

Final Report:

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SCE California New Homes 2006-2008 Program (CANHP) Process Evaluation Report

Prepared for: Kathleen Gumbleton Southern California Edison

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Prepared by: Allen Lee, Ph.D. Jamie Drakos Allie Marshall The Cadmus Group, Inc.

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Corporate Headquarters: 57 Water Street Watertown, MA 02472 Tel: 617.673.7000 Fax: 617.673.7001

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1. Executive Summary

Program Description

Southern California Edison (SCE) offers incentives to builders and non-profit organizations for new multifamily and single-family homes exceeding energy-efficiency requirements in California's building code. The California New Homes Program (CANHP) offered in the 2006–2008 program cycle has its roots in the California ENERGY STAR® New Homes Program (CESNHP), offered by SCE in 2002–2003 and again in the 2004–2005 program cycle.

For the 2006–2008 cycle, the program expanded its goals and offered two tracks for participation: performance and prescriptive. In the performance track, builders received incentives for constructing homes at least 15% more energy efficient than required by the 2005 Title 24. Additional incentives were available for homes that achieved 20% and 35% savings over Title 24. Qualifying homes could receive ENERGY STAR® certification if they met certain additional requirements. The performance application allowed builders to select from prescriptive measures to earn extra incentives, if so inclined. The prescriptive track allowed builders to select from the qualifying list of energy-efficiency measures and receive incentives for those chosen rather than meet an overall energy-efficiency performance target. In addition to incentives, the CANHP also provides design assistance and builder and third-party consultant training.

During the 2006–2008 program cycle, the CANHP was implemented through two third-party contractors (Heschong Mahone Group, Inc., [HMG] for multifamily; and ICF International, Inc., [ICF] for single-family); starting with the 2009–2011 program cycle, the program for both markets will be implemented through one contractor, ICF.

Changes for 2009–2011

For the 2009–2011 cycle, the program will be renamed the California Advanced Homes Program (CAHP). It will support new-housing goals set by the California Energy Efficiency Strategic Plan (CEESP).

A fundamental change planned for the 2009–2011 program is to revise the CANHP incentive structure to make it more oriented toward a "pay-for-performance" design. The new structure provides graduated incentives directly based on the amount of energy saved, and the incentive per unit of energy savings increases as energy savings increase:

• Homes 10% better than code will receive \$0.29/kWh, and \$1.16/therm; homes 35% better than code will receive \$1.00/kWh and \$4.00/therm. Homes with intermediate

¹ The 10% requirement is intended to last for one year after the 2008 Title 24 code goes into effect, after which it will be increased to a minimum 15% requirement.



savings will receive an incentive per kWh saved, which increases linearly with the amount saved.

 Prescriptive measures (e.g., dishwashers) will receive an incentive based on the percentage a home is above code.

On top of these incentives, a number of "bonus" incentives will be offered to builders incorporating additional features into their construction:

- **Zero Peak design bonus** The proposed incentive is \$50/kW of on-peak electricity demand reduction due to an on-site photovoltaic system.
- **Compact home design bonus** This feature offers a bonus incentive for homes built with less square footage than the average-sized home in each climate zone.
- **Green home design bonus** This bonus will be based on the number of Green Points the home receives, with a minimum of 50 Green Points required to qualify. A second qualifying option would be a location in a sustainable community incorporating green design features.
- **Guaranteed Home Performance** SCE would guarantee a homeowner that their daily electric heating/cooling cost would not exceed a given amount. If the amount exceeded the guaranteed level, SCE would pay the difference and would investigate why usage was so high.
- **Non-code based measures** Types of measures included have not been fully defined, but one alternative examined would be to provide incentives for homes designed to not require conventional air conditioning equipment.

In addition to these specific program components, new partnerships with builders will be pursued through coordination with the Low Income Energy Efficiency (LIEE) program as well as through industry trade conferences and outreach events. SCE also hopes to partner with local governments interested in waiving permit fees or allowing builders to pay impact fees on the back end (as opposed to up front) to help increase participation.

Evaluation

This study has been conceived as a special-purpose process evaluation designed to inform SCE program managers how well the 2006–2008 program cycle processes worked and how changes intended for the 2009–2011 cycle will be implemented and received. Study findings also provide the basis for suggested program revisions to improve effectiveness and increase participation.

The primary data collection effort consisted of two stages. In the first, Cadmus interviewed three SCE staff and two staff at each of the two firms implementing the program. In the second, the evaluation team conducted four focus groups with multifamily and single-family builders separately and participating and non-participating builders separately. Additional non-participating multifamily builders were surveyed by telephone.





Cadmus conducted a review of current literature on best practices in residential new construction programs to contribute to findings from our primary research activities.

Findings

Current Program

Communications

An overriding issue that arose during discussions about current program components that will likely require attention in the 2009–2011 cycle is the relationship between SCE and the outside implementer(s). The implementer staff we interviewed pointed to uncertainties about their and SCE's roles in the current program as one of their main concerns. As our best practices research revealed, understanding the market, the program's role in the market, and good communications among all parties are all keys to program success.

Marketing

Both implementers and SCE staff indicated that roles in marketing the program had changed in the past few months as new management and additional program staff have joined the SCE CANHP. This has created some uncertainty for the implementer as they try to determine their role in marketing and outreach to builders and third-party consultants for the program.

Implementer staff would like the opportunity to provide significant input on program marketing materials. The implementers felt this could help ensure needed clarifications in the program characterization could be identified and made early in the development process.

Marketing and outreach to single-family and multifamily home builders were noted by several people interviewed as each requiring different tactics. Implementers and non-participants expressed a desire for SCE to develop materials specifically targeted towards multifamily builders. For single-family builders, participants and non-participants agreed there are a small number of decision makers, usually just a president or CEO of a company, that decides whether the company will build homes to exceed code, or build homes to code.

While much of the marketing discussions focused on outreach to builders, implementer staff also noted that outreach to third-party consultants is a key component of marketing the program to builders. Good relationships with third-party consultants can be an effective means of indirectly marketing to builders.

Design Assistance

Design assistance was a benefit mostly accessed or sought by multifamily builders. The implementer for the multifamily segment of the program, participating builders, and non-participant multifamily home builders interviewed all felt design assistance was a very important part of the program offering.





Application Process

In recent months, SCE has tightened its quality control on applications received from the implementers and routinely rejects incorrect and incomplete applications. Implementers noted this change was burdensome for them and for participating builders.

Implementers also saw the requirement for "wet" signatures (i.e., original signatures) on documents as unnecessary and somewhat of a barrier, or at least an added frustration for program participants. In addition, both participating and non-participating builders encouraged SCE to develop an online system of filing applications for their ease.

Builders commented that communications were inadequate between builders, implementers, and SCE following the application process. All parties indicated more regular communication between builders and implementers or SCE was desirable. Builders again recommended a Webbased tracking system, so they could easily review their projects.

Incentives Paperwork

Multifamily builders complained that the paperwork required for the incentives was developed with a single-family builder in mind. The CANHP requires invoices for all energy-saving appliances purchased for the units and this is cumbersome for multifamily projects.

2009–2011 Proposed Program Changes

Graduated Incentive Structure

Wholesale changes are currently proposed by SCE for incentive structures offered in the 2009–2011 CAHP. In their interviews, SCE staff recognized this change may be difficult for builders to understand in the short term. However, SCE staff hope the changes will make the program more accessible to builders, leading them to reach for greater savings in their homes.

Both participating and non-participating builders found the new incentive structure difficult to conceptualize and encouraged SCE to provide training, case studies, and software to help them meet the requirements.

Bonus Incentives

Overall, builders and implementers, when asked about these proposed bonuses, had mixed reactions, and multifamily home builders and the multifamily focused architects we interviewed were more interested than were single-family home builders. Single-family home builders almost uniformly reported these features were market driven and would be difficult to change while staying competitive in the marketplace.

Both participating multifamily home builders as well as some of the non-participants interviewed indicated they are required to exceed code and, in some areas, required to meet a certain Green Point rating. These builders were enthusiastic about designs that could net them additional incentive dollars.





Of all the bonuses, the Zero Peak and Green Home were most popular, while the non-code based building option was of the least interest. However, this could be because there were even fewer details available about this program component at the time of the interviews and focus groups.

Guaranteed Home Performance

This component of the 2009–2011 CAHP was met with quite a bit of skepticism from builders and implementers. Implementers wondered how SCE could implement this component effectively, while both participant and non-participant builders were concerned about their liability under the guarantee. The non-participant builders did have an opportunity to discuss this component in more depth, and, ultimately, they said they would be very interested if they would carry no liability.

Recommendations

Our recommendations, presented below, are based on primary data collection activities conducted during this study, our experience evaluating similar programs, and secondary research on best practices. Cadmus recognizes the CANHP is undergoing a significant amount of change, both as a result of new management as well as through the transition to the 2009–2011 program. In cases where SCE is already addressing some of these recommendations, we have included information on changes in progress.

