13	66	8.00.00.	31.00.00.	38	38	17	8	26 100.0	14	2	7	100.0	13	13 66 8 31 38 38 17 8 26 14 2 7 6 13 8 0 215 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 0.0	0.0	215
	84 9 17 33 C% 39.3 50.0 51.9 39.0	9	17	33.0	3 26.1	33.3	32.4	10	24.3	21 55.9	17.3	28.3	16 62.5	7	33 33	33.7	36.1	28.2	3 22 2 10 9 21 3 2 16 7 1 2 2 4 5 0 84 2 6.1 33.3 33.3 33.7 36.1 28.2 61.9 0.0 39.3	0.0	84 39.3
	100 7 C% 46.6 38.6	38.6	14 33 44.2 39.0		8 .09	38	3 40.5	20	24	13	10	37.7	21.2	43.2	166.7	5	27.8	7	8 38 3 20 24 13 10 3 5 6 1 5 2 7 0 0 100 60.9 56.9 40.5 66.2 65.3 34.0 58.6 37.7 21.2 43.2 66.7 66.3 27.8 52.1 0.0 0.0 46.6	0.0	100
Don't know	30 2 1 C% 14.1 11.4 3.8	11.4	3.8	19 22.0	13.0	7.6	27.2	. 8 ⊔	10.4	10.2	24.1	34.0	16.3	7.1	0.0	0.0	36.1	3	2 7 2 1 4 4 4 3 4 1 0 0 2 3 3 0 30 13.0 9.8 27.2 1.8 10.4 10.2 24.1 34.0 16.3 7.1 0.0 0.0 36.1 19.7 38.1 0.0 14.1	0.0	30

C14. For what equipment did you change the operations? BASE: End-users who said their visits affected how thier business operates or maintains equipment

			CENTE	CENTER NAME				Basic			High perf/]				1	1	Ref-			TYPE	 -
	Total A			CTAC	ETC	ERC F	Au- dits G	/Gen EE H	Food I	HVAC 1		Pumps 1 Wells . L	Light P -ing t M	Mo- tors i N	pump- Ping cing	Pro- cess P	riger ation 2	T24 w	Waste E water U S	END USER T	UMA U
Total	84 C% 39.3	3 50.0	17 51.9	33	3 26.1	22	32.4	10	24.3	21 55.9	3 17.3	28.3	16 62.5	7	33.3	33.7	36.1	28.2	61.9	0.0	84 39.3
Lighting equipment	29 C% 13.5	29 1.5 6.8	6	13 14.6	13.0	15.7	24.3	17.8	10.4	12.0	0.0	00.	7 26.9	7.1	e e e	23.5	06.	19.7	00.0	0.0	29 13.5
HVAC equipment	C% 4.1	0 1 0.1 C	00.0	4.9	13.0	2.0	00.0	1.8	0.0	0.0	7.5	0 1 4.	16.3	2 8 0	33.3	0.0	0.0	1.2	5.3	0.0	9 1.1
Pumping and hydraulic eqiupment	96 C% 44.8	96 8 .8 45.5	34.6	31 36.6 F	7 52.2	39 58.8 CD	5 67.6	16 51.3	18	15 39.5	48.9	33.0	30.0	4 27.2	33.3	33.7	5 2 2	8	61.9	0.0	96
Motors and/or ASDs	37 C% 17.4	7 2 4 9.1	17 53.8 BDF	15 17.1 CF	8 7.	3.9 CD	32.4	15.4	e 0.	21.5	14.3	0 4.7	6 22.7	24 4	00.0	34.3	00.0	14.1	27.5	00.	37
Refrigeration equipment	.t 4	4 1 6 4.5	1.0	2.4	0.0	0.0	0.0	6.8	0.0	0.0	0.0	0 1 4.	0.0	4.3	0.0	0.0	0.0	0.0	0.0	0.0	1.6
Cooking/food prep- aration equipment	17 C% 8.0	17 1.0	7.7	ω ∞ ∞	13.0	4 0.	88	6.1	. u	10.7	24.1	u 4.	8	4 .	00.0	8 8	00.0	8 4.	00.0	0.0	17
Irrigation equipment	C% 0.5	1 2.3	1.9	0.0	0.0	00.	88	00.0	00.	00.0	0.0	00.	0.0	0 8 0	00.0	00.0	00.0	00.	00.0	0.0	0.5
Don't know/Refused	4 C% 21.	45 5 C% 21.0 27.3	6 B	19	3 21.7	16 23.5	00.	89.0	33 13	20.5	15.0	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	5 20.3	44.4	0.0	0.0	13.0	23.9	5.3	00.0	45

C16. Do you still have the information you received from the center's seminars?

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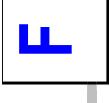
			CENTER	CENTER NAME		. '		asic		I Ж Д; ! ! !	igh erf/I			PC	001	Re	- J	M	ater -	TYPE	
	Tot: A-	otal AgTAC SDGE CTAC	gTAC SDGE -BC	CTAC	ETIC -	ERC -F	iu- lits i-G	/Gen EE F H	Food H	Green Pumps Light Mo- HVAC build Wells -ing tors: JKLMN	reen P uild W -K	umps L ells - -L	ight ing t -M :	o- pi ors ir -N	pump- Pro- ing cess e-0P	50- r: 888 at P	riger ation T24 QR	724 w -R	Waste EI water US S	END USER T	UMA U
Total	3,	346 26 43 146 39 91 9 61 47 60 35 15 44 15 3 11 10 29 8 131 215 C%100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0	5 43	146	39	91	9	61	47	60	35 00.0 1	15 00.0 1	44 00.0 1	15	3	110.010	10	29	8	131	215
Y es	33.	321 25 42 C% 92.9 93.9 97.1 9	5 42 9 97.1	138	37 79 8 57 39 58 33 14 40 15 3 11 10 25 8 95.7 87.1 93.0 94.4 83.3 98.0 92.9 92.0 90.5 100.0 100.0 100.0 100.0 87.2 100.0 C	79 87.1 C	93.0	57	39 3.3	58 98.0 IR	33	14	40	15	3	11 10.0 10	10	25 37.2 1	88 0.00	120	201
No	21 C% 6.0	21 2 .0 6.1 1	2 1 1.4 F	5.7	1 9 0 3 7 1 2 1 4 0 0 0 0 2 0 2 0 5.9 10.0 0.0 5.6 13.9 2.0 7.1 8.0 9.5 0.0 0.0 0.0 0.0 6.4 0.0	10.0	0.0	5.63	7. 13.9	2°0 I	7.1	8 0 1	9.5	0.0	0.0	0 0.	0.0	6.4	0 0	10	11 5.0
Don't know	0% L	4 0 1 C% 1.1 0.0 1.4	1.4	0.0	1.4 2.9 7.0 0.0 2.8 0.0 R	2.03	7.0	00.	2 . 8 . 1	00.0	0.0	0.0	0.0 0.0 0.0 0.0 0.0 0.0 6.4 0.0 0.9	00.0	0.0	00.0	00.0	6.4 U	0.0	1.0	н . 2

C18. Have you shared any of the information you received from the center's courses with others either within or outside of your company?

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										H	igh									TYPE	
			CENTE	R NAME			I - 11/	Sasic 'Con		ט, נ	erf/ I	rr/	+ 45 M	P.	ool mmn- Br	Re	£-	Wa	ter		
	Toté A-	Total AgTAC SDGE CTAC ETC ERC dits EE Food HVAC build Wells ling tors ing cess ation T24 water USERABEFGHIJKLMNOPQFTTGTIIKKKKKKCPQFTTKK	C SDGE	CTAC D	ETC -E-E-	ERC C	dits ,	EE F	700d E	IVAC b	uild W	ells :	ing t	ors ir	19 CO	ss at	Oion Oin III	724 wa R	ster US	ER -	UMA U
Total	34	346 26 43 146 39 91 9 61 47 60 35 15 44 15 3 11 10 29 8 131 215 C%100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0	6 43 0 100.0	146	39	91	9	61	47	60	35	15	44	15	3	11 0.0 10	10	29	8	131	215
X es	281 C% 81.3 72	81 15 .3 72.7	19 37 121 32 72 7 48 40 50 22 11 37 12 3 9 10 24 8 104 72.7 85.7 82.9 78.6 79.1 79.2 86.1 84.5 63.9 70.6 83.5 80.8 100.0 78.2 100.0 83.3 100.0 79.2	121	32	72	7	48	40	50	22 63.9	11170.6	37	12	3 7	9 8.2 10	10 8	24 3.3 10	80.0	104	177
ON	C% 18.	64 7 6 2 C% 18.5 27.3 12.9 17 C B	7 6 3 12.9	25	25 7 20 2 13 7 9 13 4 7 3 0 2 0 5 0 27 17.1 21.4 20.9 20.8 13.9 14.4 36.1 29.4 16.5 19.2 0.0 21.8 0.0 16.7 0.0 20.3	20 21.4	20.9	13	13.9	9	136.1	29.4	7	3.519.2	0.0	1.8 2	0.0	6.7	0.0	0.3	37
Don't know	%	1 0 1 C% 0.2 0.0 1.4	0 1 0 1.4		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.0	0.0	00.	00.	1.0	0.0	00.0	00.0	00.0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0	00.0	0.0	0.0	0.5	0.0





F.1 END-USE CUSTOMER CROSS-TABULATIONS

K1. How often do you or others in your company attend seminars, workshops or other training courses that address energy efficiency? BASE: All

							BUSINESS I	TYPE						
	i	Total A	Agri- culture	Commer- cial Other	Rest- aurant /Grocery	Industry	Instit- utional	Office G	Retail	Waste- water- I	Large (>500 kW)	Medium (100- 500 kW)	Small (20-100 kW)	Very Small (<20 kW)
Total	%	358403 100.0	10544	65731	37625	40964	10645	118673	70505	3716 100.0	5835 100.0	20361	81513 100.0	250694
Very frequently (once a month)	%	6597	202	835 1.3	1923 5.1	0 · 0	905 8.5 CEG	1123 0.9	1480 2.1	129 3.5	432 7.4 M	1488 7.3 LM	2008 2.5 K	2669 1.1 JK
Somewhat frequently (once a season/year)	00	47111	793 7.5	8715	3814	3296 8.0	2145 20.2 BE	19256 16.2	8026 11.4	1066	1728 29.6 LM	5707 28.0 LM	9019 11.1 JK	30656 12.2 JK
Infrequently (Once every other year)C%	r) C%	68539 19.1	2992 28.4 DF	13180	5547 14.7 B	8753	1291 12.1 B	24361	11285	1130	1738 29.8 M	6723 33.0 LM	16834 20.7	43244 17.2 JK
Not at all	Ö %	223971 62.5	6201	36622	24503	27555	6273 58.9	73614	47811	1392	1906 32.7 LM	5912 29.0 LM	52084 63.9 JK	164069 65.4 JK
Don't know/Refused	0/0	12186	356	6379 9.7 FG	1838 4.9 G	1360	0,00	318 0.3 CD	1904	0.0	30	531	1568 1.9	10056

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SIGNIFICANCE TESTING AT .95

BCDEFGHI/JKLM

KCTAC2. Have you heard of Southern California Edison's Customer Technology Application Center located in Irwindale? BASE: SCE and SCG Customers located in the CTAC/ERC target market area

	ii						<u>H</u>	END USER BA	BANNER =====				# 	
						·	BUSINESS TY	TYPE						
	i	Total A	Agri- culture	Commer- cial Other	Rest- aurant /Grocery I	Industry	Instit- utional	Office G	Retail V	Waste- water- I	 Large (>500 kW) J	Medium (100- 500 kW)	Small (20-100 kW)	Very Small (<20 kW)
Total	% O	235736	3072	45165	27426	28733	6897	70654	50459	3330	2861 100.0	15752	57307	159816
Yes	Ŋ %	33427 14.2	522 17.0	7312 16.2	3316 12.1	7614 26.5 GH	2368 34.3 CDGH	6727 9.5 EF	3727 7.4 EF	1841 55.3	1791 62.6 KLM	6061 38.5 JLM	9927 17.3 JK	15649 9.8 JK
ON	00	195734 83.0	2550	37024	22379 81.6	19759 68.8 GH	4529 65.7 GH	62799 88.9 EF	45204 89.6 EF	1489 44.7	1070 37.4 KLM	9691 61.5 JLM	44233 77.2 JKM	140740 88.1 JKL
Don't know/Refused	O W	6575	0.0	829 1.8	1731	1360	0.0	1127	1527	0.0	0.0	0.0	3148	3427

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RESEARCH AMERICA INC PAGE 2

SIGNIFICANCE TESTING AT .95

BCDEFGHI/JKLM

CTAC5. What types of services do you recall being offered by CTAC? BASE: Respondents who have heard of Southern California Edison's Customer Technology Application Center

	Medium Small Very (100 (20-100 Small very w) 500 kW) kW) (<20 kW)	91 6061 9927 15649 .0 100.0 100.0 100.0	887 3268 4906 3918 49.5 53.9 49.4 25.0	410 1588 326 3206 22.9 26.2 3.3 20.5	283 974 279 0 15.8 16.1 2.8 0.0	328 220 178 1936 18.3 3.6 1.8 12.4	366 875 78 3997 20.4 14.4 0.8 25.5	578 875 368 2645 32.2 14.4 3.7 16.9	1000
	Waste- Large (>500 kW)	1841 1791 100.0 100.0	1352	460	367	432	194	626 34.0 3:	0.84
	Office Retail	6727 3727 100.0 100.0	3571 439 53.1 11.8	1215 220 18.1 5.9	318 220 4.7 5.9	896 330 13.3 8.8	1215 220 18.1 5.9	1506 220 22.4 5.9	2546 3178
BUSINESS TYPE	Instit- utional	14 2368 .0 100.0	34 2003 .9 84.6	89 606 .9 25.6	229 54 3.0 2.3	115 54 1.5 2.3	229 109 3.0 4.6	344 54 4.5 2.3	3520 365
	Rest- aurant /Grocery Industry	3316 7614 100.0 100.0	2293 2734 69.2 35.9	286 1589 8.6 20.9	0.0	0.0	143 2.	143 4.3 4.4	870 35.
	Commer- cial Other	522 7312 100.0 100.0	107 480 20.4 6.6	107 1048 20.4 14.3	107 241 20.4 3.3	78 758 14.9 10.4	107 3101 20.4 42.4	107 1466 20.4 20.1	716
	Agri- Total culture	33427	12979	5530	1536	2662 8.0	5316	4465 13.4	13806
	ı	Total C%	Seminars, workshops, classes	Special exhibits and product displays	Hands-on product demonstrations/showcases C%	Computer lab/special en -ergy-related software C%	Tours of facility and exhibits/displays C%	Expert advise from SCE energy specialists C%	None/Don't know

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SIGNIFICANCE TESTING AT .95

BCDEFGHI/JKLM

CTAC6. Which if any of these services have you used or participated in? BASE: Respondents who are aware of one or more of CTAC's specific services

