



ERNEST ORLANDO LAWRENCE BERKELEY NATIONAL LABORATORY

Summary Report of Pre-Cooling and SCE EnergySmart ThermostatSM Focus Groups

Flexo Hiner & Partners, Inc.

October 2004





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Prepared by
Flexo Hiner & Partners, Inc.
under the direction of Southern California Edison

October 2004

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PREFACE

The Public Interest Energy Research (PIER) Program supports public interest energy research and development that will help improve the quality of life in California by bringing environmentally safe, affordable, and reliable energy services and products to the marketplace.

The PIER Program, managed by the California Energy Commission (Commission), annually awards up to \$62 million to conduct the most promising public interest energy research by partnering with Research, Development, and Demonstration (RD&D) organizations, including individuals, businesses, utilities, and public or private research institutions.

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- Environmentally-Preferred Advanced Generation
- Energy-Related Environmental Research
- Energy Systems Integration

What follows is deliverable 4.2C for the Demand Shift Through Thermal Mass Project , 500-03-026 Task 4.2, conducted by Flexo Hiner & Partners, Inc. under the direction of Southern California Edison. The report is entitled “Summary Report of Pre-Cooling and SCE EnergySmart ThermostatSM Focus Groups”. This project contributes to the Energy Systems Integration and Buildings Programs.

For more information on the PIER Program, please visit the Commission's Web site at: <http://www.energy.ca.gov/research/index.html> or contact the Commission's Publications Unit at 916-654-5200.

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ThermostatSM
Focus Groups***

October 2004

Prepared by:



FLEXO HINER & PARTNERS, INC.
MARKETING DIAGNOSTICS AND STRATEGIES

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Disclaimer

The findings from this report are qualitative and exploratory in nature. It is not intended to provide data that are projectable to a stated universe. Focus groups are designed to elicit reactions from participants about a particular topic; generate ideas and concepts that further understanding; assist in developing hypotheses and parameters for further quantitative research.

Never should the results from qualitative research be considered representative of any population segment or point of view of a specific target universe. The non-random method of recruitment and small number of respondents participating in focus groups do not permit this type of observation.

Nevertheless, the results of a well-designed and properly conducted qualitative research can provide a great deal of marketing insight and direction and should be used accordingly.

Legal Notice

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I. Background and Objectives

Southern California Edison (SCE) began offering the SCE Energy\$mart ThermostatSM program to qualified customers in early 2002. Prior to the launch of the program, SCE had completed focus groups and a telephone survey to help determine key program parameters and marketing messages. The program achieved considerable success meeting enrollment goals as customers responded to SCE's marketing efforts that promoted the most relevant program features: (1) customers would receive at no cost a new programmable thermostat installed at each qualifying location; (2) customers would receive a \$300 incentive payment at the end of the summer season for each installed SCE Energy\$mart Thermostat; and (3) customers would be able to help SCE avoid rotating blackouts during peak demand times.

In exchange for these benefits, customers' thermostat set-points would be automatically increased on a limited number of occasions in response to peak electrical system demand conditions and general program testing. Eligible customers are small commercial businesses, with most program participants on the GS-1 rate (non-demand), though some are GS-2 (demand rate).

In the summer of 2002, SCE completed another set of focus groups among program participants to assess their experiences with the administration of the program, and their satisfaction with all of their experiences. Some of the most important outcomes of these focus groups were:

- Most customers who signed up for the program did so in direct response to the key marketing messages: (1) the free thermostats that they thought would help them better manage their AC energy consumption; (2) the \$300 incentive; and (3) the belief that short term inconvenience of higher temperature is a small price to pay to avoid rotating blackouts.
- Many customers signed up quickly without much deliberation, so they had little understanding of program details and conditions, particularly about the thermostat adjustments.
- Surprisingly, these customers also had little interest in learning too much more about the program – they would be content with a brief refresher.
- While customers had a wide range of thermostat installation experiences, their most significant complaints were that the thermostats were not properly programmed initially, and they did not learn how to program the thermostat themselves to optimize its potential for saving energy.
- While most customers were aware of at least one set-point adjustment, the adjustments were generally insignificant and unmemorable experiences. GS-1 customers were more likely to notice the curtailments than GS-2, though the parameters of 4 degrees for 4 hours were considered reasonable.
- Customers' primary concern was achieving energy savings with the new thermostat rather than worrying or bothering about the program details.

- Even without confidence that the thermostats were saving them energy in some cases, all customers in the focus groups said they would continue on with the program.

Objectives

Now, SCE is looking for additional feedback from customers for two purposes:

- SCE is investigating a pre-cooling option for the thermostat program, where participating customers would have their set-points lowered a few degrees in advance of a set-point increase. This would potentially allow for a longer period of time when a customer's AC would remain idle, while keeping customers in a reasonable "comfort zone."
- SCE is planning to continue the existing SCE Energy\$mart Thermostat program with a few modifications, so would like to gauge customers recent experiences and perceptions about participating in the program.

II. Methodology

To achieve the objectives, SCE contracted with FLEXO HINER & Partners, Inc. a full-service market research company, to conduct four focus groups. Two groups were completed among GS-2 customers with potentially qualifying package AC systems, and two groups were completed among currently enrolled SCE Energy\$mart Thermostat (E\$T) participants.

The focus groups were held at two different locations as follows:

Location	Date/Time	Customer Group
Riverside	October 6, 6:00pm	GS-2 Pre-Cooling Qualifiers
Riverside	October 6, 8:00pm	E\$T Current Participants
Orange	October 7, 6:00pm	GS-2 Pre-Cooling Qualifiers
Orange	October 7, 8:00pm	E\$T Current Participants

For the Pre-Cooling groups, participants were selected from SCE's GS-2 customer population located within 15 miles of each focus group facility and screened over the telephone for the following:

- Have at least one qualifying package AC unit (roof mounted, 3-15 tons, thermostat controlled).
- Cement block building or believe building can retain cooling for at least 2 hours.
- Have customers routinely entering the building.

Most of the participants in the pre-cooling focus groups were manufacturers, though property managers, a nursing home, a hand car wash, two auto dealerships, a training center, an architectural firm, a laboratory, a towing and car storage company, and a multi-office insurance firm were also represented.

For the E\$T groups, participants were selected from the existing list of current enrollees located within 15 miles of the focus group facility. Most participants in the focus groups had been on the program 2 to 3 years, but there were some who were more recent to the program.

Dr. Steve Westberg of FLEXO HINER & Partners assisted SCE with developing the discussion guide, moderating all of the groups, and preparing the summary report.

III. Key Findings and Recommendations

A. Pre-Cooling Focus Groups

Energy management continues to be a very important issue for many of SCE's business customers. While some businesses think about major retrofits of equipment and structures, lighting and air conditioning quickly come to mind as the two things that nearly all businesses might be able to adjust and control. In particular, businesses face some relatively basic but important challenges with their AC systems: employees tampering with thermostats, forgetting to turn them off at the end of the day, having to adjust them manually throughout the day, and having an AC system that is outdated or inefficient.

Most GS-2 business customers also seem familiar with the concept of peak demand, which they believe to be time periods when businesses are operating while both businesses and residential customers are also running their air conditioners. While they are somewhat unclear about the time frames (some believe it is 9:00am to 5:00pm while others believe it is noon to about 7:00pm), they recognize that peak demand can lead to rotating outages, which they want to avoid if at all possible.

In sum, this means that most GS-2 customers are open and receptive to programs that reduce peak demand, such as the E\$T program. However, the energy decision makers in these focus groups recognize that just shifting load does not save them any money, so it does not contribute to their cost reduction goals. Demand management programs do need to provide real energy and cost saving in addition to load shifting.

Responses to the SCE Energy\$mart Thermostat Program

During the pre-cooling focus groups, participants were introduced to each aspect or feature of the E\$T program. Their responses are very consistent with the findings from the 2001 and 2002 focus groups.

Though many GS-2 customers already have programmable thermostats, there is still considerable interest in getting the new one through an SCE program. Regarding the thermostat adjustment feature of the program, customers generally do not think this would be a problem. They rationalize that the adjustment would only happen on really hot days, when even 80 degrees inside can feel cool because of the temperature difference. When it's hotter outside, you can feel comfortable at a higher temperature inside.

Customers are interested in the system reliability benefit of the program, but believe that SCE would need to have a sizable part of the customer base enrolled or the program would not be very effective for avoiding rotating outages. Customers might need additional education about this, so that they understand that even relatively small reductions in peak load can greatly reduce the possibility of rotating blackouts.

Most customers say they keep their thermostats in the 75-80 degree range, and that two to four degrees is the amount of a set-point adjustment they could tolerate. Two to four hours duration seems about right to most customers, though for some with poorly insulated buildings or too many windows this might be a bit too long.

Interestingly, customers really like the idea of increasing their thermostat settings to save money while being able to blame the increase on SCE. This allows them to avoid one of the biggest negatives about the program: employees or tenants complaining about being too hot. For these customers, it might make sense to provide small labels or stickers that can be put up near the thermostats that identify the thermostat as being part of SCE's peak reduction efforts.

The number of days that the program could be implemented is not very important. When told it would be limited to twelve days, customers seemed even surprised that it was so few. Customers also like an opt-out feature, though the lack of this feature would not be a deal-killer since it defeats all the reasons for participating in the program to begin with: saving some money by raising the set-point, getting an incentive, and helping to avoid rotating blackouts.

An incentive in the range of a few hundred dollars for the season was deemed reasonable. Customers would also like the added feature of an energy audit. This would serve at least a couple of purposes. It would help get company management and employees onboard with the thermostat program by emphasizing the importance of saving energy, and it would, hopefully, provide real dollar savings to the business that would combine with the savings from a new thermostat and from the set-point adjustments to make a difference on their electric bills.

Responses to Pre-Cooling

The pre-cooling option is a new feature not previously discussed in the 2001 or 2002 focus groups. Most customers initially reacted with skepticism, though perhaps 1 or 2 out of 10 were immediately enthusiastic. The skeptics have four main concerns:

- a. They question the effectiveness of reducing temperature in advance. They don't believe the temperature reduction will last very long, so why bother. Their building is not well insulated, it has too many windows that receive direct sunlight, or there are too many customers coming and going who constantly break the building envelope and allow any cool air to escape to the environment. When asked how long it would take for their building to heat up before it became uncomfortable, most said about an hour.
- b. GS-2 customers recognize that pre-cooling will cost them money. They like the thermostat set-point increase because they know that it will save them money during the time of the adjustment, so why negate any savings with a pre-cooling feature. Saving money is more important than temporary comfort for many.