- 1. *Improve communications with implementers*. There was a great deal of concern on the part of implementers who felt there was a lack of communication with SCE staff. Implementer staff interviewed felt "out of the loop" during a number of different places in the implementation process. SCE and ICF have recently instituted a conference call every other week to discuss the project, and we encourage both parties to use this time for making certain each party is updated on the other's plans to contact builders, along with any questions or concerns on applications and/or incentives.
- 2. Clearly define roles, responsibilities, and requirements with the implementer. Cadmus heard from both implementers and SCE staff that roles for program marketing and outreach were not clearly defined. Additionally, both SCE staff and the implementers expressed the need for very clear builder and paperwork requirements to be established prior to the launch of the new program cycle. We recommend the 2009–2011 program be fully vetted and all requirements, paperwork, standards, and division of responsibilities be determined and presented in writing prior to launch of the program.
- 3. *Plan to provide a substantial amount of training on the new program structure and requirements*. All parties interviewed believed training for builders on the new program design and requirements would be paramount to its success. Builders and implementers also felt training should be provided for third-party consultants as they are integral to the design process.
- 4. *Marketing materials should be tested and targeted*. Marketing materials can be vetted by program implementers as well as consumers to test the information transferred by the material and the program interest it may generate. In addition, we heard clearly from





- multifamily builders that marketing materials should be targeted separately to multifamily builders and single-family builders.
- 5. *Institute an ongoing assessment process*. The CAHP could benefit from soliciting and receiving regular feedback from program participants and third-party consultants involved in the program.
- 6. *Maintain design assistance for multifamily builders and application assistance for all builders*. Participating and non-participating builders and implementers declared that design assistance was an important feature of the program for them. Non-participating builders, from both the multifamily and single-family sectors, indicated a desire for assistance with their building and home designs. Almost universally, builders indicated they would only be able to participate in the program if the paperwork and amount of time they had to commit to the program were minimal.
- 7. *Incorporate new tools for providing key information*. Builders identified several types of information and mechanisms for providing it that would facilitate their participation. One was to provide training via Webcasts or have training available to download from SCE's Web site. Another request was to enable builders to track the status of their project with SCE via the Internet. Both implementers and builders recommended the creation of a modeling tool to help builders design homes and buildings that would achieve energy efficiency above code.
- 8. Continue working with SCG to purchase kWh savings and sell therm savings. The elimination of competition between SCE and Southern California Gas (SCG) for projects will enhance both programs and increase overall program participation and impacts. Not only will it reduce confusion for builders, but it will help both companies achieve their savings goals. The development of this relationship between the two companies may actually prove to be the most productive improvement for the program overall.

SCE staff, implementers, and participating builders all face challenges in the coming months while instituting the 2009–2011 CAHP. SCE staff already have in place many process improvements to help make the transition successful. We encourage addressing the preceding recommendations to further program success.





2. Introduction

As requested by Southern California Edison (SCE), The Cadmus Group (Cadmus, formerly Quantec, LLC) carried out a process evaluation of SCE's California New Homes Program (CANHP). This report describes the evaluation objectives, program history and theory, and methodology for data collection and analysis. It then presents results from SCE staff and program implementer interviews, participating and non-participating builder focus groups, and a summary of best practices from similar programs. The report concludes with recommendations for the program. The interview and focus group guides can be found in the appendixes.

The long-term goal of the program is to stimulate market transformation in the California residential new housing market within SCE's service territory by encouraging builders to build and home buyers to purchase high-efficiency homes. The CANHP has evolved over time to better serve its target audiences and accomplish its goals. It provides a mix of financial incentives, education/sales training, technical support, and marketing assistance to builders of single-family and multifamily units in SCE's service territory. During the 2006-2008 program cycle, the CANHP was implemented through two third-party contractors (Heschong Mahone Group, Inc., [HMG] for multifamily and ICF International, Inc., [ICF] for single-family); starting with the 2009-2011 program cycle, the program for both markets will be implemented through one contractor, ICF.

Overview of Process Evaluation Objectives

This study has been conceived as a special-purpose process evaluation designed to inform SCE program managers how well the 2006-2008 program cycle processes worked and how the changes intended for the 2009-2011 cycle will be implemented and received. Study findings also provide the basis for suggested program revisions to improve effectiveness and increase participation.

Program History and Description

Evolution of the Program

The 2006-2008 program had its roots in SCE's prior residential new construction programs. The California ENERGY STAR® New Homes Program (CESNHP) was implemented in the 2002-2003 program cycle, followed by the 2004-2005 cycle. These programs were all statewide (i.e., implemented by all investor-owned utilities), but each utility selected implementation details for their service area. The CESNHP provided financial incentives, education, and marketing assistance to residential single-family and multifamily California builders who constructed new homes exceeding the state's mandatory minimum energy-efficiency standards. CESNHP required participating builders to exceed California's Title 24 residential standards by 15% or more to receive cash incentives.





For the 2006-2008 cycle, the program expanded its goals and became known as the CANHP, which offered two tracks for participation: performance and prescriptive. In the performance track, builders received incentives for constructing homes at least 15% more energy efficient than required by the 2005 Title 24. Additional incentives were available for homes that achieved 20% and 35% savings over Title 24. Qualifying homes could receive ENERGY STAR® certification if they met certain additional requirements. Homes qualified under the performance approach but not ENERGY STAR® certified were called Code-plus participants. In addition, builders were encouraged to apply for solar generation funding through the California Energy Commission's (CEC) New Solar Homes Partnership (NSHP). The performance application also allowed builders to select from prescriptive measures to earn extra incentives, if so inclined. The prescriptive track allowed builders to select from the qualifying list of energy efficiency measures and receive incentives for those chosen rather than meet an overall energy-efficiency performance target.

Impact and process evaluations of the 2002-2003 and 2004-2005 program cycles have been previously conducted.² The current study presents process findings for the 2006-2008 program; a separate impact evaluation for the program is underway. As noted, our study is a special-purpose evaluation to provide SCE with useful feedback to help shape the 2009-2011 program as well as highlight what has been learned from the current program cycle.

Changes for 2009-2011³

For the 2009-2011 cycle, the program will be re-named California Advanced Homes Program (CAHP). It will support new-housing goals set by the California Energy Efficiency Strategic Plan (CEESP):

- 50% of residential new construction built to 2005 Title 24 Tier II (35% savings beyond 2005 Title 24 code overall, with at least 40% from cooling reductions) by 2011.
- 100% of residential new construction to net zero by 2020.

To meet these goals, SCE's CAHP will attempt to achieve one-half of new homes in their territory being 35% more efficient than the 2005 Title 24, or about 20% more efficient than the 2008 Title 24 by 2011. Towards this end, SCE's plan calls for CAHP to be closely coordinated with the Advanced Home component of the Sustainable Communities Program (AH-SCP) to implement additional strategies, including:

³ Note that as this report was prepared, the program components described were still proposed and had not yet been approved by the California Public Utilities Commission.



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²These evaluations are presented in two reports: 1) Evaluation, Measurement and Verification of the 2002 & 2003 California Statewide ENERGY STAR® New Homes Program, Phase II Report, August 14, 2006, Final Report. Study ID PGE0208, prepared by RLW Analytics Inc. and SERA. 2) Evaluation, Measurement and Verification of the 2004 & 2005 California Statewide ENERGY STAR® New Homes Program, July 18, 2007, Final Report. Study ID PGE0218, prepared by RLW Analytics Inc. and SERA.

- Raising plug load efficiencies;
- Progressing toward whole house solutions, with a particular focus on zero peak homes as an interim step toward zero net energy homes;
- Implementing in-home monitoring and visual display tools;
- Incorporating green building standards; and
- Coordinating CAHP with demand response programs.

A fundamental change planned for the 2009-2011 program is to revise the CAHP incentive structure to make it more oriented toward a "pay-for-performance" design. The previous three-tiered structure can be described as a deemed incentive. This provided fixed incentives for homes that met the three threshold savings levels: 15%, 20%, and 35% better than Title 24. This meant the incentive was not directly related to the actual amount of energy saved if the project exceeded any of the three thresholds, and there was no incentive for going beyond each efficiency threshold. This structure also effectively provided a smaller incentive per unit energy savings in the climate zones that delivered the most savings in a home.

The new pay-for-performance structure provides graduated incentives directly based on the amount of energy saved, and the incentive per unit of energy savings increases as energy savings increase:

- Homes 10% better than code will receive \$0.29/kWh and \$1.16/therm; homes 35% better than code will receive \$1.00/kWh and \$4.00/therm. Homes with intermediate savings will receive an incentive per kWh saved, which increases linearly with the amount saved.
- Prescriptive measures (e.g., dishwashers) will receive an incentive based on the percentage a home is above code.

Another new feature proposed for the next program cycle is the Zero Peak Design Bonus. This will provide an additional incentive on top of the basic graduated incentive. This is intended as an interim step towards net zero energy homes, as called for in the CEESP. The proposed incentive is \$50/kW of on-peak electricity demand reduction due to an on-site photovoltaic system.

Another proposed bonus is for compact home designs. This feature offers a bonus incentive for homes built with less floor area than the average-sized home in each climate zone. The proposed bonus depends on how much smaller a participating home is than the average home (e.g., a 1,800 square foot home would receive a 10% bonus if the average home size was 2,000 square feet).

⁴ The 10% requirement is intended to last for one year after the 2008 Title 24 code goes into effect, after which it will be increased to a minimum 15% requirement.





A proposed third bonus is for green home designs. One option will be based on the Green Point rating a home receives; the bonus would be based on the number of Green Points the home receives, with a minimum of 50 Green Points required to qualify. A second qualifying option would be a location in a sustainable community incorporating green design features.

Another proposed program component is Guaranteed Home Performance. SCE would guarantee a homeowner that their daily electric heating/cooling cost would not exceed a given amount. If the amount exceeded the guaranteed level, SCE would pay the difference, and would investigate why usage was so high.

A final type of program option being considered is providing incentives to promote building changes not addressed by building codes (non-code based measures). Types of measures included have not been fully defined, but one alternative examined would be incentives for homes designed to not require conventional air conditioning equipment.

In addition to these specific program components, new partnerships with builders will be pursued through coordination with the Low Income Energy Efficiency (LIEE) program as well as industry trade conferences and outreach events. SCE also hopes to partner with local governments interested in waiving permit fees or allowing builders to pay impact fees on the back end (as opposed to up front) to help increase participation.

Comprehensive training courses and educational seminars relevant to building energy-efficient and green homes, Title 24 code training, and ENERGY STAR® requirements will continue. New training workshops are being added to target builders' sales agents to adequately inform them to promote ENERGY STAR® and green building.

Program Theory and Logic Model

This section presents the theory underlying CANHP design and activities towards achieving its goals. As shown clearly in the preceding discussion, the program has evolved over time. The latest revisions have been driven partly by the need to satisfy CEESP's challenging goals. Feedback from previous program cycles and changes in SCE's program team have also influenced the program's evolution.