====== END USER BANNER ===

							BUSINESS T	TYPE						
	-	Total A	Agri- culture	Commer- cial Other	Rest- aurant /Grocery	Industry	Instit- utional	Office	Retail	Waste- water I	 Large (>500 kW) J	Medium (100- 500 kW)	Small (20-100 kW)	Very Small (<20 kW)
Total	%	19621 90.3	107	4870 100.0	2436 100.0	4094 75.4	2003	4181 92.9	549 100.0	1381 83.8	1226	4212 80.9	5096 98.1	9087 99.9
Seminars, workshops, classes	%	11319	78 57.1	2732	1535 63.0	2505 46.1	1234	2126	549 100.0	561 34.0	735 59.9	2594 49.8	3342	4649
Special exhibits and product displays	%	1897	00.	241	00.0	596 11.0	380	0.0	220	460	8 8 9	1118	697 13.4	00.0
Hands-on product demonstrations/showcases	% U	966	00.	0.0	0 .	0 0	380	0.0	220	367	54 4.4	711	201	0.0
Computer lab/special en -ergy-related software C%	en ce C%	539	0.0	0.0	0.0	320	0.0	0.0	220	00.0	0 0	539	0.0	0.0
Tours of facility and exhibits/displays	O %	4597	0.0	2392	0 .	596 11.0	217	896 19.9	330	165	164 13.4	548 10.5	596 11.5	3289 32.6
Expert advise from SCE energy specialists	% O	3803	0.0	709	143 5.9	596 11.0	543 25.1	1188 26.4	330	295	295 24.0	1017	886	1605 15.9
None/Don't know	%	8580 39.5	58 42.9	1188 24.4	758	2605	932	2082	00.0	957 58.1	361	1909	1565	4746 47.0

SIGNIFICANCE TESTING AT .95

Whether respondent has used any of CTAC's services. BASE: SCE and SCG Customers loacted in the CTAC/ERC target market area

===== END USER BANNER ===

							BUSINESS TN	TYPE						
	I	Total A	Agri- Total culture	Commer- cial Other	Rest- aurant /Grocery	Industry	Instit- utional	Office	Retail	Waster water I	Large (>500 kW)	Medium (100- 500 kW)	Small (20-100 kW)	Very Small (<20 kW)
Total	ů	235736	3072	45165	27426	28733	6897	70654	50459	3330	2861	15752	57307	159816
Yes	°°	14009	78	3682	1678 6.1	2939 10.2	1451 21.0 DGH	2417 3.4	549 1.1 EF	1215 36.5	1062 37.1 LM	3627 23.0 LM	3632 6.3 JK	5689 3.6 JK
NO	ů U	221727 94.1	2994	41483 91.8	25748 93.9	25794 89.8 H	5446 79.0 DGH	68237 96.6 F	49910 98.9 EF	2115	1799 62.9 LM	12125 77.0 LM	53675 93.7 JK	154128 96.4 JK

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SIGNIFICANCE TESTING AT .95

APPENDIX F

Whether respondent is interested in using one of CTAC's services in the future BASE: SCE and SCG Customers loacted in the CTAC/ERC target market area

							BUSINESS I	TYPE						
	ı	Total C	Agri- cial culture Other	Commer- cial Other	Rest- aurant /Grocery D	Industry	Instit- utional	Office	Retail	Waster II-	Large (>500 kW)	Medium (100- 500 kW)	Small (20-100 kW)	Very Small (<20 kW)
Total	Ö	235736	3072	45165	27426	28733 100.0	6897	70654	50459	3330	2861	15752	57307	159816
Yes	%	137486	2096	29210 64.7	16094	13511 47.0	4666	36000	33507	2402 72.1	1903	10597	32985	92000
	00	98250	976	15955	11332 41.3	15222	2231 32.3	34654 49.0	16952	928	958 33.5	5155	24322	67816

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SIGNIFICANCE TESTING AT .95

CTAC7. Which if any of the following CTAC services would you want to use in the future? BASE: SCE and SCG Customers loacted in the CTAC/ERC target market area

	ii ii						BUSINESS T	END USER B	BANNER ====					
	-	Total A	Agri- culture	Commer- cial Other	Rest- aurant /Grocery D	Industry	Instit- utional	Office	Retail	Waste- water	Large (>500 kW)	Medium (100- 500 kW)	Small (20-100 kW)	Very Small (<20 kW)
Total	O/0	235736	3072	45165	27426	28733	6897 100.0	70654	50459	3330	2861	15752	57307	159816
Seminars, workshops, classes	O %	64187	1415 46.0	17154 38.0	7009	6915 24.1	3010 43.6 H	18671 26.4	8597 17.0 CF	1416 42.5	1351 47.2 LM	6987 44.4 LM	14276 24.9 JK	41573 26.0 JK
Special exhibits and product displays	%	59525	619 20.2	16665 36.9 DEH	4956 18.1	4546 15.8 C	1658 24.0	20407	9184 18.2 C	1489 44.7	642 22.4	4670 29.6	10071	44142
Hands-on product demonstrations/showcases (% C	52544	729 23.7	9866 21.8	3565 13.0	7511 26.1	3083 44.7 CDGH	16432 23.3	10015 19.8	1344 40.4	1161 40.6 LM	5552 35.2 M	12456 21.7	33375 20.9 JK
Computer lab/special en -ergy-related software C%	en C%	36748	619	8114 18.0	2775	4820 16.8	1620 23.5	12307	5371	1121	708	4020	9029	22991 14.4
Tours of facility and exhibits/displays	O %	38526 16.3	671 21.8	10457 23.2	4185 15.3	6525 22.7	2023 29.3	9833 13.9	3343 6.6 CEF	1489	520 18.2	4539 28.8	9987	23479 14.7 K
Expert advise from SCE energy specialists	м О	92481 39.2	1135	20170	11609	9830	2723	20091 28.4 H	24773 49.1 G	2150	1378	7083	26566	57454
None/Don't know	°°	98250	976 31.8	15955	11332	15222	2231	34654	16952	928	958	5155	24322	67816

SIGNIFICANCE TESTING AT .95

APPENDIX F

KAGTAC2. Have you heard of Southern Californa Edison's Agricultural Technology Application Center, or "Ag-TAC", located in Tulare? BASE: SCE customers located in AgTAC's target market

	IÍ							END USER B	BANNER ====					
							BUSINESS T	TYPE						
	I	Total A	Agri- culture	Commer- cial Other	Rest- aurant /Grocery	Industry	Instit- utional	Office	Retail H	Waster	Large (>500 kW)	Medium (100- 500 kW)	Small (20-100 kW)	Very Small (<20 kW)
Total	olo C)	14321	4118	2539 100.0	979	743	439	3054 100.0	2063	386	2273	601 100.0	4385	7062
Yes	ů	8093	3 3437	1802	429	491 66.1	349	512 16.8	688 33.3	386	2111 92.9	359 59.7	1955 44.6	3669
No	% O	6228 43.5	681	737	551	252	91	2542	1375	00:	162	243 40.3	2430	3393 48.0

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SIGNIFICANCE TESTING AT .95

AGTC5. What types of services do you recall being offered by AgTAC? BASE: Responents who have heard of Southern California Edison's Agriculture Technology Applicaion Center in Tulare

	#						BUSINESS T	END USER B	BANNER ====					
		Total A	Agri- culture	Commer- cial Other	Rest- aurant /Grocery	Industry	Instit- utional	Office	Retail	Waste- water	Large (>500 kW)	Medium (100- 500 kW)	Small (20-100 kW)	Very Small (<20 kW)
Total	%	8093	3437	1802 100.0	429	491 100.0	349	512 100.0	688 100.0	386 100.0	2111	359 100.0	1955	3669
Seminars, workshops, classes	%	3643	1982 57.7	901	395 92.1	36	226 64.7	00.0	00.0	104	1465	161 44.9	994 50.8	1023
Special exhibits and product displays	O %	1247	674	225 12.5	122 28.5	0.0	226 64.7	00.0	00.0	0.0	630	91 25.2	179	347 9.5
Hands-on product demonstrations/showcases	ري 0	850 10.5	277	225 12.5	122 28.5	0.0	226 64.7	00.0	00.0	0.0	150	91 25.2	263 13.4	347
Computer lab/special en -ergy-related software C%	°C C	706	481 14.0	00.0	0.0	0.0	226 64.7	0.0	00.0	00.0	481 22.8	91 25.2	135	0.0
Tours of facility and exhibits/displays	%	1000	427 12.4	225 12.5	122 28.5	0.0	226	0 0	00.0	00.0	300	91 25.2	263 13.4	347 9.5
Expert advise from SCE energy specialists	00	1571	737	225 12.5	273	36	267 76.5	0.0	0.0	35.9.1	354	161 44.9	790	266
None/Don't know	O %	4051	1133 32.9	901	34	420 85.5	82 23.5	512	688 100.0	282	623 29.5	162	33.9	2605

SIGNIFICANCE TESTING AT .95

AGTC6. Which if any of these services have you used or participated in? BASE: Respondents who are aware of one or more of AgTAC's specific services

	II							END USER B.	BANNER ===					
							BUSINESS I	TYPE						
		Total A	Agri- culture B	Commer- cial Other	Rest- aurant /Grocery	Industry E	Instit- utional F	Office G	Retail H	Waste- water I	Large (>500 kW) J	Medium (100- 500 kW)	Small (20-100 kW)	Very Small (<20 kW)
Total	000	4042 88.4	2305	901	395 100.0	71 29.6	267	0.0	0.0	104	1489 100.0	197	1293 83.5	1064
Seminars, workshops, classes	000	1558 34.1	975	225	122 30.9	36 14.8	132 49.3	0.0	0.0	69 32.8	630	126 64.1	413	388 29.0
Special exhibits and product displays	0/0	737	300	225	122 30.9	00.	91	00.0	0 0	0.0	300	9146.1	00.0	347
Hands-on product demon- strations/showcases (n- C%	390	300	00.0	0.0	00.0	91	0.0	0.0	00.0	300	91	00.0	0.0
Computer lab/special en -ergy-related software C%	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	721 15.8	630 24.6	0.0	0.0	0.0	91	00.	0.0	00.0	630	91	0 0	0.0
Tours of facility and exhibits/displays	000	556	344 13.4	0.0	122	0.0	91	00.0	0.0	00.0	300	9146.1	2° 8 8 •	122 9.1
Expert advise from SCE energy specialists	% O	1405	1013	225	0.0	36 14.8	132 49.3	0.0	0.0	00.0	630	126 64.1	383 24.7	266 19.9
None/Don't know	000	2432	1264 49.4	450	273 69.1	169 70.4	135	00.0	0.0	142	708	35	963	726 54.2

SIGNIFICANCE TESTING AT .95

Whether respondent has used any AgTAC's services BASE: SCE customers located in AgTAC's target market

							END USER B	BANNER ===					
						BUSINESS T	TYPE						
	Total A	Agri- Colture O	Commer- cial Other	Rest- aurant /Grocery	Industry	Instit- utional	Office G	Retail	Waste-	Large (>500 kW)	Medium (100- 500 kW)	Small (20-100 kW)	Very Small (<20 kW)
	14321	4118	2539	979	743		3054	2063	386	2273		4385	7062
O %						100.0	100.0	100.0		100.0	100.0	100.0	100.0
	2409						0	0		780		712	720
% C		34.6	17.7	12.5	9.6	30.0	0.0	0.0	54.5	34.3	32.7	16.2	10.2
	11912	2694	2089	857	672	308	3054	2063			405	3673	6342
% Ö							100.0	100.0	45.5	65.7		83.8	89.8

SIGNIFICANCE TESTING AT .95

Whether respondent is interested in using one of AgTAC's services in the future BASE: SCE customers located in AgTAC's target market

===== END USER BANNER ===

1	Total C	Agri- c: culture Ot	Commer- cial Other	Rest- aurant /Grocery	Industry	Instit- utional	Office	Retail	Waste- water- I		Medium (100- 500 kW)	Small (20-100 kW)	Very Small (<20 kW)
% Ŭ	14321	1 4118 0 100.0	2539	979	743	439	3054	2063	386 100.0	2273 100.0	601	4385	7062
O O	7249	2715 6 65.9	1168	244	491 66.1	263 59.9	1268 41.5	783	317	1457	364	2153 49.1	3275 46.4
O/6	7072	2 1403 4 34.1	3 1371 L 54.0	735	252	176 40.1	1786	1280	17.9	816 35.9	238 39.5	2232	3787

RESEARCH AMERICA INC PAGE 12

SIGNIFICANCE TESTING AT .95

AGTC7. Which if any AgTAC services would you want to use in the future? BASE: SCE customers located in AgTAC's target market

===== END USER BANNER ===

						BUSINESS T	TYPE						
	Total	Agri- culture	Commer- cial Other	Rest- aurant /Grocery	Industry	Instit- utional	Office	Retail H	Waste- water- I	Large (>500 kW)	Medium (100- 500 kW)	Small (20-100 kW)	Very Small (<20 kW)
Total	14321 C% 100.0	21 4118 .0 100.0	2539	979	743	439	3054	2063	386	2273 100.0	601 100.0	4385	7062
Seminars, workshops, classes	3332 C% 23.3	32 1298 .3 31.5	450	122	204	263	424 13.9	253 12.2	317	835	287	747	1463
Hands-on product demonstrations/showcases	. 4466 C% 31.2	56 1712 .2 41.6	676	122	00.0	173 39.3	1058	409	317	1008	161	1359	1939
Tours of facility and exhibits/displays	2896 C% 20.2	96 1254 .2 30.5	225 8 . 9	00.0	36 4.8	173 39.3	639	253 12.2	317	835	196 32.6	918	947 13.4
Expert advice from SCE energy specialists	5107 C% 35.7	1853 7 45.0	717	244 24.9	119 15.9	173 39.3	1058	627 30.4	317	1134 49.9	238	1457	2278 32.3
Agricultural seminars/ displays/demonstrationsC%	3629	29 2169	225 8 . 9	122 12.5	204	132	424 13.9	35	317	1284 56.5	196 32.6	1169	979 13.9
Don't know/None	7072 C% 49.4	72 1403 .4 34.1	1371	735	252	176 40.1	1786	1280	17.9	816 35.9	238	2232	3787

SIGNIFICANCE TESTING AT .95

KERC2. Have you heard of Southern California Gas Company's Energy Resource Center, located in Downey? BASE: SCE and SCG customers loacted in the CTAC/ERC target market area, exluding customers without natural gas service

	II	 					BUSINESS TY	END USER B	BANNER ====					
	I	Total A	Agri- culture	Commer- cial Other	Rest- aurant /Grocery	Industry	Instit- utional	Office	Retail 1	Waste- water I	Large (>500 kw)	Medium (100- 500 kW)	Small (20-100 kW)	Very Small (<20 kW)
Total	O %	225513 100.0	2715	42990	25588 100.0	28733	6897	70654	45534	2402 100.0	2812 100.0	15587	54687	152427
K ⊕ S	O %	30682	522 19.2	6713 15.6	3040 11.9	4131 14.4 F	2704 39.2 CDEGH	9213 13.0	3799 8.3	561	1212 43.1 LM	5449 35.0 M	12410 22.7 JM	11611 7.6 JKL
No	0/0	188625 83.6	2192	35448 82.5	20059	23242 80.9	4193 60.8 CEGH	61441 87.0	40207 88.3	1841	1600 56.9 M	10137 65.0 M	40257 73.6	136631 89.6 JKL
Don't know/Refused	%	6206	0.0	829 1.9	2489 9.7 FG	1360	0.0	0000	1527	00.0	0.0	0.0	2021	4185