- c. They think that pre-cooling will actually increase discomfort and possibly even lead to health problems because it increases the total range of temperature that their employees, tenants, and customers would experience. They also fear that pre-cooling would allow employees to experience a more comfortable temperature than they routinely maintain, which might increase employee complaints about their “normal” temperature.
- d. A few even questioned if pre-cooling would wear out their system faster.

Those who liked pre-cooling immediately recognize that it might increase their comfort. Saving money seems less of a concern among these customers.

Shortly after voicing their initial reactions, there was general agreement among both the skeptics and the enthusiastic that they would have to experience it to see if pre-cooling impacted comfort or energy use. Unlike the E\$T program which customers seemed very willing to try without much further consideration, the pre-cooling option is probably a much tougher thing to sell because for many people it does not intuitively make sense. This clearly points to the need to conduct further testing in order to provide potential participants with more specific information that can address their concerns.

When asked how much pre-cooling would be comfortable, customers agree on 2 to 3 degrees. A few thought as much as 4 degrees would be acceptable. These specific details, though, are not very important to customers. If the thermostat change is tolerable and if the program helps them achieve their goals of saving money and avoiding rotating blackouts, then a degree or an hour do not really matter.

Since saving money on their electricity costs is a big motivation, GS-2 customers are willing to sacrifice their own comfort, and more so their employees and even customers comfort if they can do so without having to deal with complaints. A significant amount of the appeal of the E\$T program, either with or without pre-cooling, is that it gives them license to increase their thermostat setting. To reduce the possibility of negative employee or customer reactions, participants in the focus groups suggested that Edison provide them with a sign or insignia that could be displayed.

In contrast, however, they do not want a “voting box” where their customers would be able to indicate their comfort. The focus group participants thought this would remind customers that they might be uncomfortable.

A couple participants even suggested that SCE provide an 800 number to take complaints. This relates to the idea that allowing SCE to be the “bad cop” helps business owners and managers avoid employee (and to a lesser extent tenant or customer) complaints, which is one of the major negatives of this kind of program.

Promoting the Program

According to the focus group participants, promoting the program is best done in-person and one-on-one. However, this is time consuming and expensive for SCE. Alternatively, mass communications such as direct mail can be used to alert customers about the program and to allow them to request more information. Then, SCE could follow up.

Also, SCE can leverage in-person contacts through Chamber of Commerce and business group meetings.

Conclusion

At the end of each of the pre-cooling focus groups, participants were asked if they would sign up for the E\$T Program, and then if they would select the pre-cooling option if given a choice. All participants indicated they would sign up for the program, and about half (nearly all women) were interested in the pre-cooling option.

While the basic program was generally appealing from the start, the pre-cooling option was not. However, by the time the group discussion had ended, interest in pre-cooling had increased. This suggests that pre-cooling requires a lot more education, demonstration, and information to get customers on board with it than does the basic E\$T program. Specifically, customers want to know that pre-cooling (1) would not increase their costs, and (2) that it would increase comfort during the adjustment. Customers also are willing to take a chance and try something new as long as the downside is very limited.

These findings suggest that: (1) pre-cooling might be acceptable though should be offered as an option to the E\$T program since some customers will probably never be swayed by its merits; (2) pre-cooling needs more factual support than did the E\$T program in order for customers to feel comfortable signing up for it; and (3) acceptance of pre-cooling can be greatly increased by reducing any downside (e.g., provide an on-demand opt-out feature similar to that for set-point increases in the E\$T program).

B. SCE Energy\$mart Thermostat Focus Groups

Energy management continues to be a very important issue for the SCE Energy\$mart Thermostat (E\$T) participants. These might be a somewhat unique group who are more concerned about controlling their energy costs than the average GS-1 or GS-2 business customer because they went through the effort to enroll in the E\$T program. Also, they seem to continue to be concerned about energy management because nearly all of them have taken other steps to reduce their energy usage in addition to the E\$T program.

Participant Experiences with the SCE Energy\$mart Thermostat Program

Some E\$T participants, though, might have become jaded by their experiences with the program because they have not been able to achieve reductions in the energy use since being on the program. If participants do not attribute any reductions in their energy costs to the thermostats, it seems likely that they lose faith in their ability to control these costs. This might be a result of not really understanding their actual consumption rather than a failure of the thermostats to provide energy savings benefits, so it might make sense to remind customers that programmable thermostats do reduce energy consumption for many businesses.

Customers' initial reasons for signing up for the E\$T program were very similar to reasons given in the 2002 focus groups: to get control of the AC systems (and the savings that would result), and for the rebates. These are the two primary motivators that got customers to actually take action and sign up. However, customers also had a "wait and see" attitude. They were not really sure that it would work out for them, but were willing to take a chance. Some customers who have yet to realize any reduction in their bills seem to still be in the "wait and see" mode even after nearly three years of participation.

After customers signed up, the thermostats were installed and programmed. The only lingering problems from installation have to do with programming the thermostats. Apparently, some thermostats were not programmed correctly by the installers, and many customers did not learn how to do the programming. Even after three years, some customers do not know how to program the thermostats, they no longer have the manual (if they ever had it to begin with), and they do not know where to go for help. Customers need on-going support in this area.

Programming the thermostats online is a very appealing option. It provides an additional level of control, especially for owners of multiple locations who must rely on a store manager to ensure that the thermostat is programmed to the owner's specifications. It is difficult enough for the owner to figure out how to program the thermostat without also having to train individual store managers or employees. One participant mentioned having trouble getting online to do this, and not being able to easily get help from SCE.

Now that they have been on the program for a while, customers are relatively satisfied with it overall (although this is a somewhat biased group in that participants who had dropped out of the program are not represented.) Some customers like the thermostats themselves, which do a good job of controlling the temperature once they are programmed correctly. Some customers also mentioned that participating in the program has generally raised their awareness about energy use in general. Of course, getting a check at the end of the year is a positive for everyone. Interestingly, customers think of it as a reward for their good behavior.

Customer satisfaction also derives from the fact that the thermostat adjustment events have been easy for customers to deal with. Some customers have not even noticed the adjustments, while those who have been aware have not had any trouble dealing with them. They might notice the temperature increase or might have employees who mention it, but they quickly dismiss their minor discomfort once they verify that an adjustment event is occurring.

Whether aware of the adjustments or not, nearly everyone admitted to opting out before. Some have used the opt-out sparingly but others apparently are relatively loose with it. This is a bit surprising given that the adjustment events are not much of a problem. One participant has had problems with employees opting out without his approval, perhaps unwittingly because the employees probably did not know about the program and simply thought the thermostat was malfunctioning. A reminder notice or sticker at each thermostat might reduce the frequency of opt-outs.

All in all, nearly all participants in the E\$T program think it is worth it, or at least think they should continue on with it.

Response to Program Changes

Two program changes were implemented for 2004: limiting the number of set-point changes to 12, and reducing the incentive to \$150 per thermostat. Both of these changes were discussed in the focus groups.

Since many participants in the program are not aware of how many adjustments have occurred during the season, limiting this to 12 is not very important to them. 12 occurrences even seemed a bit low to some customers who might prefer more set-point adjustments in order to get further energy savings. For a few, however, the number of adjustments does make a difference. When asked about it, most participants said the limit of 12 occurrences was a good thing.

It is no surprise that no one liked the reduction in the incentive payment from \$300 to \$150, but on the other hand, everyone admitted they would stick with the program. Apparently, \$150 is better than nothing.

Recommended Improvements

The most significant improvement that participants brought out was to provide them with additional information about saving energy. This could be done through an energy survey or audit. A related idea is an SCE evaluation of the customer's AC system, and routine maintenance and coil cleaning as needed.

Receiving a sign that could be placed in their windows was also an appealing idea, so that the business could promote their social responsibility and so that customers would accept a somewhat warmer environment during a set-point adjustment event.

Finally, additional program communications would be helpful. Communications should remind customers about program details (e.g., how to program the thermostat, where to go for help or questions, how the opt-out feature works, etc.) Since employees in the business also have some involvement in the program (e.g., they sometimes opt-out, they complain about being too warm, etc.), communication materials might be included for the business owner to share with employees.

To receive communications about the program, participants seem to prefer direct mail addressed or clearly labeled for E\$T program participants, a postcard telling them where to go for more information (such as an 800 number or web site), or an email. Customers are concerned, though, that if they have to try to call SCE for assistance or more information, they will sit on hold.

Specifically for information about how to program the thermostats, participants mentioned online videos or web pages, or a card with basic instructions that would also have a web address for more details.

While few customers in the focus groups could recall many details about the customer service they received when calling SCE for help, one customer described the SCE representative as in a hurry and not willing to take the time to help him program the thermostat. He made the point that customer service must be geared to relatively simple people like himself.

Reaction to Pre-Cooling

When presented with the pre-cooling concept, customers' reactions to pre-cooling were mixed. A few liked it, but for most it just raised a lot of questions in their minds. Just as in the pre-cooling groups (which did not include customers already on the E\$T program), they have three main concerns:

- a. They question the effectiveness of reducing temperature in advance. They don't believe the temperature reduction will last very long. Their building is not well insulated, it has too many windows that receive direct sunlight, or there are too many customers coming and going who constantly break the building envelop and allow any cool air to escape to the environment.

- b. They expect that pre-cooling will cost them money. They like the thermostat set-point increase because they know that it will save them money during the time of the adjustment, so why negate any savings with a pre-cooling feature.
- c. They think that pre-cooling will actually increase discomfort and possibly even lead to health problems because it increases the total range of temperature that their employees and customers would experience.

Customers believe that a 2 to 4 degree decrease for pre-cooling would be about the most they could tolerate. They reason that a decrease should be about the same amount as an increase to keep them in a reasonable comfort range.

Despite their concerns and hesitation about pre-cooling, most E\$T program participants seemed willing to try it if they could opt-out of the set-point decrease just as they can for an increase. There seems to be a general willingness among these customers to try just about anything if there is not much downside risk.

Other Topics

Other topics were discussed at the end of each group, mostly related to the idea of demand management (using less electricity during peak demand times). Participants were asked about their awareness and understanding of Time-Of-Use (TOU) rates and of *Flex Your Power Now*. Awareness seems generally high for both, and customers clearly do understand the concepts behind both TOU rates and *Flex Your Power Now*. It probably is not a far stretch to anticipate that some E\$T participants might like a TOU rate, though most probably would not want to deal with the “mandatory” aspect – you cannot “opt-out” of higher peak rates on occasions when they are inconvenient to your business.

IV. Detailed Comments: Pre-Cooling Focus Groups

A. Energy Management

1. Importance of Energy Management

Energy management continues to be a very important issue for many of SCE's business customers. Even though the nearly routine threat of rotating outages is no longer top of mind, customers retain their heightened sense of concern about energy supplies and electricity costs.