For this report, we developed a program theory and logic model describing the 2006-2008 program design. This theory will be a useful tool for reviewing past program operations and identifying areas of success and areas for improvement in the 2009-2011 program design. The logic model is presented first, followed by a text description of the program theory.





Figure 1. Logic Model

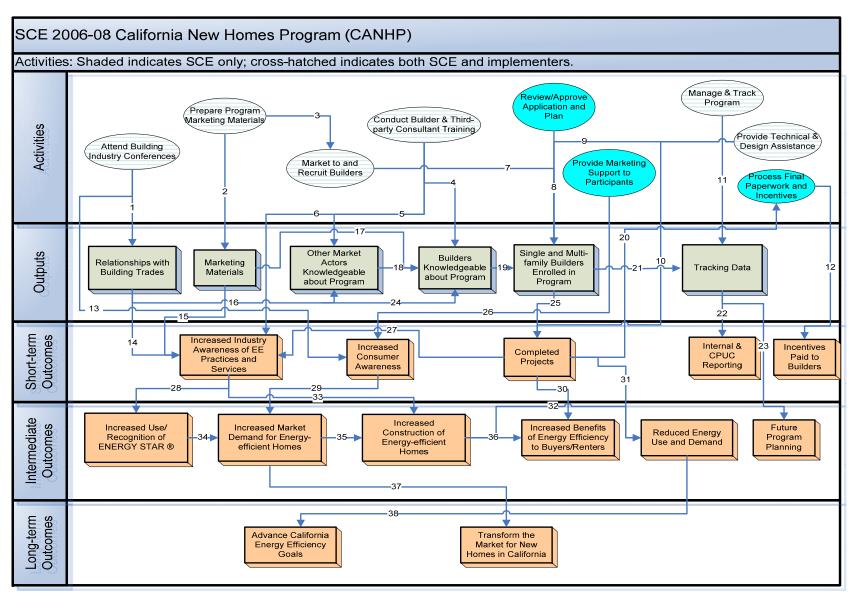






Table 1. Program Theory Description

Link	Working Hypotheses	Indicators		
1	SCE and implementer attendance at building trade conferences leads to building relationships with people and organizations in buildings trade.	Number of conferences attended, number and type of contacts made.		
2	SCE and implementer staff coordinate and develop program marketing materials	Marketing materials created and distributed to public		
3	Marketing materials assist efforts to market to and recruit builders into program	Number and type of builders contacted and given marketing materials, builders report on awareness and effectiveness of materials		
4	Builder and third-party training increases builders' knowledge of program	Number of trainings conducted, number and type of builders attending, builders report awareness and understanding of program		
5	Builder and third-party training increases knowledge of program by market actors other than builders	Number of trainings conducted, number and professions of attendees		
6	SCE and implementer conduct builder and third-party training which increases industry awareness of energy efficiency practices and CANHP services	Number of trainings conducted, number and professions of attendees, participants report on awareness and effectiveness of materials		
7	Marketing to and recruiting builders leads to builder participation in program	Number and type of builders and projects enrolled in program		
8	Review and approval of applications and builder plans results in builders enrolled in program	Participants report review and approval was efficient		
9	SCE and implementer providing technical and design assistance leads to builders enrolled in program	Number of builders and projects provided technical and/or design assistance, number of builders and projects enrolled in program, number of participants reporting assistance encouraged enrollment		
10	SCE and implementer providing technical and design assistance leads to projects completed within program	Number of builders and projects provided technical and/or design assistance, number of completed projects, number of participants reporting assistance helped ensure completion		
11	SCE and implementer managing and tracking of data creates database of builder and project data	Existence of database, number of users able to directly input data into database		
12	Processing final paperwork and incentives leads to incentive payments to builders	Participants report incentive processing was efficient and timely		





13	Attendance at building conferences generates greater buyer and renter awareness of SCE's CANHP and its benefits	Number of conferences attended, number of potential consumers contacted
14	Relationships developed with building trades lead to increased awareness of energy-efficiency practices and services	Number of contacts with builders and third-party or trade ally organizations, industry stakeholders contacted by SCE reporting they informed others about energy efficiency
15	Marketing materials generate increased industry awareness of energy-efficiency practices and services	Marketing materials distributed by program, industry stakeholders aware of marketing materials and stakeholders demonstrate increased energy-efficiency awareness
16	Relationships developed with building trades leads to other market actors with knowledge of program	Number of building trade allies contacted, number of builders referred to program by trade allies, industry stakeholders contacted by SCE reporting they informed others about program
17	Marketing materials generate increased builder knowledge of program	Marketing materials distributed to builders, builders aware of marketing materials and builders demonstrate increased program knowledge
18	Other market actors with knowledge of the program leads to builders having greater knowledge of program	Number of builders referred to program by other market actors, knowledgeable about program
19	Builders with knowledge of program lead to builders enrolled in program	Number of builders enrolled in program who were not marketed to directly or knew about it before recruited by SCE
20	Projects completed within program lead to processing of final paperwork and incentives for builder	
21	Builders enrolled in program will be included in the tracking database with other project data	Existence of database, number of builders able to directly input data into database
22	Maintenance of tracking data for program allows program to report both internally and to CPUC	Program data successfully reported internally and to CPUC
23	Maintenance of tracking data for program can assist in future program planning	Program tracking database utilized in program planning efforts
24	Relationships developed with building trades leads to builders having greater knowledge of program	Number of builders contacted by program, industry stakeholders contacted by SCE reporting they informed others about program
25	Builders enrolled in program complete projects	Builders enrolled in program, number of projects completed





26	SCE provides marketing support to participating builders, increasing consumer awareness of program	Number of projects utilizing marketing support, type of marketing support requested, builders report benefits of marketing support.
27	Completed building projects lead to increased awareness of energy-efficiency practices and services	Number of completed projects, industry stakeholders reporting knowledge of CANHP projects and benefits
28	Increased awareness of energy-efficiency practices and services generates increased use/recognition of ENERGY STAR ®	Trends in number of projects utilizing ENERGY STAR ®
29	Increased consumer awareness leads to increased demand for energy-efficient homes	Net increase in market demand for energy-efficient homes, buyers and renters reporting increased awareness of benefits of energy efficiency
30	Completed building projects leads to increase in benefits of energy-efficiency to buyers and renters	Number of completed projects, decrease in energy use, decrease in energy costs per household
31	Completed projects reduce energy use and reduce peak demand	Number of completed projects, reduction in kWh usage by new homes, reduction in demand from new homes
32	Increased construction of energy-efficient homes leads to reduction in energy use and peak demand	Trends in number of homes built, reduced kWh usage, reduced demand, decreased energy costs
33	Increased awareness of energy-efficiency practices and services leads to increased construction of energy-efficient homes	Trends in energy-efficient homes built
34	Increased use/recognition of ENERGY STAR ®leads to increased market demand for energy efficient homes	Trends in use/recognition of ENERGY STAR ®, increased demand
35	Increased market demand for energy- efficient homes leads to increased construction of energy-efficient homes	Trends in market demand, number of homes built that exceed energy-efficiency requirements
36	Increased construction of energy-efficient homes leads to increased energy-efficiency benefits to buyers and renters	Trends in reduced energy costs in new homes
37	Increased market demand for energy- efficient homes leads to transformation of the market for new homes in California	Builders report trend in producing higher energy- efficiency homes to meet consumer demand
38	Reduction in energy use and demand generated by SCE's CANHP helps to advance California state goals	Reduction in kWh usage by homes, reduction in demand from new homes, number of net zero homes built





3. Methodology

This section discusses our study methodology. Research steps were based on the workplan developed in conjunction with the SCE evaluation manager and program staff.

Review Materials/Document Theory

The study's first task was to review program materials, including Quarterly Narrative Reports, the 2006-2008 Program Implementation Plan (PIP), draft 2009-2011 PIPs, marketing brochures, and participant handbooks. We also reviewed the program's previous evaluation reports. The intent of this task was twofold:

- 1. To document the program theory in a logic model describing the explicit and implicit assumptions, activities, and cause and effect relationships characterizing the program, and how these will lead to specific outcomes resulting in the program accomplishing its goals.
- 2. To determine the necessary items to measure and record to serve as the basis for providing SCE a systematic assessment of program operations and outcomes.

Data Collection and Analysis

The primary data collection effort consisted of two stages. In the first, Cadmus interviewed SCE staff and staff at the two firms implementing the program. Staff were selected based on their levels of interaction and responsibility with the program. These interviews were conducted to understand program activities, issues, and goals, and to obtain feedback on the range of program design issues described below. In the second stage, the evaluation team conducted four focus groups. Separate focus groups were conducted with two categories of builders who had participated in the program: single-family and multifamily home builders. These participants were selected from a list of participating builders provided to the evaluation team by SCE and based upon builder interest and availability to attend the focus group. Two additional focus groups were conducted with builders not currently participating in the program; one was for single-family builders, and the other was for multifamily builders. These non-participants were selected based upon work area, location, interest in the CANHP, and availability to attend the focus group. In addition, we conducted phone interviews with a small group of non-participant, multifamily builders to supplement the focus group information. The interviewees were selected based the same criteria as non-participants who attended the focus groups, but who had not been available during that time.

In addition to these two major types of activities, the Cadmus team conducted research on similar programs to identify potential best practices in creation and administration of residential new homes programs. This research is documented in Chapter 6.





Interviews

Cadmus worked with SCE to identify appropriate SCE and implementer staff to interview. During the 2006-2008 period, HMG was responsible for implementing the multifamily building program, and ICF implemented the single-family building program. Starting in 2009, ICF will implement both pieces of the program. We conducted a total of seven telephone interviews, three with SCE staff and four with implementer staff.

In phrasing questions, the interviews were structured to give SCE directly-applicable information about which existing services and potential new services are most highly valued and where improvements should be made. Although the interviews were set to last approximately 45-60 minutes, one SCE staff interview continued for another 20 minutes, and a second required an additional time due to the amount of information offered by the interviewee.