SIGNIFICANCE TESTING AT .95

ERC5. What types of services do you receall being offered by the Gas Company's Energy Resource Center? BASE: Respondents who have heard of Southern California Gas Company's Energy Resource Center in Downey

	ii						BUSINESS T	END USER B	BANNER ===					
	i	Total A	Agri- culture	Commer- cial Other	Rest- aurant /Grocery	Industry	Instit- utional	Office	Retail	Waste- water- I	Large (>500 kW)	Medium (100- 500 kW)	Small (20-100 kW)	Very Small (<20 kW)
Total	O %	30682	522 100.0	6713 100.0	3040	4131 100.0	2704	9213 100.0	3799	561 100.0	1212	5449 100.0	12410	11611
Seminars/workshops/ classes	%	9546 31.1	29	3064	1589	115	1146	2342	995	266	390 32.1	1484	3505	4168
Special exhibits and product displays	%	742	58	0.0	00.	0.0	365 13.5	318 3.5	0.0	0.0	54 4.5	540	148 1.2	00.0
Hands-on product demonstrations/showcases	ပိ	1104	29	0.0	540 17.8	0.0	217	318 3.5	0.0	0.0	54 4.5	510	0 0	540 4.6
Computer lab/Special energy-related softwareC%	90 00 00	88 0.3	29	0.0	0.0	0.0	54	0 0	0.0	0.0	54 4.5	0.5	0.0	0.0
Tours of facility and its exhibits/displays	%	303	29	0.0	0.0	0.0	109	0 0	0.0	165 29.5	100	195	00.0	0.0
Expert advise from SCG energy specialists	% O	2456 8.0	29	1067	143 4.7	0.0	54	896	0.0	266 47.4	103	337	1119	896
None/Don't know	0/0 0/0	19383 63.2	464	2771	768	4016	1395	6870	2804	295	773	3630	8077	6904 59.5

SIGNIFICANCE TESTING AT .95

ERC6. Which if any of these services have you used or participated in? BASE: Respondents who are aware of one or more of the Gas Company's Energy Resource Center's specific services

SER BANNER	
\Box	
= END	

Total culture other other lineary infoatry utional culture other other lineary lineary utional culture other lineary lineary utional culture other lineary lineary utional lineary lin			ı		Commer-	Rest-		BUSINESS 1	TY PE 					Small	Very
58 3942 2272 115 1309 22342 995 266 439 72.5 0.0 2823 540 0.0 64.1 2024 995 101 221 873 0.0 66.7 21.1 0.0 64.1 62.5 53.1 25.5 29.6 34.8 0.0 66.7 21.1 0.0 64.1 62.5 53.1 25.5 29.6 34.8 0.0 0.0 1334 0.0 14.8 0.0	Ĕ	Þ.	1	vgri- vulture B	cial Other C	aurant /Grocery D	Industry E	Instit- utional	Office G	Retail H	Waste- water I	Large (>500 kW) J	(100- 500 kW) K	(20-100 kW) L	Smail (<20 kW) M
0.0 2823 540 0.0 64.1 2024 995 101 25.1 873 0.0 66.7 21.1 0.0 64.1 62.5 53.1 25.5 29.6 34.8 0.0 0.0 1334 0.0 217 0.0 0.0 7.3 12.2 0.0 0.0 32.3 0.0 3.7 0.0 0.0 7.3 11.4 0.0 0.0 32.3 0.0 13.5 0.0 0.0 7.3 11.4 0.0 0.0 0.0 13.5 0.0 7.3 11.4 0.0 4.5 5.6 0.0 14.8 27.7 0.0 7.3 12.2 100.0 4.5 5.6 10.0 35.9 7.3 12.2 59.5	%	H	1299 79.3	58 42.9	m Ø				2342	995 53.1			1819 72.5	4334 96.1	4707
0.0 1334 0.0 14.8 0.0 0.0 0.0 54 306 0.0 0.0 14.8 0.0 0.0 0.0 7.3 12.2 0.0 0.0 32.3 0.0 3.7 0.0 0.0 0.0 7.3 11.4 0.0 0.0 0.0 199 0.0 0.0 0.0 7.3 11.4 0.0 189 143 0 217 896 0 0.0 7.3 0.0 0.0 4.5 5.6 0.0 14.8 27.7 0.0 25.5 7.3 12.2 100.0 33.3 5.6 100.0 35.9 37.5 46.9 74.5 70.4 59.5	%	,	7427 52.1	0.0	2823			9	2024	995 53.1		7	873 34.8	2165	4168
0 0 825 0 54 0 0 0 0 286 286 0.0 0.0 3.7 0.0 0.0 0.0 199 0	%		1552	0 0 0	00.				00.0	0.0		54 7.3	306		00.0
0.0 0.0 0.0 13.5 0.0 0.0 0.0 7.3 0.0 0.0 0.0 0.0 7.3 0.0 0.0 0.0 0.0 0.0 7.3 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	Hands-on product demon- strations/showcases C%		880	0.0	00.			М	0.0	0.0		54	286 11.4		540 8.3
0.0 4.5 5.6 0.0 14.8 27.7 0.0 25.5 7.3 12.2 100.0 33.3 5.6 100.0 35.9 37.5 46.9 74.5 70.4 59.5	%		199	0.0			0.0		00.0	0.0		54	00.0	145	00:
136 1410 143 344 528 1215 879 295 525 1494 100.0 33.3 5.6 100.0 35.9 37.5 46.9 74.5 70.4 59.5	O %		1546	0.0					896 27.7		7		306		896 13.8
	% O	- * * *	4949 34.7	136	⊣ κ			m	1215	879					1775

SIGNIFICANCE TESTING AT .95

Whether respondent has used any Energy Resource Center services BASE: SCE and SCG customers loacted in the CTAC/ERC target market area, exluding customers without natural gas service

:===== END USER BANNER ==:

							BUSINESS T	TYPE						
	ı	Total c	Agri- CC Culture Ot	Commer- cial Other	Rest- aurant /Grocery	Industry	Instit- utional	Office	Retail H	Waste- water I	Large (>500 kW)	Medium (100- 500 kW)	Small (20-100 kW)	Very Small (<20 kW)
Total	0	225513 100.0	3 2715 0 100.0	5 42990 0 100.0	25588 0 100.0	28733	6897	70654	45534 100.0	2402	2812 100.0	15587	54687	152427
Yes	ole O	10635	7 2.9	8 2823 9 6.6	3 2414 5 9.4 E	115 0.4 DF	1161 16.8 EGH	2920 4.1	995 2.2	129 5.4	418 14.9 M	1179	3434 6.3	5604 3.7
NO	00	214878	8 2637 3 97.1	7 40168 1 93.4	(4)	8 01		9	44539 97.8	2272		14408	51253 93.7	146824 96.3

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SIGNIFICANCE TESTING AT .95

Whether respondent is interested in using one of Energy Resource Center services in the future BASE: SCE and SCG customers loacted in the CTAC/ERC target market area, exluding customers without natural gas service

SIGNIFICANCE TESTING AT .95

ERC7. Which if any of the Gas Company's Energy Resource Center services would you want to use in the future? BASE: SCE and SCG customers loacted in the CTAC/ERC target market area, exluding customers without natural gas service

						BUSINESS T	TYPE						
	Total	Agri- culture B	Commer- cial Other	Rest- aurant /Grocery	Industry	Instit- utional	Office	Retail	Waste- water	Large (>500 kW)	Medium (100- 500 kW)	Small (20-100 kW)	Very Small (<20 kW)
Total	225513 C% 100.0	3 2715 0 100.0	42990	25588	28733	6897 100.0	70654	45534 100.0	2402	2812 100.0	15587	54687	152427
Seminars/workshops/ classes	56032 C% 24.8	2 545 8 20.1	17526 40.8 DEH	4689 118.3 I CF	3600 12.5 CF	2823 40.9 DEH	18671 26.4	7056 15.5 CF	1121 46.7	923 32.8	5757 36.9 L	9736 17.8 K	39616 26.0
Special exhibits and product displays	43579 C% 19.3	9 184 3 6.8	13342 31.0	3534 13.8	4614 16.1	1987 28.8 H	16616 23.5 H	2474 5.4 CFG	827 34.4	593	3729	7647 14.0	31610 20.7
Hands-on product demonstrations/showcases (. 51347 C% 22.8	7 188 8 6.9	18316 42.6 DEGH	4074 15.9	3600 12.5 CF	2989 43.3 DEGH	15909 22.5 CF	5481 12.0 CF	791 32.9	663 23.6	4754 30.5	8747 16.0 K	37182 24.4
Computer lab/Special energy-related softwareC%	32342	2 159 3 5.8	8678	2887 11.3	3209 11.2	2352 34.1 DEGH	9024 12.8	5042 11.1	992	520 18.5	3685	8539 15.6	19598 12.9
Tours of facility and its exhibits/displays (36852 C% 16.3	2 464 3 17.1	9386	4440	4401 15.3		9833 13.9	5529 12.1	992	466 16.6	3921 25.2	10791 19.7	21674 14.2
Expert advise from Gas Co. energy specialists (71900 C% 31.9	0 652 9 24.0	15829	10963	8104	2723	16965	15544 34.1	1121 46.7	994 35.4	6464 41.5	21709	42732
Food service seminars/ displays/demonstrationsC%	15526	6 159 5.8	3101 7.2 D	5814 22.7 CEFGH	115 0.4 D	437 6.3 D	2403 3.4 D	3398 7.5 D	101	173 6.1 K	0.0 0.0	7364 13.5 KM	7990 5.2 KL
None/Don't know	101596 C% 45.1	6 1161 1 42.8	15438 35.9 E	9816 38.4	17063 59.4 CDFH	2084 30.2 EG	38169 54.0 F	16780 36.9	1086	1360	5327	25189	69719 45.7

SIGNIFICANCE TESTING AT .95

KSD2. Did you know that San Diego Gas and Electric Company conducts seminars for their commercial and industrial customers on energy efficienty? BASE: SDG&E Customers

	ii							USER	BANNER =====					
							BUSINESS T	TYPE	 					
	i	Total A	Agri- culture B	Commer- cial Other	Rest- aurant /Grocery D	Industry E	Instit- utional E	Office G	W Retail w H	Waste- water I	Large (>500 kW) J	Medium (100- 500 kW) K	Small (20-100 kW)	Very Small (<20 kW)
Total	O %	108346	3354	18027	9220 100.0	11488	3309	44965 100.0	17983	0.0	701	4008	19821 100.0	83816 100.0
Yes	O %	40442	1168 34.8	4038 22.4	3308	3317 28.9	842 25.4	19218 42.7	8552 47.6	0.0	541	2084 52.0 M	11241 56.7 M	26576 31.7 KL
No	0/0	67298 62.1	3 1830 L 54.6	13989	5912 64.1	8171 71.1	2218 67.0	25747	9431 52.4	00.0	160	1924 48.0	8580 43.3 M	56635 67.6 L
Don't know/Refused	°%	909	356	0.0	0.0	0.0	250	0.0	0.0	0.0	0.0	0.0	0.0	606

SIGNIFICANCE TESTING AT .95

KSD6. Have you ever attended any of these seminars offered by SDG&E? BASE: SDG&E customers who know about seminars

	п							END USER B	BANNER ===				=======	
							BUSINESS T	TYPE						
	ı	Total A	Agri- culture	Commer- cial Other	Rest- aurant /Grocery	Industry E	Instit- utional	Office	Retail	Waste- water	Large (>500 kW)	Medium (100- 500 kW)	Small (20-100 kW)	Very Small (<20 kW)
Total	ů	40442	1168	4038	3308	3317	842	19218	8552 100.0	00.0	541	2084	11241	26576
Yes	O. O.												1642 14.6	
No	Ö %	30857	1157	7 3848 L 95.3	3308	3083 92.9	199 23.6	10874	8 83 89 1.	00.0	111 20.5	1737	9599 85.4	19410

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SIGNIFICANCE TESTING AT .95

KDS8. Would you be interested in attending seminars offered by SDG&E in the future? BASE: SEG&E customers

	Small Very (20-100 Small kW) (<20 kW)	19821 83816 100.0 100.0	8167 38267 41.2 45.7 K	9679 35893 48.8 42.8 K	1975 9656 10.0 11.5
	Medium Si (100- (2 500 kW)	4008	3177 79.3 LM	831 20.7 LM	0.0
	Large (>500 kW)	701	524 74.8	140 19.9	37
	Waste- water I	00.	00.	00:	0.0
	Retail W	17983	8558 47.6	8048	1377
TYPE	Office G	44965 100.0	20767	19426	4772
BUSINESS TY	Instit- utional	3309	2393	916	0.0
щ	Industry u	11488	3918 34.1	7533 65.6	37
	Rest- aurant /Grocery I	9220	6382	2394	445
	Commer- E	18027	6950	6612 36.7	4465
	Agri- culture	3354 100.0	1168 34.8	1613 48.1	573
	Total	108346	50135	46542	11668
	'	00	Ŋ %	00	°°
		Total	Yes	No	Don't know/Refused

SIGNIFICANCE TESTING AT .95

Business Type BASE: All

							BUSINESS T	TYPE						
	1	Total A	Agri- culture	Commer- cial Other	Rest- aurant /Grocery	Industry	Instit- utional	Office	Retail	Waste-	Large (>500 kW)	Medium (100- 500 kW)	Small (20-100 kW)	Very Small (<20 kW)
Total	0/0	358403	10544	65731	37625	40964	10645	118673	70505	3716 100.0	5835 100.0	20361	81513 100.0	250694
Agriculture	Ö %	10544	10544 100.0 CDEFGH	0.0 B	0.0	0.0	0.0	0.00	0.0	00.0	2261 38.7 KLM	200 1.0	3998 4.9 J	4085 1.6
Commercial Other	O %	65731 18.3	000	65731 100.0 BDEFGH	000	00.0	000	00.0	000	00.0	485 8.3	3240 15.9	12136 14.9	49870 19.9
Restaurant/Grocery	O %	37625	000	0.0	37625 100.0 BCEFGH	0.0	0.0	0.0	0.0 D	0.0	58 1.0 KLM	2076 10.2 JL	16146 19.8 JKM	19345 7.7 JL
Industry	Ů %	40964 11.4	0 0 O H	0.0	0 0.0	40964 100.0 BCDFGH	O.O 0	0 О Н	о. О.	0.0	1293 22.2 LM	4208 20.7 LM	8995 11.0	26468 10.6 JK
Institutional	O %	10645	00.1	0.0	0.0	00.1	10645 100.0 BCDEGH	00 [H	0.0	0.0	501 8.6 LM	2925 14.4 LM	2172 2.7 JK	5047 2.0 JK
Office	Ö %	118673	0.0	00.0	00.0	00.0	00.0	118673 100.0 BCDEFH	0.0	0.0	693 11.9 LM	4293 21.1	22810 28.0 7	90877 36.3 JK
Retail	O %	70505	0.0	0 0 0 H	0.0 H	0.0 H	0.0 0.0	0.0 H	70505 100.0 BCDEFG	00.0	401 6.9 LM	2557 12.6 M	14414 17.7	53133 21.2 JK
Wastewater	%	3716	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3716	143	862 4.2 M	842	1869 0.7

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SIGNIFICANCE TESTING AT .95

Size BASE: All

	I	 				 	BUSINESS T	TYPE	DANNER -	i 		 	 	
	1	Total A	Agri- culture	Commer- cial Other	Rest- aurant /Grocery D	Industry	Instit- utional	Office	Retail	Waster water	Large (>500 kW)	Medium (100- 500 kW)	Small (20-100 kW)	Very Small (<20 kW)
Total	%	358403	10544	4 65731 0 100.0	37625 100.0	40964	10645	118673	70505	3716 100.0	5835 100.0	20361	81513	250694
Large (>500 kW)	0%	5835 1.6	2261 21.4 CDEFGH	485 1 0.7 1 B	58 0.2 B	1293 3.2 B	501 4.7 B	693 0.6 B	401 0.6 B	143 3.8	5835 100.0 KLM	0.0	00.0	0.0
Medium (100-500 kW)	0%	20361	200 1.9 EF	3240 9 4.9	2076 5.5	4208 10.3 BF	2925 27.5 BCDEGH	4293 3.6	2557 3.6	862	0.0	20361 100.0 JLM	00.8	00.4
Small (20-100 kW)	%	81513 22.7	3998 37.9 CEFGH	12136 9 18.5 1 BD	16146 42.9 CEFGH	8995 22.0 BD	2172 20.4 BD	22810 19.2 BD	14414 20.4 BD	842 22.7	0.0	0.0	81513 100.0 JKM	00.0
Very small (<20 kW)	%	250694	4085 38.7 CEGH	49870 7 75.9 H BDF	19345 51.4 CGH	26468 64.6 BF	5047 47.4 CEGH	90877 76.6 BDF	53133 75.4 BDF	1869	0.0 0.0	0.0 M	0.0 0 ×	250694 100.0 JKL