"My competitor out in Redlands went out of business ... on energy. They chose to move out of state because they couldn't take the energy bill." (Pre-Cooling, Orange)

"We were looking at ways to conserve and save money, but at the same time, without spending it, which is hard to do. It takes money to make money and it takes money to save money." (Pre-Cooling, Orange)

2. Energy Management Challenges

Managing energy use is a challenge because businesses are going to use as much energy as they need to in order to meet their production or business operational needs. While some businesses think about major retrofits of equipment and structures, lighting and air conditioning quickly come to mind as the two things that nearly all businesses might be able to adjust and control. This means that lighting and AC controls (and demand management programs) are relatively easy to understand and accept.

"The air conditioning. You can raise it." (Pre-Cooling, Riverside)

"We have fans too. Those are controllable." (Pre-Cooling, Riverside)

"I put in programmable thermostats. In one location, I have four thermostats, so I put programmable ones in all of those." (Pre-Cooling, Riverside)

"Everybody is on the saving money, so even though while they're focusing on how I can keep my cost down per piece, I tell them we could save a lot of money on electricity ... it can be little things like keeping the thermostat set at a certain temperature." (Pre-Cooling, Riverside)

"By all means just the lights and the air conditioning. That is the only thing that is controllable." (Pre-Cooling, Orange)

"Just recently I had a firm come in and do a survey on my shop about lighting." (Pre-Cooling, Orange)

“The air conditioning doesn’t necessarily have to run 24 hours a day, but we try to control it with an electronic thermostat.” (Pre-Cooling, Orange)

“It means, raise the temperature basically. The only ones that really complain are the women besides the owner, and he owns the company.” (Pre-Cooling, Orange)

Regarding air conditioning, common problems that businesses face are employees tampering with thermostats, and simply not turning them off at the end of the day. Solutions (such as tamper proof or code locked programmable thermostats) that can solve these common problems can be very appealing.

“I put a lock box on the thermostat because too many people were messing with it, and tampering with it.” (Pre-Cooling, Riverside)

“More control is with the people. Even with the timers and such and keeping the thermostat down, they still find ways to get through the little lock boxes.” (Pre-Cooling, Orange)

“We have some that are not on timers, but the last person that leaves the shop has to turn it off. Sometimes when we come in early in the morning, it has been working (all night).” (Pre-Cooling, Orange)

Also, most of the GS-2 customers in the focus groups believe that their AC systems are probably not very efficient. As a result, there is considerable interest in getting an AC checkup or tune-up as part of any AC demand management program.

“I think we have very old equipment.” (Pre-Cooling, Riverside)

“We have 55 stores. The man is always replacing the compressors. I’m thinking if he’s replacing those, they’re probably so old that we should just get a more efficient unit on each of the stores.” (Pre-Cooling, Riverside)

A couple customers mentioned the importance of running the AC fan, even if the compressor is off, in order to keep air circulating. This seemed to be new information for other participants, who nodded their heads and took mental notes to try this themselves. This might be something that program participants should be told.

“The movement of air allowed us to move the thermostat up two to four degrees.” (Pre-Cooling, Orange)

“You don’t want stale air because you would notice the heat a lot more.” (Pre-Cooling, Orange)

General energy management education is also an issue. In the pre-cooling focus groups, a surprising number of these GS-2 customers were not even aware that SCE

offers energy efficiency rebates for businesses (from other research about one-third are not aware). SCE clearly needs to continue its efforts to build awareness for its energy management and efficiency programs.

“I thought it was just for home.” (Pre-Cooling, Riverside)

“I wasn’t aware they had them for business.” (Pre-Cooling, Riverside)

“I can remember reading some brochures with the monthly billing, but I can’t remember exactly the details. I never went to the details.” (Pre-Cooling, Orange)

3. Demand Management vs. Conservation Programs

Most GS-2 business customers seem familiar with the concept of peak demand. They know that energy consumption is greatest during summer afternoons. Also, they recognize that peak demand can lead to rotating outages, which they want to avoid if at all possible. This means that these customers are open and receptive to programs that reduce peak demand.

“(Peak demand times) are in the afternoon” (Pre-Cooling, Riverside)

“I don’t want to go home from work in the peak hours and there would be no lights in my house and I can’t cook because it’s a blackout.” (Pre-Cooling, Riverside)

However, programs that reduce consumption all the time are more appealing than programs that provide just momentary reductions. Because of the current GS-2 and GS-1 rate structures, the energy decision makers in these focus groups recognize that just shifting load does not save them any money, so it does not contribute to their cost reduction goals. Also, shifting meaningful amounts of load would require shifting hours of operation, which is difficult to do.

“In our facility we have a lot of chemistry and blood in our warehouse. It is very hard for us to cut down during the peak hours.” (Pre-Cooling, Orange)

In sum, these business customers aren’t expecting to find a magic silver bullet that will drastically reduce their energy costs, but they are looking to make enough improvements that add up to reasonable savings. Thus, participating in a relatively specialized program such as the E\$T program is appealing, though these same customers do need additional assistance and information about other programs.

“I turn lights off that aren’t needed. I make sure that the air conditioning isn’t too low. I try not to let motors run too long ... Every little thing adds up.” (Pre-Cooling, Riverside)

“You could time it to see how long it takes for your building to cool down, and then turn off your AC before. You could turn it off early. You will still have that time period to still have your building cool and then leave, versus turning it off when you leave and then you have however many hours when your building is still cool.” (Pre-Cooling, Orange)

4. Implications

All of this adds up to the potential for strong interest and participation in an energy management program that can provide even modest long-term energy savings as well as reduce the possibility of rotating blackouts during peak demand times. Business customers are highly motivated to take even relatively small steps that can save energy and reduce their bills, and they are willing to try new things as they learn about them, such as the E\$T program and potentially the pre-cooling option.

B. Reactions to the SCE EnergySmart Thermostat Program

During the pre-cooling focus groups, participants were introduced to each aspect or feature of the SCE EnergySmart Thermostat program. Their responses are very consistent with the findings from the 2001 and 2002 focus groups.

1. Programmable Thermostats

When asked about their interest in programmable thermostats, many GS-2 customers already have them. Most of those who don't are interested, though some of these customers are surprisingly unaware of programmable thermostats and how they work. For GS-2 customers, the offer of a free programmable thermostat might not be as compelling as it is among GS-1 customers, who are much less likely to already have them.

*"I never really thought of it for a business, but if it saves money, I'm all for it."
(Pre-Cooling, Riverside)*

2. Set-Point Adjustments

Regarding the thermostat adjustment feature of the program, some customers believe they are already setting their thermostat as high as they would tolerate, though others think they could accept the even higher adjustment. They rationalize that the adjustment would only happen on really hot days, when even 80 degrees inside can feel cool because of the temperature difference. When it's hotter outside, you can feel comfortable at a higher temperature inside.

"I've found that the hotter it gets outside in Lake Elsinore, and the closer to 100 that it gets, the cooler it feels in my office ... The warmer it gets outside the higher you could definitely go." (Pre-Cooling, Riverside)

"If it is 110 outside then the temperature in your office can go from 75 to 84 for an hour or two." (Pre-Cooling, Orange)

Customers are interested in the system reliability benefit of the program, but believe that SCE would need to have a sizable part of the customer base enrolled or it wouldn't be very effective for avoiding rotating outages. Customers might need additional education about this, so that they understand that even relatively small reductions in peak load can greatly reduce the possibility of rotating blackouts.

"If Edison could convince most companies to do that it would be fantastic across the board ... If you get one business out of 20 or 30 to do it, it wouldn't be that significant." (Pre-Cooling, Riverside)

Most customers say they keep their thermostats in the 75-80 degree range, and that two to four degrees is the amount of a set-point adjustment they could tolerate.

“Two to three degrees.” (Pre-Cooling, Riverside)

“Two to four degrees.” (Pre-Cooling, Orange)

“Probably two.” (Pre-Cooling, Orange)

“Three to five degrees.” (Pre-Cooling, Orange)

Two to four hour’s duration seems about right to most customers, though for some with poorly insulated buildings or too many windows this might be a bit too long.

“Three or four hours.” (Pre-Cooling, Riverside)

“The office environment will start complaining after two hours ... Anybody could take it for an hour.” (Pre-Cooling, Orange)

Several customers in the focus groups really like the idea of increasing their thermostat settings to save money while being able to blame the increase on SCE. This allows them to avoid one of the biggest negatives about the program: employees complaining about being too hot. For these customers, it might make sense to provide small labels or stickers that can be put up near the thermostats that identify the thermostat as being part of SCE’s peak reduction efforts.

Landlords and property managers also find the program appealing because the thermostats would give them greater control over their tenants.

“In our building with the tenants, it would be good because you wouldn’t have the tenants lowering it to 72 degrees when you keep it at 75. It would keep more control and it would control the cost of the electric bill.” (Pre-Cooling, Orange)

“In my normal office environment, I would love it. It irritates me when the tenants do anything they can do to lower the office temperature.” (Pre-Cooling, Orange)

3. Number of Program Days

The number of days that the program could be implemented was not very important. When told it would be limited to twelve days, customers seemed even surprised that it was so few.

“That’s nothing.” (Pre-Cooling, Riverside)

“That’s not unreasonable.” (Pre-Cooling, Riverside)

“If there were a negligible difference in the comfort zone it wouldn’t seem to me that it would make a difference to do it every day.” (Pre-Cooling, Orange)

“15 days would not be a big deal at all. If you are saving energy, saving cost, why not.” (Pre-Cooling, Orange)

4. Incentive

An incentive in the range of a few hundred dollars for the season was deemed reasonable.

“Maybe for the whole season, I would say \$400 for the summer season.” (Pre-Cooling, Riverside)

“At least the size of a normal rebate.” (Pre-Cooling, Riverside)

“(The thermostat) and the ability to save money on the bill, and a \$200 rebate.” (Pre-Cooling, Riverside)

“\$100 per thermostat.” (Pre-Cooling, Orange)

5. Activation Indicator

Customers want an indicator light when the thermostat adjustment is happening.

“I’d like to see a little red light. Right now, I get a green light on my programmable thermostat that tells me when energy is being utilized. A red light would tell me the system is being activated.” (Pre-Cooling, Riverside)

6. Opt-Out

Customers also like an opt-out feature, though the lack of this feature would not be a deal-killer since it defeats all the reasons for participating in the program. They recommended an alternative to the fixed penalty amount for each opt-out, which is to allow one “free” opt-out, and then an increasing penalty for all subsequent opt-outs. This reduced the negatives that they associate with any type of penalty.