SCE staff interviews, conducted according to the guide prepared by Cadmus and approved by SCE, are presented in Appendix A:. The following SCE staff were interviewed:

- John Morton, Program Manager for the CANHP
- Jennifer Gabay, Contract Manager for the CANHP
- Jonathan Budner, former Program Manager for the CANHP; now Program Manager of the California New Homes Sustainable Communities Program

Implementer interviews were conducted based on the guide presented in Appendix B:. The following individuals with the implementer firms were interviewed:

- Julieann Summerford, HMG
- Colin Jessop, HMG
- Chiara D'Amore, ICF
- Tom Hamilton, ICF

Builder Focus Groups and Interviews

Views of builders who had and had not participated in the CANHP were obtained through focus groups. Focus groups are "...a carefully planned discussion designed to obtain perceptions on a defined area of interest in a permissive, nonthreatening environment...Group members influence each other by responding to ideas and comments in the discussion." Groups are typically conducted with seven to ten participants who are unfamiliar with each other. Because of the small number of participants in a focus group, a single group cannot be used to reliably estimate quantitative results for a population. However, Krueger notes that focus groups were developed,

⁵ Krueger, Richard. 1988. Focus Groups: A Practical Guide for Research." p. 18. Sage Publications, Newbury Park.





in part, because of limitations in the standard closed-ended survey approach and the opportunities they permitted to allow participants to comment, explain, and share experiences and attitudes in a group setting. The natural interaction and exchanges in groups, coupled with effective facilitation, can enhance the quality and representatives of information produced by focus groups.

Participating Builders

Because of basic differences between the single-family and multifamily markets, Cadmus conducted one focus group session with participating single-family home builders and a separate session with multifamily home builders. A database of participant builders in each category was provided by SCE.

A sample of participating single-family home builders to contact for the focus groups was chosen with input from SCE program staff. The original sample included 12 single-family home builders, with a total of 71 projects, and 7 multifamily builders, with a total of 12 projects. Also included in the list of participants were four builders with projects in the pipeline and six builders who had participated in a prior program cycle. SCE staff made an initial round of calls to participants to gauge their interest in the focus group and encourage attendance.

Cadmus prepared a focus group guide broadly addressing the perceived value of the CANHP to builders and its ability to influence the new construction market. Specific discussion topics were developed based on the basic research questions. The discussion guide used for the focus groups is attached as Appendix C:.

The sessions were held at a professional market research facility, with a mid-sized conference room format. Cadmus staff conducted the groups, and SCE staff observed through a one-way mirror. Attendees were provided an honorarium to maximize participation and encourage attendance of senior staff members. Each focus group lasted two hours; video and audio recordings were made of both groups.

The focus groups were structured based on the prepared discussion guide to ensure all topics of interest were discussed. The conversations, however, were allowed to flow naturally between and among the participants. The facilitator intervened at key junctures to ask leading questions or to redirect the discussion to a new topic area.

We recruited six multifamily home builders and ten single-family home builders who said they would attend the focus groups. This was challenging, given the relatively small number of participating builders from which to choose. On the night of the groups, several people who had said they would attend did not show up. Six people, representing the four companies shown in Table 2, attended the single-family group. Only two people representing the two companies shown in Table 3 attended the multifamily builder group. Although the multifamily group was productive, the small number of participants reduced the generalizability of the results.

⁶ *Ibid*. p. 19.



quantec

Table 2. Participating Single-Family Builder Focus Group Attendees

Company
J.D. Pierce
KB Homes
Pardee Homes
Toll Brothers

Table 3. Participating Multifamily Builder Focus Group Attendees

Company
Lincoln Property Company
Payne Development, LLC

Non-participating Builders

Cadmus conducted focus groups with four single-family home builders and three multifamily architects who had not participated in the program. Also, Cadmus staff later conducted phone interviews with three non-participating multifamily home builders. Cadmus prepared a non-participant focus group guide broadly addressing the perceived value of the CANHP to builders and its ability to influence the new construction market. Questions assessed a number of factors related to the program, including: builder characteristics, current building practices, awareness of the CANHP or similar utility programs, and any known or perceived barriers to participation. The focus group questions also assessed builder perceptions of proposed changes for the 2009-2011 program cycle. This included: perceived value and interest in program components, participation barriers, interest in additional enhancements to current program offerings, and suggestions for program improvements. The discussion guide used for the non-participant focus groups is attached as Appendix D. Cadmus modified the non-participant focus group guide to serve as a loose survey tool for the multifamily builder, non-participant phone interviews.

A list of non-participating single-family and multifamily home builders offering new homes or multifamily buildings within SCE's service territory was created by Cadmus and served as the basis for recruiting non-participants. The original sample included 30 single-family home builders and 67 multifamily home builders, although information on the multifamily home builders was very limited. The evaluation team made multiple attempts over several weeks to contact, by phone and e-mail where possible, the non-participants to gauge their interest in the focus group and encourage attendance. Additional multifamily builder interviewees were selected from interested non-participants who were unable to attend the focus group.

The sessions were held at a professional market research facility, with a mid-sized conference room format. Cadmus staff conducted the groups, and SCE staff observed through a one-way mirror. Attendees were provided an honorarium to maximize participation and encourage attendance of senior staff members. Each focus group lasted ninety minutes; video and audio recordings were made of both groups.





The focus groups were structured based on the prepared discussion guide to ensure all topics of interest were discussed. The conversations, however, were allowed to flow naturally between and among the participants. The facilitator intervened at key junctures to ask leading questions or to redirect the discussion to a new topic area.

We successfully recruited five single-family home builders, two multifamily home builders, and three multifamily building architects who had not participated in the program and said they would attend the focus groups. Recruiting was challenging given that builders had not participated in the program and were time constrained. On the night of the groups, four people, representing the three single-family home builders shown in Table 4, attended the single-family group; three people representing an architecture firm serving multifamily home builders attended the multifamily builder group. Ultimately, Cadmus decided to conduct a number of interviews via phone with non-participating multifamily builders to supplement the information provided by the focus group attendees. These interviews were intended to accurately capture their thoughts and comments on the current CANHP, as well as the proposed changes for the 2009-2011 program. As noted before, the small number of participants limited the generalizability of the findings to the population, though the groups were productive. The non-participating multifamily architect and builder firms are listed in Table 5.

Table 4. Non-participating Single-Family Home Builder Focus Group Attendees

Single-Family Home Builders		
HMR		
Regency Homes		
Sunwest Development		

Table 5. Non-participating Multifamily Home Builder Focus Group Attendees and Interviewees

Multifamily Builders
LINC Affordable Housing Corp.
Anastasi Development Company
KDF Communities
Multifamily Architects
KTGY Group, Inc.





4. SCE Program Staff and Implementer Interviews

This chapter presents information gathered through the interviews Cadmus conducted with program staff at SCE and the implementer's key program staff.

SCE Staff Interviews

To document SCE program staff views on the program, we conducted telephone interviews using the guide presented in Appendix A:. Two staff interviewed are currently involved in the program and one is the former program manager.

Main Goals of SCE's California New Homes Program

When asked to describe the CANHP goals, SCE staff identified several, including:

- Encourage builders of all sizes to increase energy efficiency in the new homes market;
- Achieve the long-term goal of net zero homes by 2020;
- Contribute to SCE's energy-efficiency portfolio; and
- Transform the California new homes market.

All these goals have, at their core, increasing energy efficiency of new homes, but several are quite broad in scope, and reflect a view that this program has the potential to have major market influences.

Program Process

We asked SCE program staff to delineate program processes and steps a builder would take during their program participation. The staff reviewed the processes and steps, then gave their observations on each of the components. We asked program staff to indicate which party held responsibility for this step, and how effectively that step was implemented, with special attention on bottlenecks affecting the process, especially any affecting program participants and external perceptions of the program.

Marketing and Outreach

SCE and the CANHP implementers undertake a variety of marketing activities to increase program participation. These activities include:

- Visiting with builders one-on-one;
- Tabling at industry events;
- Advertising in trade publications; and
- Creating home-buyer focused marketing materials.





SCE staff had differing opinions on how the responsibility for marketing and outreach was distributed between SCE and the implementers. One said it was mostly the implementer's responsibility, while the other two indicated it was a shared responsibility between the implementer and SCE. One staff person indicated marketing coordination and planning were all SCE's responsibility.

When asked about the structure of the market for new home construction and how it affected marketing, SCE program staff all believed there were basic differences in the single-family and multifamily home markets that influenced program marketing and outreach. Single-family home builders participating in the program tend to be more homogeneous, the majority being production builders. Multifamily home builders, on the other hand, build a wider variety of property types, including: mixed-use properties, low-income or affordable housing, condominiums, and apartment complexes.

One staff person noted industry events usually target single-family home builders, which is why the program spends more time at such events and with single-family builders. Another staff person believed the opportunities and motivation to increase energy efficiency were less in multifamily buildings as energy efficiency is not something likely to attract renters.

On the single-family side, one staff person said there are very few key decision makers and it is difficult to access them. This person also stated they did not believe mass marketing and sponsorship of events was an effective tool to reach builder decision makers. They also noted it was more effective to meet with someone one-on-one to successfully market the program. This person advocated using SCE's limited marketing dollars in the most strategic manner possible to get the best return.

Overall, the staff believed marketing and outreach efforts had generally been effective. One staff person did voice concern over the lack of public awareness of the CANHP, and indicated SCE had begun more aggressive outreach to potential participants.

Applications, Verification, and Incentives

SCE maintains responsibility for double-checking, processing, and approving the application and project plans, along with processing incentive checks. Two major difficulties were noted by staff regarding this part of the program process:

- Applications frequently have been wrong or incomplete when received from implementers, requiring SCE to perform quality control on 100% of submitted documents.
- When builders change their plans, they often do not communicate their changes to the implementer or SCE staff after original plans had been approved.

All staff interviewed mentioned the application process as an area undergoing major change. While incomplete applications had been accepted in the past, SCE currently is trying to tighten quality control. One staff member was slightly concerned this additional pressure may act as a barrier to participation, but SCE's priority is to fund projects certain to produce energy savings.