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SIGNIFICANCE TESTING AT .95

F.2 UPSTREAM MARKET ACTOR CROSS-TABULATIONS

K1. How often do you or others in your company attend seminars, workshops or other training courses that address energy efficiency? BASE: All

						UMA	 TYPE	==== UMA	BANNER ==						III			
		AG/P11mp			T.i ah + -		Nonra	0+4		1 M	SCE CUST	CUSTOMER	FGE CUSTOMER	OMER IIIII I	SDCE COS	CUSTOMER	SCG COST	CUSTOMER
	Total A			HVAC	ing E	Motors F	Bldg	Res	Refrig I	Bldg J	Yes K	No I	Yes M	NO N	Yes 0	No P	Yes 0	No R
Total	61389 C% 100.0	89 339 .0 100.0	39 12091 .0 100.0	1 3963 0 100.0	3 3221 0 100.0	1957	7103	2956 100.0	1492	22599	23046	31788	15193	39641	9352	45481	17919	36915
Very frequently (once a month)	49 C% 8	4955 13 8.1 3.9	13 1186 .9 9.8	16 784 8 19.8 J GHJ	0	0 1237 0 63.2	138 1.9 D	62 2.1 D	14	598 2.6 CD	3035 13.2	1540 4.8 K	811 5.3	3763	707	3867	2192	2382
Somewhat frequently (once a season/year) (82 C% 13	8236 32 13.4 9.3	142	.6 1833 8 46.2 D CGHJ	3 699 2 21.7 J	9.1	379 5.3 DH	626 21.2 DGJ	113	1804 8.0 DH	3772	4464 14.0	3046 20.0	5190 13.1	7928.5	7444 16.4	3078	5158
Infrequently (Once every other year)C%	10394	23	81 4184 3.8 34.6 DGJ	14 371 6 9.3 C	134 41.	1 234 6 12.0	1076 15.2	609 20.6	347	1210 5.4 CH	3165	7016	2113	8068	3038 32.5	7143 15.7 0	2661 14.8	7520
Not at all	37321 C% 60.8	21 183 .8 53.9	33 5169 .9 42.8 DGJ	9 976 8 24.6 5 CGHJ	6 1181 6 36.7 J	309	5321 74.9 CD	1660 56.1 DJ	1019	18878 83.5 CDH	13012	18347	8971	22389	4755	26604	9881 55.1	21478
Don't know/Refused	C% 0	483 31 0.8 9.1	31 126	0.0	0.0	0.0	189	00.0	0.0	107	62	421	253	231	61	422	107	376

SIGNIFICANCE TESTING AT .95

APPENDIX F

KCTAC2. Have you heard of Southern California Edison's Customer Technology Application Center located in Irwindale? BASE: SCE and SCG Customers located in the CTAC/ERC target market area

UMA TYPE	Ag/Pump Arch/ Light- Nonres Other Res	120 5988 2255 2588 1219 4001 1281 1194 12482 20835 7467 0 28302 1680 26622 16053 12250 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0	27 1086 1397 517 1206 335 0 0 3459 8202 180 0 8381 0 8381 4480 3901 22.2 18.1 62.0 20.0 98.9 8.4 0.0 27.7 39.4 2.4 0.0 29.6 0.0 31.5 27.9 31.8	94 4902 857 2071 13 3666 1281 1194 9023 12634 7287 0 19921 1680 18241 11572 8349 77.8 81.9 38.0 80.0 1.1 91.6 100.0 100.0 72.3 60.6 97.6 0.0 70.4 100.0 68.5 72.1 68.2
UMA TYPE	Arch/ Light- Eng HVAC ing CE	5988 2255 100.0 100.0	1086 1397 18.1 62.0	4902 857 81.9 38.0
	Ag Total -i. A	33807 C% 100.0	8762 C% 25.9	25045 C% 74.1

RESEARCH AMERICA INC PAGE 2

SIGNIFICANCE TESTING AT .95

CTAC5. What types of services do you recall being offered by CTAC/AGTAC? BASE: Respondents who have heard of Southern California Edison's Customer Technology Application Center

	ii ii						======= UMA	 TYPE	=== UMA B	BANNER ==									
		1 6		1 4 5 4		1 + 45		1	1 4 4			SCE CUSTOMER	OMER	PGE CUST	CUSTOMER	SDCE COS	CUSTOMER	SCG COST	CUSTOMER
	Ĭ	Total - A	ing Eng	Eng C	HVAC i	ing ing E	Motors I	Bldg R	Res R	Refrig I	Bldg J	Yes K	No L	Yes M	NO N	Yes	No P	Yes 0	No R
Total	°°°	8762	27	1086	1397	517	1206	335	0.0	0.0	3459	8202 100.0	180	0.0	8381 100.0	00.0	8381 100.0	4480 100.0	3901
Seminars, workshops, classes	Ö %	4178	0 0	1086	1010	171	1206	0.0	00.	0.0	00.	3797	00.0	00.	3797	00.	3797	2232	1565
Hands-on product demonstrations/showcases (_ % %	1545	00.	0.0	00.0	00.	00.0	0.0	00.	0.0	1545 44.7	1545	0.0	00.	1545	00.0	1545	0.0	1545 39.6
Tours of facility and exhibits/displays	O %	150.2	15 55.0	0.0	00.0	00.0	00.0	0.0	00.	0.0	00.0	15	0.0	00.0	15	0.0	15	0.0	15
None/Don't know	%	3024	12 45.0	0.0	387	346	0.0	335	0.0	0.0	1914 55.3	2845	180	0.0	3024	0.0	3024	2249	776

SIGNIFICANCE TESTING AT .95

CTAC6. Which if any of these services have you used or participated in? BASE: Respondents who are aware of one or more of CTAC's specific services

	ii						======= UMA		=== UMA	BANNER =							E		
		. 6		 \ \ \ \				N 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	1 4 1 0		 0 0	SCE CUSTOMER		FGE CUSTOMER	OMEK I I	SDGE CUS	CUSTOMER	SCG CUSTOMER	- MB K
	L	Total -	-ing -ing B	Eng C	HVAC	ing Ing E	Motors F	Bldg G		Refrig I	Bldg	Yes K	No L	Yes M	NO N	Yes	No P	Yes 0	No R
Total	%	5738	15	1086	1010	171	1206	0.0	00:	00:	1545	5357	0.0	00.0	5357	00.0	5357	2232 100.0	3125
Seminars, workshops,		3476	0	705	775	86	1206		0	0	0	3095	0	0	3095	0	3092	1530	1565
classes	%	53.7	0.0	64.9	55.5	16.6	100.0	0.0	0.0	0.0	0.0	50.8	0.0	0.0	50.8	0.0	50.8	9.89	40.6
Tours of facility and		15	15	0	0	0	0	0	0	0	0	15	0	0	15	0	15	0	1.5
exhibits/displays	%	0.2	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.0	0.2	0.0	0.4
Expert advise from SCE		387	0	0	387	0	0	0	0	0	0	387	0	0	387	0	387	0	387
energy specialists	%	0.9	0.0	0.0	27.7	0.0	0.0	0.0	0.0	0.0	0.0	6.4	0.0	0.0	6.4	0.0	6.4	0.0	10.0
None/Don't know	i i	2980	0 (381	622	431	0 (0 (0 (0 (1545	2980	0 (0 (2980	0 (2980	702	2278
	% C	46.I	0.0	35.⊥	44.5	83.4	0.0	0.0	0.0	0.0	100.0	48.0	0.0	0.0	48.0	0.0	48.0	31.4	79.T

SIGNIFICANCE TESTING AT .95

Whether respondent has used any of CTAC's services. BASE: SCE and SCG Customers loacted in the CTAC/ERC target market area

"						======= UMA	======== TYPE	=== 0MA E	BANNER ==			 						
		AG/P11mp			T.i ab+					1 0	SCE CUSTOMER		PGE CUSTOMER		SDGE CUS	CUSTOMER	SCG CUSTOMER	OMER
'	Total	ing -ing B	Eng	HVAC	ing E	Motors I	Bldg G		Refrig	B	Yes K	No L	Yes NOM		Yes	No P	Yes 0	No R
0/0	33807	120	5988	2255 100.0	2588	1219	4001	1281 100.0	1194	12482	20835	7467	0.0	28302	1680	26622	16053	12250
00	3872	15	1086	775	3.3	1206 98.9	00.0	0.0	0.0	0.0	3491	0.0	0.0	3491 12.3	0.0	3491 13.1	1911	1580 12.9
Ö	29935	106	4902	1480	2502	1.1	4001	1281 100.0	1194	12482	17345	7467	00.0	24811	1680	23131	14142 88.1	10670

SIGNIFICANCE TESTING AT .95

Whether respondent is interested in using one of CTAC's services in the future BASE: SCE and SCG Customers loacted in the CTAC/ERC target market area

II					======== UMA I	TYPE	=== UMA]	BANNER ==						ll l	ii .		
	 1			T.i Qb + 1	2	!	1 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4		1 0	SCE CUSTOMER	DOMER .	PGE CUSTOMER	OMER	SDGE CUS	CUSTOMER	SCG CUSTOMER	OMER
Total ing	2 ₄ Ι	Eng C	HVAC i	ing N	Motors E	Bldg	1	Refrig I	Bldg	Yes K	No L	Yes M	NO NO	Yes	No P	Yes 0	No R
33807 120 100.0 100.0	0 0	5988 100.0	2255	2588	1219 100.0	4001	1281	1194	12482	20835	7467	0.0	28302	1680	26622	16053	12250
16864 C% 49.9 54	66 54.8	3773	1632 72.4	1554	1206 98.9	335	387	796	5674 45.5	13062	3308 44.3	00.	16370 57.8	1185	15186	10230	6141
16943	54 45.2	2215	622	1034	1.13	3666	894	398	6808 54.5	7773	4158	00.0	11932	496 29.5	11436	5823	6109

SIGNIFICANCE TESTING AT .95

CTAC7. Which if any of the following CTAC services would you want to use in the future? BASE: SCE and SCG Customers loacted in the CTAC/ERC target market area

						======= UMA	======= TYPE	=== 0MA	BANNER ==					 				
		 			T.i.ob+-		Non real) + + + + + + + + + + + + + + + + + + +		1 U	SCE CUSTOMER	COMER	PGE CUSTOMER		SDGE CUS	CUSTOMER	SCG CUSTOMER	OMER
	Total	1		HVAC D	1	Motors	Bldg	Res H	Refrig I	Bldg J	Yes K	No L	Yes M	NO N	Yes	No P	Yes 0	No R
Total	33807 C% 100.0	07 120 .0 100.0	5988	2255 100.0	2588 100.0	1219	4001	1281	1194	12482	20835	7467	00.	28302 100.0	1680	26622	16053	12250
Seminars, workshops, classes	12939 C% 38.3	39 27 .3 22.7	7 2669 7 44.6	1010	1123 43.4	1206 98.9	168	387	796	4129	10318 49.5	2127 28.5	00.	12445 44.0	285	12160	7936	4509
Special exhibits and product displays	7060 C% 20.9	60 39 .9 32.6	9 910	00.0	1208	0.0	8 8 • 4	387	511	2583	4903 23.5	1663	00.	6566	0.0	6566 24.7	4356	2210
Hands-on product demonstrations/showcases	. 5654 C% 16.7	54 12 .7 10.0	1291 21.6	0.0	777	00.0	335	387	511 42.8	1636 13.1	4063	1097	00.	5160	0.0	5160	3995 24.9	1165
Computer lab/special energy-related softwareC%	8058	58 24 .8 20.0	1423	0.0	777	1206 98.9	168	387	511 42.8	3181	6623 31.8	941 12.6	0.0	7564	0.0	7564	5547	2018
Tours of facility and exhibits/displays	8843 C% 26.2	12 .2 10.0	2220	00.0	777	1206 98.9	168	387	511	3181	6521 31.3	1829	00.	8349	899	7450	5547	2802 22.9
Expert advise from SCE energy specialists C	9328 C% 27.6	28 42 .6 34.9	2 2293	1010	777	0.0	335	387	511 42.8	3181	6736	2099	0.0	8835	899	7935	6171 38.4	2663
None/Don't know C	16943 C% 50.1	43 54 .1 45.2	2215	622 27.6	1034	1 13	3666 91.6	894	398	6808 54.5	7773 37.3	4158	0.0	11932	496	11436	5823	6109 49.9

SIGNIFICANCE TESTING AT .95

APPENDIX F

KAGTAC2. Have you heard of Southern Californa Edison's Agricultural Technology Application Center, or "Ag-TAC", located in Tulare? BASE: SCE customers located in AgTAC's target market

	"						======= UMA	TYPE	==== UMA	BANNER ==									
			S						1 4		!	S		PGE CUST	CUSTOMER	SDCE COS	CUSTOMER	SCG CUSTOMER	OMER
	1	Total A	Ag/Fump -ing B	Eng C	HVAC D	ing E	Motors F	Bldg G	Res H	Refrig I	Bldg	Yes		Yes M	NO NO		NO NO		NO R
Total	O %	3324	145	361	263 100.0	137	110	738	92	63	937	1902	1369	1530	1742	0.0	3272	1341	1931
Ϋ́ΘS	0%	1865	100	282	33.3	43 31.1	32 29.0	403	71	63	522	1409 74.0 L	450 32.9 K	568 37.1 N	1290 74.1 M	0.0	1859	1010 75.3 R	849 44.0 Q
No	000	1447 43.5	45	78	176	68 95	78	335	22.9	00.	415 44.3	494 26.0 L	907 66.2 K	950 62.1 N	451 25.9 M	0.0	1401	331 24.7 R	1069 55.4
Don't know/Refused	ů %	12	0.0	0.0	00.0	0.0	00.	0.0	00.	0.0	0.0	00.0	12	12	0.0	0.0	12	00.0	12 0.6

RESEARCH AMERICA INC PAGE 8

SIGNIFICANCE TESTING AT .95

AGTC5. What types of services do you recall being offered by AgTAC? BASE: Responents who have heard of Southern California Edison's Agriculture Technology Applicaion Center in Tulare