“Just like my alarm system. If my alarm system goes off the police will come out one time for free. The second time they charge me. The third time they charge me more.” (Pre-Cooling, Riverside)

7. Energy Audit

A final feature that the focus group participants mentioned was adding an energy audit to the program. This would serve at least a couple of purposes. It would help get company management and employees onboard with the thermostat program by emphasizing the importance of saving energy, and it would, hopefully, provide real dollar savings to the business that would combine with the savings from a new

thermostat and from the set-point adjustments to make a difference on their electric bills. Many of these GS-2 customers believe that their AC systems might be outdated or running inefficiently, so they would like to take advantage of SCE's expertise.

"The owners and all the rest of the employees will be informed that it's not only one person saying it or doing it. It's teamwork. It would be tremendous if they could do that." (Pre-Cooling, Riverside)

"If you sign up for the thermostat program, then you pre-qualify for Andy's suggestion of an evaluation of your 5 year old versus 15 year old (air conditioner), and suggestions on how you could additionally save energy by replacing your 15 year old ..." (Pre-Cooling, Orange)

C. Reactions to the Pre-Cooling Option

The pre-cooling option is a new feature not previously discussed in the 2001 or 2002 focus groups.

1. Initial Reactions to Pre-Cooling: the Skeptics

Most customers initially reacted with skepticism, though perhaps 1 or 2 out of 10 were immediately enthusiastic. The skeptics have four main concerns:

- e. They question the effectiveness of reducing temperature in advance. They don't believe the temperature reduction will last very long, so why bother. Their building is not well insulated, it has too many windows that receive direct sunlight, or there are too many customers coming and going who constantly break the building envelop and allow any cool air to escape to the environment.

"That would just benefit people that are able to shut the doors, and again, have control in there. If you've got customers coming in, you've got doors open and the dollars are going out the window." (Pre-Cooling, Riverside)

"I can't get through this. They're going on the assumption that by lowering it by two degrees for four hours that they can raise it for two degrees for the next four hours and it should stay relatively comfortable. That might be fine in your home, but businesses with glass, and people in and out, it's going to raise a lot faster than it ever cooled down." (Pre-Cooling, Riverside)

"The building is not efficient enough. It wouldn't maintain that "lower" temperature." (Pre-Cooling, Orange)

When asked how long it would take for their building to heat up before it became uncomfortable, most said about an hour.

"An hour." (Pre-Cooling, Orange)

"An hour in the general office space." (Pre-Cooling, Orange)

"An hour and a half." (Pre-Cooling, Orange)

- f. GS-2 customers recognize that pre-cooling will cost them money. They like the thermostat set-point increase because they know that it will save them money during the time of the adjustment, so why negate any savings with a pre-cooling feature. Saving money is more important than temporary comfort for many.

"But then you're not saving energy. You're just redistributing it by reducing it more in the morning and using less in the afternoon. You haven't saved anything." (Pre-Cooling, Riverside)

“Doesn’t that burn a lot of energy?” (Pre-Cooling, Riverside)

“To make it colder, it might cost more energy.” (Pre-Cooling, Orange)

- g. They think that pre-cooling will actually increase discomfort and possibly even lead to health problems because it increases the total range of temperature that their employees and customers would experience. They also fear that pre-cooling would allow employees to experience a more comfortable temperature than they routinely maintain, which might increase employee complaints about their “normal” temperature.

“You are going to have a health issue.” (Pre-Cooling, Orange)

“The farther the amplitude, the more the complaints, and that’s human nature.” (Pre-Cooling, Orange)

“If I had two study groups, this group and you lowered it to 72 and then let it rise to 80, or left it at 76 and let it rise to 80. I am saying the study group that had to go all the way down to 72 will notice that it is hotter when it is 80 than the other group. I think that is human nature.” (Pre-Cooling, Orange)

- h. A few even questioned if pre-cooling would wear out their system faster.

“Your air conditioner is now working harder ... If you are making it work harder than it is supposed to, what kinds of effects will you have?” (Pre-Cooling, Orange)

2. Initial Reactions to Pre-Cooling: the Enthusiastic

Those who liked pre-cooling immediately recognized that it might increase their comfort. Saving money seemed less of a concern among these customers.

“I would like it. I’m trying to save energy, but, yes, I would love it at 75 like some people have it.” (Pre-Cooling, Riverside)

“Do you hear more complaints about it being too cold or too hot? Too hot, right? Wouldn’t you rather it get cold first? That way I would stay cooler longer.” (Pre-Cooling, Orange)

Though it is difficult to draw a firm conclusion, those who liked pre-cooling were almost all women. This fact was even mentioned by the focus group participants.

“The women.” (Pre-Cooling, Riverside)

“It’s gender driven.” (Pre-Cooling, Riverside)

3. Pre-Cooling Needs to Be Experienced

Shortly after voicing their initial reactions, there was general agreement among both the skeptics and the enthusiastic that you would have to experience it to see if pre-cooling impacted comfort or energy use. Unlike the E\$T program which customers seemed very willing to try without much further consideration, the pre-cooling option is probably a much tougher thing to sell because for many people it does not intuitively make sense. This clearly points to the need to conduct further testing in order to provide potential participants with more specific information that can address their concerns.

“I think someone would actually have to experience it to really know if they’re going to like it or not.” (Pre-Cooling, Riverside)

“I want to see what it’s going to be like because I can’t visualize letting it be cooler for a couple of hours is going to make up for it being really hot.” (Pre-Cooling, Riverside)

“Would it be possible for Edison to go to some of the companies and do a study on each company? Each building is different ..” (Pre-Cooling, Orange)

“A study would have to be done to see if it would make sense for us to cool down in that building and then have it gradually increase verses just having it gradually increase. I would then buy into it cooling it down first as long as it made sense.” (Pre-Cooling, Orange)

4. The Pre-Cooling Set-Point Adjustment

When asked how much pre-cooling would be comfortable, customers seemed to agree on 2 to 3 degrees. A few thought as much as 4 degrees would be acceptable.

“Two to three.” (Pre-Cooling, Riverside)

“Two to three degrees.” (Pre-Cooling, Orange)

These specific details, though, are not very important to customers. If the thermostat change is tolerable and if the program helps them achieve their goals of saving money and avoiding rotating blackouts, then a degree or an hour don’t really matter.

5. Window Signs

Since saving money on their electricity costs is a big motivation, GS-2 customers are willing to sacrifice their own comfort, and more so their employees and even customers comfort if they can do so without having to deal with complaints. A significant amount of the appeal of the E\$T program, either with or without pre-cooling, is that it gives them license to increase their thermostat setting. To reduce the possibility of negative

employee or customer reactions, participants in the focus groups suggested that SCE provide them with a sign or insignia that could be displayed.

“I’d rather have a sign in the window than any kind of incentive.” (Pre-Cooling, Riverside)

“I would put some decals in my window.” (Pre-Cooling, Riverside)

“Even for the people that don’t come in, for the people outside they’ll see that we’re a good place. Sometimes when you go by a restaurant or fast food, you look for that A, B, or C or whatever they have in the window as to whether you are going to go there or not.” (Pre-Cooling, Riverside)

“Put up a sign, “Edison Controlled Environment for Your Economy.”” (Pre-Cooling, Orange)

In contrast, however, they did not want a “voting box” where their customers would be able to indicate their comfort. The focus group participants thought this would remind customers that they might be uncomfortable.

“I would like to be able to have some type of insignia that would tell our customers that we’re trying to save energy. I don’t think I want the feedback. If they weren’t comfortable, they’d start complaining.” (Pre-Cooling, Riverside)

A couple participants even suggested that SCE provide an 800 number to take complaints. To relates to the idea that allowing SCE to be the “bad cop” helps business owners and managers avoid employee (and to a lesser extent customer) complaints, which is one of the major negatives of this kind of program,

“I would like to have the Edison phone number for the tenants in case the program fails.” (Pre-Cooling, Orange)

“1-800-Edison so your tenants can call them to complain.” (Pre-Cooling, Orange)

D. Promoting the Program

According to the focus group participants, promoting the program is best done in-person and one-on-one. However, this is time consuming and expensive for SCE. Alternatively, mass communications such as direct mail can be used to alert customers about the program and to allow them to request more information. Then, SCE could follow up.

“Attention. Energy saving benefit to you.’ It could be something like that.” (Pre-Cooling, Riverside)

“Face to face, I think ... just being able to speak to that person.” (Pre-Cooling, Riverside)

“For me, a rep coming out.” (Pre-Cooling, Orange)

“Postcards.” (Pre-Cooling, Orange)

Mailouts.” (Pre-Cooling, Orange)

“Put it right on the energy bill.” (Pre-Cooling, Orange)

Bill inserts are an efficient way to reach customers, but they are very hit-and-miss.

“No offense, but all the little flyers that go into the monthly bills and things, they go out first. You pull the bill out and the rest of it goes in the trash. That’s the way business works.” (Pre-Cooling, Riverside)

Also, SCE can leverage in-person contacts through Chamber of Commerce and business group meetings.

These findings are nearly the same as from the focus groups from 2001 and 2002. SCE followed these suggestions with considerable success.

E. Final Interest in the Program

At the end of the focus group, participants were asked if they would sign up for the E\$T Program, and then if they would select the pre-cooling option if given a choice. All participants indicated they would sign up for the program, and about half (nearly all women) were interested in the pre-cooling option.

While the basic program was generally appealing from the start, the pre-cooling option was not. However, by the time the group discussion had ended, interest in pre-cooling had increased. This suggests that pre-cooling requires a lot more education, demonstration, and information to get customers on board with it than does the basic E\$T program. Specifically, customers want to know that pre-cooling (1) would not increase their costs, and (2) that it would increase comfort during the adjustment.

V. Detailed Comments: SCE Energy\$mart Thermostat Focus Groups

A. Energy Management

1. Importance of Energy Management

Energy management continues to be a very important issue for the Energy\$mart Thermostat (E\$T) participants. They were probably more concerned about controlling their energy costs than the average GS-1 or GS-2 business customer at the time of their enrollment simply because they did enroll in the E\$T program, and they seem to continue to be concerned about energy management based on the variety of things they have done in addition to the E\$T program.

