



Process Evaluation of Southern California Edison's 2006-2008 Multifamily Energy Efficiency Rebate (MFEER) Program

Final Report (Report ID: SCE0279)



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1. Executive Summary

This section summarizes the findings of the process evaluation of the Southern California Edison (SCE) 2006-2008 Multifamily Energy Efficiency Rebate (MFEER) Program. The findings in this report come from a number of surveys as well as other information sources. These included:

- A November 2008 survey of 200 SCE multifamily property managers/owners who had participated in the 2006-2008 MFEER Program;
- A December 2008 survey of 30 multifamily contractors who participated in the 2006-2008 MFEER Program;
- A February 2009 survey of 69 heating, ventilation, and air conditioning (HVAC) contractors;
- Interviews with MFEER Program staff in April and November 2008; and
- Reviews of MFEER Program documents and tracking databases.

KEMA Inc. is responsible for the vast majority of information and analysis in these reports. However, Katherine Randazzo of Fielding Graduate University provided the analyses for subsections 5.6.1, 5.6.4, and 5.7.6.

The MFEER Program promotes energy savings in apartment dwelling units and in the common areas of apartment and condominium complexes and mobile home parks. Property owners (and property managers, as authorized agents for property owners) of existing residential multifamily complexes may qualify for rebates for installing a variety of energy efficiency measures. Starting in 2006 the Program allowed multifamily properties with fewer than five units to participate for the first time.

Although the Program does some limited marketing, most of the MFEER-rebated energy-efficient projects are identified and installed by a cadre of installation contractors – mostly lighting contractors – who have a primary focus on the multifamily sector. Measures that were rebated by the Program during the 2006-2008 program cycle included:

- CF reflectors,
- HVAC,

-
- De-lamping,
 - Electric water heaters,
 - Exit signs,
 - Exterior fixtures,
 - Insulation,
 - Interior fixtures,
 - Lamps,
 - Photocells,
 - Pool pump and motors,
 - Refrigerators,
 - Room air conditioners, and
 - Windows.

The lighting measures accounted for the vast majority of the measures installed through the Program.

1.1 Summary of Findings from the Survey of SCE Participating Multifamily Property Managers/Owners

This section summarizes the more detailed findings found elsewhere in this report.

1.1.1 Introduction

Most of the information in this report came from a survey of 200 SCE multifamily property managers/owners who had participated in the 2006-2008 MFEER Program. This survey was completed in November 2008. The survey collected information on a variety of different topics of interest to MFEER Program staff including:

- Participant characteristics,

- Program/rebate awareness and participation,
- Market barriers,
- Project implementation characteristics,
- Satisfaction with MFEER Program processes and participant recommendations for improvements,
- Plans for future energy efficiency projects, and
- The effects of participation on energy efficiency awareness, knowledge, and attitudes.

Throughout the report we compare the responses of the 2006-2008 participating property managers/owners with 2005 MFEER participants that we surveyed in 2006. SCE is very interested in using this form of benchmarking over time to measure changes in Program participation and to track progress in improving participant satisfaction. In addition to analyzing information from these two surveys, we also reviewed MFEER Program documents and interviewed Program staff on two separate occasions – in April 2008 and November 2008.

1.1.2 Participant Characteristics

The most important finding concerning the characteristics of the 2006-2008 MFEER Program participants was that their participating properties were much more likely to be smaller (100 units or less) than they have been in the past. For example, 80 percent of the participating properties in the 2006-2008 MFEER Program were smaller properties, compared to 70 percent in 2005 and 46 percent in 2004.

We suggested two likely causes for this recent Program shift to smaller properties. Although contractors prefer installing MFEER-rebated equipment in larger properties due to more favorable economies of scale and scope, it is likely that Program saturation in the middle-sized properties is forcing some of the participating contractors to turn to the less financially-attractive smaller properties to get their rebate dollars. Another possible explanation is the fact that in 2006 the Program allowed multifamily properties with fewer than five units to participate for the first time.

This shift towards smaller properties likely explains other participant trends such as property management/ownership and the types of energy systems used. For example, from the 2005 participants to the 2006-2008 participants there was nearly a five-fold increase in the

percentage of property managers/owners reporting that they, or their firms, both owned and managed the participating properties. The 2006-2008 participants were much less likely than the 2005 participants to report that their properties had central heating, cooling, or water systems. Both of these trends can be linked with the increasing participation of managers/owners with smaller multifamily properties.

1.1.3 Program/Rebate Awareness and Participation

Key findings from this section of the report include:

- *Awareness of the MFEER rebates:* About two-thirds of the 2006-2008 participants said they were aware that SCE had paid a rebate to buy down the cost of these installations. This was similar to the percentage of 2005 participants claiming awareness.
- *Awareness of the availability of other MFEER rebates besides the ones they received:* The SCE staff was interested in knowing whether participating property managers/owners who only had one type of energy-efficient equipment installed through the MFEER Program knew that the Program also offered rebates for other types of energy-efficient equipment. Since the Program is mainly delivered through installation contractors, and primarily through lighting contractors, there was concern that these contractors would only promote MFEER rebates for the energy-efficient equipment that they sold. The survey responses indicated that there are reasons for concern. Only 52 percent of those who only had one type of MFEER-rebated equipment installed were aware that other types of rebates were available. Refrigerator and room air conditioners rebates were the most-cited of these other rebate types.
- *How participants heard about the rebates/program:* As was the case for the 2005 participants, the 2006-2008 participants cited installation contractor offering services as, by far, the most common way that they heard about the MFEER Program. However, the survey of the 2006-2008 participants also found that reports of first information from the Program marketing channels – whether the apartment/trade association presentations/newsletters or reports of SCE contacting them -- have dropped significantly from what was reported by the 2005 participants. Our interviews with Program staff in 2008 revealed that the MFEER Program is doing a much smaller percentage of participant satisfaction callbacks than they did for the 2004-2005 Program. In theory these satisfaction callbacks should not be a great source of new participants since the calls are being made to properties that have already participated. However, the high turnover rate in the multifamily management sector means

that these satisfaction calls likely often result in new property managers becoming aware of the MFEER Program for the first time.

- *Project decision-making:* We asked the 2006-2008 participants who came up with the idea for the energy efficiency improvements that were rebated by the MFEER Program. The 2006-2008 participants were much more likely than the 2005 participants to say that their contractors were the main sources of the ideas for their projects. The 2006-2008 participants reported using a much less diverse source of information sources for their equipment retrofit/replacement decisions than the 2005 participants did. Some of this – e.g. less reliance on internal maintenance staff for information – was likely due to the 2006-2008 Program’s shift to smaller properties.
- *Reasons for joining the MFEER Program:* We queried the property managers/owners as to their primary reasons for participating in the Program. The percentage of respondents who cited saving energy as their primary reasons nearly doubled between 2005 and 2006-2008. This was likely due to the large increase in energy prices that occurred during the 2007-2008 period.

1.1.4 Market Barriers

Key findings from this section of the report include:

- *Technology awareness/familiarity barriers:* When asked whether they had been previously aware of the MFEER-rebated technology that was installed in their property, 2008 participants claimed about the same level of awareness of the installed measures (57%) as the 2005 participants had (59%). Nearly half (45%) of the 2006-2008 participants said that these MFEER-rebated measures had been previously installed at the same property or another one of their properties.
- *Split-incentive barriers:* Current program evaluation theory posits that the “split incentive barrier” discourages property managers/owners from improving the energy efficiency of their tenant units. The premise of this barrier is that although property managers/owners are responsible for facility improvements, they usually do not pay energy bills for the tenant spaces and therefore have no direct financial incentive to install more expensive energy-efficient measures in these spaces. However, we found slim evidence for the importance of the split incentive barrier in explaining why participating property managers/owners did not implement energy efficiency improvements on their own.

We asked the 2006-2008 participants who said that their tenants pay their own energy bills how important this was as a reason why they did not make the energy efficiency improvements earlier. The average importance rating (using a 5-point importance scale where five equaled “very important”) given by the 2006-2008 participants was 3.1 compared to 3.2 for the 2005 participants. Only 28 percent of the 2006-2008 respondents said it was an important factor (4 or 5 on the 5-point importance scale).

We asked the 2006-2008 participants whose tenants paid their own energy bills how much they agreed with the statement: “Since our tenants pay their own energy bills, there is no reason for our company to install energy-efficient equipment in the tenant units”. They were told to use a five-point scale where five equaled “strongly agree” and one equaled “strongly disagree.” The large majority of respondents disagreed with this statement and over half strongly disagreed with this statement.

We asked the 2006-2008 property managers: “Since your tenants pay their own utility bills, why did you decide to install energy-efficient equipment in the tenant units?” The most-cited reason – cited by half the respondents – was that they wanted to reduce the energy costs of their tenants. Some of these respondents noted that by reducing their tenant’s energy costs, this would allow these tenants more money to meet their rent payments. Other reasons included improving the satisfaction of their current tenants, wanting to take advantage of the rebates while they were available, and their units needing new equipment or fixtures.

- *Other barriers:* We also asked all the 2006-2008 participants a more direct barriers-related question. We asked them: “Why hadn't your company installed the (Specified Measure) on its own before participating in the Southern California Edison multifamily rebate program?” They cited many different reasons with no particular reason being cited by a large percentage of respondents. The most-cited reasons included the inability to identify energy-efficient measures (24% of respondents) and financial limitations (12%).

1.1.5 Project implementation

Key findings from this section of the report include:

- *The types of equipment installed:* The 2006-2008 installations through the MFEER Program were dominated by lighting measures.
- *Where in the properties the equipment was installed:* We asked the 2006-2008 participating property managers/owners whether their rebated equipment was installed in the common areas, the tenant units, or both. Almost three quarters of them said they had the rebated

equipment installed in both the common areas and tenant units. This was a sharp increase from 2005 when less half of them said that installations were both in the common areas and tenant units. Once again the Program shift to smaller properties may help explain this trend. Contractors may be more interested in doing both tenant units and common areas in smaller properties to make the jobs more worth their while in terms of offsetting their fixed costs. When the evaluators presented preliminary results from this report to SCE staff in late March 2009, the MFEER Program manager also said that he has been actively encouraging contractors to install measures in both common areas and tenant units.