The stricter rigor for applications has proved a challenge for implementers and builders, resulting in many more applications being rejected.

One staff person noted SCE staff and the implementers have different motivations, which could partially contribute to the paperwork and application challenges. SCE's team is results-oriented, and their success as individual staff and as a team is tied to program performance. On the other hand, the implementer measures success by the number of projects recruited into the program. This can mean implementers have less incentive to help SCE finish the builders' applications and incentive paperwork accurately.

SCE staff told Cadmus that assisting builders complete and submit their application and incentive paperwork was typically done by the implementer rather than SCE staff. One staff member expressed a concern that implementers perform too much of the required paperwork on behalf of builders. This staff member felt that if the builders took a more active role, they would understand the CANHP requirements and process better.

During our interviews, it was noted SCE had completely taken over all implementation responsibilities for one large builder. SCE provides this builder with support in completing their documentation, regular communication, and assistance in processing their final paperwork and incentive requests. Although this takes a fair amount of time and is a burden on SCE staff, the most impacted staff member felt such personal attention was worth the effort for selected, high-volume builders.

Another concern expressed by two SCE staff was the manner of delivering incentive checks. When the incentive checks are processed by SCE accounts payable, the checks are mailed, and there is no identifying information included with the check. Many builders are conducting multiple projects, and the checks can get allocated incorrectly. Interviewees noted Southern California Gas (SCG) staff, however, are able to deliver the incentive checks directly to the builder, and this provides a good opportunity to make a personal connection with the builder, clarify what the check is for, and promote the program. While SCE staff understand their management has determined hand-delivery of checks is not feasible, the staff would like that opportunity for the personal connection and relationship building it offers. Staff agreed, at the least, improvements are necessary to make builders clearly understand checks are from the program and for a specific project. Staff expressed the hope that a new SCE accounts payable system with a larger "memo" field would help reduce this problem.

SCE has introduced several recent changes to help make their processes smoother for builders and implementers, while also enhancing their internal tracking. They created a checklist of all the required documents and information necessary for an application to be considered complete. One staff member remarked this appeared to increase the quality of documentation received from implementers. Additionally, they have created a tracking database to better track projects, which is especially important as many have been put on hold or slowed due to current market conditions. Implementer staff have begun sending weekly e-mails to SCE with an update of all actions for the week, including meetings, calls, projects, requests, and marketing or outreach conducted. SCE and the implementers have a conference call every two weeks to discuss any issues. SCE staff feel this has been very helpful to the program process overall.





ENERGY STAR for Homes

We also asked the program staff for feedback on the program's ENERGY STAR component. Two people remarked it had lost quite a bit of participation and builder support in the last few years. They noted it had become very difficult and costly for most builders to achieve the ENERGY STAR levels once the 2005 Title 24 went into effect and new ENERGY STAR requirements were established. They also said several builders developed their own energy-efficient, new home branding instead of attempting to achieve an ENERGY STAR rating.

Staffing Levels

SCE staff felt their current staff levels were sufficient for the 2006-2008 program requirements, although one mentioned there have been some problems with staff not following through with their tasks, thus increasing the workload on others.

Differing opinions emerged on the need to add staff for the SCE CANHP 2009-2011 program. Two staff people wanted to have additional account managers hired to better assist builders in the field. All staff agreed the implementer would need to hire additional team members to meet the needs for the next program cycle.

Feedback on the 2009-2011 Program Changes

Cadmus asked SCE staff for feedback on the 2009-2011 program components proposed or discussed. Their responses are summarized below.

Graduated Incentive Structure

All staff interviewed felt the change in the incentive structure would be beneficial for the program. Several staff commented, however, that they thought this change could be difficult for builders to understand.

Guaranteed Home Performance

Staff interviewed were supportive of the proposed Guaranteed Home Performance element of the 2009-2011 program. However, some indicated they were uncertain how to implement this portion of the program. Several identified effective marketing as central to this component's success as it does not impact builders, the direct target audience of the CAHP, but targets home buyers instead.

Non-code Based Building Design Elements

SCE staff agreed the non-code based design components considered could benefit the program. Again, marketing was thought to be key to its success. Staff commented that these elements would be most successful if the bonus were marketed in a way that increases builder's sales. One staff member mentioned this component could help push builders to explore new technologies and, therefore, be better prepared to reach the goal of net zero energy homes by 2020. Another mentioned that if larger builders began incorporating non-code based design changes into their





buildings, smaller companies might follow suit. In addition, staff pointed out the Sustainable Communities Program and New Solar Homes Partnership would encourage builders to move towards incorporating non-code base design elements.

Program Barriers and Challenges

SCE staff were hopeful the 2009-2011 program changes would decrease participation barriers. They noted their current, more aggressive, targeted marketing might help increase public and builder awareness of the program. In addition, hiring a new account executive was mentioned by at least one staff member as a strategy for creating more harmonious and effective relationships with participating builders, while leading to enhanced recruitment of new builders.

SCE staff identified some potential barriers to successful implementation of the 2009-2011 program, along with some strategies for addressing these:

- There was concern over communication and collaboration with SCG in the new program cycle. All staff hoped they could work effectively with SCG to incorporate trading kWh and therm savings to the benefit of both companies. It was noted both utilities would need to ensure clear communication, while also effectively communicating changes and requirements to the builders.
- One barrier identified was the recent downturn in the market. Currently builders are struggling to just meet their operating expenses and are more cautious about investing in additional features for their projects. One staff member hoped the economic downturn could actually jump-start a trend to energy-efficient homes, such as those including photovoltaics (PVs).
- SCE staff felt an important offering for the new program will be creating an effective software tool for use by builders to determine actual energy savings in their project plans. One staff person indicated SCE is in negotiations with ICF to retool a product they have developed.
- Another concern voiced by all staff was the increase in Title 24 code requirements for builders, which is to be instituted in 2009. Builders may struggle to determine how to meet those standards and not be willing to try and exceed those. It was hoped the temporary incentive for achieving energy savings 10% above code would help ease builders into the more advanced code, while maintaining program participation.
- Staff noted several times that the multifamily home building sector was more difficult to reach than the single-family market. They indicated multifamily home builders and their third-party consultants have a much steeper learning curve than single-family home builders. Also, in the new program cycle, the implementer taking over the multifamily home builder portion of the program has no prior experience marketing CAHP to this market segment.





General Conclusions from Staff Interviews

SCE program staff identified a few issues that arose in the 2006-2008 program that they felt affected program success. These included some confusion about the respective roles of SCE and the implementers, a need for better project tracking, differences between the implementers' and SCE's program motivations, and a need for better communications to participants about their program status and the incentive. Steps were being taken to address these issues and others. Generally, SCE staff were optimistic that the addition of an account executive, their renewed efforts at marketing and outreach, and the new program offerings would all work to increase program participation

Implementer Interviews

Cadmus conducted process interviews with four staff from two companies implementing the CANHP in 2006-2008. Two staff each from HMG and ICF were interviewed. As noted, ICF was the implementer for single-family home builders in 2006-2008, and will implement both single-family and multifamily portions of the program for 2009-2011. HMG staff implemented the multifamily home builder program from 2006 through a portion of 2008.

The implementer staff interviewed all had experience with management of their part of the CANHP for SCE. Most also had experience working directly with builders, including: providing marketing and outreach, application, and incentive process support. One interviewee had been involved in almost every aspect of the program, including design assistance and calculating energy savings in addition to the other roles noted.

The purpose of the implementer interviews was twofold. First, we wanted to document implementer views on program activities, issues, and goals, and obtain implementer feedback on the program processes. Second, the interviews were intended to elicit implementers' opinions on the proposed 2009-2011 program design. The interviews, conducted over the phone by two Cadmus staff, were based on the interview guide attached as Appendix B. The interviews were structured to draw out detailed information by asking open-ended questions with opportunities for Cadmus staff to explore additional relevant topic threads identified by interviewees. Detailed findings by topic area are summarized below.

Main Goals of SCE's California New Homes Program

Cadmus asked the implementers how they would describe the CANHP's current main goal. The implementers cited several different goals, as listed below:

- Increase demand-side management;
- Achieve savings goals mandated by the California Public Utilities Commission;
- Incentivize builders to increase the energy efficiency of their buildings;
- Achieve electricity (kWh) and demand (kW) savings; and





• Give builders a competitive advantage through increased energy efficiency in their homes and buildings.

While these goals are nominally different, they all relate to achieving greater energy efficiency in residential new construction.

Current Program Procedures

Implementers were asked to comment on the different steps they took in implementing the program. For each step, we asked them to identify: who held responsibility for this step, the implementer or SCE; how effectively the step was implemented; and any bottlenecks or issues arising in implementation, either from the perspective of the implementer or the participant. Steps identified were the following:

- Promotion, marketing, and recruiting
- Design assistance
- Energy analysis
- Preparing program applications
- Verification
- Incentive paperwork

One implementer also identified training as an activity they conducted on behalf of the CANHP. Implementer feedback on each of these steps is presented in detail below.

Promotion, Marketing, and Recruiting

Several staff members from both implementer firms felt the party responsible for promotion, marketing, and recruitment was uncertain. While both implementer firms had staff who said they had taken on program marketing and recruitment responsibilities, there was confusion around whether they held lead responsibility for these activities. The implementers indicated SCE's program staff had recently started taking on a much larger role in directly marketing the program, in marked contrast to earlier in the program. Implementer staff did agree SCE held primary responsibility for developing all the marketing collateral associated with program outreach.

Issues identified in our conversations with program implementers included the following:

- Lack of clarity around responsibility for this step, along with changes in program staffing at SCE increased implementer confusion;
- Lengthy turnaround times for marketing materials developed at SCE, in particular the introduction to builders DVD, a builder marketing package, and grand opening postcards;
- Limits on the marketing budget for implementers to do outreach/education with third-party consultants and other building industry market actors; and
- Unclear or mixed messages in the marketing materials created by SCE.





Implementers indicated one-on-one marketing was the most successful tactic, though one implementer commented he felt marketing to large groups was more cost-effective. Staff at both implementer firms also felt marketing targeted towards third-party consultants not only helped build successful relationships with them, but also helped increase the number of builders participating in the program.