“We put in I don’t know how many eight-inch fluorescent lights. It was 40 or 50 of them at least. We have since put in at least 10 or 15 skylights. Now we turn off at least 50 percent of those eight-inch fluorescent lights.” (Energy\$mart, Riverside)

“We put in newer air conditioners a couple years ago.” (Energy\$mart, Riverside)

“We try to keep our lights off pretty much during the day. We try to keep our copier and computer off until it’s time to use it ... We’ll open up our doors and try to get a breeze in that way.” (Energy\$mart, Riverside)

“I have a building that I have about 38 exterior fixtures and I put in compact fluorescent lights. It drops my electric bill a little bit.” (Energy\$mart, Riverside)

“We coated the top of our roof with this really thick white foam.” (Energy\$mart, Riverside)

“We put timers on the lights. The outside sign is on a timer.” (Energy\$mart, Orange)

“We installed ceiling fans in our sanctuary and in our youth center.” (Energy\$mart, Orange)

“The see-through shades.” (Energy\$mart, Orange)

They also signed up to help avoid rotating blackouts, though this issue is probably less relevant to customers now.

“I also remember that whole experience of the rolling blackouts, and I guess I thought if I participated in this program, I wouldn’t have to deal with the rolling blackouts and lose business that way.” (Energy\$mart, Riverside)

“There was a lot of talk about (rolling blackouts) at the time. I wanted to help out myself because we’re all part of it.” (Energy\$mart, Riverside)

Some E\$T participants, though, might have become jaded by their experiences with the program. If they do not attribute any reductions in their energy costs to the thermostats, it seems likely that they lose faith in their ability to control these costs.

“It’s an uncontrollable cost. That’s what’s frustrating to me. It’s not a line item you can budget and say, “This is what my costs will be every month.” You’re really at the mercy of Edison.” (Energy\$mart, Riverside)

“I don’t think any of it (is controllable) because I have been on the Energy\$mart Program for three years. I’ve done everything that I thought I should do to bring the cost down, and then I get the bill, and it’s up over last year.” (Energy\$mart, Riverside)

B. Reactions to the SCE Energy\$mart Thermostat Program

1. Initial Reasons for Signing Up

Customers' initial reasons for signing up were very similar to reasons given in the 2002 focus groups: to get control of the AC systems (and the savings that would result), and for the rebates. These are the two primary motivators that got customers to take action.

"For the discounts and rebates." (Energy\$mart, Riverside)

"To save money." (Energy\$mart, Riverside)

"I also signed up because I had employees trying to adjust the thermostats themselves, and so I thought if it was controlled by someone else then they couldn't go in there in the morning and change it." (Energy\$mart, Riverside)

"To control the thermostat and to get the rebates." (Energy\$mart, Riverside)

"Rebates and to save money." (Energy\$mart, Orange)

"The whole idea of having better control." (Energy\$mart, Orange)

*"(The thermostats) are a lot better than the thermostats we did have."
(Energy\$mart, Orange)*

"The reason I am on the program primarily is the rebate or incentive. If there weren't a \$300 a year incentive or whatever it is per location than I probably wouldn't have bothered." (Energy\$mart, Orange)

However, customers also had a "wait and see" attitude. They were not really sure that it would work out for them, but were willing to take a chance.

"Uncertain, yes." (Energy\$mart, Riverside)

"Wait and see." (Energy\$mart, Riverside)

"It couldn't hurt." (Energy\$mart, Riverside)

"Yes, that's kind of the attitude we had ... We figured it couldn't be any worse. I'm wondering if we're not using ours correctly." (Energy\$mart, Riverside)

2. Program Experiences

After signing up, the thermostats were installed and programmed. The only lingering problems from installation had to do with programming the thermostats. Apparently, some thermostats were not programmed correctly by the installers, and many

customers did not learn how to do the programming. Even after three years, some customers do not know how to program the thermostats, they no longer have the manual (if they ever had it to begin with), and they do not know where to go for help. Customers need on-going support in this area.

*“One thing though. He said it was really easy to program. It wasn’t.”
(Energy\$mart, Riverside)*

“It was a pleasant experience, but then the programmers came in. Then it was a nightmare. Everyday I had different hours of opening and closing ... the programming of it just became a nightmare for a while.” (Energy\$mart, Riverside)

“We had to call the installers a couple of times just to make sure we had the right balance.” (Energy\$mart, Orange)

*“I think I have it working now. The frustration level when we had them first put in was because I wasn’t at every store and to get one person educated enough to handle the programming and getting them set seemed to be a major issue.”
(Energy\$mart, Orange)*

“I don’t know where the manual is for it at all.” (Energy\$mart, Orange)

“I just wish I knew how to use them better. I wish I understood what was going on. I didn’t even know what curtailment meant.” (Energy\$mart, Orange)

There is also a problem with employee turnover, where an employee or manager who knows about the program and knows how to program the thermostat(s) leaves the business. It is definitely not a priority for the departing employee to pass the knowledge along.

“I have been working at my company for four months ... I don’t know how long they have had (the Energy\$mart Thermostat) but I don’t think it was programmed before I started. I had to go in there and figure it out.” (Energy\$mart, Orange)

Programming the thermostats online is a very appealing option to those who have heard about it. It provides an additional level of control, especially for owners of multiple locations who must rely on a store manager to ensure that the thermostat is programmed to the owner’s specifications. One participant mentioned having trouble getting online to do this.

“We like doing it online now. We like having the flexibility with the programming online. My broker finds that’s one of the things he really likes because we have a lot of problems with our agents, and the reps coming in constantly going over there trying to do the buttons.” (Energy\$mart, Riverside)

"I would love to have that ... I might be at home and they want something and I just can't run down there to do it. If I could sit at my desk at home and do it, that would be great." (EnergySmart, Orange)

"I have gotten calls at home like "How do you turn this thing on? It is hot in here and we are having a meeting." How do you walk them through to unlock it? I have tried. If you could do it over the web, that would be great." (EnergySmart, Orange)

"I thought it would be great to go online. I was excited about that. I could control all my stores from my corporate office." (EnergySmart, Orange)

"I have spent an hour here and there trying to get this thing set up. I have three locations. They say, "You need to do this and this." I do it and it doesn't work. I call and say, "I am doing it but it does not work." "Well, I don't know why it doesn't work. You have to talk to someone else." I talk to somebody else and they say, "This should work." (EnergySmart, Orange)

Now that they've been on the program for a while, customers are relatively satisfied (although this is a somewhat biased group in that participants who had dropped out of the program are not represented.) Some customers like the thermostats themselves, which do a good job of controlling the temperature once they are programmed correctly. Some customers also mentioned that participating in the program has generally raised their awareness about energy use in general.

"My energy bill is way down." (EnergySmart, Riverside)

"It makes you very aware that you've got to watch the whole environment. That's what it's done for us." (EnergySmart, Riverside)

"The electricity you use. You definitely turn off a light when you leave a room." (EnergySmart, Riverside)

Of course, getting a check at the end of the year is a positive. Interestingly, customers think of it as a reward for their good behavior.

"I like the rewards program." (EnergySmart, Riverside)

"It's nice getting those checks. There is no doubt about it. You have to pay it, so it is nice getting something back." (EnergySmart, Riverside)

The thermostat adjustment events have been unnoticed by some and are noticeable to others. In almost all cases, the adjustments are easy to deal with.

"I'm not conscious of it." (EnergySmart, Riverside)

“Sometimes you say, ‘It feels hot in here.’ You go over and look at it and see it is hot.” (Energy\$mart, Riverside)

*“When it gets hot, my customers complain and I blame it on Edison.”
(Energy\$mart, Riverside)*

“(Customers) accept it. They understand it. They say, ‘Yes, we understand.’ They’re in and out pretty quick ... It’s not a real big problem, but it is seniors we’re dealing with in our situation. They voice their concerns.” (Energy\$mart, Riverside)

*“When you get warm you tend to go look at the thermostat. It says curtailment.”
(Energy\$mart, Orange)*

“It was acceptable.” (Energy\$mart, Orange)

Nonetheless, nearly everyone admitted to opting out before. Some have used the opt out sparingly but others apparently are relatively loose with it. One participant has had problems with employees opting out without his approval. Not opting out, though, clearly has its rewards.

*“The first two years that we had it, we got \$1,800 back. We did not override it at all. That was good. The office got that money and it was really awesome.”
(Energy\$mart, Orange)*

“Because you’ve got employees saying they can’t work in there because it is too hot.” (Energy\$mart, Riverside)

“For five dollars, who cares?” (Energy\$mart, Riverside)

“My employees call me and say, ‘This thing does not work.’ And then they go and turn it down.” (Energy\$mart, Orange)

All in all, nearly all participants in the E\$T program think it’s worth it, or at least think they should continue on with it.

“Anytime you can save energy, it’s worth it.” (Energy\$mart, Riverside)

“It brought my energy bill down, so yes, it’s a good one.” (Energy\$mart, Riverside)

“It makes us conscious and we do save money.” (Energy\$mart, Riverside)

“I think that’s only fair, really. When you start something, finish it. It might not be as advantageous right now, but then again, a lot of it could have been that we weren’t using it properly in the beginning, and then I still have people coming in

trying to readjust the thermostat ... We want to ride it out to see if what we're really doing is beneficial to us as well as the community." (Energy\$mart, Riverside)

"It is better than nothing." (Energy\$mart, Orange)

"I saw a bigger difference when I swapped out the lights than I did with the thermostats ... I did not see a significant drop in the electric bill. However, I have learned to monitor it better. I am more aware of it." (Energy\$mart, Orange)

"I know it definitely has saved us money." (Energy\$mart, Orange)

3. Program Changes for 2004

Two program changes were implemented for 2004: limiting the number of set-point changes to 12, and reducing the incentive to \$150 per thermostat.

Since many participants in the program are not aware of how many adjustments have occurred during the season, limiting this to 12 is not very important to them. For a few, it does make a difference. When asked about it, participants said the limit of 12 occurrences was a good thing.

"It's a benefit, definitely." (Energy\$mart, Riverside)

"That's a good thing." (Energy\$mart, Riverside)

"That's what makes the difference. It's the 12 occurrences." (Energy\$mart, Riverside)

"I think it is very reasonable. I could stand more." (Energy\$mart, Orange)

"What is it now?" (Energy\$mart, Orange)

"It has not been that much of a problem." (Energy\$mart, Orange)

No one liked the reduction in the incentive payment from \$300 to \$150, but on the other hand, everyone admitted they would stick with the program. Apparently, \$150 is better than nothing.

"I think it matters. I have three of them. So I'm going from \$900 to \$450. That's a significant amount." (Energy\$mart, Riverside)

"I would probably stay on it just so that I could have access to control it through a central computer terminal. That would be incentive enough for me." (Energy\$mart, Orange)

An additional reason given for sticking with the program was being socially responsible.

"You're socially responsible." (Energy\$mart, Riverside)

"Being part of the community." (Energy\$mart, Riverside)

"The main thing was to do the right thing by conserving." (Energy\$mart, Riverside)

"I think we see it as an environmentally sensitive thing to do." (Energy\$mart, Orange)

4. Program Improvements

The most significant improvement that participants brought out was to provide them with additional information about saving energy. This could be done through an energy survey or audit.