- *Who installed the equipment:* We asked the 2006-2008 property managers who installed the energy-efficiency improvements. Like the 2005 participants, they said that contractors solely installed the vast majority of the measures. However, the 2006-2008 property managers were much less likely to say their internal staff installed the improvements on their own than their 2005 counterparts. This is likely due to the Program's shift towards smaller properties where internal maintenance resources are more limited.
- *The location of installed measures within the SCE service territory:* Katherine Randazzo of Fielding Graduate University – another member of the MFEER process evaluation team -- conducted an analysis of where MFEER-rebated measures were installed in the SCE service territory. The analysis examined the distribution of MFEER Program activity using both temperature zones and multifamily housing density as parameters of interest. Both raw numbers and ratios of installations to multifamily unit density revealed that the heaviest Program activity does tend to take place in the higher-density areas. However, for room air conditioners, the Program seems not to have fully taken advantage of the possibility of targeting high-density, hot areas. In particular, the concentration of these as well as energy-efficient windows tended to be installed disproportionately in cool areas.

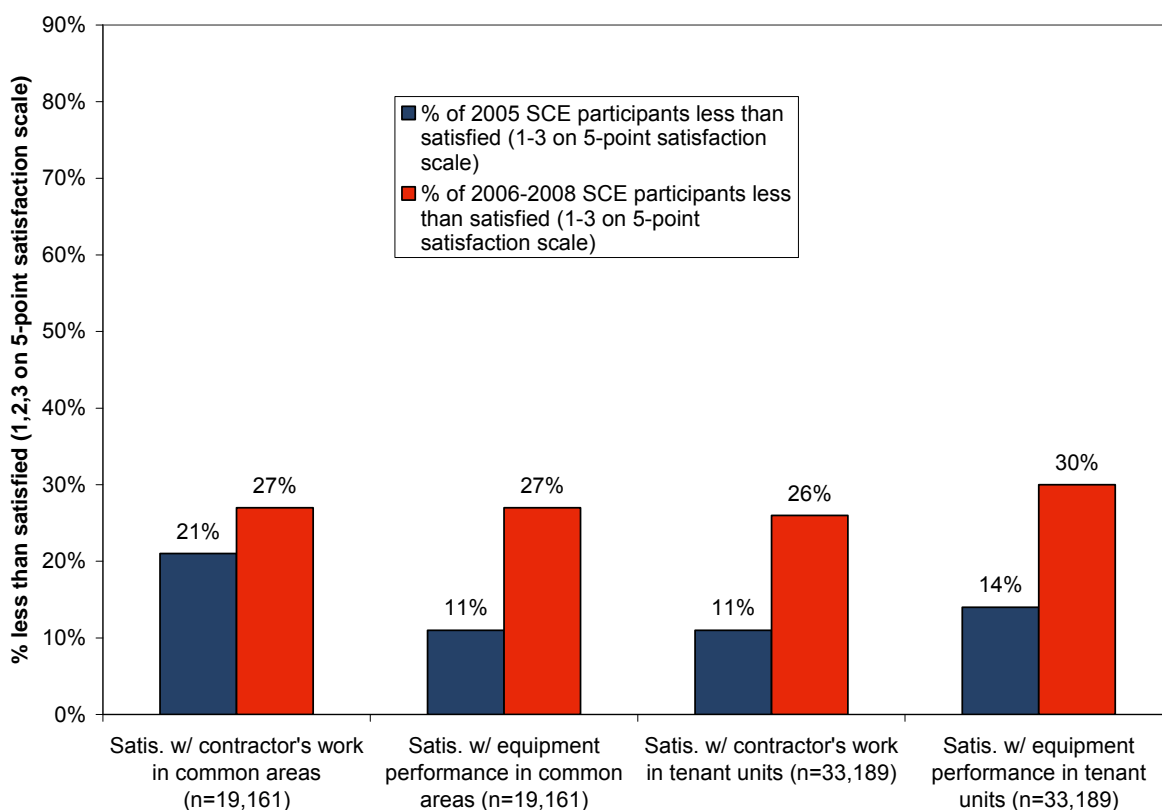
1.1.6 Program Satisfaction

Key findings from this section of the report include:

- *Satisfaction with the contractors and equipment:* The 2006-2008 participants consistently gave lower average satisfaction ratings for the contractors and equipment than the 2005 participants did. For example, the percentages of respondents who were less than satisfied with their contractors or equipment more than doubled between 2005 and 2006-2008 for most satisfaction categories, as Figure 1-1 shows. When asked why they were less than satisfied, the 2006-2008 participants had a wide variety of reasons with complaints about equipment breaking down or being of poor quality being the most common. While over half

of the 2005 participants reported that their contractors provided performance guarantees or information on manufacturer warranties, only a little more than a third of the 2006-2008 participants did. While only five percent of the 2005 participants said that their contractors were not responsive to their questions and complaints, 19 percent of the 2006-2008 participants said that their contractors were non-responsive.

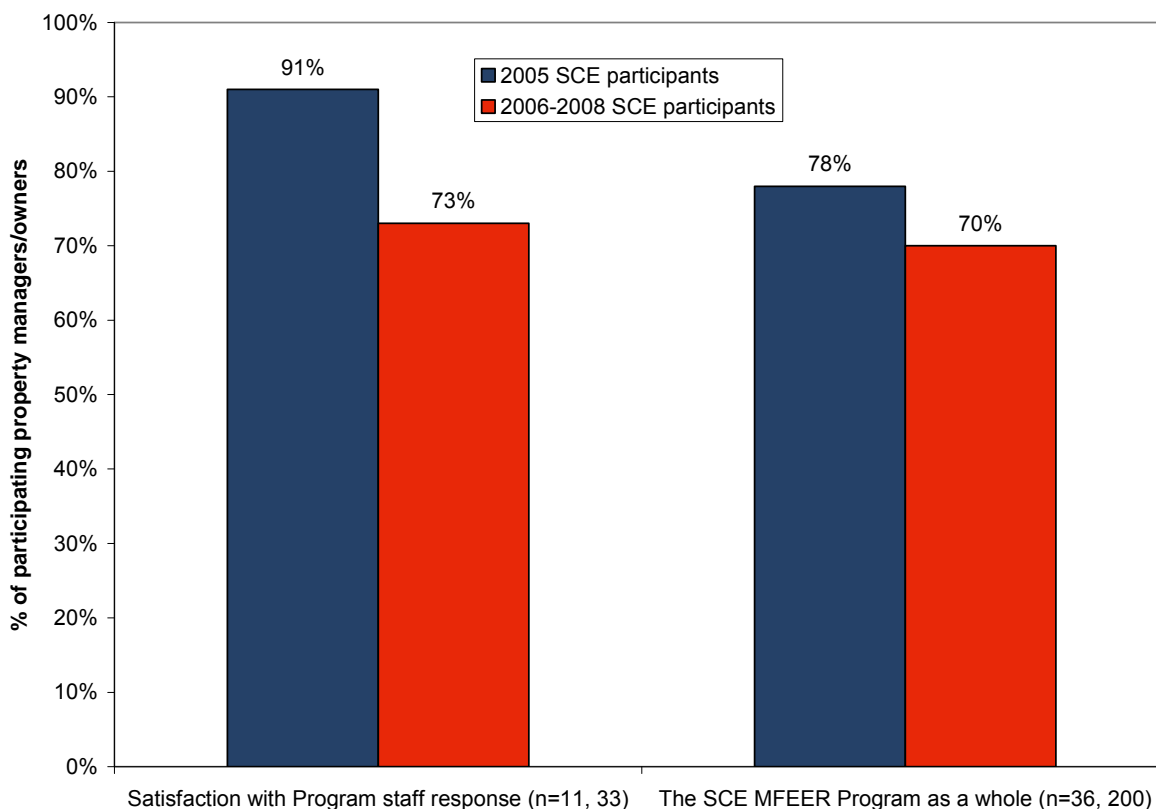
Figure 1-1
% of Participating Property Managers/Owners
Who Were Less Than Satisfied with the Contractors, Equipment
2005 vs. 2006-2008 SCE Participants



- Recent efforts to impose tougher contractor qualification requirements:* When the evaluators presented preliminary results from this report to SCE staff in late March 2009, the MFEER Program manager said that for 2009 he has strengthened his Program requirements for contractors' qualification. He was hopeful that these tougher qualification requirements would reduce some of the Program's problems with poor quality installation, poor quality equipment, and substandard customer service.