							 UMA	TYPE	==== UMA	BANNER =:					 				
		ΙĀ	 Aα/Piimn	Arch/		1.iah+-		Non-real	0+ber		N N N	SCE COST	CUSTOMER	PGE CUSTOMER	1	SDCE COS	CUSTOMER	SCG CUSTOMER	OME ME I
	₽	TotalA	ing -ing B	!	HVAC i	1	Motors F	Bldg G	Res	Refrig I	Bldg J	Yes K	No L	Yes M	NO NO	Yes 0	No P	Yes 0	No R
Total	%	1865	100	282	88 100.0	43	32	403	71	100.0	522 100.0	1409	450	568	1290	0.0	1859	1010	849 100.0
Seminars, workshops, classes	%	394	80.4	00.0	0 0	43	32	0.0	36	28 44.3	122 23.4	304	91	91	304	0.0	394	307	87
Special exhibits and product displays	%	215	32	60	00.	00.	0.0	62 15.5	0.0	0.0	61	215 15.3	0.0	60 10.6	155 12.0	0.0	215	77.	138
Hands-on product demon- strations/showcases	°°°	32	32 31.8	00.0	00.0	00.0	0.0	0.0	00.	00.	00.0	32 33	0.0	00.0	32 2 5 5	0 0	32	16 1.6	1.9
Computer lab/special energy related softwareC%		32	32	0.0	00.0	00.	0.0	0.0	0.0	0.0	0.0	32 33	0.0	0.0	32 2 5 5	0.0	32	16	16
Tours of facility and exhibits/displays	O %	16	16 15.9	00.0	00.0	0 0	0.0	0.0	0.0	0.0	0.0	1 . 1 .	0.0	00.0	1 1 2 2	0.0	16	0.0	16
Expert advise from SCE energy specialists	%	16	16 15.9	0.0	0 0	00.	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	1.2	0.0	16	0.0	1.9
None/Don't know	0°	1287	20 19.6	222	88 100.0	00:	0.0	341 84.5	36	35	339	922	359	418	863	0.0	1281 68.9	641 63.5	640 75.4

SIGNIFICANCE TESTING AT .95

AGTC6. Which if any of these services have you used or participated in? BASE: Respondents who are aware of one or more of AgTAC's specific services

							======= UMA	======= TYPE	==== UMA	BANNER ==						II .			
		\ \ \ \ \	2 dmid/54			1.i gh + 1.i		Nonreal) + 1 1 1 1 1 1		1 1 1 1 1 1 1 1 1 1 1	SCE CUSTOMER	OMER	PGE CUSTOMER		SDGE COS	CUSTOMER	SCG CUSTOMER	MEK K
	Total A	1	<u> </u>	1	HVAC i		Motors	Bldg	Res	Refrig I	Bldg J	Yes K	No L	Yes M	NO N	Yes 0	No P	Yes Q	No R
Total	C %	578	80	60	0 0 0	43	32	62 35.5	36	28 100.0	183 100.0	487 71.4	91	151	427	0.0	578	368	209
Seminars, workshops, classes	C%	155 19.7	42 52.6	0.0	00.0	0.0	32	00.	0.0	0.0	61 33.3	135 19.9	20 18.4	20 11.8	135	0.0	155 19.7	142	13
Special exhibits and product displays	O/0	78	16 19.8	0.0	00.0	0.0	0.0	62 35.5	0.0	0.0	0.0	78	00.0	0.0	78	0.0	78	16	62 27.7
Hands-on product demonstrations/showcases (% . O	16	16 19.8	0.0	00.0	0.0	0.0	0.0	0.0	0.0	0.0	16	0.0	0.0	2 16	0.0	16	16	0.0
Computer lab/special energy related softwareC%	o)o	16	16 19.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16	0.0	0.0	2 16	0.0	16	16	0.0
Tours of facility and exhibits/displays	ر %	16	00.	0.0	00.	0.0	0.0	0.0	0.0	0.0	0.0	16	0.0	0.0	2 16	0.0	16	0.0	7.1
Expert advise from SCE energy specialists (% %	60	00.0	46 43.4	0.0	0.0	0.0	0.0	0.0	14 50.0	0.0	46	13.2	14 • 4	46 7.4	0.0	9.7	60	0.0
None/Don't know	%	49562.8	38	60 56.6	0.0	43	0.0	114	71	14	122	423 61.9	73	133	363 58.3	0.0	495	362	134

SIGNIFICANCE TESTING AT .95

Whether respondent has used any AgTAC's services BASE: SCE customers located in AgTAC's target market

	П		 		 		======= UMA	TYPE	=== UMA]	BANNER =		 		 					
			A / Dump			1 4 4 5 - 1		!	1 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4		- G	SCE CUSTOMER	STOMER	PGE CUST	CUSTOMER	SDGE CUS	CUSTOMER	SCG CUST	CUSTOMER
	1	Total A	-ing	Eng C	HVAC D	ng E	Motors F	Bldg	}	Refrig I	Bldg J	1	1	Yes M	NO N	Yes	No P	Yes 0	No R
Total	% O	3324	145	361	263 100.0	137	110	738	92	63	937	1902	1369	1530	1742	0.0	3272	1341	1931
Yes	O O	368	42	46 12.8	0.0	0.0	32 29.0	125 16.9	0.0	14	61	334 17.6 L	34 2.5 K	34 2.2 N	334 19.2 M	0.0	368	276 20.6 R	91 7.7
ON	0/0	2956 88.9	103	315	263 100.0	137	78	613 83.1	92	49	876 93.5	1568 82.4	1336 97.5	1497 97.8	1407 80.8	0.0	2904	1065 79.4	1839 95.3

SIGNIFICANCE TESTING AT .95

Whether respondent is interested in using one of AgTAC's services in the future BASE: SCE customers located in AgTAC's target market

	SCE CUSTOMER PGE CUSTOMER SDGE CUSTOMER	Yes K	937 1902 1369 1530 1742 0 3272 1341 1931 0.0 100.0 100.0 100.0 100.0 0.0 100.0 100.0	468 1178 743 816 1105 0 1920 911 1009 9.9 61.9 54.3 53.3 63.4 0.0 58.7 67.9 52.3	469 725 626 714 637 0 1351 430 921
	SDCE	Yes -0	0.0	0.0	0 (
	PGE CUSTOME	Yes NdN			
	OTOMER IIII	No L			
	- SCE CU.	Yes K			
 	 G	Bldg J	3 937 0 100.0	3 468 0 49.9	0 469
IA BANNER		Refric	32 63 0 100.0	57 63 5 100.0	98
MD =====	1 4		38 92 .0 100.0	387 57 52.5 61.5	351 36
========= UMA TYPE	1 0N	rs Bldg	110 738 100.0 100.0	52 3 46.7 52	50
		Motors F	137	111 81.1 46	26
		HVAC ing DE	263 100.0 10	171 64.9 8	9 2 5 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7
		Eng H	361	182 50.5	179
		-ing E	145	116	200
 	1 4	Total - A	3324	1927	1397
II		ı	ů U	°C	Č
			Total	Yes	No

SIGNIFICANCE TESTING AT .95

AGTC7. Which if any AgTAC services would you want to use in the future? BASE: SCE customers located in AgTAC's target market

				 		======= UMA 1	======= TYPE	=== UMA E	BANNER ==									
		Ag/Pump	 Arch/		 Light-		Nonres	Other		Res	SCE CUST	CUSTOMER	PGE CUST	CUSTOMER	SDGE CUS	CUSTOMER	SCG CUSTOMER	OMER
	Total A	-ing B	Eng C	HVAC		Motors F	Bldg G	Res	Refrig I	Bldg J	Yes K	No I	YesM	NO N	Yes 0	NO P	Yes 0	No R
Total C%	3324	145	361	263 100.0	137	110	738	92	63	937	1902	1369	1530	1742	0.0	3272	1341	1931
Seminars, workshops, classes	1324	80 55.5	170	171	69	52 46.7	226 30.6	36 38.5	28 44.3	233 24.9	707	611 44.6	684 44.7	634 36.4	00.0	1318	508	810 41.9
Hands-on product demonstrations/showcases C%	1159	55 38.3	104	119 45.1	56	52	237	21 22 . 9	49	295	593 31.2	566 41.4	566	593 34.0	0.0	1159	545 40.6	614 31.8
Tours of facility and exhibits/displays C%	910	61 42.0	164 45.6	62 23.5	56	52 46.7	237	0.0	14	121 12.9	477	433	493	417	0.0	910	382	528
Expert advice from SCE energy specialists C%	1149	67 46.4	104	83 31.6	56	52	273	0.0	28 44.3	243	615 32.3	534 39.0	534 34.9	615 35.3	0.0	1149	562 41.9	587
Agricultural seminars/ displays/demonstrationsC%	716	49 33.6	117	31	56	32 29.0	175	0.0	14	1.3	348 18.3	362	362	348	0.0	710	212	498
Don't know/None C%	1397	29	179	92 35.1	26 18.9	59	351 47.5	36	0.0	469	725	626	714	637	0.0	1351 41.3	430	921 47.7

SIGNIFICANCE TESTING AT .95

KERC2. Have you heard of Southern California Gas Company's Energy Resource Center, located in Downey? BASE: SCE and SCG customers loacted in the CTAC/ERC target market area

STOMER SCC No Ye No Ye 100.0 10 5509 20.7 21010 15 78.9 8
CUSTOMER SCG CUS NoPQ 100.0 100.0 100.0 55.09 3026 20.7 18.9 80.5 90.5 90.5 90.5 90.5 90.5 90.5 90.5 9
2 C C C C C C C C C C C C C C C C C C C

SIGNIFICANCE TESTING AT .95
BCDEFGHIJ/KL/MN/OP/QR

ERC5. What types of services do you receall being offered by the Gas Company's Energy Resource Center? BASE: Respondents who have heard of Southern California Gas Company's Energy Resource Center in Downey

	II	 		 			======= UMA	 TYPE	=== UMA E	BANNER ==			ii						
				/q Z 4		T.i.ch+		Nonrea) + 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			SCE CUSTOMER	- 1	FGE CUSTOMER	!	SUGE CUSTOMER		SCG CUSTOMER	전 1 1 1 1
	1	Total	ing -ing B	Eng C	HVAC	ing E	Motors	ing Motors Bldg	Res Refrig	Refrig	Bldg		1	Yes M	NO N	Yes	NO P	Yes 0	No R
Total	0)	7055	12	1086	1010	863	00	0 567	00	0 0	3194	4720	789	00	5509	00	5509	3026	2483
	٥	· · · · · · · · · · · · · · · · · · ·				0000	•				0.000	000	0.00				0.00	0.001	000
Seminars/workshops/		1092	0	705	387	0				0	0	1092	0	0	1092	0	1092	324	768
classes	ů°	15.5	0.0	64.9		0.0	0.0	0.0	0.0	0.0	0.0	23.1	0.0	0.0	19.8	0.0	19.8	10.7	30.9
None/Don't know		5962	12	381	622	863		567	0	0	3194	3628	789	0	4417	0	4417	2702	1715
	O %	84.5				100.0		0.00 100.0			100.0	76.9	100.0	0.0	80.2	0.0	80.2	89.3	69.1

SIGNIFICANCE TESTING AT .95

ERC6. Which if any of these services have you used or participated in? BASE: Respondents who are aware of one or more of the Gas Company's Energy Resource Center's specific services

SIGNIFICANCE TESTING AT .95
BCDEFGHIJ/KL/MN/OP/QR

SCUEFGULO/ NL/MN/OF/ QN

Whether respondent has used any Energy Resource Center services BASE: SCE and SCG customers loacted in the CTAC/ERC target market area

BANNER ===================================		Refrig Bldg Yes No Yes No Yes No Yes No Yes No	1194 12482 20835 7467 0 28302 1680 26622 16053		0 0 1099 0 0 1099 0 1099 711		81 1194 12482 19737 7467 0 27203 1680 25523 15341 11862	100.0 100.0 94.7 100.0 0.0 96.1 100.0 95.9 95.6
====== UMA		Res H	1281		0		4001 1281 1194	100.0
II II	 Light-	ing Motors Bldg EFG	2588 1219	100.0	0	34.4 0.0 0.0	1480 2588 1219	100.0 100.0
		-ing Eng HVAC BCD	120 5988	100.0 100.0	0 324	0.0 5.4	120 5664	100.0 94.6
		Total A	33807	C% 100.0	1099	3.3	32708	C. 96 %D
			Total		Yes		No	

SIGNIFICANCE TESTING AT .95

Whether respondent is interested in using one of Energy Resource Center services in the future BASE: SCE and SCG customers loacted in the CTAC/ERC target market area

UMA TYPE Light- Nonres HVAC ing Motors Bldg	2255 2588 1219 4001 1281 1194 12482 20835 7467 0 28302 1680 26622 16053 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0	; 2020 1034 1206 168 387 909 3562 10771 3187 0 13958 1185 12773 7000 6958 ; 89.6 40.0 98.9 4.2 30.2 76.1 28.5 51.7 42.7 0.0 49.3 70.5 48.0 43.6 56.8	
12482 20835 7467 0 28302 100.0 100.0 100.0 0.0 100.0 3562 10771 3187 0 13958 28.5 51.7 42.7 0.0 49.3	3562 10771 3187 0 13958 28.5 51.7 42.7 0.0 49.3		200 NOON 1000 1000 1000 1000 1000 1000 10
Light- Notors Other	2588 1219 4001 1281 100.0 100.0 100.0 100.0	1034 1206 168 387 40.0 98.9 4.2 30.2	20 000 000 01
	120 5988	14564 51 4184 C% 43.1 42.6 69.9	000000000000000000000000000000000000000

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SIGNIFICANCE TESTING AT .95

ERC7. Which if any of the Gas Company's Energy Resource Center services would you want to use in the future? BASE: SCE and SCG customers loacted in the CTAC/ERC target market area

11						======= UMA T	======================================	=== UMA	BANNER ==									
			/ 47.44		1.i Qb+1			1 4 1 4 1 1		 	SCE CUSTOMER	OMER	PGE CUST	CUSTOMER	SDGE CUS	CUSTOMER	SCG CUSTOMER	OMER
1	Total	ing -ingB	Eng	HVAC	1	Motors E	1	Res H	Refrig I	Bldg	Yes K	No L	Yes M	NO NO	Yes	No P	Yes 0	No R
Total C%	33807	120	5988	2255 100.0	2588	1219 100.0	4001	1281	1194	12482	20835	7467	00.0	28302	1680	26622	16053	12250
Seminars/workshops/ classes C%	12408	39 32.6	2293 38.3	2020	948 36.6	1206 98.9	0.0	387	909	3562	9676 46.4	2126	0.0	11802	1185	10617	5939	5864
Special exhibits and product displays	7847	39.56	2704	0.0	603	1206	0.0	387	511 42.8	2017	4965	2389	00.0	7353	899	6454 24.2	4326	3027
Hands-on product demonstrations/showcases C%	7097	51	2704	0.0	603 23.3	1206 98.9	0.0	387	511 42.8	1636	5490	1495	0.0	6985	899	6085	5220	1765
Computer lab/Special energy-related softwareC%	8347	39	2420	0.0	603	1206	0.0	387	511 42.8	3181	6745	1490 19.9	0.0	8234	0.0	8234	5220	3014
Tours of facility and it's exhibits/displays C%	6704	39	2323	00.0	603 23.3	1206 98.9	00.	387	511	1636 13.1	5097 24.5	1495	00.	6592 23.3	899 53.5	5692	5220 32.5	1372 11.2 0
Expert advise from Gas Co. energy specialists C%	8958	32.6	3700 61.8	775 34.4	688 26.6	1206 98.9	0.0	387	511 42.8	1636	6456	2389	0.0	8845	899	7946	5220	3625
Food service seminars/ displays/demonstrationsC%	5072	32.6	910	0.0	603 23.3	1206	168	0.0	511 42.8	1636	4196	763	0.0	4959 17.5	0.0	4959 18.6	4106 25.6 R	853 7.0 Q
None/Don't know C%	19243	57.4	1804	235	1554	1.1	3834	894	285	8920	10065	4279	0.0	14344	496	13848	9052	5292