"If we had more interaction with one of the Edison's representatives coming out to your facility asking how it was working for you and asking if you have any problems, "Here's some more information on something we think would benefit your company." I think something like that would be a benefit." (Energy\$mart, Riverside)

"If I were to retrofit everything that some of you have done, I would be willing to do that. I just don't know how to do it. If someone came out and said, "Change the lightbulbs out. Maybe you'll spend \$200, but then your future bills are going to be reduced by \$50 a month," then I know I'll get my money back over a short period of time. I just don't know what to do." (Energy\$mart, Riverside)

"I would go for (and energy audit). I would like to know why one of my stores is 1,000 square feet and it is \$1,800 and my 300 square foot uses \$1,100 a month... I do everything I can so I would love to know." (Energy\$mart, Orange)

A related idea is an SCE evaluation of the customer's AC system, and routine maintenance and coil cleaning as needed.

"I think with the air conditioning central unit ... the maintenance is quite crucial ... it collects dust and it's windy. You need to hose it off ... If they monitor just the thermostat, I'd rather they monitor the units so they get cleaned up." (Energy\$mart, Riverside)

"Like if you had that representative come out to see how everything was working, then he could ask if we cleaned the filters or whatever." (Energy\$mart, Riverside)

Receiving a sign that could be placed in their windows was also an appealing idea, so that the business could promote their social responsibility and so that customers would accept a somewhat warmer environment during a set-point adjustment event.

“I think it would help because you are doing it to save, but for us, we’re doing it to help out in the community.” (Energy\$mart, Riverside)

“Something so that when customers come in and say, “Hey, its 100 degrees in here,” “Well, we’re doing it for you, not for me.”” (Energy\$mart, Riverside)

Finally, additional program communications would be helpful. Communications should remind customers about program details (e.g., how to program the thermostat, where to go for help or questions, etc.) To receive communications about the program, participants seem to prefer direct mail addressed or clearly labeled for Energy\$mart Thermostat program participants, a postcard telling them where to go for more information (such as an 800 number or web site), or an email. Customers are concerned, though, that if they have to try to call SCE for assistance or more information, they will sit on hold.

“If they send something in the mail with a phone number and a request to call, I would call.” (Energy\$mart, Orange)

“(Clearly identified Energy\$mart Thermostat participants) would work.” (Energy\$mart, Orange)

“If I knew what to expect like on the subject line or the “From” person, then “email” would be okay.” (Energy\$mart, Orange)

Specifically for information about how to program the thermostats, participants mentioned online videos or web pages, or a card with basic instructions that would also have a web address for more details.

“An instruction video on the web.” (Energy\$mart, Orange)

“A web page would be wonderful.” (Energy\$mart, Orange)

“A card with the address link that you could put on the thermostat.” (Energy\$mart, Orange)

While few customers in the focus groups could recall many details about the customer service they received when calling SCE for help, one customer described the SCE representative as in a hurry and not willing to take the time to help him program the thermostat. He made the point that customer service must be geared to relatively simple people like himself.

“I spoke with them a few times but they did not explain too much. They said a few things and that was it. They were very short. At one point I was frightened. I thought, they put this thing in and now they are gone. This thing is not going to work and nobody is there ... They were all like, “I am sorry, I can’t help you. I apologize, and you’re wonderful. Goodbye.” Everybody is polite ... They made me feel like, “Don’t you understand it. It is simple.” I am just a simple equation guy. If it is complicated, then I have to go to the simple method again ... You need to provide services for people like me.” (Energy\$mart, Orange)

C. Reaction to the Pre-Cooling Option

Customers' reactions to the pre-cooling option were mixed. A few liked it, but for most it just raised a lot of questions in their minds. They have three main concerns:

- d. They question the effectiveness of reducing temperature in advance. They don't believe the temperature reduction will last very long. Their building is not well insulated, it has too many windows that receive direct sunlight, or there are too many customers coming and going who constantly break the building envelope and allow any cool air to escape to the environment.

"It would cool down, and then the air goes off 10 minutes later and it's hot again." (EnergySmart, Riverside)

"It doesn't make sense. The curtailment is 4 to 6 hours. If you cool it down earlier, it might be good for a half hour. After that it is still going to get warm." (EnergySmart, Orange)

"It depends on your heat loss. If you have little insulation in your ceiling and little insulation in your walls, I think it would be 15 minutes. If you have 6 inches of insulation in your walls and 3 feet of insulation in your ceiling, then you could go to the other extreme." (EnergySmart, Orange)

- e. They expect that pre-cooling will cost them money. They like the thermostat set-point increase because they know that it will save them money during the time of the adjustment, so why negate any savings with a pre-cooling feature.

"You're going to pay for it on your energy bill." (EnergySmart, Riverside)

"My doors are open a lot, though. I've got 300 to 350 customers a day coming in and out of that door ... it would cost me money." (EnergySmart, Riverside)

"I thought the whole thing was to save energy, but then they are using more energy to lower it first." (EnergySmart, Orange)

- f. They think that pre-cooling will actually increase discomfort and possibly even lead to health problems because it increases the total range of temperature that their employees and customers would experience.

"It's going to lower (the temperature) at a time when you really don't even need it lowered. That's like giving somebody cough syrup that doesn't have a cough. What's the point?" (EnergySmart, Riverside)

"I don't want to go from "It's feeling really nice in here," to "Oh, my God, I'm ready to go home." I would rather have it a little uncomfortable and

then a little more uncomfortable than “It’s pleasurable,” to “It really sucks.” I wouldn’t want that.” (Energy\$mart, Riverside)

“It’s too extreme.” (Energy\$mart, Riverside)

“Have you cleared this through CAL-OSHA? What does CAL-OSHA say about what heat range the employees should work in?” (Energy\$mart, Riverside)

“Most employees would probably say, “It’s too cold in here.” Then they’d end up trying to change the thermostat back up to where it was.” (Energy\$mart, Riverside)

“I don’t think we would like it because it would get too cool and it is just as uncomfortable. Especially when you are sitting at t desk.” (Energy\$mart, Orange)

Customers believe that a 2 to 4 degree decrease for pre-cooling would be about the most they could tolerate.

“Four degrees.” (Energy\$mart, Orange)

“Maybe 3 degrees is better than 4.” (Energy\$mart, Orange)

“2 or 3 degrees.” (Energy\$mart, Orange)

“My biggest concern is the actual numbers. I don’t know because I am not an expert in the area that a 4-degree change would take me from being comfortable to being cold. If I was to go down 4 degrees, I am not sure but that seems a little too high or too much.” (Energy\$mart, Orange)

Despite their concerns and hesitation about pre-cooling, most E\$T program participants seemed willing to try it if they could opt-out of the set-point decrease just as they can for an increase. There seems to be a general willingness among these customers to try just about anything if there is not much downside risk.

“I would try it.” (Energy\$mart, Orange)

“I wouldn’t mind trying it, but afterwards then I would like the option to raise it myself if it got too cold.” (Energy\$mart, Orange)

D. Other Topics

Other topics were discussed at the end of each group, mostly related to the idea of demand management (using less electricity during peak demand times). Participants were asked about their awareness and understanding of Time-Of-Use (TOU) rates and of *Flex Your Power Now*. Awareness seems generally high for both, and customers clearly do understand the concepts behind both TOU rates and *Flex Your Power Now*.

TOU

“It is kind of like your cell phone.” (Energy\$mart, Orange)

“I could mass produce during the cheaper period and not produce during the expensive period. That would work for me.” (Energy\$mart, Orange)

FLEX YOUR POWER NOW

“I have seen it.” (Energy\$mart, Orange)

“Run your dishwasher at night. Do your wash at night.” (Energy\$mart, Orange)

“It is using less electricity during the peak hours.” (Energy\$mart, Orange)

V. Appendix

**“Pre-Cooling Demand Response Program” SCREENER
SMALL BUSINESS (GS2) CUSTOMERS**

(FILL IN AFTER SUCCESSFUL RECRUIT)

RESPONDENT NAME: _____
COMPANY NAME: _____
PHONE #'S: day: _____ eve: _____
ADDRESS: _____
CITY/ZIP: _____
RECRUITER: _____

Hello. My name is _____ from _____, an opinion research firm. We are conducting a very short survey on behalf of Southern California Edison and would like to include the opinions of business people in your area in our research. We are not selling anything.

1. Can I speak to the person who would be responsible for making decisions about your electric bills and energy management at your business? (GET THAT PERSON ON THE LINE AND THEN REPEAT INTRODUCTION)

2. And what type of business is this?

3. How many business locations do you oversee?

- | | | |
|--------------------|---|----------|
| One | 1 | CONTINUE |
| Two | 2 | CONTINUE |
| Three | 3 | CONTINUE |
| Four or more | 4 | CONTINUE |

4. Do customers routinely come into this (any of these) location(s)?

- | | | |
|------------------|---|---------------------|
| Yes | 1 | CONTINUE |
| No | 2 | THANK AND TERMINATE |
| Don't Know | 3 | THANK AND TERMINATE |

5. Do you air condition the areas where customers come into (at any of these locations)?

- | | | |
|------------------|---|---------------------|
| Yes | 1 | CONTINUE |
| No | 2 | THANK AND TERMINATE |
| Don't know | 3 | THANK AND TERMINATE |

(IF MULTIPLE LOCATIONS) At how many of these locations do you have air conditioning for customers?

- | | | |
|---------------------|---|----------|
| One | 1 | CONTINUE |
| Two | 2 | CONTINUE |
| Three or more | 3 | CONTINUE |

6. Are you or any employees personally able to control the temperature of the air conditioning with an adjustable thermostat (at any of these locations)?