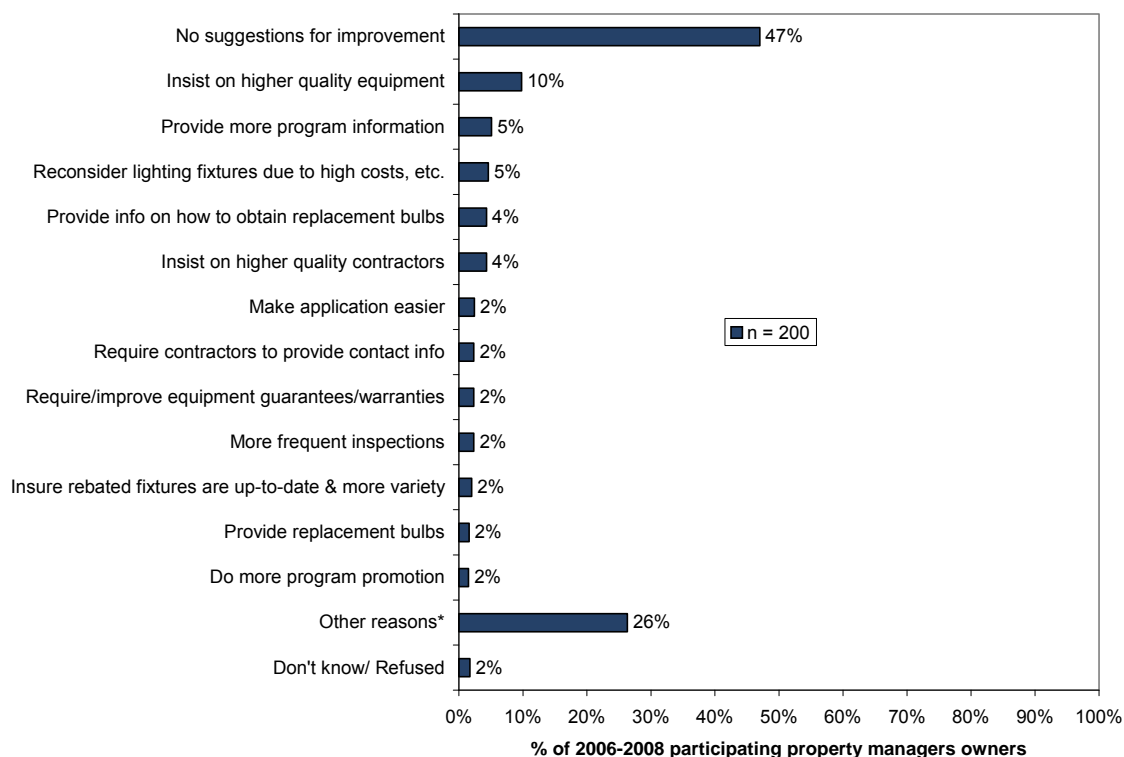
- *Satisfaction with the rebates and rebate processes:* As was the case with the 2005 participants, very few (11%) of the 2006-2008 property managers/owners said that they received a rebate check from the MFEER Program. Seventy-nine percent of these participants (n=20) said that the rebate checks met their expectations and 66 percent said that their rebate check arrived in a reasonable amount of time. Sixty-seven percent of them said that rebate application forms were reasonable in length and detail.
- *Satisfaction with Program staff:* Nearly three quarters of the 2006-2008 participants who interacted with MFEER Program staff were satisfied with these interactions. Yet the percentage who were less than satisfied nearly tripled from the 2005 participant levels. Figure 1-2 shows the drop in terms of the percent who were satisfied (4 or 5 on the five-point satisfaction scale). In interpreting these findings we should be cautious on two counts. First we do not know for sure whether these participants actually interacted with the MFEER Program staff as opposed to complaining to a general SCE call center, for example. Second this increase in dissatisfaction may have less to do with how the MFEER Program staff conducted themselves, and more to do with the growing dissatisfaction over the quality of the contractor installations and rebated equipment mentioned above. Another possible cause is that while the 2004-2005 SCE MFEER Program attempted satisfaction callbacks with 100 percent of its participants, the 2006-2008 SCE MFEER Program only did such callbacks when an SCE inspection had found a problem. Since the inspections themselves only covered 5-7 percent of Program projects, this mean only a tiny percentage of the 2006-2008 participants received a callback from the MFEER Program asking about their satisfaction.
- *Satisfaction with the Program as a whole:* We asked the 2006-2008 property managers/owners how satisfied they were with the MFEER Program as a whole. Seventy percent of the 2006-2008 participants were satisfied with the Program as a whole. However, the percentage of respondents who were “extremely satisfied” with the Program fell from nearly two thirds for the 2005 participants to only 40 percent for the 2006-2008 participants. Figure 1-2 shows the drop in terms of the percent who were satisfied (4 or 5 on the five-point satisfaction scale). When asked why they were less than satisfied, complaints about poor quality equipment were by far the most common with over 40 percent of the complainants citing this as a reason. On the positive side, 85 percent of the 2006-2008 property managers/owners said that they would recommend the MFEER Program to another property manager.

Figure 1-2
Satisfaction with MFEER Program Staff and Program as a Whole
2005 vs. 2006-2008 Participants



- Recommendations for Program improvement:* Although almost half (47%) of the 2006-2008 participating property managers/owners had no recommendations for improving the MFEER Program, those who did had many different ones. Figure 1-3 shows these recommendations. Most of the recommendations concerned improving the quality of the contractors and equipment and making it easier for property managers/owners to replace failed equipment (mostly burned-out CFLs).

Figure 1-3
2006-2008 Participating SCE Property Managers
Recommendations for Improving the MFEER Program



- *Inspection results:* The MFEER Program inspects a certain percentage of customer installations before paying the rebates to those customers. Overall, the pass rate was almost 94 percent with the last year achieving a 98 percent rate. The failure rate was a little over five percent in 2006 and decreased to less than two percent in 2008.

1.1.7 Future energy efficiency project implementation

Key findings from this section of the report include:

- *Plans for future projects:* We asked the participating SCE property managers/owners whether they were considering other energy efficiency projects over the next three years. The 2006-2008 participants were more likely than the 2005 participants to both say that they were considering future energy efficiency projects and were not considering such projects. The increase in both these categories was possible because of a sharp drop in the percentage of MFEER participants who did not know what their companies' future plans were – from 39 percent for the 2005 participants to 15 percent for the 2006-2008

participants. Increasing participation by smaller properties in the 2006-2008 MFEER Program is likely one reason for this trend. Owners/managers of smaller properties are more likely to know the project implementation plans of their companies than those representing larger properties or companies. However, increased knowledge of future project implementation of the 2006-2008 participants was not just due to the MFEER Program's shift to smaller properties. The 2006-2008 managers/owners of larger properties were much more knowledgeable of their project implementation plans than their 2005 counterparts were. The sharp rise in energy prices in 2007-2008 may have forced more property managers/owners of all property sizes to develop plans for energy-efficient projects.

- *Types of EE technologies being considered:* In terms of the types of energy-efficient equipment that they were considering for implementation, the 2006-2008 participants were less interested than the 2005 participants in CFLs, water heaters, windows, furnaces and programmable thermostats and more interested in refrigerators, dishwashers, boilers, and other measures such as low-flow toilets, stoves, and solar equipment.
- *The effects of MFEER Program participation on participant energy efficiency awareness and attitudes:* SCE's Program Implementation Plans (PIPs) for its 2009-2011 residential programs indicate that SCE will measure over time the effects of these programs on the energy efficiency awareness, knowledge, and attitudes of program participants. To help some baseline measurements for this effort, we read to the 2006-2008 MFEER Program participants a number of statements concerning energy efficiency awareness, knowledge, and attitudes. Their responses are summarized in the detailed findings below.

1.2 Summary of Findings from the Report on Participating Multifamily Installation Contractors

1.2.1 Introduction

This section summarizes the findings from a survey conducted with contractors who participated in Southern California Edison's (SCE's) Multifamily Energy Efficiency Rebate (MFEER) Program from 2006 to 2008. Most of these contractors were lighting contractors. The survey covered several topics, including: firmographics, market characterization, contractor awareness and

participation in the Program, Program marketing efforts, and contractor satisfaction with the Program. The findings are based on telephone surveys of 30 contractors out of a total population of 78 contractors.¹ Most of the surveys were completed in December 2008.

In this section, and in the detailed findings found elsewhere in this report, we will frequently compare these 2008 survey results with another survey of multifamily contractors that KEMA conducted in May 2005. The 2005 survey was part of an evaluation of the 2004-2005 California Statewide Multifamily Rebate Program.² Compared to the 2008 survey, the 2005 survey included more multifamily contractors that operate in the San Diego Gas & Electric (SDG&E), Pacific Gas & Electric (PG&E), and Southern California Gas (SCG) service territories.

The findings in this section are grouped into the following subsections:

- Contractor characterization and target markets,
- Market characterization, and
- Contractor reactions to SCE's MFEER Program; and
- Suggestions for improvement.

1.2.2 Multifamily Contractor Characterization and Target Markets

The majority of contractors participating in the MFEER Program are small companies with 10 or fewer employees. The number of energy-efficiency installations that these contractors did in multifamily buildings each year was highly varied. About half of the contractors derived the majority of their business from the multifamily residential sector. A majority of the contractors reported difficulty getting business from large property management firms. However, most of the installations took place in properties with more than 100 units. Compared to 2005, the participating contractors in 2008 were slightly larger and performed slightly more installations in properties with 100 or more units (Table 1-1).

¹ SCE provided KEMA with a list of these participating contractors.

² These survey results first appeared in a report containing preliminary findings based on an interim round of process and impact research that was conducted for the MFEER evaluation (*Interim Report For The 2004-2005 Statewide Multi-Family Rebate Program Evaluation*, Prepared by KEMA, Inc., Oakland, California, September 15, 2005).

Almost all of the contractors said they installed lighting of some kind, and most said they installed exclusively lighting. These numbers are substantially higher than in 2005. In contrast, the number of contractors who installed programmable thermostats greatly decreased in 2008, likely because the California utilities stopped offering programmable thermostat rebates starting in 2006. It is also possible that some contractors who installed both types of measures in 2005 (33%) reverted to lighting-only contractors after the thermostat rebates ceased. The number of contractors who installed boiler controls also decreased in 2008, and this is likely due to sampling differences. Respondents in 2008 were contractors who participated in SCE's MFEER Program and SCE is an electricity-only utility. In 2005 the respondents also participated in gas utilities' programs.

A substantial portion of the contractors said they were dependent on the MFEER Program for business, particularly the smaller contractors and those who work primarily in the SCE service area. The majority of the contractors reported actively promoting the Program. The number of installations that used rebates is up slightly from 2005 levels, but despite this increase, fewer contractors actively promoted the Program in 2008.

Less than a quarter of the contractors said they avoid certain types of multifamily properties. Avoidance was lower in 2008 than in 2005. As in 2005, most of the contractors claimed that they left behind extra lamps to replace early burnouts.

Contractors seem to have migrated to the Internet for information about Program changes. Most of the contractors in 2008 said they relied on SCE's website to learn about Program changes. This number is up substantially from what contractors reported in 2005. At the same time, the number of contractors who got information about Program changes via email or phone calls decreased in 2008 relative to 2005 levels.