SIGNIFICANCE TESTING AT .95

KPGE2. Have you heard of Pacific Gas and Electric Company's Energy Training Center located in Stockton? BASE: PG&E customers located in the Energy Training Center's target market

						UMA	TYPE	=== 0 MA	BANNER =									
					1 4 4 5 1			1 4 4		1 00	SCE CUSTOMER	TOMER	PGE CUSTOMER	OMER	SDGE CUSTOMER	STOMER	SCG CUSTOMER	OMER
	Total A	Ag/Fump -ing B	Eng C	HVAC D	ing ing E	Motors F	Bldg G	Res H	Refrig I	Bldg	Yes K	No LL	Yes M	0 N	Yes	NO NO P-	Yes0	No R
0%	15143	0.0	4211 100.0	1190	107	209	1734	1472	0.0	6219 100.0	0.0	14645	13663	982	0.0	14645	0 0	14645
0%	5245 34.6	0.0	1158	784 65.9	0.0	209	221 12.7	636 43.2	0.0	2238 36.0	0.0	5126 35.0	4751	375	0.0	5126 35.0	0 0	5126
0%	9873	0.0	3053	406 34.1	100,0	00.	1513 87.3	812 55.1	0.0	3981	0.0	9494 64.8	8887	607	0.0	9494 64.8	00.	9494 64.8

SIGNIFICANCE TESTING AT .95

KPGE5. What types of services do you recall being offered by PG&E's Energy Training Center? BASE: PG&E's customers located in the Energy Training Center's target market

					ii		======= UMA	 TYPE	==== UMA	BANNER ==									
		2		 			-	NO 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 4 4		1 0 0	SCE CUSTOMER	OMER	PGE CUST	CUSTOMER	SDGE CUS	CUSTOMER	SCG CUSTOMER	OMER
	o I	Total ing AB-	- I	Eng C	HVAC ii	1	Motors] F	Bldg G	}	Refrig I	Bldg J	Yes K	No L	Yes M	No N	Yes 0	No P	Yes0	No R
Total	C %	5245 100.0	00.	1158	784 100.0	0.0	209	221 100.0	636 100.0	0.0	2238 100.0	00.	5126	4751	375	00.	5126	00.	5126
Seminars/workshops/ classes	%	1704 32.5	0.0	253	490	0.0	64 30.4	0.0	392	0.0	505	0.0	1661 32.4	1580	80	0.0	1661 32.4	0 0	1661
Hands-on product demonstrations/showcases (%	186 3.6	0.0	72	11.5	00.	00.0	0.0	24	0.0	00.	0.0	186 3.6	186 3.9	0.0	0.0	186 3.6	0.0	186 3.6
Tours of facility and it's exhibits/displays C%	%	47.0	0.0	0.0	47	00.	00.0	0.0	00.	0.0	00.0	0.0	47	47 1.0	0.0	0.0	47	0.0	47
Expert advise from PG&E energy specialists	°°	1119	0.0	0.0	44	0.0	00.0	0.0	0.0	0.0	76 3.4	0.0	119	119	0.0	0.0	11 2 2 3 3	0.0	11.0
None/Don't know	%	3370	0.0	833 71.9	294 37.4	0.0	145	221 100.0	220 34.6	00.0	1657	0.0	3294	2999	295	00.	3294	00.0	3294 64.3

SIGNIFICANCE TESTING AT .95

KPGE6. Which if any of these services have you used or participated in? BASE: Respondents who are aware of one or more of the PG&E's Energy Training Center's specific services

	 					======= UMA	======================================	==== UMA	BANNER =									
		Δα/Dilmp	/ 40×4		1.1.4.2.t.T		Nonreal	0+104		1 U	SCE CUST	CUSTOMER	PGE CUSTOMER	OMER	SDGE CUS	CUSTOMER	SCG CUSTOMER	OMER
	Total A		Eng C	HVAC	ing E	Motors F	Bldg	Res H	Refrig I	Bldg J	Yes K	No L	Yes M	NO NO	Yes	No P	Yes 0	No R
Total	1876 35.8	0.0	325	490	0.0	64 30.4	0.0	416	0.0	581 26.0	0.0	1832	1752	80	0.0	1832	0.0	1832
Seminars/workshops/ classes	958 18.3	0 0.	827.1	320 40.8	0.0	0.0	0 0	303	0.0	253 11.3	0 0	958	877	80	0.0	958 18.7	0.0	958
Special exhibits and product displays C%	126	0 .0	827.1	5.6	0.0	0.0	0.0	0.0	00.0	00.0	00.	126	126 2.6	00.	0.0	126	0.0	126
Hands-on product demonstrations/showcases C%	129	0.0	827.1	47	0.0	0.0	0 0	0.0	00.0	00.	0 0	129	129	00.	00.0	129	0.0	129
Tours of facility and its exhibits/displays C%	129	0.0	827.1	47	0.0	0.0	0.0	0.0	0.0	0.0	0.0	129	129	00.0	0.0	129	0.0	129
Expert advise from PG&E energy specialists C%	± 8 8 8 •	0 0.	155	44 5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	198 3.9	198 4.2	00.0	0.0	H 8 0 € 0 €	0.0	198 9.0
None/Don't know C%	4215 80.4	0.0	1003	464	00.0	209	221	333	0.0	1985	0.0	4096	3802	295	0.0	4096	0.0	4096

SIGNIFICANCE TESTING AT .95

Whether respondent has used any Energy Training Center services BASE: $\mathsf{PG\&E}$ customers located in the Energy Training Center's target market

							======= UMA	TYPE	=== UMA	BANNER =									!!
												SCE CUSTOMER	LOMER	PGE CUSTOMER	LOMER	SDGE CUSTOMER	STOMER	SCG CUSTOMER	2
		Total A	Ag/Pump -ing B	Arch/ Eng C	HVAC j D	ight- ing E	Motors F	Nonres Other Motors Bldg Res FGH	Other Res H	Refrig I	Res Bldg J	Yes		Yes No		Yes	NO III	Yes No	! .
Total		15143			1190				1472		6219	0		13663	982	0	14645	0	
	% O	100.0	0.0	100.0		100.0	100.0	100.0	100.0	0.0	100.0	0.0	100.0	100.0	100.0	0.0	100.0	0.0	
Yes		3689					209					0	3570	3291	279	0	3570	0	
	℃	24.4	0.0	20.6	45.2	0.0	100.0	12.7	28.2	0.0	23.1	0.0	24.4	24.1	28.4	0.0	24.4	0.0	
No		11454							1057			0		10372	703	0	11075	0	
	% O	3 75.6	0.0	79.4	54.8	100.0	0.0	87.3	71.8	0.0	76.9	0.0	75.6	75.9	71.6	0.0	75.6	0.0	

SIGNIFICANCE TESTING AT .95

Whether respondent is interested in using one of Energy Training Center's services in the future BASE: PG&E customers located in the Energy Training Center's target market

				 		UMA	TYPE											
		7 / Dump	1 4		1 - 4 - 1 - 1		!	1 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4		1 00	SCE CUSTOMER	OMER	PGE CUSTOMER	POMER -	SDGE CUS	CUSTOMER	SCG CUST	CUSTOMER
	Total A	-ing	Eng C	HVAC ing DE		Motors F	Bldg G	Res H	Refrig I	. 1	Yes K	No I	Yes -M	NO Y	.es	NO NO	Yes	NO NO
	15143		4211		107	209	1734	1472	0	6219	0	14645	13663	982	0	14645	0	14645
O %	100.0	0.0	100.0	100.0	100.0	100.0	100.0	100.0	0.0	100.0	0.0	100.0	100.0	100.0	0.0	100.0	0.0	100.0
	9568		2652		44	145		985	0		0	9366	8936	430	0	9366	0	9366
O %	63.2	0.0	63.0	80.8	40.6	9.69	46.2	6.99	0.0	64.0	0.0	64.0	65.4	43.8	0.0	64.0	0.0	64.0
	5575	0	1559		64	64	932	487	0		0	5279	4727	552	0	5279	0	5279
Ω %	36.8	0.0	37.0	19.2	59.4	30.4	53.8	33.1	0.0	36.0	0.0	36.0	34.6	56.2	0.0	36.0	0.0	36.0

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SIGNIFICANCE TESTING AT .95

KPGE8C. Which if any of the following services would you want to use in the future from PG&E's Energy Training Center? BASE: PG&E customers located in the Energy Training Center's target market

						UMA	TYPE				1	į	t t	į		į	Č	į
					T. 1 GP + 1		Non-re-) + 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		 	SCE CUSTOMER	OMER	PGE CUST	CUSTOMER	SDGE CUS	CUSTOMER	SCG CUSTOMER	OMER
	Total A	1	'	HVAC D	1	Motors F	Bldg G	Res H	Refrig I	Bldg J	Yes K	No L	Yes M	NO N	Yes 0	No P	Yes	No R
Total	15143 C% 100.0	0	0 4211 0 100.0	1 1190 0 100.0	107	209	1734	1472	0.0	6219 100.0	0.0	14645	13663	982 100.0	0.0	14645	0.0	14645
Seminars/workshops/ classes	62 C% 41	6201 0 41.0 0.0	137	9 801 8 67.3 H	0.0	0.0	474	855 58.1	0.0	2692	0.0	6075 41.5	5669	406	0.0	6075 41.5	0.0	6075 41.5
Special exhibits and product displays	40. C% 26	4021 0 26.6 0.0	13.	11 670 3 56.3 J	0.0	0.0	347	432 29.3	00.0	2011 32.3 C	0.0	4021	3956	65	00.	4021	00.	4021
Hands-on product demonstrations/showcases	. 41 C% 27	4163 0 27.5 0.0	.82 19.	6 630 6 52.9 H	0.0	0.0	253	617 41.9	0.0	1837	0.0	4036	3971	65	0.0	4036	0.0	4036
Computer lab/Special energy-related softwareC%		3700 0 24.4 0.0	0 1350 0 32.1	0 567 1 47.6	0.0	145	253	356	0.0	1028	0.0	3700	3485	215	00.	3700	00.	3700
Tours of facility and its exhibits/displays C	2441 C% 16.1	.0	333	.3 396 9 33.3 H	0.0	145	253 14.6	361 24.5 C	0.0	953 15.3	0.0	2441	2376	65	0.0	2441	0.0	2441
Expert advise from PG&E energy specialists	C% 40	6176 0 40.8 0.0	0 1578 0 37.5	8 579 5 48.7	44	0.0	37.9	705	0.0	2614 42.0	0.0	6100	5814	287	0.0	6100	0.0	6100
None/Don't know	55.	5575 0 36.8 0.0	0 1559 0 37.0	228 0 19.2	64 59.4	64 30.4	932	487	0.0	2242 36.0	0.0	5279	4727	552	0.0	5279	0.0	5279

SIGNIFICANCE TESTING AT .95

KSD2. Did you know that San Diego Gas and Electric Company conducts seminars for their commercial and industrial customers on energy efficienty? BASE: SDG&E Customers

						UMA 1	TYPE											
						1					SCE CUSTOMER	TOMER	PGE CUSTOMER	OMER	SDGE CUS	CUSTOMER	SCG CUSTOMER	OMER
	Total A	Ag/Fump -ing	Arch/ Eng C	Arch/ Eng HVAC ing CDE	1	Motors F	Nonres Bldg E	Otner Res H	Refrig I	Kes Bldg J	Yes	NO		NON		NO III	Yes 2	NO I
C	9115	5 74	1531	255	389	419	630	110	235	2961	308	8307	00	8615	7672	943	525	8090
,						· 6	2.00	ο α ο	. 4	η Ο Γ. Ο Δ	·	4 Σ 4 Σ α		2 2 2	4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		- G	0.00
O	C% 47.6	0.0	61.7	100.0	6.99	21.8	43.9	72.9	62.4	19.7	26.1	50.3	0.0	49.5	53.4	17.2	36.2	50.3
O	4773 C% 52.4	3 74 4 100.0	587	000	129	327	353	30	37.6	2376	227	4126	0.0	4354	3573	781	335	4019

SIGNIFICANCE TESTING AT .95

KSD6. Have you ever attended any of these seminars offered by SDG&E? BASE: SDG&E customers who know about seminars

ME ==		R	4071	0.00	1063	26.1	3008
======================================	Yes	0	190		78	41.2	112
======================================	1	B	162			0.0	162
SDGE CUST	Kes K	0	4099		1142	27.9	2957
		N	4261	0.001	1142	26.8	3119
	Xes X	WW	00	0.0	0	0.0	0 0
	1	T	4181	0.00	1142	27.3	3039
SCE CUSTOMER	!!	K	80	0.001	0	0.0	80
		D	584	0.001	0	0.0	584
BANNER ==			147	0.001	47	32.2	96 67.8
=== UMA E	Nonres Other Motors Blda Res Refria	H	80	0.001	99	82.5	14
TYPE	Nonres (B	277	O. O. O. T	138	50.0	138
UMA	Motors E	- H	000		0	0.0	91
	iight- na	E	260	0.00	0	0.0	260
	HVAC	D	255	0.001	63	24.7	192
	Arch/ Eng	C	944	0.00	346	36.7	598
	Ag/Pump -ing	B	0 0	· •	0	0.0	0 0
	Fotal -	A	4342		1156		3186
II		1	Š	C.		°°	% C
			Total		Yes		No

SIGNIFICANCE TESTING AT .95

KDS8. Would you be interested in attending seminars offered by SDG&E in the future? BASE: SDG&E customers

	II			 			======= UMA	 TYPE	=== UMA	BANNER =	 								
				 \ \ \ \ \		ا ا ا ا ا ا			 			SCE CUSTOMER	OMEK	PGE CUSI	CUSTOMER		CUSTOMER	SCG COSI	CUSTOMER
	i	Total A	Ag/Fump -ing B	Eng C	HVAC	ing E	Motors F	Nontes Bldg G	Res	Refrig I	Bldg J	Yes K	NO L-L-	Yes M	NO NO	Yes	N N H	Yes 0	NO R-
Total	O %	9115	74	1531	255	389 100.0	419	630	110	235	2961 100.0	308	8307	0.0	8615 100.0	7672 100.0	943	525 100.0	8090
Yes	°°	3242	42 56.3	416	195 76.6	285	388	246 39.0	66	127	00.	91 29.7	3084	0.0	3176	3002	173	215	2960
No	O %	5809	32	1082	60	104	0.0	384 61.0	44 39.8	108 45.8	2961	216	5158	0.0	5375	4605	770	310	5065
Don't know/Refused	%	65	0.0	34	0.0	0.0	31	0.0	00.0	0.0	0.0	0.0	65	0.0	65	65	0.0	0.0	65