- | | | |
|------------------|---|---------------------|
| Yes | 1 | CONTINUE |
| No | 2 | THANK AND TERM |
| Don't know | 3 | THANK AND TERMINATE |

7. I'd like to find out what type of air conditioning system your business location(s) has/have? (IF MULTIPLE LOCATIONS ASK FOR EACH LOCATION.)
- How many thermostats that you can control does the business location have? (MUST BE ONE THERMOSTAT PER A/C UNIT ... E.G. FOR 2 A/C UNITS MUST HAVE 2 THERMOSTATS)
 - Where are the air conditioning units located? (MUST BE ON ROOF)
 - How many units?
 - (FOR EACH UNIT) Approximately what size? Size is expressed in tons. (IF KNOWN) (EACH UNIT MUST BE 3 TO 15 TONS TO QUALIFY)
 - Does the building have cement or cement block walls, wood frame with stucco or siding, or some other type of construction? IF SOME OTHER TYPE OR DON'T KNOW, ASK: If you turned off the air conditioning on a hot day, about how long would it take before it became uncomfortably warm? More than 2 hours or less than 2 hours? (MUST BE CEMENT BLOCK OR MORE THAN 2 HOURS TO QUALIFY)

(RESPONDENTS NEED TO HAVE AT LEAST ONE UNIT AT ONE LOCATION THAT QUALIFIES TO PARTICIPATE)

Loc 1: Controllers	Location	Units	Size	Walls
1	Roof	1	____ tons	Cement Block
2		2	____ tons	Wood Frame
3		3	____ tons	Other _____
4		4	____ tons	Don't know
5+ ____		5+ ____	____ tons	

Loc 2: Controllers	Location	Units	Size	Walls
1	Roof	1	____ tons	Cement Block
2		2	____ tons	Wood Frame
3		3	____ tons	Other _____
4		4	____ tons	Don't know
5+ ____		5+ ____	____ tons	

Loc 3: Controllers	Location	Units	Size	Walls
1	Roof	1	____ tons	Cement Block
2		2	____ tons	Wood Frame
3		3	____ tons	Other _____
4		4	____ tons	Don't know
5+ ____		5+ ____	____ tons	

(IF MORE THAN 3 LOCATIONS, STOP ASKING AT 3)

10. **(DO NOT READ)** DOES THIS PERSON HAVE ANY LANGUAGE OR COMMUNICATION DIFFICULTIES?

Yes	1	THANK & TERMINATE
No	2	CONTINUE

11. Have you participated in an in-person research discussion group before? This is where you where you were invited to go to somewhere and talk about products or services?

Yes	1	ASK Q.13
No	2	SKIP TO INVITE

12. When was the last time you participated in a focus group discussion?

Within the past 12 months	1	TERMINATE
More than 12 months ago	2	CONTINUE

RECRUIT SCRIPT

We are inviting a select group of business people to participate in an in-person group discussion about new energy efficiency programs. Southern California Edison is the sponsor of this study. This would involve coming to our research facility and participating in a discussion that lasts about 1 ½ to 2 hours. You would receive \$100 as a thank you for your time. Your contribution will provide valuable information and most people say they learned something new from participating or had fun.

The discussion will take place at (TIME)_____ on (DATE) _____ in our facility located in _____.

Can we count on your participation? (ASK AND RECORD INFORMATION ON FRONT OF SCREENER)

I have just a few more questions for classification purposes.

13. **(DO NOT READ)** Record Male or Female

Male	1	TRY FOR SOME OF EACH
Female	2	TRY FOR SOME OF EACH

14. Could I have your title or role?

Owner/President	1	CONTINUE
General Manager/COO	2	CONTINUE
Store Manager	3	CONTINUE
Office Manager	4	CONTINUE
Facility/Maintenance Manager	5	CONTINUE
Controller/Accountant	6	CONTINUE
Accountant	7	CONTINUE
Other _____	8	CONTINUE

15. Do you have Internet access at work, at home, both, or neither?

Work	1	CONTINUE
Home	2	CONTINUE
Both	3	CONTINUE
Neither	4	SKIP TO Q17

16. Do you have high speed Internet access, such as DSL, cable Internet, a T1 line or something similar (either at home or at work)?

Yes	1	CONTINUE
No	2	CONTINUE

17. How many employees work for the company?

Under 10	1	CONTINUE
11-100.....	2	CONTINUE
More than 100.....	3	CONTINUE

We'll be sending you directions. If you have any questions, please call _____ at _____.

Thank you.

SCE Pre-Cooling Thermostat Program Focus Group Discussion Guide (v.1)

A. Introductions (10 minutes)

1. Moderator introduces self
2. Explain procedures: mirror and backroom, audiotape and videotape, need for openness and dissenting opinions, one speaker at a time
3. Participant introductions: around the table – name; your business name; type of business; what you do in the business; what your normal operating hours are for your business, how long you have been there, whether you own or rent the space you're in, and how many employees work indoors there.

B. General energy use and efficiency (20 minutes)

1. What are the major uses of electricity that you have in your business?
2. How important is it to you to manage your energy use? Why? (Probe: price, ensure supply/no rotating outages, environment, etc.)
3. Which of these are manageable or controllable, if any? (probe: air conditioning, lighting, refrigeration, equipment, any others?) Why or why not?
4. Who makes decisions regarding equipment replacement? Who pays for it?
5. What have you done or are doing now to reduce electricity consumption? (probe: new equipment, controls for equipment, etc.)
 - a. For each of these activities, what prompted or motivated you to do it?
6. If you haven't done anything to reduce electricity use, why not?

C. Energy Efficiency Programs - General (20 minutes)

Southern California Edison offers different programs for 2 main purposes. (1) There are programs to encourage customers to use less energy, including rebates and energy audits. (2) There are programs to encourage customers to use less energy at peak demand times, possibly by shifting when they use energy.

1. How familiar do you feel you are with the first type: SCE's energy efficiency programs to encourage customers to use less energy all the time: very familiar, somewhat familiar, or not familiar (show of hands for each)
 - a. Which of these programs are you familiar with?
2. How about the other type of programs that encourage customers to use less energy during peak demand times.
 - a. Which of these programs are you familiar with?
3. What do you think about these two types of programs?
 - a. Do they make sense? Are they beneficial to you? To Edison? To Californians in general?
4. Have you ever participated in any energy efficiency program or received rebates from your electric company?
 - a. If yes, which program(s)?
 - b. Why did you participate ... what prompted you or was involved in your decision to participate?

- c. Describe that experience. (step-by-step ... good and bad aspects: getting information about a program, signing up, fulfillment, submitting paperwork, getting the rebate check or audit report, etc.) Describe the interactions you had with the points of contact with SCE: phone center, website, Edison rep, etc.
 - d. If not, why not? What are the barriers to participation? (Probe: lack of awareness of programs, perceived difficulty or time required to participate, inability to reduce any consumption, costs of making improvements are prohibitive, rebate amounts too small (for rebates), don't have trust in SCE's ability to really help (for energy audits), etc.)
5. (IF TIME PERMITS) Now I'd like to walk through the process of participating and get your thoughts on what you'd expect at these different steps (such as how long it should take), even if you haven't yet participated in an energy efficiency program or rebate.
- a. Getting information
 - b. Signing up
 - c. Fulfillment
 - d. Submitting paperwork
 - e. Getting rebate or audit report

D. Pre-cooling Thermostat Program - Specifics (55 minutes)

General A/C Use

1. Let's talk about your air conditioning. Describe you're AC system. Number of units, tonnage, location(s) of units, number of thermostats and if they are programmable and how long ago they were installed.
2. How important is air conditioning to your business? At what times of the day?
3. Do you think your AC is operating properly now, or do you experience any problems or shortcomings of it (e.g., too hot, too cold, hard to control temp, stops working, etc.)
 - a. Does it run continuously?
4. What do you set your AC at now on a typical summer day?
 - a. How do you decide on the setting (e.g., purely comfort, trying to save energy, required for some reason, etc.)
 - b. Is there a temperature range that you think is acceptable? What is that range?
 - c. Do you ever change the setting? Why or under what circumstances?
 - d. Are you aware that raising the thermostat set-point (temperature setting) saves energy?
5. If you have multiple thermostats, do you ever set them at different settings? Why?
6. Who controls the thermostat? Does anyone have access or is access restricted (lock-box, hidden or restricted area)?
7. What would get you to use less air conditioning than you do now or to change your thermostat set-point?

Program Features

1. Southern California Edison is investigating a new program in which they would install a new programmable thermostat in place of your existing thermostats. This would be free, at no cost to you, and SCE would program it so that you would save roughly 5-20% of your air conditioning cost during the summer.
 - a. Just based on this information, who would definitely sign up (count hands)?
 - b. Who is interested but wants more information before signing up (count)?
 - c. Who is not interested? Probe: If not why not ... savings not enough, just not worth it, etc?
2. In order to get the energy savings your thermostat set point would have to be raised on some hot afternoons. Edison would control this remotely by sending a signal to the thermostat. Does this change your interest?
3. What would be a base set-point for AC you could live with ... that is, if you agreed to this program, you would also agree to a base set-point that your thermostat would normally be set at? (Test 72 to 75 degree range)
4. And how much would you be willing to turn up your thermostat above the base set-point, in degrees?
 - a. What's the absolute maximum you think you'd be able to go to? (Test 77 to 80 degree range for adjusted set-point)
 - b. Does it matter by time of day?
 - c. Would you be willing to increase this in an electricity shortage emergency such as a stage 2 or 3 alert?
5. For how long would you be willing to have the temperature at this higher level? This could be for as long as 6 hours during the afternoon.
6. What if the thermostat were given a signal a few hours BEFORE the increase to LOWER the temperature a few degrees? (See if respondents get the purpose of this. If not, explain: This would lengthen the time that your AC could be off before the temperature reached the higher set-point.)
 - a. What would you think about this aspect?
 - b. Could you tolerate a cooler temperature?
 - c. How much lower? (Test 2, 3, 4 degrees cooler)
 - d. For how long? (Test: how many hours)
 - e. Do you understand the purpose of this lowering the temperature?
7. What if SCE offered to pay you so they could install this new programmable thermostat and then lower and raise your AC temperature on really hot days. How much would it take, if anything? (Suppose someone offered to pay you x dollars this year and in return you would get a programmable thermostat that would automatically adjust your thermostat by lowering it and then later raising it some amount on really hot days between May 1 and October 31 when the electricity usage in the state is nearing maximum availability, e.g., such as during a stage 1, 2 or 3 alert. We don't know how many really hot days there might be. All your thermostats would be included) (Can test dollar amounts: \$150, \$200, \$250, \$300, \$400, etc. – too much, too little, just right)

8. What if this deal had an override feature so that at any occurrence you could opt out for that day but it would cost you some money each day you opted out. Would you ever be inclined to opt out? What should the cost to you be? (Test \$5, \$10, \$15, \$20) Would this feature make you more likely to sign up for this program?
9. Now suppose there was a limit on how many occurrences you could be subjected to in a year. What would be a reasonable limit, so that even if there were hot days, once you reached the limit you would no longer be subject to increasing your thermostat?
10. Now suppose you could leave the program at any time before it officially ended on Oct. 31. You would get compensated at a pro-rated amount for how long you were in the program and SCE would remove the programmable thermostat and replace it with something similar to what you currently have. Would that change your interest in the program?
11. What else would you want with this kind of program? Probe if not mentioned:
 - a. Early warning?
 - b. Information you could access that kept 'score' for you?
 - c. Thermostat control access security so that only designated employees could do the override, etc.
12. Now, which of you would participate in a program like this? Why or why not? (Probe specifics: fit your business patterns, customer presence, size of incentive, uncertainty of weather, expectation of number of occurrences, etc.)
 - a. We've discussed some specific aspects of this program. What are the deal breakers ... that is, intolerable aspects?
 - b. What are dealmakers? The things that really grab your interest?
 - c. Do you think you'd ever use the opt-out feature?