From the implementer interviews, it became clear the promotion, marketing, and recruiting area needs more clarification and delineation of tasks between SCE and implementers. Additionally, the interviewee comments suggested more communication between SCE and the implementers around program marketing and outreach will be essential in the next program cycle to ensure the best information is delivered to the largest number of potential participants.

Design Assistance and Energy Analysis

Design assistance was offered solely through the implementers. The amount of support offered to builders under this step in the process varied widely between the two implementers. HMG, implementing the multifamily buildings portion of the program, saw this as their primary service to participants. HMG found that 95% of their projects needed at least some design assistance, with about 15% requiring constant assistance, along with builder and consultant training. They attributed this to the fact that many multifamily home builders and their consultants were still learning how to design buildings to meet the 2005 code. HMG spent considerable time assisting them with designs exceeding Title 24 to meet the program requirements. HMG staff indicated they had to work with builders and their consultants to correct energy analysis and building plans done incorrectly. For builders or energy consultants who had a particularly difficult time, HMG staff would do the work for them. HMG felt this was the most valuable service they offered their participants and could be one of the primary reasons multifamily home builders signed up for the CANHP.

Single-family home builders did not require as much assistance. The builders, as well as their consultants, tend to be much more familiar with designing buildings to meet or surpass code for energy efficiency. ICF has two certified energy plan examiners on staff that work with the builders' third-party consultants to make sure their buildings qualify for the program.

Both implementers had suggestions for improving this part of the process. Offering training to builders and, especially, their third-party consultants, to achieve better plans up front would help the process significantly. Also, HMG would have liked to have had a larger budget to do training with consultants and builders in advance of their applying to the program. Software packages to assist mechanical engineers were also identified as something that could greatly assist builders with meeting and exceeding Title 24 requirements.

Applications and Plan Check

The implementers saw this step as two pieces. They considered the first piece—making sure applications, designs, and plans were completed correctly and forwarded on to SCE—to be their responsibility. While generally this step is managed primarily by the implementers, SCE staff have taken on managing, assisting, and processing the applications for at least one large single-





family home builder. The second piece was quality control and paperwork processing completed by SCE before project approval.

This part of the process was viewed by the implementers as the most difficult one in the program. Many concerns were relayed by implementers about this process, including the following:

- Requiring original documentation with two "wet" signatures creates a barrier for participants, and requires more time from implementers to complete documents.
- With the market down, builders are changing the way they work and not necessarily building their projects in the order they intended. Also, builder projects are apt to change between their application and their plan check review; so the team is required to re-do paperwork.
- Submitting paperwork to SCE was sometimes problematic. One implementer indicated their paperwork was lost several times, and it was hard to find a method of submission that worked well for both parties.
- Implementers are not copied on letters and documents sent to builders when their plans are approved, nor does SCE notify implementers when they contact participants.
- Currently, builder documents are frequently rejected by SCE, even when the errors or missing information is small and not very significant. One implementer felt this was a barrier to participation, especially at this time when the building market is slow.
- Program change decisions are made by SCE without input from implementers and are sometimes applied retroactively to builder projects.
- SCE staff sometimes change paperwork requirements for individual builders on a caseby-case basis.
- Information required from builders may be excessive and not essential to the program.

Overall, implementers expressed frustration with this step in the process. They felt the paperwork required to participate can become a burden for builders, and often winds up being handled by the implementer as they did not want to encumber the builder and discourage participation. Implementers felt there were many barriers to participation in this step, compounded by unclear or changing requirements. Additionally, implementers commented that they felt the quality control measures recently put in place by SCE were burdensome, and added significantly to their workload.

The implementers offered suggestions for improving the process. First and foremost would be better and more continuous communication with SCE staff. They also hope that they can work with SCE to better define program requirements and participation benefits in the marketing materials, so they are supplying the best information to potential participants. There was also a





hope expressed that paperwork requirements could be reduced, with builders having the capability to submit their paperwork on-line.

Verifications and Incentive Payments

The implementers felt this was an area where they were frequently out of the loop. They commented that they have built and sustained their relationships with the builders to encourage their participation in the program, but they are not notified when builders have their incentives approved or receive a check. They expressed frustration about this.

The verification process and incentive paperwork were mostly a process involving the builders and SCE. However, implementers commented that it has been necessary for them to get involved when paperwork comes in from builders with many errors, or the HERS raters do not understand which information is necessary for the inspection to meet the program requirements.

Suggestions for improvement in this step of the process were: more communication between SCE and the implementers; and keeping the implementers up to date on the SCE process.

The SCE program manager does have plans to begin using the "Smart Database Tracker" for the 2009-2011 program cycle which will allow SCE to exchange information electronically with ICF through a web interface.

Other Program Feedback

Perceived Barriers to Participation

The implementers were asked to identify any barriers to program participation they saw for builders and developers. The implementers noted several barriers and listed areas for program improvement, including:

- Program marketing: Staff from both implementer firms suggested additional staff and
 dollars be put towards program marketing. They said many builders are still unaware of
 the program, and competition with SCG has been a drain on participation, especially
 since SCG has done more marketing. Additionally, one implementer suggested having
 more sales and marketing staff trained and available for when the housing market goes
 back into an upswing. HMG staff suggested the best method for reaching multifamily
 building participants was to have implementer and utility staff attend events and
 conferences.
- *Paperwork:* Implementers said the amount of paperwork required to participate in the program, along with the recent rigor with which applications has been reviewed, causes builder fatigue. They stated there is too much back and forth to get applications and other paperwork approved by SCE. One suggestion for improvement was to add the capability for builders to file their applications on-line with tutorials and help features.
- Consultant education: Implementers commented that multifamily builders need a large amount of assistance with their building designs and paperwork. HMG staff stated third-





party consultants in this market could use additional education to help bring them up to speed.

In addition to the above recognition of barriers and suggestions for improvement, one implementer stated the incentives are low and not sufficient to be a major motivator for participation. Another implementer wanted to remind everyone that the program needs builders much more than builders need the program, and this should be kept in mind when SCE adds requirements to the program design.

Staff Levels

Implementers were asked if their staff levels were sufficient to meet program delivery requirements. They also commented on their perceptions of SCE staff levels.

HMG felt their own staff levels were sufficient at the beginning of the program, but, as they lost money on the contract, they were forced to cut back staff. ICF stated that their staff levels were sufficient for implementing the single-family portion of the program, but that they would like to have additional funding for staff that could be devoted to marketing and sales. They are currently working to tap other staff resources in preparation for the multifamily buildings component of the program in the next cycle.

Implementers commented that they were not as aware of SCE's staffing levels, and, therefore, not able to comment on them. One implementer felt adding a staff person at SCE might help make communication between the implementer and SCE staff flow more easily and be more positive.

Additional Feedback

The implementers had some additional suggestions for improving the program processes. With the market in a downward turn, sometimes building projects have been cancelled after an implementer put quite a bit of work into assisting them with design and application materials. This time and energy is an added, unreimbursed expense for the implementer. An additional theme throughout our conversations with both implementers suggests improved communication with SCE would help the program operate more smoothly.

Feedback on 2009-2011 Proposed Program Changes

Implementer responses to the proposed 2009-2011 program changes are detailed below. The main theme throughout this portion of the conversation focused on the need for SCE to very clearly define these changes and the associated requirements. To ease adaptation to the changes, implementers suggested SCE develop software tools to help builders assess their designs. Another suggestion was to keep the application process simple, easy to understand, and straightforward for builders, stating clearly what incentives builders can receive and how to participate.





The implementers also felt they had a fair amount of expertise that could be offered to SCE on changing the program's design, but they had yet to be invited to share their ideas or opinions on the subject.

Graduated Incentive

The graduated incentive was met with varying enthusiasm from the implementers. One implementer indicated much more assistance and education would be needed to get builders up to speed and involved in the program. Another respondent indicated it would be a great benefit for those that achieve additional efficiency in their design, but are unable to receive additional incentives under the current incentive design. The other two implementers felt the graduated incentive was a great idea, and wished it had been implemented sooner.

All the implementers believed there would be many challenges in making such a fundamental change in the program and expressed hope that SCE would be willing to provide education and software tools for the builders to help them more easily understand and negotiate the change. None wanted to see this change ultimately become a barrier to builders' participation in the program.

Zero Peak Design Bonus

The implementers felt the Zero Peak Design Bonus could encourage some projects to include PV systems. They stated some builders are interested in this technology right now, but it is considered cost-prohibitive. One implementer felt addition of this bonus would help increase participation, but another said it would not make much difference.

Compact Home Design Bonus

The compact home design bonus was viewed as a benefit and a good program addition by two of the implementers, while the other two did not think it would do much to encourage builder participation. One multifamily implementer said this bonus might be more applicable to single-family units, while one single-family program implementer thought it was more applicable to multifamily units.

Green Home Design

One implementer felt the green home design bonus would help builders connect "green" with energy efficiency. Another was concerned that the bonus would take the builder focus away from energy efficiency. Two implementers said they thought inclusion of this bonus could help with marketing the program.

Non-code Based Building Design Elements

Implementer feedback was mixed on non-code based building options. The implementers thought it would be a good addition for builders already interested in pursuing GHG emission reduction goals. One implementer was uncertain how legal aspects of this part of the program





would function and was concerned it might end up being too complicated for builders to actually pursue.

Guaranteed Home Performance

All implementers thought the Guaranteed Home Performance approach would be of interest to buyers and renters. However, three implementers raised concerns about how this approach could be addressed with builders.

General Conclusions from Implementer Interviews

The implementers had some concerns regarding uncertainty about the roles of SCE and implementers, particularly regarding program marketing. They felt the application and plan check portion of the program process needed the most attention, especially to streamline paperwork requirements and improve information flow. Generally, implementers expressed some frustration that they were not brought more directly into SCE's program planning and decision-making processes.