SIGNIFICANCE TESTING AT .95

UMA Type

							======= UMA 1	TYPE	=== UMA	UMA BANNER ==				======================================				000 000	
	Total	- I	dun	Arch/ Eng H	HVAC in	Light- ing M	Motors E	Nonres Bldg	Other Res]	Refrig	Res Bldg	Yes	NO				NOLL	Xes Control Xes Contro	NO
Total	613 C% 100	68.	80.	91	.0	3221 100.0	957	7103	.0	1492 100.0	22599	23046 100.0	31788	15193 100.0	39641 100.0	9352	45481 100.0	17919	36915 100.0
Ag/Pumping	%	339	339	00.0	00.	0.0	00.	0.0	00.	0.0	0.0	144 0.6	175	61	257	1.02	216	0 . 55	233
Architect/Engineer C	120 C% 15	12091 19.7	0.0	12091 100.0 DGHJ	000	0.0	0.0	000	000	0.0	000	3937 17.1	7920 24.9	4171 27.5 N	7685 19.4 M	2008	9848 21.7	2832 15.8	9025
Non-res HVAC contractor C	. %	3963	00.	000	3963 100.0 CGHJ	0.0	00.	0.0	0.0	0.0	0.0	2328 10.1	1526 4.8 K	1269 8.4	2584	2.0	3665	910	2944
Non-res Lighting contractor	33	3221 5.2	00.0	00.	00.0	3221	0.0	0.0	00.	00.0	00.0	1158	1986	146 1.0 N	2997 7.6	285 3.1	2858	1667 9.3 R	1476 4.0 Q
Motor contractor C	°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°	1957	0.0	0.0	0.0	0.0	1957	0.0	0.0	0.0	0.0	1316 5.7	641 2.0 K	209	1748	4194.5	1538	1310 7.3 R	647 1.8
Non-res Bldg contractor C	C.%	7103 11.6	0.0	00.0	000	0.0	0.0	7103 100.0 CDHJ	00.0	0.0	000	2764	4029	1705	5088 12.8	690	6104 13.4	2544 14.2	4250 11.5
Other Res contractor C	° 28	2956 4.8	0.0	0.0 H	0.0 H	0.0	0.0	0.0 E	2956 100.0 CDGJ	0.0	0.0 E	437	1499	1264 8.3 N	672 1.7	96 1.0	1840 4.0	423	1513 4.1
Refrigeration contractor	°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°°	1492 2.4	0.0	0.0	00.0	0.0	0.0	0.0	00.0	1492	00.0	335 1.5	932	0.2 N	1239 3.1	792 8.5	475 1.0	747	520 1.4
Res Bldg contractor C	22.g 3.g	22599 36.8	0.0	00.0	00.0	0.0	0.0	0.0	00.0	0.0	22599 100.0 CDGH	8036	10446	39.9	12427	2407	16075 35.3	6530 36.4	11952

SIGNIFICANCE TESTING AT .95

SCE customer

O D D D D D D D D D D D D D D D D D D D	SDGE COSTOMER SCG COSTOMER	Yes No Yes No 0PQR	9352 45481 17919 36915 100.0 100.0 100.0 100.0	23046 14489	0.0 50.7 80.9 23.2 P O R O	9352 22436 3429 28359 100.0 49.3 19.1 76.8
T DEMO	COSTOMER	NON	3 39641 0 100.0		1 57.7 N M	9 16769
	4 I	YesM	38 15193 .0 100.0		.0 1.1 K	38 15019 .0 98.9
======================================	SCE COSTOMER	No L	16 31788 .0 100.0		.0 0.0 L K	0 31788
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	Π Π Π Π Π Π		57 18482 .0 100.0		.4 43.5 H	32 10446 .6 56.5
OMA BANNER		Refrig I	36 1267 .0 100.0		.6 26.4 DJ	99 932
	0+4		.0 100.0		40.7 22.6 DJ	4029 1499 59.3 77.4
======== UMA TYPE	N I I	s Bldg	1957 6794 .00.0 100.0		67.3 40	641 40. 32.7 59
		Motors	w 0	00	00	9 7
		ing	54 314 .0 100.	28 115	60.4 36 CH	1526 198 39.6 63.
		HVAC	57 3854 .0 100.0			
		Eng C	318 11857 100.0 100.0		.1 33.2 D	75 7920
	Δα / Plim	-ing				38 175 .0 54.9
 		Total	54833 C% 100.0	2304	C% 42.0	31788 C% 58.0
			Total	Yes		NO

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SIGNIFICANCE TESTING AT .95

PGE Customer

	No No R	36915 100.0	14979 40.6 2	21935 59.4 2
======================================	X C C C C C C C C C	17919	213 1.2 R	17705 98.8 R
	NO II	45481 100.0	15193 33.4	30288
		9352	0.0 P	9352 100.0
	ON ON ON ON ON ON ON ON ON ON ON ON ON O	39641	0.0 M	39641 100.0
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		31788	15019 47.2 K	16769 52.8 K
======================================	7	23046	174 0.8	22872 99.2
	Res – Bldg	18482	6056 32.8	12427 67.2 H
BANNER ==	Refrig I	1267	2.2	1239
== UMA E	Other Res F	1936	1264 65.3 CDGJ	672 34.7 CDGJ
 TYPE	Nonres C Bldg F	6794	1705 25.1	5088 74.9 H
====== UMA T	Motors B	1957	209	1748
		3143	146 4.7	2997
	Light- HVAC ing DE	3854 100.0	1269 32.9	2584 67.1 H
	Arch/ Eng C	11857	4171 35.2 H	7685 64.8 H
	Ag/Pump -ing B	318	61	257
	A Total - A	54833	15193 27.7	39641
II	1	% U	O %	ů V
		Total	Y es	ON O

RESEARCH AMERICA INC PAGE 31

SIGNIFICANCE TESTING AT .95

SDGE customer

	SCG CUSTOMER
ing Eng HVAC ing Motors -ing Eng HVAC ing MotorsBCF	Yes No
318 11857 3854 3143 100.0 100.0 100.0 100.0	17919 36915 100.0 100.0
102 2008 189 285 32.0 16.9 4.9 9.1	476 8877 2.7 24.0
(1) 01	

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SIGNIFICANCE TESTING AT .95

SCG customer

	NO	36915	000	36915 100.0
	Yes No No No No No No No N	17919	17919 100.0 R	00.0
	NON	45481 100.0	17443 38.4 0	28038 61.6
C	- : :	9352	476 5.1 P	8877 94.9
	NON	39641 100.0	17705 44.7 M	21935 55.3
- 11	7	15193	213 1.4 N	14979 98.6 N
	NO	31788	3429 10.8	28359 89.2 K
		23046	14489 62.9	8556 37.1
	Res Bldg	18482	6530	11952
BANNER ==	Refrig I	1267	747	520 41.1
==== UMA	Other Res	1936	423 21.8	1513
====== TYPE	Nonres Bldg G	6794	2544	4250
======= UMA	Motors F	1957	1310	647 33.1
		3143	1667	1476 47.0
	Light- HVAC ing DE	3854 100.0	910	2944 76.4
	Arch/ Eng c	11857	2832	9025
	Ag/Pump -ing B	318	85 26.8	233
	Total A	54833 100.0	17919 32.7	36915
		ర	% U	Ö
		Total	Yes	No

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SIGNIFICANCE TESTING AT .95

Center

							UMA TYPE	 	T VIIIO	Name									
						1 1 1 1 1 1		!				SCE CUST	CUSTOMER	PGE CUSTOMER	OMER	SDGE COS	CUSTOMER	SCG CUSTOMER	OMER
		Total A	Ag/Fump -ing B	Arch/ Eng C	HVAC	Lignt- ing E	Motors B	Nonres C Bldg R	Otner Res F	Refrig I	Res Bldg	Yes K	NO I	Yes		Yes	NO H		N N I
Total	°°	61389	339	12091	3963 100.0	3221 100.0	1957	7103	2956 100.0	1492	22599	23046	31788	15193	39641	9352	45481	17919	36915
AgTAC	o O	3324 5.4	145 42.7	361	263	137	110	738	92	63	937	1902	1369	1530 10.1	1742 4.4	0.0	3272 7.2	1341	1931
CTAC	°°	33807	120	5988 49.5	2255	2588	1219	4001	1281 43.3	1194	12482	20835 90.4	7467 23.5 K	0 ° 0	28302 71.4 M	1680 18.0	26622 58.5 0	16053 89.6 R	12250 33.2
PG&E	% U	15143	0.0	4211 34.8	1190 30.0	107	209	1734 24.4 H	1472 49.8 DGJ	0.0	6219 27.5 H	0.0 L	14645 46.1 K	13663 89.9 N	982 2.5 M	0.0	14645 32.2	00.0	14645 39.7 0
SDG&E	ů	9115	74	1531	255	389	419	630	110	235	2961	308 1.3	8307 26.1	00.2	8615 21.7	7672 82.0	943 2.1	525 2.9	8090

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SIGNIFICANCE TESTING AT .95



Audits

Seminar name	Seminar description	Center	Target audience	Instructor
How to Manage your Business's Energy Costs	Conducts energy-use surveys at a business	CTAC	Small/medium-sized business owners and non-technical utility managers	
Learn the Ins and Outs of An Energy Audit	Overview of energy auditing techniques, tools and software. Also discusses ways to reduce energy costs through new technology.	SDGE	Facility managers and building operators of medium to large businesses and government agencies	Rocky Harmstead, Matt Greenbergs, Carl Anderson, Noel Ehlers SDG&E IFMA and BOMA
PG & E Energy Auditor Training	Conducts energy audits, identifying energy savings	AGTAC		
PG & E Tool Lending Workshop	Assists auditors in identifying energy savings	AGTAC		
Small Business Energy Audit Training	Conducts energy audits at small commercial businesses	AGTAC		

BASICS AND GENERAL ENERGY EFFICIENCY

Seminar name	Seminar description	Center	Target audience	Instructor
Building Operator Certification Training	Training for building operators: identify energy efficiency opportunities	ERC	Building Operators	
Combustion Seminar	Safe and efficient use of gas-fired combustion equipment	ERC	Business owners, facility managers, plant engineers, maintenance engineers, engineering personnel	Farron Harrison The Gas Company
Energy Pricing for the Health Care Energy efficiency Industry	Energy efficiency	ERC		
SDG&E Technology Forum 2002	Generation, distribution and rate structure	ERC		
Selling Energy Efficiency Partnership	Reducing operating costs and reaping performance gains through energy efficient equipment	ERC		
Soil & Groundwater Remediation	Latest energy efficient gas fired technology options available and new regulations	ERC		
2002 Home Energy Efficiency Rebate Program	Details about obtaining rebates	ETC	Customers	
Association of Professional Energy Managers- Spring Energy Forum	Association of Professional Energy Latest energy technology and savings Managers- Spring Energy Forum information	CTAC	Energy managers	
Biggest Energy Mistakes Made in Residential Construction	Making residential homes energy efficient	ETC	Architect, Building Department inspector, Building Department plan checker, designer, energy consultant, HVAC contractor, mechanical engineer; residential builder; and window contractor	

APPENDIX G

BASICS AND GENERAL ENERGY EFFICIENCY, CONTINUED

Seminar name	Seminar description	Center	Target audience	Instructor
Chinese EE Expo		CTAC		
Commercial Energy Efficiency Programs 2002 Kickoff	Overview of SDG&E programs (structure and benefits)	SDGE		
Energy Efficiency Hispanic Chamber of Commerce Association		CTAC		
Energy Efficiency Training		CTAC		
Energy Efficiency Vendor Rebate		CTAC		
Energy Efficiency Vendor Training		CTAC		
Energy Efficiency Program Vendor Discusses Kickoff eligible ene	Discusses SPC, Express Efficiency, and eligible energy saving measures.	AGTAC		
Express Efficiency Vendor Kick Off and Fair		CTAC		
Faith Based Organization Program		CTAC		
High Performance Windows	Addresses the benefits of high-performance fenestration products	ETC	Architect, Building Department inspector, Building Department plan checker, designer, energy consultant, HVAC contractor, mechanical engineer; residential builder and window contractor	
House as a System	Discusses the interrelationships between the HVAC system, the building envelope, and the rest of the house.	ETC	Architect, designer, HVAC contractor, residential builder	

BASICS AND GENERAL ENERGY EFFICIENCY, CONTINUED

Seminar name	Seminar description	Center	Target audience	Instructor
House as a System Overview	Highlights of the "whole house" approach	ETC	Architect, designer, HVAC contractor, residential builder	
Industrial Maintenance	Inspection, testing, and maintenance procedures	CTAC	Maintenance engineer	
Insulate Right	Installation techniques and inspection criteria for ceiling and wall insulation	ETC	Building Department inspector, energy consultant, residential builder	
Maintenance Superintendent Association		CTAC	Maintenance superintendent	
New Energy Technology Series	"Hot" topics in energy and technologies - includes hazardous waste recycling, LEDs and OLEDs	CTAC		John Chilcott, Jim George Earth Protection Services,
Non Profit Energy Forum		CTAC		
Not for Profit Organizations		CTAC		
Port Hueneme Energy Week, Navy		СТАС		
Principles of Energy	Introduction to basic energy terms and concepts	ETC		
Schools Energy Efficiency Workshop	Lower energy cost, energy conservation program at school, cash incentives for implementing specific energy conservation measures	CTAC		
See the Heat	Measuring the energy performance of building envelopes	ETC		

BASICS AND GENERAL ENERGY EFFICIENCY, CONTINUED

Seminar name	Seminar description	Center	Target audience	Instructor
Taiwan Hotel/Motel Association		CTAC		
Technology Review Workshop	Updates on latest technologies - preview of AGTAC courses	AGTAC		Dave Wylie ASW Engineering
Technology Update	Energy efficient technologies for commercial and industrial facilities	CTAC		

ENVIRONMENTAL/AIR QUALITY

Seminar name	Seminar description	Center	Target audience	Instructor
Thriving Under Title V: Managing	Issuance and maintenance of an air quality	000		
you Title V Permit	permit			

Food

Seminar name	Seminar description	Center	Target audience	Instructor
Advanced Food Safety Concepts	Food prep and safety - Energy efficient dishwashing systems	ERC		
Advanced Food Service Refrigeration	Energy efficient refrigeration - specific to food service	CTAC	Foodservice directors and managers, restaurant owners, kitchen designers, facility managers, chain account operators	
Anything Goes with Dairy	Cooking dairy products in energy efficient ovens, steamers, and infrared broilers	ERC		
Banqueting: From Ideas to Execution	Energy efficient combination ovens and equipment	ERC		
Basic Energy 101: Gas Electricity, and Water	Basic Energy 101: Gas Electricity, Basics of gas, electricity, and water and Water increase energy efficiency and productivity	ERC		
Challenges of Catering	Ways to reduce equipment operating costs	ERC		
Costco Product Seminar	New energy efficient gas cooking equipment	ERC		
CST Training	Training for commercial service technicians: new energy efficient gas cooking equipment	ERC		
Cuisines of France	Energy efficient convection ovens, fryers and double-sided non-contact griddles	ERC		
Designing and Operating an Energy Efficient Food Service Facility	Aesthetics, comfort, and energy efficient performance	ERC		

FOOD, CONTINUED

Seminar name	Seminar description	Center	Target audience	Instructor
Energy Efficient Lighting for Food service	Energy efficient lighting - specific to food service	CTAC	Restaurant owners, foodservice directors and managers, kitchen designers and consultants, facilities maintenance personnel, chain account operators	
Energy Audits & Management for Foodservice	Implementing and managing energy efficient motors	CTAC	Restaurant owners, foodservice directors and managers, kitchen designers and consultants, facilities maintenance personnel, chain account operators	
Equipment Operation and Maintenance	Natural gas-fired cook equipment	ERC		
Exploring the World of Grains	New recipes and efficient cooking methods	ERC		
Innovative Equipment Solutions	High efficiency commercial equipment of the future	ERC		
It's All About You	Learn about latest energy-efficient and labor saving technology	ERC		
Just for Chefs	Cooking demo on energy efficient equipment	ERC		
Maximizing Your Gas Company Partnership	Energy efficiency programs and services	ERC		
Mexican Fiesta Vendor Mixer	Energy efficiency and incentive programs	ERC		
Night of Delights	Demonstration of energy efficient equipment, tour of The Gas Company's Food Service Equipment Center	ERC		