E. Communications

1. How should SCE talk about this program to get people like you to sign up for it?
2. What would really motivate you to sign up? What key messages?

Avoid blackouts?

 - a. Save California from High Electricity Prices?
 - b. Get Paid to Reduce Your Electric Bill?
 - c. Save Energy for a Cleaner environment?
 - d. Anything else?
3. How should they try to reach you with something like this ... radio ads, bill inserts, a separate letter, newspaper ads?

F. Final Comments

1. Is there anything else you'd like to share? Any other thoughts or ideas that you haven't had a chance to voice yet?

Thanks for your time!

**“Energy\$mart Qualitative 2004” SCREENER
PROGRAM PARTICIPANTS**

(FILL IN AFTER SUCCESSFUL RECRUIT)

RESPONDENT NAME: _____

PHONE #'S: day: _____ eve: _____

ADDRESS: _____

CITY/ZIP: _____

RECRUITER: _____

Hello, could I speak to _____ (NAME FROM SAMPLE) (GET THAT PERSON ON THE LINE AND CONTINUE)

Hello. My name is _____ from _____, an opinion research firm. We are not trying to sell anything.

1a. I'm calling today to speak to the person who made the decision to sign your business up for the Energy\$mart Thermostat program with Southern California Edison, or who would now make decisions about your participation in the program. Are you that person? [IF NEEDED: This is a program where Edison installed a new programmable thermostat that can be controlled remotely to raise your temperature set-point during periods of high electricity demand]

IF DON'T KNOW: Are you someone who would make decisions about your business's energy use including the temperature setting for your air conditioning?

Yes 1 CONTINUE
No 2 THANK AND TERMINATE

1b. How many Energy\$mart thermostats were installed altogether at your business or businesses?

- 1 1 CONTINUE
- 2 2 CONTINUE
- 3 3 CONTINUE
- 4 or more (Specify how many _____)..... 4 CONTINUE
- Don't Know 5 CONTINUE

1c. Do customers routinely come into the areas where the air conditioning is controlled by an Energy\$mart Thermostat?

- Yes 1 CONTINUE
 - No 2 CONTINUE BUT
 - Don't Know 3 MONITOR COUNT.
- WANT MOSTLY YES'S

1d. And is your work location USUALLY at a facility that received an Energy\$mart thermostat?

- Yes 1 CONTINUE
 - No 2 CONTINUE BUT
- MONITOR COUNT.
WANT MOSTLY YES'S

1e. Are you also a primary decision maker regarding how your business uses electricity?

- Yes 1 CONTINUE
 - No 2 CONTINUE BUT
- MONITOR COUNT.
WANT MOSTLY YES'S

2. How would you rate your overall satisfaction with everything that has been involved with signing up for and participating in the Energy\$mart Thermostat program, using a scale from 1 to 10 where 1 = completely dissatisfied and 10 means completely satisfied?

- | | |
|--------------------------------------|----------------------|
| Completely Dissatisfied | Completely Satisfied |
| 1 2 3 4 5 6 7 8 | 9 10 |

(WANT A VARIETY OF RESPONDENTS ON SATISFACTION)

3. Has the thermostat set-point adjustment feature been activated for your business because of a Stage 2 electricity supply emergency?

- Yes 1 CONTINUE
- No 2 CONTINUE
- Don't Know 3 CONTINUE

(MONITOR – MOST SHOULD BE YES'S)

4. **DO NOT READ)**
DOES THIS PERSON HAVE ANY LANGUAGE OR COMMUNICATION DIFFICULTIES?

- Yes 1 THANK & TERMINATE
- No 2 CONTINUE

5 **(DO NOT READ)**
Record Male or Female

- Male 1 CONTINUE
- Female 2 CONTINUE

RECRUIT SCRIPT

We are inviting a few business owners and managers who are participating in Southern California Edison's EnergySmart Thermostat program to come to our facility for a group discussion about the program. For coming to the discussion we will give you \$100 for your time.

The discussion will last about 1 and ½ to 2 hours and will take place on ____ at ____.

Would you be able to participate?

(RECORD DATE AND TIME OF GROUP IF RECRUITED)

DATE: _____

TIME: _____

I have just a few more questions.

6. What type of business is this?

_____ 1

7. How many employees work for the company?

Under 10	1	CONTINUE
11-100.....	2	CONTINUE
More than 100.....	3	CONTINUE

8. Could I have your title or role?

Owner/President	1	CONTINUE
General Manager/COO	2	CONTINUE
Store Manager	3	CONTINUE
Office Manager	4	CONTINUE
Facility/Maintenance Manager	5	CONTINUE
Controller/Accountant	6	CONTINUE
Accountant.....	7	CONTINUE
Other _____.	8	CONTINUE

9. Do you have Internet access at work, at home, both, or neither?

Work	1	CONTINUE
Home	2	CONTINUE
Both	3	CONTINUE
Neither	4	SKIP Q10

10. Do you have high speed Internet access, such as DSL, cable Internet, a T1 line or something similar (either at home or at work)?

Yes	1	CONTINUE
No	2	CONTINUE

[RECORD CONTACT INFORMATION]

Thank you. We will send you a letter confirming the focus group and with directions to our facility.

SCE Energy\$mart ThermostatSM Participant Focus Group Discussion Guide (v.2)

A. Introductions (10 minutes)

1. Moderator introduces self
2. Explain procedures: mirror and backroom, audiotape and videotape, need for openness and dissenting opinions, one speaker at a time
3. Introduce Topic: We're going to be talking about your experiences so far with the SCE Energy\$mart Thermostat program: why you signed up for it, what you have experienced so far with the program, what you think about the program now, and what you would think about a new option to the program that I'm going to review with you.
4. Participant introductions: around the table – name; your business name; type of business; what you do in the business; how many locations you have and what each location does; and how many employees work at each place.

B. General Energy Management Discussion (15 minutes)

1. What are the major uses of electricity that you have in your business?
2. How important is it to you to manage your energy use? Why? (Probe: price, ensure supply/no rotating outages, environment, etc.)
3. Which of these are manageable or controllable, if any? (probe: air conditioning, lighting, refrigeration, equipment, any others?) Why or why not?
4. Who makes decisions regarding equipment replacement? Who pays for it?
5. What have you done or are doing now to reduce electricity consumption? (probe: new equipment, controls for equipment, Energy\$mart Thermostat, etc.)
 - a. For each of these activities, what prompted or motivated you to do it?
6. If you haven't done anything to reduce electricity use, why not?

C. Feedback on the Energy\$mart Thermostat Program (20 minutes)

1. Why did you sign up for the Energy\$mart Thermostat Program?
 - a. How did you first hear about it?
 - b. Do you recall receiving the brochure in the mail? Read about it in your bill? Heard about any other way?
 - c. What got your attention? What were you expecting to get out of the program?
 - d. What features or aspects of the program were most appealing?
 - Needed a new thermostat anyway?
 - Energy savings or functionality from the thermostat itself?
 - The incentive payment?
 - An interest in doing what you can to reduce use during peak demand times?
 - e. Anything about the program that caused you to hesitate in signing up?

- Perceived difficulty or time required to sign-up or get the thermostat(s) installed? Doubts about whether it would help you save energy? Incentive amount? Concerns about the frequency of set-point adjustments? Concerns about SCE managing the program? Etc.
- f. Was it an easy decision to make or was it difficult?

D. Program Participation (20 minutes)

1. What do you think about being on the program now? I'd like you to share your thoughts about it?
 - a. Good? Bad? Why?
 - b. Is it what you thought it would be? Easier/better? Harder/worse?
2. Do you feel knowledgeable about the program? Are you aware of all of the aspects and requirements of the program?
 - a. The programmable thermostat?
 - b. The set point?
3. What do you think about the new thermostat(s)? Is it saving you any energy? (If yes) How do you know that? Is it easy to use?
 - a. Have you made any adjustments to the settings since it was installed?
4. Have you experienced an Edison initiated set-point adjustment? Tell me about this.
 - a. Did you know it when it was happening?
 - b. How many times did this happen?
 - c. Who opted out of the adjustment? Why?
 - d. If you didn't opt out ... did you notice a change in temperature? How much? How long did it last? Was it an inconvenience? Any problems?
 - e. Was this what you expected?
 - f. How much of an adjustment do you think you really could comfortably tolerate, now that you've had some actual experience with it? How long? How many degrees increase?
5. Is being on the program worth it?
 - a. If yes, why?
 - b. If no, why not? What would have to change to get you to continue?
 - c. Are you saving energy? How do you know?
6. Who will continue in the program next year? Why or why not?
 - a. What if I told you the number of set-point adjustments would be limited to no more than 12? Does this make a difference? Why?
 - b. And the incentive payment for remaining on the program would be \$150 for the season? Does this make a difference? Why?

E. Program Improvement / Satisfaction (15 minutes)

1. You've gone through the process of getting on the program, and then experienced being on the program. How can the program be improved?
 - a. Signing up?
 - b. Getting the thermostat installed?
 - Getting an appointment
 - Having the thermostat actually installed and programmed correctly
 - Learning how to program the thermostat yourself
 - c. Being on the program ... such as:
 - Being prepared or knowing when your thermostat set-point might be adjusted?
 - The thermostat itself? Programming it? How it works?
 - Interacting with Edison about the program?
 - Feeling that you are doing the right thing by participating in the program?

F. Pre-Cooling Option (15 minutes)

1. Edison is thinking about adding an option to the program and I'd like to hear what you think about it. What if the thermostat were given a signal a few hours BEFORE the increase to LOWER the temperature a few degrees? (See if respondents get the purpose of this. If not, explain: This would lengthen the time that your AC could be off before the temperature reached the higher set-point.)
 - a. What would you think about this aspect?
 - b. Could you tolerate a cooler temperature?
 - c. How much lower? (Test 2, 3, 4 degrees cooler)
 - d. For how long? (Test: how many hours)
 - e. How early in the day could this start?
 - f. Do you understand the purpose of this lowering the temperature?
2. Is this something you would like? Would it be acceptable? Why? Why not?

G. Final Comments and Conclusion (5 minutes)

1. Is there anything else you'd like to share? Any other thoughts or ideas that you haven't had a chance to voice yet?

Thanks for your time!