The overall concern with the proposed program changes was the need for builders and third-party consultants to be supplied with additional training about the changes. Implementers also stressed training should be accessible in many different formats and venues to encourage participation among builders and consultants at all levels. Software tools were also considered paramount to ensuring the success of proposed program changes. Finally, as noted earlier, some implementers felt they could provide useful insights to SCE about the program changes based on their experience managing this and similar programs if they were consulted.





5. Participant and Non-Participant Builder Data Collection

SCE prioritized using builder focus groups to provide early feedback on the proposed design of the 2009–2011 program. This chapter discusses the approach and findings from the four focus groups conducted with builders: two participant groups and two non-participant groups. Because of difficulties in recruiting non-participant multifamily home builders for focus groups, we conducted telephone interviews with three builders to supplement the focus groups. These focus groups and interviews provided feedback and insights on the existing marketing and program process as well as on SCE's proposed changes.

Research Topics

The focus groups sought to explore the following research topics, ranked in SCE's priority, based on their feedback:

- 1. The perceived value of the CANHP to builders, and its ability to influence the new construction market (in general) and participants' projects (in particular).
- 2. Program improvement suggestions.
- 3. Perceived value of the proposed new incentive structure and the Zero Peak, Compact Home, and Green Home components in the 2009–2011 program design.
- 4. Interest in and reactions to a Guaranteed Home Performance program element.
- 5. Opinions on the program process and any barriers to participation or challenges with the current program process.
- 6. Value of SCE marketing and public recognition of participating builders.
- 7. Training and technical assistance needs, and feedback on SCE's proposed training.
- 8. Ways to help builders communicate and market the value of energy-efficient and sustainable building design to differentiate their offerings and create demand.
- 9. Value of the ENERGY STAR® label compared to builder's own energy-efficiency branding efforts.
- 10. Building design process: key decision-makers and how to influence their choices.
- 11. Value of including non-code based building design elements in the program, such as passive cooling and greenhouse gas emission reductions.
- 12. Opinions on coordination of new homes programs between different utilities.





Participant Builder Focus Group Findings

Findings from the participant focus groups are presented below, starting with background information on why the participants chose to be in the program. As noted, one participant group was held with four single-family home builders, and a second was held with two multifamily home builders and developers. The findings for both groups are discussed together, with differences between the single-family and multifamily participants highlighted.

Why Builders Chose to Participate in the 2006-2008 Program

The single-family home builders represented at the focus groups learned of the program through contact with SCE, information from colleagues and third-party consultants, and their company's historical involvement with the program. The multifamily home builders noted their first knowledge of the program came from contact with HMG, the program implementer.

Builders participated in the program for different reasons, including: incentives, market advantage, and opportunities to be prepared for future building standards, which are expected to demand more green and higher-efficiency building practices. Three of the four single-family home builders believed their participation in the program and greater energy efficiency in their homes gives them a market advantage. One builder of higher-end, single-family homes said he did not think his buyers were concerned about energy efficiency or the cost of their energy bills. Another agreed, saying buyers liked the energy-efficient features, but they were not a selling point. One builder stated that in the beginning, the incentives were the reason for their participation, but that building "green" has since become a corporate priority.

The two multifamily home builders in attendance indicated their reasons for participation. The large, market rate developer said he had participated in a similar program with SDG&E and knew their buildings would qualify. The other participant was a developer of affordable housing, and usually builds units 15% to 20% above code because it is required in order for their projects to receive relevant tax credits. Additionally, both multifamily home builders and one single-family home builder noted they enrolled after they already had projects designed that would qualify for rebates.

Most of these builders were participating in the program for the incentives; however, they indicated additional participation benefits, including: market advantage, being prepared for future code changes, and because either the builder or an outside entity was requiring new construction to be more "green."

Program Influence on the Market

When participants were queried about how the CANHP influenced the overall building market, the builders had few responses. One builder mentioned the program's promotion of ENERGY STAR®, but said people generally associated ENERGY STAR® with appliances and did not think of it as a rating for an energy-efficient home. Another builder indicated the incentives had encouraged builders to participate by helping cover their added costs prior to sale.





Although builders did not provide many comments about how the CANHP had affected the market, one builder noted that his company had originally participated primarily for the incentives, but has since decided that it made business sense to make all their construction "green." This suggested at least for this builder that their perceptions of green construction had changed, in part, because of the CANHP.

Opinions on Current Program Processes

Enrollment Process

The facilitator asked participants if, when enrolling in the program, the process was smooth and the benefits were clear. The builders noted only a few difficulties with enrolling in the program and indicated none were significant.

One builder said he had a difficult time enrolling his project when the Micropas software was being upgraded. Another builder complained that SCE required forecasting the number of homes a builder planned to complete in a year. This number can change quickly, and construction sometimes will be put on hold. Another noted the 30-month time limit to finish building would be difficult with the market down.

Both multifamily home builders indicated the enrollment support provided by HMG was very valuable. One multifamily home builder was confused about the performance versus prescriptive rebates, and whether a building could qualify to receive both.

Another issue noted with the enrollment process was the competition for builder participation between the SCG and SCE program. Both multifamily home builders discussed being recruited by SCG to participate in their program instead of the SCE program. Both stayed with the SCE program because of the higher incentive paid per unit.

One builder suggested SCE offer an on-line application filing for the builders to ease the enrollment process. The other builders generally agreed this would be a benefit to them.

Design Assistance

Program design assistance did not come up for the single-family home builders, but it did surface with the multifamily home builders. Both attendees agreed HMG had provided significant support to them by offering design assistance services. One stated HMG had helped get all parties on their projects on the same page, meeting with the contractor, sub-contractors, and engineers to ensure everyone had the same information and expectations. HMG had even helped review Title 24 compliance analysis and documentation for one of the builders. One of the builders expressed concern that without HMG, there would be a gap in services to their market.

⁷ Micropas is one software tool used to demonstrate compliance with the residential Title 24 code.





Post-enrollment Communications

The single-family home builders expressed more concerns about continued communication after their program enrollment than the multifamily home builders. One said he had not received any communications from SCE until receipt of a notice that his project had outlasted the 30-month time limit for completion. He was upset the rebates would be terminated because his project had passed the 30-month time frame when he had no warning. Another builder said there should be continuous communication between SCE and the builder throughout the process.

One builder suggested a Web-based tracking system would be highly beneficial for his company. Such a system could provide information on a project's status and milestones. Another suggested a simple, paper flowchart showing all participation steps.

One builder noted SCE's communications had been inadequate in the past, but SCE had improved this area in the past couple of years and this was a plus. One large builder noted SCE staff had started being in direct communication with them and had set up a spreadsheet indicating where all their homes were in the process. This increase in communication had been extremely valuable and made their participation easier. Another builder, however, indicated he did not think SCE would provide that service level to his company because it was smaller.

Overall, builders indicated a need for greater communication or easy access to information from the time the project was enrolled in the program to the end of their project and payment of incentives.

Verification

Builders had few comments on their experience with the verification process. One multifamily home builder indicated he had a difficult time getting his project approved when the HERS rater did not upload their report in a timely manner. It was noted that SCE's requirements for verification were less stringent than SCG's, which requires a separate utility inspection. One builder indicated it would be desirable to have a sample of homes in a project inspected instead of every home.

Incentive Paperwork and Payment Process

Most of the builders in attendance agreed the paperwork and payment process could be quite a bit of extra work for them. One single-family and one multifamily home builder said there was a lot of back and forth with their consultants to get the correct paperwork to SCE to have the incentive approved. Two other single-family home builders indicated the incentives were slow to be approved and arrive. Another person indicated the checks did not identify the project, and this caused confusion with the multiple projects they were working on and homes they were building.

The multifamily home builders said SCE required model and serial number for all appliances they purchased as part of their program participation, and this generated a large amount of additional paperwork for multifamily home builders. Their companies do not buy a small number of appliances, such as refrigerators, with separate invoices for each. Instead, they will buy 400 refrigerators from a large distributor, and serial numbers are not a part of the usual paperwork the builder collects. They noted it would be preferable if SCE could accept a copy of their invoice





instead. The multifamily home builders also indicated it was a burden to have to wait to get incentives until all units were completed.

Again, in this section of the focus groups, the need for greater communication and a desire to know the complete process was identified as an area for improvement. One single-family home builder indicated he would like a simple summary of the steps needed for completion "in plain English" from SCE, so he could be better prepared. Multifamily home builders noted specifically they would like to have their usual workflow and documentation taken into account in the incentive paperwork SCE requires.

Marketing

Builders were asked about the value of SCE's marketing incentives. Two single-family home builders indicated they had taken advantage of the marketing incentive dollars. Materials obtained included brochures, postcards, and a banner for an open house. However, a few single-family home builders and both multifamily home builders were not aware of the marketing incentives available to them, though this could have been because these focus group attendees were not in the sales and marketing area of their companies.

Several single-family home builders indicated their sales and marketing staff could use more training on the benefits of energy-efficient, construction-exceeding code requirements. They suggested developing marketing pieces to help buyers understand benefits and costs associated with high-efficiency homes and homes meeting ENERGY STAR® requirements. A single-family home builder also indicated he would like to see events based around "green" concepts for buyers and have SCE staff at those events. One multifamily home builder said he would like to be able to use a logo that indicated to prospective renters that his program units were at energy-efficiency levels higher than required by code. He felt this would be a great marketing device for their units.

Overall, builders in the focus groups had little awareness of marketing incentives the program made available to them. This suggests there might be an opportunity to publicize this aspect of the program more to increase participation.

Feedback on 2009-2011 Proposed Program Changes

Midway through the focus groups, Cadmus staff distributed an information sheet on the proposed 2009-2011 program changes to builders in attendance. The changes were reviewed with the builders, and their opinions and feedback were solicited.

Graduated Incentive Structure

The builders found the new incentive structure difficult to conceptualize. There was much uncertainty about what exactly the incentives would cover. Most felt they would need to do some analysis of the incentive, and see the costs and benefits of achieving different energy-efficiency levels laid out in the context of a project. One builder said it would be necessary to hire a mechanical engineer to do the calculations, and that would be costly. The confusion over the new





incentive structure was only compounded when the builders began to discuss the Title 24 code changes the state will require in 2009.