**Table 1-1
Contractor Comparisons 2005 vs. 2008**

Measure	2005	2008
	(n = 28)	(n = 30)
Contractor Characteristics		
Contractors with 10 or Fewer Employees	63%	60%
Median # of Employees	6	8
Median # of Projects/Year	36	50
Target Markets		
Installations in Properties with <= 100 Units	56%	66%
101 – 250 Units	32%	26%
251+ Units	12%	8%
Installations in Common and Tenant Areas	48%	40%
Measures Installed		
Lighting only	25%	70%
Lighting	82%	92%
Programmable Thermostats	68%	10%
Boiler Controls	21%	3%
Program Activities		
Installations that Use Rebates	72%	81%
Actively Promote Rebate Program	85%	69%
Avoid Certain Types of MF Properties	36%	20%
Leave Behind Extra Lamps	81%	83%
Monitor Changes to Program Via		
Utility Website	39%	57%
Utility Emails	36%	10%
Utility Phone Calls	36%	13%
Market Potential		
CFLs	6.2	6.3
T5s/T8s	7.9	5.7

1.2.3 Market Characterization

The participating contractors reported that a market for CFLs still existed in the multifamily sector. Their rating of market potential for CFLs was over the midpoint of the scale and almost identical to what was reported in 2005. However, contractors' estimates of the market potential for T5s and T8s were lower than in 2005. In addition, substantially fewer contractors reported installing T5s or T8s in 2008 than in 2005. This may be an indication that the multifamily T5/T8 market is beginning to show signs of saturation.

Half of the contractors suggested initial cost as the major reason why property owners do not install energy efficient (EE) measures on their own. Contractors also cited hassle and insufficient manpower as other important barriers.

1.2.4 Multifamily Contractor Reactions to the Rebate Program

Over three-fourths of the participating contractors expressed satisfaction with the SCE MFEER Program as a whole. Satisfaction with the Program as a whole was about the same in 2005 and 2008 (Table 1-2).³ The most-cited attribute that contractors liked about the Program is that it helps save energy and benefits tenants and utilities. This is a change from 2005, when the attribute that contractors liked most about the Program was that it generated business for them.

About three-fourths of the contractors were satisfied with the rebate application process, which is down somewhat from 2005 levels. Over three-fourths of the contractors reported filling out application forms for their clients, and almost all that did reported satisfaction with the forms. Relative to 2005, more contractors in 2008 filled out the forms and were satisfied with those forms. Fewer than half of the contractors reported having their application forms rejected, which is also an improvement relative to 2005.

³ It is important to remember that the 2005 survey covered MFEER-participating multifamily contractors from all three California investor-owned utility (PG&E, SCE, and SDG&E) service territories while the 2008 survey covered MFEER-participating multifamily contractors that operated primarily in the SCE service territory.

**Table 1-2
Participating Multifamily Contractor Satisfaction Levels
2005 vs. 2008**

Program Component	% Statewide MFEER Participating Contractors Satisfied in 2005 (n = 28)	% of SCE MFEER Participating Contractors Satisfied in 2008 (n = 30)
Program as a Whole	85%	83%
Rebate Application Forms	74%	92%
Utility Website	69%	80%
Rebate Reservation Process		80%
Staff Responsiveness	67%	77%
Application Process	78%	73%
Rebate Levels	75%	73%
Marketing Efforts	52%	62%
Communication about Program Changes		47%

Almost three-fourths of participating contractors were satisfied with rebate levels, which is about the same amount as in 2005. Despite the high levels of satisfaction with rebate levels, almost three-fourths of the contractors said that some equipment needed higher rebates. This is up from 2005 when about half of the contractors said that some equipment needed higher rebates. In addition, almost all of the contractors said that making the rebates available year-round would increase participation in the Program. Over half of them mentioned that concerns about the funds running out made them reluctant to recommend some energy efficiency measures to their clients.

Contractor satisfaction with SCE communication efforts was mixed. Over three fourths of the contractors were satisfied with SCE’s website and this is where the majority looked for information about Program changes. A little over three fourths of the contractors also expressed satisfaction with the responsiveness of SCE staff. These levels of satisfaction are improvements over those reported by contractors in 2005. A little over half of the contractors expressed satisfaction with MFEER marketing efforts. This level of satisfaction is a slight improvement over 2005 levels, but the average level of improvement did not change much between 2005 and

2008. Less than half of the participating contractors expressed satisfaction with SCE's communication of Program changes.

Over three fourths of the 2008 participating contractors were satisfied with the rebate reservation process. In the 2005 survey, the contractors were asked for their opinions of the rebate reservation process but were not asked to rate it using a five-point satisfaction scale.

1.2.5 Multifamily Contractor Suggestions for MFEER Program Improvement

KEMA asked the participating contractors who installed only lighting measures why they did not install non-lighting measures. The plurality (48%) of these contractors answered that they were lighting only contractors. Other reasons given were that the rebates for non-lighting measures were too small (16%), that they could not make money off of those measures (16%), and that they did not have the skills to install those measures (12%).

KEMA asked the participating contractors what the Program could do to encourage contractors to install more non-lighting measures. Many of the contractors (27%) did not have suggestions. The most common suggestion (57% of respondents) was to increase the rebate levels for non-lighting measures. The contractors also suggested increasing contractor awareness of the rebates for non-lighting measures (20%). Other recommendations included making the non-lighting measures free because that's what moves the lighting measures, making more items eligible, trying to get more contractors involved, and trying to get the bigger contractors to more aggressively market non-lighting measures.

KEMA asked the participating contractors for general suggestions on ways to improve the Program. Only seven (27%) of the contractors provided suggestions. This is a sharp decline from the 2005 survey when 81 percent of the contractors provided suggestions. This decrease may be due to higher levels of satisfaction with specific Program aspects in 2008 relative to 2005 (Table 1-2). For example, a few of the suggestions in 2005 involved Program marketing and satisfaction with Program marketing and the Program website increased in 2008. Some of the other suggestions in 2005 involved the rebate reservation process and satisfaction with the rebate reservation process also increased in 2008. The suggestions of the 2008 contractors for improvements in the MFEER Program included:

- The Program should focus less on paperwork and more on increasing EE measures in multifamily properties,
- Payments should be made quicker,

- Rebate levels should be increased,
- The Program should provide better communication and service from the program managers,
- The Program should decrease the level of detail in the spreadsheets and stop requiring contractors' purchase orders, and
- The Program needs more staff.

1.3 Summary of Findings from the Survey of HVAC Contractors

1.3.1 Introduction

This report summarizes the findings from a telephone survey of 69 heating, ventilation, and air-conditioning (HVAC) contractors located in SCE's service territory. The survey was conducted in February 2009 and was intended to measure their awareness of and participation in SCE's Home Energy Efficiency Rebate (HEER) and Multifamily Energy Efficiency Rebate (MFEER) programs; assess their satisfaction with these programs; and gauge the impact of program rebates on their sales of rebated technologies.⁴

It is important to point out that the 2006-2008 SCE HEER and MFEER programs offered only a limited number of HVAC measures. For example, the 2006-2008 MFEER Program only offered rebates for four energy-efficient HVAC measures – room air conditioners, package terminal air conditioners, package terminal heat pumps, and electric storage water heaters. In addition, during the 2006-2008 program period, room air conditioners were the only equipment type for which rebates were claimed. Finally, starting in 2006, SCE shifted much of its HVAC programmatic focus upstream to its Comprehensive HVAC Program. Therefore many of the survey responses of the HVAC contractors concerning SCE activities– whether positive or negative – cannot be definitively attributed to the activities of the HEER or MFEER Programs.

⁴ Because these HVAC contractors could sell/install measures that might be rebated either through the HEER Program or the MFEER Program, we asked them generically about "Edison HVAC rebate program."

Because SCE was particularly interested in advanced ducted evaporative coolers, which are rebated through the HEER Program, we insured that the majority of the HVAC contractors interviewed sold this technology. If a respondent did not sell ducted evaporative coolers, we asked them why they did not. The most common responses were that their customers were not interested in this technology and that the service territory was too humid for the effective use of evaporative coolers.

1.3.2 HVAC Contractor Program Awareness and Participation

Roughly three-quarters (73%) of the HVAC contractors we surveyed were aware of SCE's rebates on all of the rebated measures that they sold. Thirteen percent were not aware of SCE's rebates on any of the rebated measures they sold. Awareness of rebates for specific measures ranged from 100 percent for electric storage water heaters to 86 percent for preventative maintenance "tune-ups" for central air-conditioners (CAC).⁵

Most of those who were aware of the rebates said they first became aware of them by receiving information from SCE (45%) or being told by their SCE representative (10%). Other common sources of awareness included HVAC manufacturers or suppliers (18%), trade associations or unions (17%), and customers (13%).

For purposes of this survey we defined program participation as having installed HVAC equipment for which SCE rebates were paid in either single-family or multifamily homes in the past three years. Two-thirds of contractors (67%) were program participants by this definition. The most common reasons cited for non-participation were lack of knowledge of the program and the rebate process being too difficult.

Participating HVAC contractors were asked to rate how actively they promoted SCE's rebates on a five point scale where five meant "very actively" and one meant "not very actively." Participating contractors split into two camps on this question, with most either rating their promotion efforts a five (very active) or a two. Larger firms (those with at least five employees) tended to rate themselves as being more active in promoting rebates. One reason for this may be that smaller firms lack the administrative staff to handle the rebate process.

We asked those who rated their SCE rebate promotion activity as three or lower on this five-point scale why they did not promote them more actively. The most common responses were

⁵ In each case the base for calculating awareness was those contractors who sold that particular measure.

that the rebates were not large enough to be worth promoting and that the standards for qualifying for the rebates were too strict.

1.3.3 HVAC Contractor Feedback on the Program

1.3.3.1 Overall Satisfaction and Suggestions for Improvement

We asked program participants to rate their satisfaction with the program overall as well as with several aspects of the program. Overall satisfaction, measured on a scale of 1 (dissatisfied) to 5 (very satisfied) was not very high. Only 19 percent rated themselves a 5 (very satisfied); the mean rating was 3.3. Larger firms and those that sold packaged terminal air-conditioners (PTACs) were more satisfied than other contractors.

Common reasons cited for dissatisfaction included having insufficient information about the program, rebates being too low, the program being too complicated, and SCE not doing enough to educate customers. Less common assertions about the source of dissatisfaction included the program running out of money mid-year, rebates “only going to larger companies, not small companies or customers,” and claims of a lack of rebates for home owners and equipment replacement. A related question (“Are there any aspects of the program that discourage you from presenting the rebates as options to your customers?”) yielded similar responses.