FOOD, CONTINUED

Seminar name	Seminar description	Center	Target audience	Instructor
Pizza, Pasta, and More	Food preparation with natural gas deck ovens	ERC		
Residential Cooking Seminar	Learn about high-efficiency cooking equipment	ERC		
Snack Food Expo	Demonstration of energy efficient conveyor oven	ERC		
Tastes of Hawaii	LEED planning and documentation for certification	ERC		
The Power of Produce	LEED planning and documentation for certification	ERC		
The seafood Spectacular	LEED planning and documentation for certification	ERC		

HIGH PERFORMANCE/ GREEN BUILDINGS

Seminar name	Seminar description	Center	Target audience	Instructor
Building Sustainable Libraries	Design and operate a sustainable library building	CTAC		
Collaborative for High Performance Schools	Design energy efficient comfortable schools	AGTAC	school designers, architects, engineers, district decision- makers	Lisa Heschong, Anthony Bernheim, James Benya, Erik Kolderup Heschong Mahone Group, SMWM Architecture/ Planning, Benya Lighting Design, Eley Associates)
Design Strategies for High Performance Glass	Selection and use of glass	CTAC	commercial and industrial business owners, facility operators, mangers, and vocational students	
High Performance Commercial Building Facades Roundtable	Advanced glazing systems in dynamic and responsive building facades	CTAC		James Carpenter
LEED Advanced Workshop	LEED planning and documentation for certification	ERC		
LEED Intermediate Workshop		ERC		
Sustainable Building		CTAC		
Building Commissioning	Significance of building inspection, system testing, and operation training	ERC		

HIGH PERFORMANCE/ GREEN BUILDINGS, CONTINUED

Seminar name	Seminar description	Center	Target audience	Instructor
Funding Green Buildings	Roadmap to increase project fundability, sustainability, and visibility	ERC		
High Performance Schools	Daylighting design and student productivity, high performance lighting and HVAC systems	ERC		
Turning Green into Gold	Issuance and maintenance of an air quality permit	ERC		

HVAC

Seminar name	Seminar description	Center	Target audience	Instructor
Advanced AC/HP Diagnostic Tune-Up Overview	Detailed review of checking refrigerant charge	ETC	Architect, Building Department inspector, Building Department plan checker, designer, energy consultant, HVAC contractor, mechanical engineer; residential builder	Terry Norris Advanced Energy Corporation
Air Handling Systems	Advanced topics in central AC for commercial facilities	CTAC		
Basic Heating, Ventilation & Air Conditioning (HVAC)	HVAC system basics	AGTAC CTAC	commercial customers with little or no knowledge of HVAC	Lester Le Day SCE
Chilled Water Systems	Selecting an energy efficient chilled water system	CTAC		
Controlled Ventilation	Mechanical ventilation systems in residential buildings	ETC		Dr. Joseph Lstiburek National building science expert
Energy Management Systems	Design of HVAC/DDC systems and networking of DDC systems	SDGE	facility managers and building operators of medium to large businesses and government agencies	IFMA and BOMA
Energy Management Systems (EMS)	Current technology in HVAC control methods	CTAC	commercial and industrial business owners, facility operators, managers, and vocational students	

HVAC, CONTINUED

Seminar name	Seminar description	Center	Target audience	Instructor
High Performance Duct Systems and 2001 Residential Energy Standards Overview	Duct system requirements, changes in energy standards (AB970)		Builders, HVAC contractors and engineers	Doug Beaman CEA, trained builders, contractors, inspectors and energy consultants in the past 10 years.
HVAC Quality Installation	Quality installation of HVAC systems	ETC	architect, Building Department inspector, Building Department plan checker, energy consultant, Rob Falke HVAC contractor, mechanical engineer; residential builder	John Krigger and Rob Falke
LA Steam Operator Training	Boiler room and steam plant operations	ERC		
Owning & Operating an Efficient Cooling Tower	Examines the trade-off between cooling tower CTAC size and energy savings	стас		
Package Unit Heating, Ventilation & Air Conditioning (HVAC)	Fundamentals of HVAC systems in residential and small/medium commercial and industrial CTAC facilities		some HVAC system experience	
Packaged HVAC Workshop	Advanced course in fundamentals of HVAC systems	AGTAC	prior HVAC experience	Dave Wylie ASW Engineering
Steam Efficiency Workshop	Equipment, efficiency, technical tips, case studies	ERC		
The Geoexchange Alternative	Introduction to geoexchange (ground source heat pump) systems	ETC		

HVAC, CONTINUED

Seminar name	Seminar description	Center	Target audience	Instructor
	Information concerning valve train assemblies		facility managers, building	
	on gas appliances, flue gases, burners,		operators of medium or large	
Understanding Boiler Basics and	operating costs of boilers and other gas-fired		business and government	IFMA and BOMA
Combustion	equipment	ERC SDGE agencies	agencies	of San Diego
	Information concerning valve train assemblies		facility managers, building	
	on gas appliances, flue gases, burners,		operators of medium or large	
Understanding Boiler Basics and	operating costs of boilers and other gas-fired		business and government	IFMA and BOMA
Combustion (Spanish)	equipment	SDGE	agencies	of San Diego

IRRIGATION, PUMPS AND WELLS

Seminar name	Seminar description	Center	Target audience	Instructor
Chemigation and Legal Requirements Compliance	Rules, regulations, specifications of chemigation practice and hardware	AGTAC		Center for Irrigation Technology, Fresno State
Frost Protection Systems	Designing systems, technology, and plant physiology	AGTAC		Center for Irrigation Technology, Fresno State
Introduction to Drip/Micro Irrigation System Design	Introduction to Drip/Micro Irrigation Design, selection, and optimizing factors System Design	AGTAC		Center for Irrigation Technology, Fresno State
Introduction to Pumping Plant Design	Pump performance and design characteristics	AGTAC		Center for Irrigation Technology, Fresno State
Introduction to Well and Deep Well Well specifications and design Turbine Pump Design	Well specifications and design	AGTAC		Industry Representatives Center for Irrigation Technology, Fresno State
Matching Pump Capacity to Irrigation System Demand	Topics include pumping plant characteristics, controllers, energy efficiency	AGTAC		Center for Irrigation Technology , Fresno State

IRRIGATION, PUMPS AND WELLS, CONTINUED

Seminar name	Seminar description	Center	Target audience	Instructor
Pumping System Assessment	Overview of the entire pump system	CTAC	plant engineers, maintenance superintendents, water utility managers and process engineers solutions; Director who make/influence decisions of Engineering and R&D for Weir Specialty Pumps	Dan Casada; Tom Angle Consulting engineer with Diagnostic Solutions; Director of Engineering and R&D for Weir Specialty Pumps
World Ag Expo: FSU-CIT Irrigation Workshop	Selecting and buying an irrigation system	AGTAC		

LIGHTING

Seminar name	Seminar description	Center	Target audience	Instructor
Advanced Lighting Technologies	Operation, performance, and issues associated with advanced lighting technologies (for those with a basic knowledge of lighting)	CTAC		
Basic Lighting Workshop	Lighting overview and ways to reduce energy costs	AGTAC		Lester Le Day SCE
Commercial and Industrial Lighting commercial	Choosing lighting to reduce energy costs in commercial and industrial facilities	AGTAC CTAC		
California Conservation Corps Lighting Set		CTAC		
Energy Efficiency Lighting Systems & Controls	Latest technologies in lighting, selecting appropriate equipment	CTAC	commercial and industrial business owners, facility operators, managers, and vocational students	
Hibay Lighting	Replacing inefficient lighting in large buildings such as warehouses, industrial facilities, and gymnasiums	CTAC		Stan Walerczyk, LC member of the IESNA's Energy Management Committee and Chairman of IESNA's Retrofit/Upgrade Subcommitee
High Intensity Discharge (HID) Lighting	Learn about high intensity discharge lighting and applications	CTAC		

LIGHTING, CONTINUED

Seminar name	Seminar description	Center	Target audience	Instructor
Lighting & Daylighting for Architects & Designers	Latest lighting and daylighting principles and technologies	CTAC	architects and designers	
Lighting Controls for Energy Management	Energy management lighting controls	CTAC	customers	
Lighting Fixture Maintenance Workshop	Cleaning, replacing, and installing fluorescent lighting fixtures	CTAC	maintenance or facilities	
Lighting for Offices and Schools	Energy savings and lighting quality improvements with T8 lamps and electronic ballasts - specific to offices and schools	CTAC		Stan Walerczyk member of the IESNA's Energy Management Committee and Chairman of IESNA's Retrofit/Upgrade Subcommitee
Lighting Retrofit Strategies & Project Management Techniques	Managing a lighting retrofit project	CTAC		
Lighting/Daylighting Seminar	Integrate latest lighting tech into building designs	ERC		
Skylighting for Commercial & Industrial Buildings	Using skylights to save money and energy - designing a skylight system	CTAC	Architects, Building Designers, Building Owners/Operators, Energy Managers	Jon McHugh, PE Heschong Mahone Group
Successful Merchandising with Efficient Lighting	Using lighting to promote sales and save energy	СТАС	retailers	

LIGHTING, CONTINUED

Seminar name	Seminar description	Center	Target audience	Instructor
The Latest in Advanced Lighting	Topics included energy savings through controls, lamp and ballast disposal, lamp and ballast technology	SDGE	facility managers and building operators of medium to large businesses and government agencies	SDG&E, IFMA and BOMA
The Lowdown on Hibay Lighting	Replacing existing lighting with more efficient lighting and how Hibay lighting can be used in different settings.	SDGE	facility managers and building operators of medium to large businesses and government agencies	SDG&E, IFMA and BOMA

Motors

Seminar name	Seminar description	Center	Target audience	Instructor
A Course in Motors & Adjustable Speed Drives	Basic principles of electric motors and benefits of adjustable speed drives	SDGE	facility managers, building operators of medium or large business and government agencies	Dave Wylie, P.E. ASW Engineering
Electric Motors & Adjustable Speed Drives	Reducing energy costs of electric motors in commercial and industrial facilities	CTAC		
Motors and ASDs	Advanced info on motors including maintenance and energy efficiency (for people with a basic knowledge of motors)	AGTAC	indivs with basic knowledge of motors	Dave Wylie ASW Engineering

POOL PUMPING

Seminar name	Seminar description	Center	Target audience	Instructor
Pool Filtration at Half the Cost	New pool pumping technology	ETC	Swimming Pool Contractor, Equipment Distributor, Pool Supply Retailers, contractors and	

PROCESS

Seminar name	Seminar description	Center	Target audience	Instructor
Air Compression Seminar	Basics in compressed air system design, leak detection, and system auditing techniques	ERC	Facility managers, air compressor system operators, system designers, energy managers	Bill Scales Scales Air Compressor Corporation
Compressed Air Systems	Use of compressed air to reduce operating costs and system reliability	CTAC		
Compressed Air Workshop	Overview of the industrial use of compressed air	AGTAC		Dave Wylie ASW Engineering
Simplified Compressed Air Systems	Skylight systems/controls for commercial/industrial buildings	AGTAC	facility managers and building operators of medium to large businesses and government agencies	SDG&E, IFMA and BOMA

REFRIGERATION

Seminar name	Seminar description	Center	Target audience	Instructor
Efficient Technologies for Commercial Refrigeration	Commercial refrigeration equipment - new technologies and current issues (for owners and managers of refrigeration systems)	CTAC	service employees, facility managers and sales representatives	
Industrial Refrigeration	Overview of industrial refrigeration - application, equipment, safety	AGTAC		Dave Wylie ASW Engineering
Industrial Ammonia Refrigeration	Overview of industrial refrigeration - application, equipment, safety	AGTAC		Lon Smith ADM Associates
Refrigeration Vendor Event	Energy efficiency programs for refrigeration	CTAC		

TITLE 24

Seminar name	Seminar description	Center	Target audience	Instructor
ACCA Manual D Advanced	Advanced duct system design	ERC		
ACCA Manual J Training	Load calculations, equipment selection	ERC	architects and designers, builders, energy consultants, engineers, HVAC contractors, building department inspectors and plan checkers	
Air Distribution Diagnostic Testing	Operation of duct tester, flow hood, digital manometer, and blower door equipment. Also a review of Title 24 requirements	ETC	Building Department inspector, Building Department plan checker, energy consultant, HVAC contractor; residential builder	
CalACCA Manual J8 Training Certification	Trains trainers to teach updated Manual J to contractors	ERC		
CEPE Nonresidential Training	Training for Bldg Dept. Examiners and Engineers working with CA State energy standards	ERC		
CEPE Residential Training	CA energy standards training and testing	ERC		
Combined Hydronic Systems Sizing Guidelines	Review of GRI guidelines for sizing of combo systems	ERC		

TITLE 24, CONTINUED

Seminar name	Seminar description	Center	Target audience	Instructor
Duct Design	Review of ACCA Residential Design System and procedures	ЕТС	Building Department inspector, Building Department plan checker, energy consultant, HVAC contractor, mechanical engineer; residential builder	
Duct Installation Standards	Review of PGE, UMC, and Title 24 standards for air tight ducts	ETC	architect, Building Department plan checker, designer, energy consultant, HVAC contractor, residential builder	
EnergyPro Training: Mechanical	Energy efficiency	ERC		
EnergyPro Training: Advanced	Modeling and upgrading designs to maximize potential energy efficiency incentives	ERC		
EnergyPro Training: Env/Lighting/Windows	Use modeling software to model lighting and building envelope, compliance	ERC		
EQuest	Using eQUEST, a DOE-2 based building simulation tool	CTAC	design professional	
Equipment Sizing and Selecting	Review of ACCA load calculation and equipment selection process and other compliance issues	ETC	Building Department inspector, Building Department plan checker, energy consultant, HVAC contractor, mechanical engineer; residential builder	
Facilities, Engineering& Healthcare Symposium	Comprehensive program, includes Title 24 updates and current bldg codes	ERC		
High Performance Ducts & AB970 Overview	Review of energy standards and demonstration of duct system under new standards	ERC		

TITLE 24, CONTINUED

Seminar name	Seminar description	Center	Target audience	Instructor
HVAC Diagnostics	Hands on use of HVAC system under various configurations	ERC		
HVAC System Air Flow/ Pressure Diagnostics	Hands on use of HVAC system under various configurations	ERC		
Hydronic System Sizing	Sizing and installing combo systems	ERC		
Residential Title 24 Duct Installation Standards & Diagnostic Testing	Residential Title 24 Duct Installation standards and diagnostic Installation Standards & Diagnostic testing procedures	ETC		
Title 24 Update: Advanced ACCA Manual D	Fitle 24 Update: Advanced ACCA Issuance and maintenance of an air quality Manual D	ERC		
Title 24 Update: Nonresidential Standard	Issuance and maintenance of an air quality permit	ERC		
				Jim Primdahl
	وام نومه می می المان باط می دارم روم و	C		De-Construction
lurn Irash into Cash	Kecycling building materials	ה כ		Program Manager, Institute of Local
				Self-Reliance
Zoning Loads and Duct Design	Solve residential comfort and energy problems using zoned systems	ЕТС	Building Department inspector, Building Department plan checker, energy consultant, HVAC contractor, mechanical engineer; residential builder	

WATER AND WASTEWATER

Seminar name	Seminar description	Center	Target audience	Instructor
Municipal Water Pumping	Hybrid systems, standby to full operation, and equipment upgrades	ERC		
Water Treatment for Energy Efficiency	Issuance and maintenance of an air quality permit	ERC		
9th Annual Water Conference	Energy efficiency for water and wastewater operations	CTAC		
Instrumentation and Sensors Workshop	Sensing elements and control loops	AGTAC	Technicians who work with plant wastewater or water delivery processes	Gary Penny Edison ITAC