We asked the contractors if they had any suggestions for improving SCE’s HVAC rebate programs. Many made vague requests to better inform contractors and customers about the programs. More specific suggestions included calling contractors at the beginning of the year with an update on the program, using bill inserts and email to reach contractors, giving contractors the option to sign-up for email alerts whenever the program changes, and using more direct mail pieces to reach customers.

Aside from better information to contractors and customers, the most common suggestions were bigger rebates, increasing the number of covered technologies, and changing who gets the rebate. For the most part, increasing the number of covered technologies translated into providing rebates for cheaper, lower efficiency technologies (although one respondent did specify rooftop air-conditioners as the technology he would like to see included). As for changing who gets the rebate, one respondent wanted the contractor rather than the customer to get it, while two others wanted the rebates to go to customers rather than “large companies.”

1.3.3.2 Marketing and Promotion

Twenty-eight percent of the participating contractors we interviewed said they had used SCE marketing materials to promote the rebates. Most of these reported using pamphlets and some said they also used in-store signage. When asked to rate how helpful SCE's marketing materials and support staff has been in helping them sell their products and services, sixty percent gave a rating of either 4 or 5 on a scale where 5 equaled "very helpful". The more active contractors were in promoting the rebates, the more helpful they found SCE's staff and materials. Asking those who rated SCE's materials and staff unhelpful why they were unhelpful failed to elicit any meaningful responses.

Contractors' satisfaction with how SCE promotes their rebates was not very high. The mean rating on a five-point scale (where 5 equaled "Very Satisfied") was 3.1. Larger contractors were once again more satisfied than smaller contractors. Stated reasons for dissatisfaction mostly repeated issues already raised by respondents – lack of information for contractors, insufficient education of customers, and issues like running out of money mid-year that are not directly tied to program marketing.

1.3.3.3 Administration and Support

We asked participating contractors how easy or hard it was to keep up with changes in the program. Just under a quarter (22%) gave a rating of 5 (very easy) on a five-point scale, but more (30%) gave ratings of 2 or 1 (very hard). Once again, the leading reason why it was hard to keep up was a lack of information from SCE. More specific responses included the list of eligible air-conditioners being too long and complex, the claim that there were "too many middlemen" in between contractors and customers, and the assertion that SCE had "taken away" simple mail-in rebates for residential customers.

When asked what would be a good way for SCE to keep them abreast of changes in the program, a majority mentioned both email (64%) and mail (61%). A little more than a quarter (28%) said telephone calls. Larger contractors were more likely to mention phone calls as a preferred option than smaller contractors.

Those contractors who did multifamily HVAC work were asked about the website that SCE makes available for multifamily rebates. A third had never used it. Two-thirds (67%) of those who had used it rated their satisfaction with the website as a 3 or 4 on a five-point scale. Those who were more active in promoting SCE's rebates were also more satisfied with the website. Those who were dissatisfied cited it not always being up-to-date and difficulty in locating the information they wanted on the site.

Seventy-five percent of participating contractors reported having asked SCE staff a question about the program. Satisfaction with SCE staff's response was fairly high (mean of 3.9 on a five-point scale). Satisfaction was higher among those who promoted the rebates more actively, those who sold evaporative coolers, and those who provided preventative maintenance for central air-conditioners. Those who were dissatisfied said it took too long to get their questions answered or that they were never answered.

1.3.3.4 Application Process

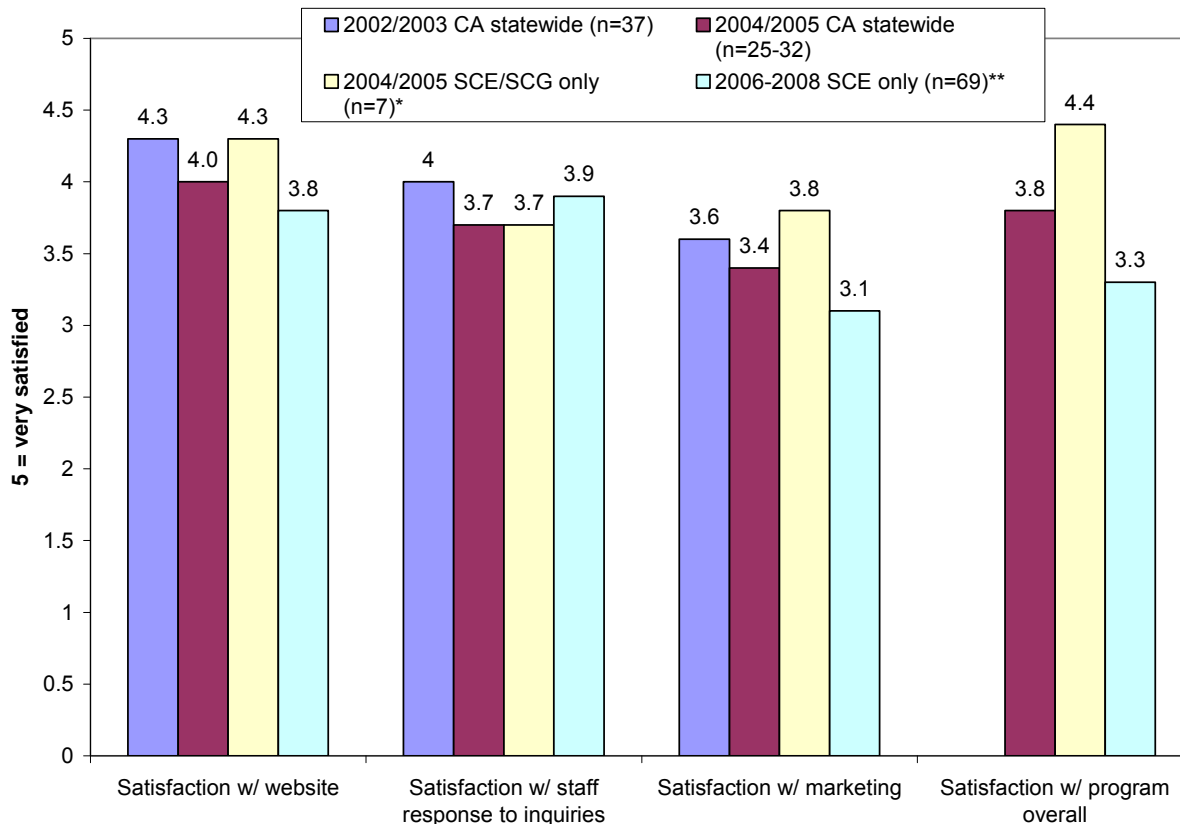
Two-thirds (63%) of participating HVAC contractors reported filling out rebate applications on behalf of their customers.⁶ Satisfaction with the application process was low. Only 17 percent rated themselves as very satisfied (rating of 5 on a five-point scale) and the average satisfaction rating was 3.4. Dissatisfied contractors gave various reasons for their dissatisfaction, including simply having to fill the forms out, not understanding some of the questions on the forms, and paying their customers the rebate then failing to be reimbursed by SCE because the program ran out of money.

1.3.3.5 Changes in Satisfaction over Time

Figure 1-3 and Figure 1-4 compare satisfaction ratings from the current survey with equivalent satisfaction ratings from prior studies. Comparing HVAC contractor satisfaction levels from the current survey with prior studies reveals an apparent decline in satisfaction with how the program is marketed, the program website, and the program overall. Although the magnitude of the decline is difficult to judge given differences in sample size and populations between the studies, the general trend of declining satisfaction appears robust. Satisfaction with how well utility staff field questions from contractors is an exception, showing stable or even slightly increasing satisfaction over time.

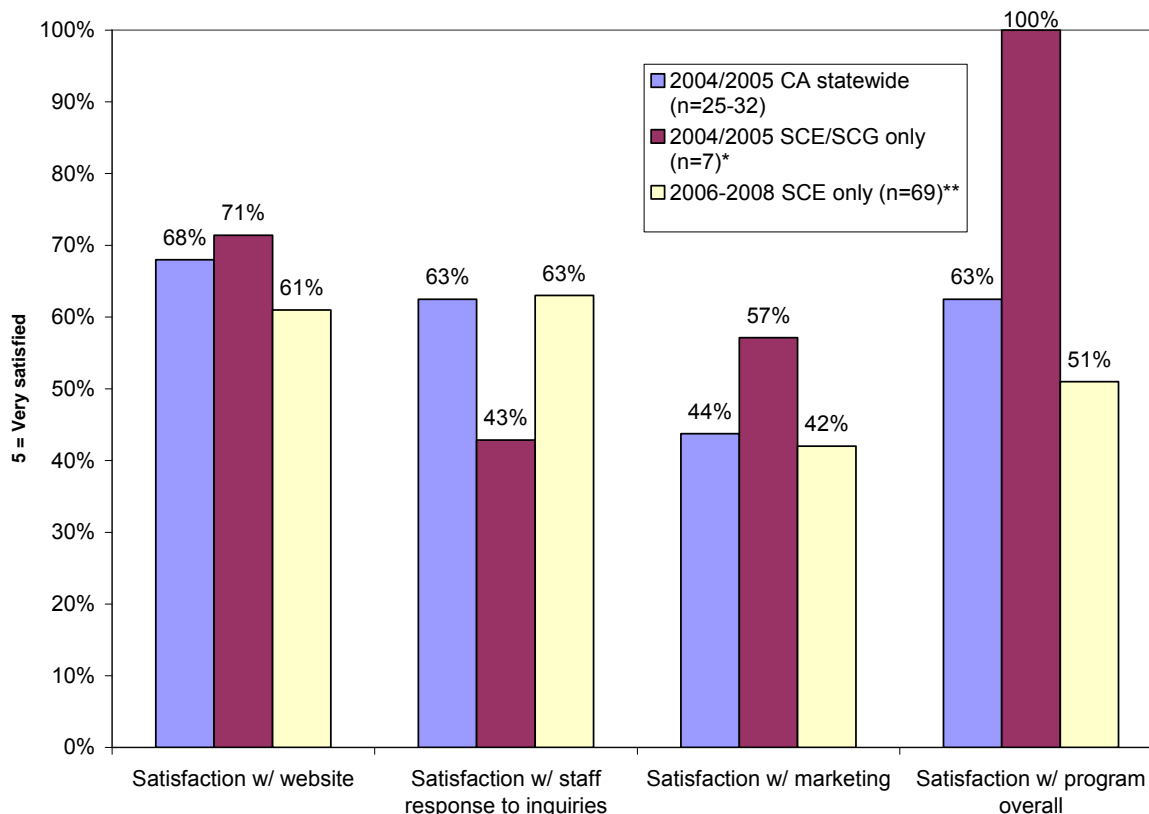
⁶ Due to a faulty survey skip instruction, this and a couple other questions about the application process were only asked of respondents who were dissatisfied with the rebate programs overall. As a result, the findings on rebate applications are not representative of participating contractors as a whole and are likely to overstate the amount of dissatisfaction with the application process.

Figure 1-4
Average Utility Rebate Program Satisfaction Ratings Over Time
from HVAC Contractors 2002-2008



Note: *These Southern California HVAC contractors were asked about satisfaction with the statewide rebate program in general and were not asked to distinguish between the SCE and SCG programs. **Although these Southern California HVAC contractors likely participated in both the SCE and SCG rebate programs, they were only asked about their satisfaction with the SCE rebate program.

Figure 1-5
% of HVAC Contractors Satisfied with
Utility Rebate Programs 2004-2008



Note: The 2002-2003 rebate program ratings do not appear in this figure because they were only available in terms of average satisfaction ratings and not in the “percent satisfied format. *These Southern California HVAC contractors were asked about satisfaction with the statewide rebate program in general and were not asked to distinguish between the SCE and SCG programs. **Although these Southern California HVAC contractors likely participated in both the SCE and SCG rebate programs, they were only asked about their satisfaction with the SCE rebate program.

1.3.3.6 Incentive Levels

Table 1-3 summarizes contractors’ views on the adequacy of current incentive levels. Whether contractors believed that the current incentive levels were adequate to motivate customers to install high efficiency measures depended on the measure and rebate. The incentives that contractors were most satisfied with were those for evaporative coolers and central air-conditioning tune-ups. Two-thirds (66%) felt that the incentives for two-stage evaporative coolers were adequate, and three-quarters (75%) felt the incentives for single-stage evaporative

coolers were adequate. The percent believing current incentives were adequate for CAC tune-ups ranged from 60 percent for advanced tune-ups to 70 percent for basic tune-ups.

Contractors were evenly split on whether current incentives were adequate for Energy Star rated room air-conditioners (50% said yes) and whole house fans (52% said yes). Only a minority of contractors believed that current incentives were adequate for packaged terminal air conditioners (33%), electric storage water heaters (27%) or financing for central air conditioner replacements (27%).

We asked those who thought current incentives were inadequate to tell us what incentive level would be adequate to change customer behavior. For the HVAC equipment for which respondents were the least comfortable with current incentives (water heaters and packaged terminal air conditioners) they suggested incentive levels that were three to four times higher than the current incentives. For most other measures the respondents who did not believe current incentives were adequate suggested roughly doubling them.

**Table 1-3
Contractor Views on Incentive Levels
2008 SCE HVAC Contractors**

Measure	Current Incentive	Sample Size*	Percent that Believe Incentive is Adequate	Average Suggested Incentive Level**
Energy Star rated RAC	\$50 rebate	34	50%	\$156
Whole house fan	\$50 rebate	21	52%	\$142
Electric storage water heater	\$30 rebate	11	27%	\$120
Single-stage ducted evaporative cooler (DEC)	\$300 rebate	44	75%	\$607
Single-stage DEC with pressure relief dampers	\$400 rebate	44	75%	\$800
Two-stage DEC	\$500 rebate	44	66%	\$700
Two-stage DEC with pressure relief dampers	\$600 rebate	44	66%	\$800
High efficiency central air conditioner replacing older unit	12% financing	63	27%	7.2%
"Basic tune-up" for central air conditioners	\$50 rebate	63	70%	\$99
"Advanced tune-up" for central air conditioners	\$150 rebate	63	60%	\$288
High efficiency PTAC	\$100 rebate	36	33%	\$325

Note: *Number of contractors who sold this measure **Mean response from contractors who did not think the current incentive level was adequate

1.3.4 Impact on Sales of Rebated Measures

We asked those who sold each SCE-rebated measure, and who were aware of SCE's rebates before taking the survey, how their sales would have been affected if the SCE rebates were not available. Most believed that their sales would not have been lower in the absence of the rebates. The sole exception were those who provide basic CAC tune-ups, 59 percent of whom thought they would have sold fewer such tune-ups without SCE's \$50 rebate.

No contractors believed their sales of electric water heaters or whole house fans would have been lower without rebates. For the other measures the percent believing their sales would have been lower without rebates ranged from 24 percent for Energy Star rated room air-conditioners to 39 percent for financing CAC replacements. Those respondents who did believe their sales would have been lower without rebates, however, believed they would have been substantially lower. Estimates of how much lower sales would have been without rebates ranged from 13 percent for a two-stage ducted evaporative cooler with pressure relief dampers to 46 percent for an advanced CAC tune-up.⁷

1.3.5 Conclusions from HVAC Contractor Survey

Contractor satisfaction with SCE's HVAC rebates is fairly low and on the decline from prior years' studies. Program awareness among contractors is high, but participation rates, program knowledge, and program satisfaction all show room for improvement, especially among smaller contractors. These issues are linked, as increasing participation will likely require SCE to better educate non-participating contractors and address some of the complaints made by participants.

On the contractor education front, contractors need a better understanding of when program requirements are changing. There appears to be substantial confusion among HVAC contractors as to what rebates are available and who is eligible to receive them. More than one respondent complained about "inconsistent" information from SCE. A likely explanation is that contractors are recalling older information that is no longer valid. Future outreach efforts should focus on "setting the record straight" on rebate eligibility.

⁷ These estimates of free ridership are only designed to inform SCE program planning activities. The official estimates of free ridership for the HEER program are being developed as part of the California Public Utilities Commission's Residential Retrofit Impact Evaluation.

The other contractor complaint that could be addressed is insufficient marketing to customers. It is possible that this is merely a perception issue (i.e., perhaps contractors simply need to be made more aware of the marketing SCE is already doing). If SCE chooses to step up their actual marketing efforts to residential customers in an effort to reach residential non-participants, these efforts should obviously be highlighted for contractors as well.

The good news is that only a minority of contractors believes that current incentive levels are too low to be effective, at least for most measures. It might make sense to re-evaluate the incentives for electric storage water heaters, PTACs, and CAC financing in light of contractor feedback. Any decision to increase the size of these rebates, however, should be based on more than just contractor surveys (e.g., compelling evidence from customer surveys or the impact evaluation that the current incentives are ineffective). Even then Total Resource Cost (TRC) constraints might prevent any increases.

1.4 Evaluator Recommendations for MFEER Program Improvements

This section describes the evaluator recommendations for improvements in SCE's MFEER Program. The section also summarizes the evidence from the evaluation findings that these recommendations were based on.

1.4.1 Marketing and Education Recommendations

- *Recommendation #1: Do more frequent broad direct mail promotions of the MFEER rebates, especially for non-lighting measures. Also conduct targeted mailings to hot-weather zones within the SCE service territory.* In addition to doing more frequent mailings overall, the MFEER Program should consider targeting mailings featuring “hot weather” measures such as room air conditioners, pool pumps, and windows to hot zones within the SCE service territory such as Pasadena, Riverside, Fresno, China Lake, and El Centro.

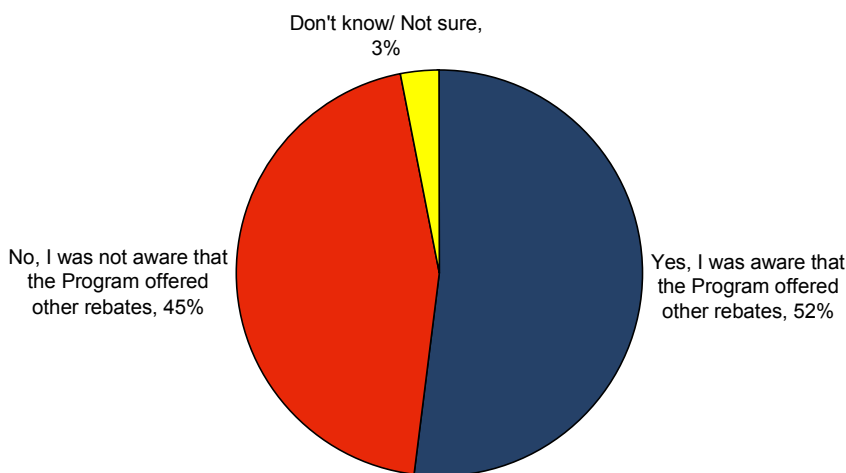
- *Evidence to support Recommendation #1:*
 - *There were no direct mailings to multifamily property managers/owners in 2008 and the last non-lighting mailing was in 2006.* According to SCE's marketing department, two direct mailings were sent to multifamily property managers/owners in 2006, one was sent to them in 2007, and none were sent out in 2008. Two of these three mailings focused on lighting and the last non-lighting mailing was sent out in June 2006.

- *MFEER Program participation trends show a shift to managers/owners of smaller properties who are more reliant on direct mail for Program information. In the 2006-2008 MFEER Program 80 percent of the participating properties had less than 100 units. In comparison smaller properties only accounted for 46 percent of participants in 2004. Managers and owners of smaller properties are much more likely to prefer direct mail as a source of MFEER Program information than their counterparts in larger properties. The 2008 survey found that 41 percent of the managers/owners of smaller properties cited direct mail as their preferred source of Program information compared to only 20 percent for managers/owners of medium-sized properties and 11 percent for managers/owners of large properties. This survey also found out that managers/owners of smaller properties were much less likely (5% of respondents) to find about the MFEER Program through the SCE website than managers/owners of medium-sided properties (18%).*

- *A high percentage of MFEER Program participants are unaware that the program offers rebates for other measures besides the one they received. Figure 1-6 shows that nearly half of 2006-2008 participants who only installed one measure type were unaware that other MFEER rebates were available.*

Figure 1-6
Whether 2006-2008 SCE Participants
Who Only Installed One Type of Rebated EE Equipment
Were Aware of the Availability of Other MFEER Rebates

2006-2008 SCE participants who only installed one type of MFEER-rebated measure (n=108)



- *If SCE does not do more to market to managers/owners of smaller properties, they will be more reliant on lighting contractors for their MFEER Program information:* Managers and owners of smaller multifamily properties tend to have less internal maintenance staff resources than managers and owners of larger properties. When asked what sources of information they use when purchasing or replacing energy-using equipment, only 11 percent of managers and owners of smaller multifamily properties said that they use internal maintenance staff. This compares to 22 percent for managers/owners of medium-sized properties and 33 percent for managers/owners of large properties. Having fewer internal resources makes managers/owners of smaller properties more dependent on contractors for project ideas. Since the large majority of contractors participating in the MFEER Program are lighting contractors, this can lead to continuing problems with lack of measure diversity within the Program.

- *Participating contractors think that MFEER Program marketing efforts could be improved.* Of all the MFEER Program activities, Program marketing efforts received the second-lowest satisfaction rating (62% of respondents were satisfied) from participating contractors.
- *An analysis in this report of MFEER Program measure distribution by climate zone found that the Program was not exploiting the energy savings advantages that would accrue from rebating more multifamily HVAC measures in SCE hot zones.* “For room air conditioners, the Program seems not to have fully taken advantage of the possibility of targeting high-density, hot areas,” the analysis concluded. “In particular, the concentration of these as well as energy-efficient windows tend to be installed disproportionately in cool areas.”
- *Recommendation #2: Develop the capability to provide Program information via fax and email.* As discussed below, the MFEER Program has recently resumed satisfaction callbacks to a percentage of its participating multifamily property managers/owners. The MFEER Program staff should use these customer interactions to collect fax and email information that can provide a supplementary means (besides direct mail) to notify these participants of the rebates as well as any changes in program requirements.
- *Evidence to support Recommendation #2:*
 - *Managers/owners of small multifamily properties favor these information channels.* The 2008 survey found that managers/owners of small multifamily properties identified fax (21% of respondents) and email (21%) as their second-most preferred methods (after direct mail) for receiving Program information. Since the MFEER Program participant population is increasingly being made up of these smaller multifamily properties, the Program should explore all promising avenues for trying to reach this class of property managers/owners.
 - *Other SCE programs dealing with small business customers have had success using fax as a communications method.* SCE’s EnergySmart Thermostat Program – a Direct Load Control Program that recruits small commercial customers – has had success using fax as a marketing and communication medium for these customers. The program conducted focus groups with small business customers and found out that while the participants said that they might respond to a letter from SCE, they were even more likely to take notice of a fax. The EnergySmart Program then hired small business consultants to do a fax

campaign to these smaller business customers. “The fax campaign was a key ingredient to getting the customers’ attention,” said program manager Mark Martinez.

- *Recommendation #3: Do more direct mail marketing to past Program participants.* One recommendation of the 2007 evaluation of the 2004-2005 MFEER Program was: “The program should mine its tracking data in order to identify energy efficiency opportunities among prior participants (both retrofit and replace on burnout).” Multifamily property managers/owners who have participated in the Program in the past are likely to be more open to invest in additional energy efficiency projects. In a November 2008 interview the MFEER Program staff said that they had not done any data mining to identify past participants for marketing opportunities.
- *Recommendation #4: Secure the support of a SCE commercial account representative to help the MFEER Program recruit large property managers and communicate Program information to them.* With recent staff reductions, the MFEER Program could use all the help it can get to help recruit these large property managers. This assistance is also needed because multifamily contractors – the Program’s primary means of participant recruitment – are finding it harder than ever to enlist these large property managers.
- *Evidence to support Recommendation #4:*
 - *Participating contractors are finding it more difficult to recruit large property managers.* Fifty-three percent of multifamily contractors surveyed in 2008 said that they found it difficult to get business from larger property management firms. This compares to only 32 percent who reported this in a 2005 survey.
 - *Many participating large property managers are unaware of non-lighting MFEER rebates.* A 2008 survey found that sixty-five percent of managers/owners of large (> 250 units) properties who only had lighting measures installed were unaware that MFEER offered other rebates.
- *Recommendation #5: Develop metrics to measure progress in energy-efficiency AKA for property managers.* In its 2009-2010 Program Implementation Plans SCE has promised to measure over time changes in the energy efficiency awareness, knowledge and attitudes (AKA) of its customers. Such AKA benchmarking is a good way to provide focus and accountability to SCE’s marketing department. The SCE marketing staff should also work with the Flex-you-Power Program to explore the feasibility of implementing educational campaigns that are targeted at the multifamily sector.

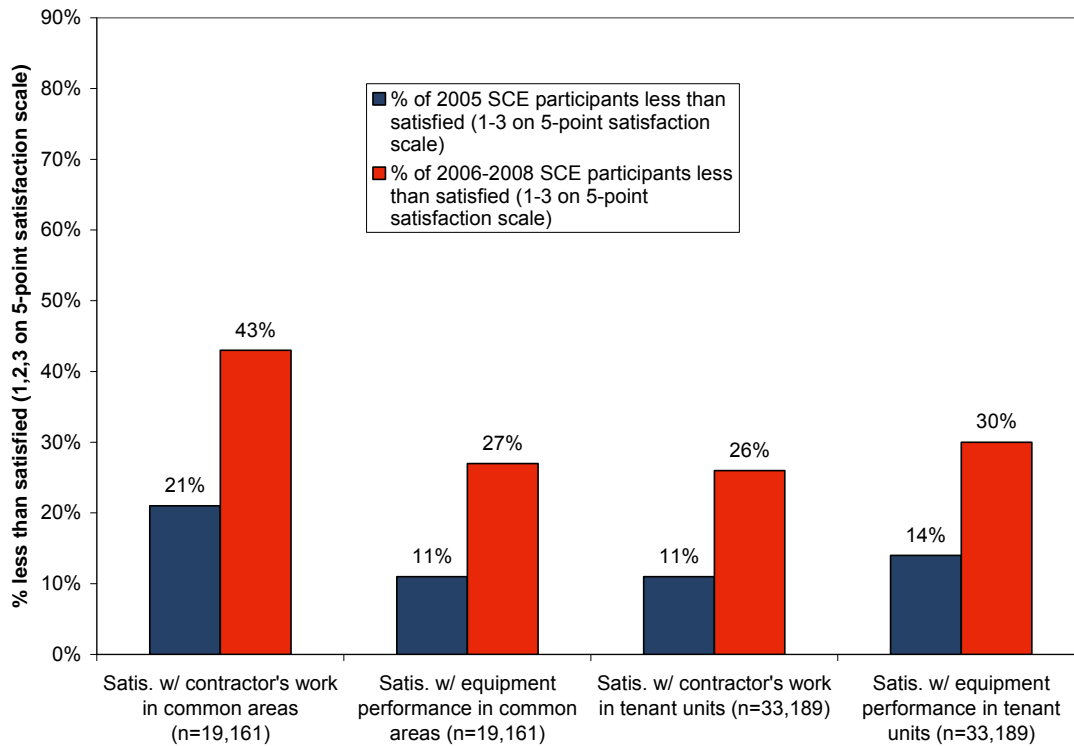
For its 2008 survey of MFEER-participating property managers/owners, KEMA did develop a battery of questions focusing on how participation in the Program might have affected their energy efficiency AKA. However, if SCE chooses to conduct a general population survey of its multifamily property managers – which we highly recommend – then it will be necessary to devise new AKA questions of a more generic nature that can be used as a baseline for measuring future Program educational accomplishments.

- *Evidence to support Recommendation #5:*
 - *The 2008 survey of MFEER-participating property managers/owners found that 40 percent of them were previously unaware of the energy efficiency technologies that were installed through the Program.*

1.4.2 Program Process/Design Recommendations

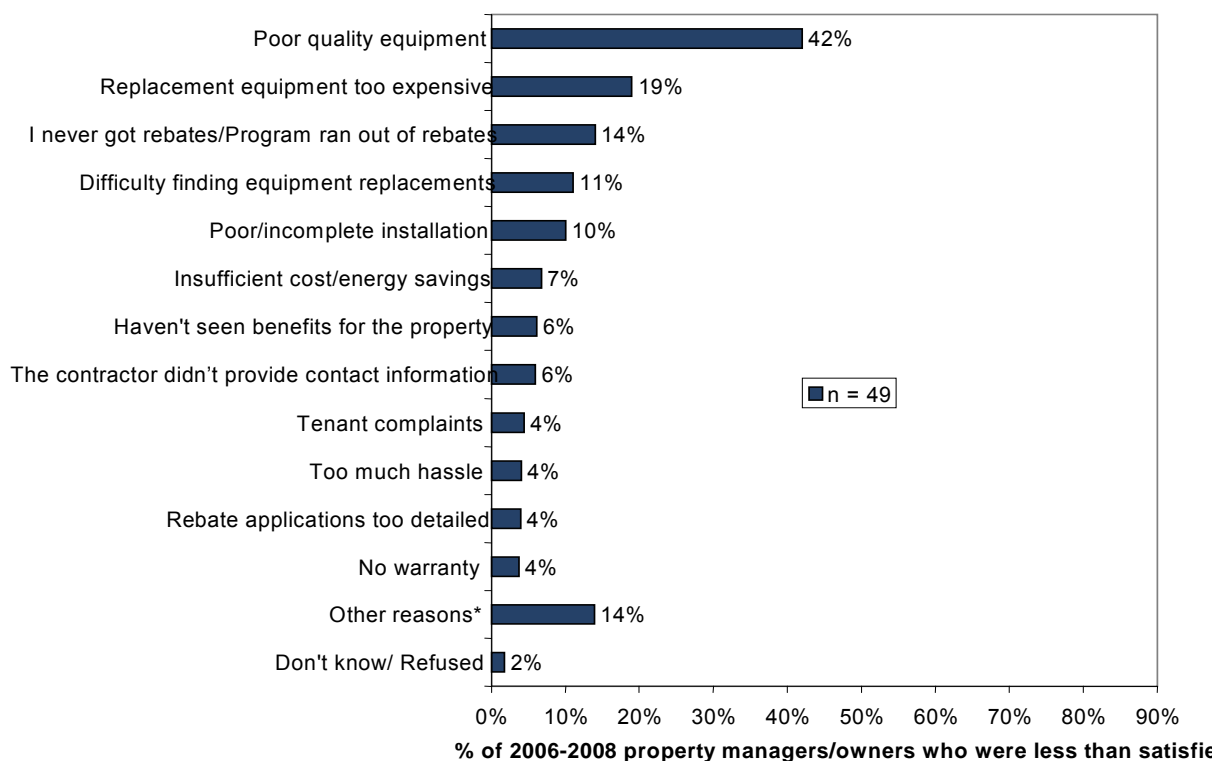
- *Recommendation #6: Close the loop between SCE inspection and property owners by having the inspectors report back on property manager and/or tenant satisfaction with the MFEER-rebated measures.* Reviews of the inspection tracking data and the inspection protocols show that inspectors are currently not being asked to collect any information on the satisfaction of the property managers and/or tenants with the MFEER-rebated equipment. This represents a missed opportunity since the survey data shows a high level of dissatisfaction with the quality of the installed equipment and of the installations themselves.
- *Evidence to support Recommendation #6:*
 - *Levels of dissatisfaction with MFEER Program installations have more than doubled since 2005. Figure 1-7 show this trend.*

Figure 1-7
Levels of MFEER Participant Dissatisfaction with Contractors and Equipment
2005 vs. 2006-2008 Participants



Poor quality equipment was the most-cited reason for dissatisfaction with the MFEER Program. Figure 1-8 shows what 2006-2008 MFEER Program participants cited as their reasons for dissatisfaction with the overall MFEER Program.

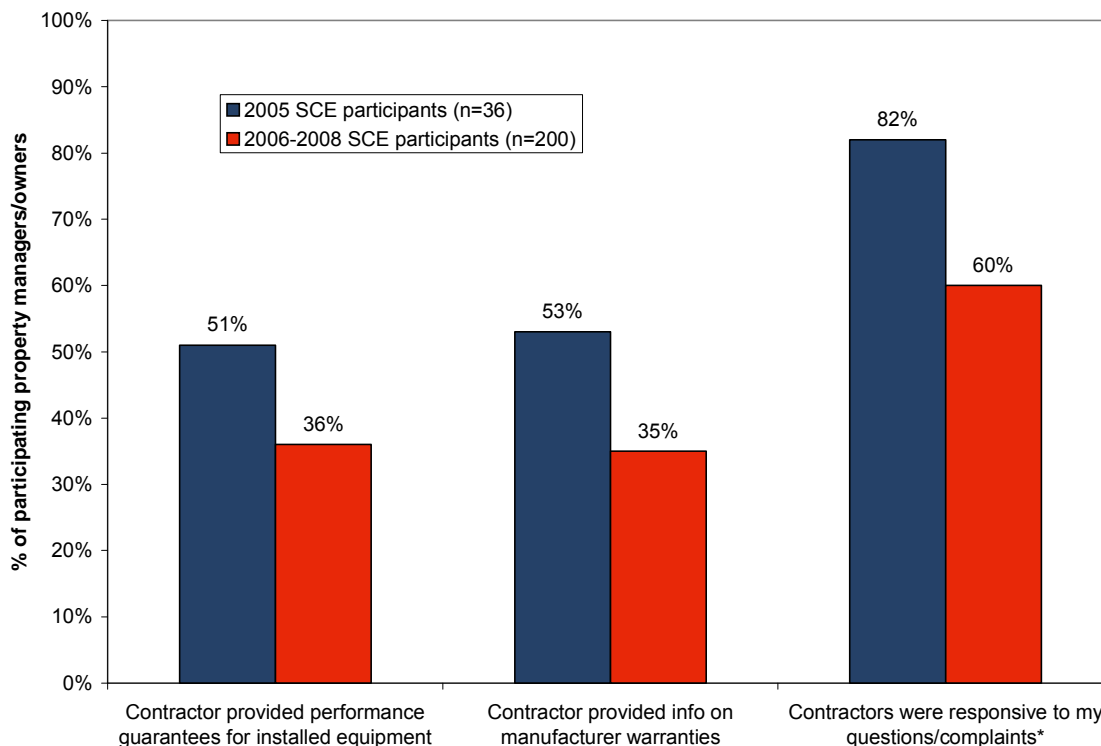
**Figure 1-8
Reasons for 2006-2008 Participant Dissatisfaction
with the Overall MFEER Program**



- Recommendation #7: Resume more frequent participant satisfaction callbacks.* The SCE MFEER Program used to call back nearly all its participants to assess satisfaction with the MFEER-rebate equipment and installations. However, interviews with program managers and staff in 2008 indicated that this practice had largely been discontinued. For example, a November 2008 interview with MFEER Program staff found that participant satisfaction callbacks were only being made when inspectors had identified trouble with an equipment installation. The high level of participant dissatisfaction discovered by the process evaluation survey suggest that these participant satisfaction callbacks should be resumed – although it would not be necessary to call back nearly all the participants, as had the practice during the 2004-2005 program. A random sample of these participants should be sufficient to identify whether these installation problems are continuing and to identify installation contractors that may not be following the Programs’ quality control protocols. As mentioned above, these callbacks could also be used as an opportunity to collect fax and email information from Program participants.

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- *Evidence to support Recommendation #7:* See the evidence presented in support of Recommendation #6.
 - *Recommendation #8: Establish clear quality control protocols for contractors and make sure that all participating contractors are aware of them.* The 2006-2008 MFEER Program participants were much less likely than 2005 Program participants to say that their contractors were responsive to their complaints, provided performance guarantees for installed equipment, or provided information on manufacturer warranties. While multifamily contractors we surveyed told a much different story, we recommend that SCE give the multifamily property managers/owners the benefit of the doubt on this issue. The MFEER Program conducts meetings with contractors about every six months and this would be the appropriate forum to clearly explain their quality control obligations. To provide additional verification that quality control procedures have been followed, the Program could require the contractors obtain a signature from the multifamily property manager/owner that all required quality control and contact information have been received.
 - *Evidence to support Recommendation #8:* Figure 1-9 shows that 2006-2008 MFEER Program participants were much less likely than 2005 Program participants to say that their contractors were responsive to their complaints, provided performance guarantees for installed equipment, or provided information on manufacturer warranties.

Figure 1-9
Multifamily Contractor Quality Control Activities
2005 vs. 2006-2008 MFEER Participants



- Recommendation #9: Make it easier for property managers/owners to find replacement bulbs.* One of the most common complaints of 2006-2008 MFEER Program participants was that they had trouble finding replacements bulbs when one of their bulbs burned out. Many retailers do not carry the pin-based fluorescent bulbs that are usually installed in multifamily buildings. One possible solution to this problem would be to require the installation contractors to leave a minimum number of replacement bulbs along with information on where to obtain additional bulbs. Another possible solution would be for SCE to provide multifamily property managers/owners with a list of wholesalers or retailers who provide such bulbs – e.g., on the Program website. However, in April 2009 discussions of this issue, SCE staff said that there could be some legal obstacles to the utility providing such a list due to concerns that any listings might be interpreted as de facto endorsements of the listed wholesaler/retailers. One possibility would for the SCE website to offer a link to another website – such as Energy Star – where a list of such wholesalers/retailers could be made available.

- *Recommendation #10: Actively recruit new contractors to participate in the program including tapping into contractors working with other SCE energy efficiency programs.* Monitor MFEER program savings achievements to assess whether purging of unlicensed contractors is affecting progress towards savings goals. In 2008 when KEMA surveyed the contractors participating in the MFEER Program there were 78 contractors listed as participants. In April 2009 discussions with evaluators, however, the MFEER Program manager revealed that new stricter licensing requirements that were introduced in early 2009 had reduced the list of participating contractors to about 30. Although the number of participating contractors has subsequently increased to about 40, this still only represents about half of the number of contractors who were participating in 2008.

While the evaluators applaud the tougher proof of license requirements that the Program imposed in 2009, this purge will likely make it more difficult for the Program to meet its energy savings goals. So the MFEER Program staff should work with other SCE programs such as the Express Efficiency and Comprehensive HVAC programs to see whether contractors already working with these programs might want to also perform work in the multifamily sector. The MFEER Program should also Monitor MFEER program savings achievements to assess whether purging of unlicensed contractors is affecting progress towards savings goals.

- *Evidence to support Recommendation #10:*
 - *The percentage of lighting-only contractors participating in the MFEER Program has increased significantly.* The 2008 survey of participating multifamily contractors found that 70 percent only installed lighting measures. In a 2005 survey only 25 percent of participating contractors said that they only installed lighting measures.
 - As noted, due to the stricter proof of license requirements, the current number of participating contractors is about half of what it was in 2008.
- *Recommendation #11: To increase measure diversity, introduce salesperson/contractor incentives (SPIFs, upstream incentives) into the MFEER Program for non-lighting measures such as HVAC.* As discussed in more detail in our recommendations for the HEER Program, we believe that salesperson/contractor incentives can be effective ways to increase the frequency that vendors recommend or specify energy-efficient equipment. SCE would be prudent to try this out on a pilot basis with a single class of contractors. If the pilot proved

successful, it could expand the availability of the upstream incentives to other participating contractors.

- *Recommendation #12: The MFEER Program should work with Home Energy Efficiency Survey (HEES) Program to help develop a MF-HEES audit instrument for the multifamily sector.* This MF-HEES instrument should cover a broad range of measures including lighting, appliances, HVAC and building envelope, pools, etc.
- *Evidence to support Recommendation #12:* The inability to identify energy efficiency opportunities was an oft-cited reason why property managers/owners had not implemented the HEER-rebate on their own.
 - The 2008 survey asked the participating property managers/owners: “Why hadn’t your company installed the (Specified Measure) on its own before participating in the Southern California Edison multifamily rebate program?” The most-cited reason was the inability to identify energy-efficient measures (24% of respondents).
 - The 2008 survey asked the “single-measure-type” participants who had heard of other MFEER rebates why they had not had any of these other MFEER-rebated measures installed. The most-cited reason was the inability to identify which existing equipment needed replacement.
- *Recommendation #13: Use program satisfaction and other program indicators identified in this report as benchmarks to track future program performance.* SCE staff said that they are in the process of identifying which of these indicators would be most suitable for monitoring program progress.