One single-family home builder pointed out it would be beneficial to have an additional incentive available when a home meets 16%, 17%, or 18% above the code. He felt this was an improvement over the existing system, which provides an incentive for reaching 15% above code, but nothing more until the next tier is reached.

One builder said it would be very hard to get to 35% above code, and he claimed this level was close to LEED requirements. Another said it was costly just to get to 20% and above.

Builders found the new incentive structure interesting, but they felt they needed much more concrete information about qualifying their projects under the new structure. This will likely be, as SCE has recognized, an area where additional training of builders is necessary to make a smooth transition under the 2009-2011 program.

Zero Peak Design Bonus

The multifamily home builders were more excited about the zero peak bonus than were the single-family home builders. The multifamily home builders said the Zero Peak Design bonus would be a welcome addition since PV systems have been cost prohibitive in the past for them to install. The developer of affordable housing buildings indicated this bonus would complement many other grants and programs to help him and fellow builders install PVs on their buildings.

One single-family home builder, however, said even with additional incentives, installing PV systems was far from a net zero cost to the builder and home buyer. Another said he thought the demand for PV systems was not very high now, but it would increase in a couple of years. Another single-family home builder suggested SCE should do the PV system inspection under the CAHP, and not within the SCE PV program, because doing so would cause too much confusion.

Compact Home Design Bonus

We reviewed the compact home incentive with builders and asked for their reactions on the incentive. Even though one single-family home builder indicated smaller homes were in demand right now because they are more affordable, several pointed out concerns about the concept. One builder stated that home size was not controlled totally by builders since municipalities have a lot of requirements on the size of homes. A builder of large developments indicated they are planning developments that will take two years to construct and need to have a variety of lot sizes to attract buyers at different levels. One builder said that it was usually in the interest of builders to put larger houses on lots since, for example, if there is space to build a 4,000 square foot home or two 2,000 square foot homes, it would cost a lot more to build the two, 2,000 square foot homes. One builder also said they would not advertise they were building smaller homes to get an SCE incentive.

⁸ LEED is the Leadership in Energy and Environmental Design green building rating system.



The multifamily home builders expressed uncertainty about whether the incentive could really apply in their market. This is because their units are already very small, usually about 700 to 900 square feet.

In general, this incentive was not one that held a lot of interest for the builders. The consensus was the market and other factors would have more effect on home size than would a utility incentive.

Green Points Bonus

Participants were asked their opinion on the Green Homes incentive for green point ratings of 50 or above. The single-family home builders were, on the whole, skeptical about the application of this incentive to their business. One believed that building green was expensive, and consumers were not sufficiently educated on the concept. Two stated it will be a long-term process for consumers and the general public to become more "green." One builder said he had heard various advertising on the radio about green products, but not from SCE.

The multifamily home builders, in contrast, were more receptive, and were already being required by some cities to build green. One of the builders said he would prefer that the program look to LEED for its criteria rather than the green points rating system. He said he had been researching LEED ratings and would like to incorporate those into his future developments.

Similar to the Zero Peak design bonus, this incentive was one that multifamily home builders felt could be more immediately applicable to their projects than did single-family home builders. The single-family builders indicated their market needs more education on the benefits of "green" construction before there would be substantial demand.

Guaranteed Home Performance

The guaranteed home performance option was considered a positive addition, but several builders were concerned about consumer behavior and how that would affect the guarantee.

One single-family home builder said the option could help open the eyes of the homebuyer. He noted his company offers a new homeowners manual describing maintenance and how they can save energy in their home. This builder felt half their buyers probably review the guide, while the other half just want the house to be 70 degrees when they get home. Two single-family home builders indicated, while it would be good for families to be able to bank on the costs of their utility bills, it was currently a challenge just to get people qualified to purchase homes. One said the guaranteed home performance would not sell the home, but it could be an attractive feature.

The multifamily home builders also were only marginally interested in the guaranteed home performance option. They considered it to be less applicable to renters, and one expressed concern about having to do additional paperwork and be involved in additional programs.

Overall, this option generated less interest among builders than did several other options. There were concerns about the effects on behavior, and multifamily home builders were unsure how it would apply to their renters.





Non-code Based Building Design Elements

The builders participating in the focus groups had very limited experience with non-code based building design concepts, such as passive cooling. They were a bit skeptical of how passive cooling might work. One multifamily home builder said his business, and most construction business, was constrained by features their competitors were offering, and not providing air conditioning would be difficult to sell. One single-family home builder said passive cooling would only work with homes in coastal climates where it is cooler.

The option of greenhouse gas was discussed briefly. Builders were confused about how a home or builder could claim greenhouse gas emission reductions.

Training

The facilitator asked builders to comment on training they had received from SCE and any training they would like SCE to conduct for the 2009-2011 program. The single-family home builders that had received training through SCE felt those trainings were beneficial. One single-family home builder remarked, however, given the market slump, they had to cut staff, and this would make it difficult to ask remaining managers to attend training when they were so busy.

The multifamily builders had less to say about training experiences. One had heard a training was hosted by HMG in Northern California, but it was not made available to him in Southern California. The other multifamily home builder indicated he had received an invitation to one training in the Los Angeles area. One commented that SCE had missed a training opportunity because it did not attend the National Association of Home Builders Multifamily buildings group conference held in Southern California in June.

While they thought the training SCE plans during the 2009-2011 program cycle sounded beneficial, several asked that SCE provide web-based training; so their staff would not be required to travel. Additionally, several builders requested SCE offer training for the sales staff on energy efficiency and how increased home efficiency impacts a potential home owner. The single-family home builders also brought up a need for training their consultants as well as staff at the municipalities. One multifamily home builder echoed this need, saying he was reviewing plans six different times with engineers and consultants to determine the energy savings and costs. The other multifamily home builder indicated he would like to attend training on Quality Insulation Installation and how it differs from installing insulation based on the code.

Coordination with Other Area Utilities

All builders attending the two groups were aware their projects could be incentivized under only the SCE program or the SCG program, but not both. Several indicated challenges with both programs. Both multifamily home builders selected the SCE program because the incentives were greater; however, they had been contacted by SCG, and the utility had attempted to recruit the projects to their program. One builder said the SCG program had a better reputation, but indicated it required a bit more work because builders needed to get a separate inspection.





Suggestions for Program Improvement

Finally, we asked participants if they had any overall suggestions to help improve their experience with the SCE program. One single-family home builder indicated it would be beneficial to have a project manager—a single point of contact the builder works with to get the project through the process. A multifamily home builder said SCE should change their requirements for documenting ENERGY STAR appliances. Both multifamily builders expressed an interest in making sure the design assistance function HMG had provided continued with the new implementer. Another suggestion was that the SCE program should recognize and promote LEED developments.

Builders were also asked if there were any benefits to personal delivery of incentive checks. While a couple of builders thought it might be a good gesture, the consensus view was the most important thing was for checks to have pertinent project information on them, so the incentives could be applied correctly.

Other program improvement ideas brought up during the focus groups that had broad appeal were mostly technology-driven suggestions. Builders were interested in having SCE develop an on-line program for submittal of applications, a Web-based tracking system, and Web-based training. Many builders in attendance indicated a need for a program guide or flow chart showing the project coordinators how the program works, along with all documentation required to complete the program.

Non-participant Builder Focus Groups

Cadmus conducted two non-participant focus groups: one attended by two single-family home builders; and the other attended by an additional two single-family home builders and three architects serving clients building multifamily buildings. The single-family home builder non-participants included two small production tract builders, creating homes for first-time home buyers, and two builders from a larger firm constructing large developments, including homes with custom features. The architect and planning staff concentrated their practice on condos, apartments, and mixed-use buildings. Because of the difficulty recruiting multifamily home builders to attend a focus group, we also interviewed three multifamily home builders by telephone. Focus group findings are presented below, and information from the phone interviews is presented in the section following.

Builder Practices and Feedback on the Current Program

The non-participant builders were asked for their feedback on the existing program offering. The discussion started with their views regarding energy efficiency and green building, and moved to their awareness and understanding of the program and potential participation barriers.

Energy-efficient and "Green" Building Practices

Two of the four single-family home builders said they currently strive to exceed code, building homes to meet ENERGY STAR® requirements. One of the attendees builds single-family tract





homes to just meet Title 24 standards, and he commented that participation in utility programs is difficult to make cost-effective for small firms. The group of multifamily architects in attendance offers their clients designs that exceed code as well as LEED building design.

Awareness of CANHP

Awareness of the CANHP ranged from one non-participant who had a general idea about the program with little detailed knowledge to one who was just beginning the CANHP participation process. One group participant noted that, though he had missed it, a SCE representative had come to his firm to make a presentation on the CANHP. Others commented they had seen advertisements in builder-focused magazines. Most attendees commented that their clients seemed to have a general idea of the program, or at least a similar utility program. Several attendees mentioned receiving e-mails from a gas utility, and there was confusion about whether they could participate in both programs.

When asked to describe the program, attendees mentioned advertising dollars and incentives in exchange for "extra" efforts. When asked why they had not participated, several commented they had not been part of the decision at their firm, or it had been too expensive (i.e., the incentives were not enough to offset the cost of creating energy-efficient homes above code). When asked about their awareness of other utility programs, several attendees mentioned a gas company residential new construction program.

The focus group attendees were asked where they received information on green building and/or energy efficiency. They listed a wide range of sources including these:

- local newspaper
- city governments
- clients
- sub-contractors
- suppliers
- seminars and conferences
- major appliance manufacturers
- utility providers
- the Internet
- Title 24 consultants, and
- builder-focused magazines.





When builders were asked who in their company makes decisions to build energy-efficient homes, all participants mentioned they have to weigh the costs and benefits and present that information to their CEO. They also mentioned home buyers must be willing to pay the premium for more energy-efficient homes.

We asked attendees if they felt building energy-efficient homes above code can give builders a competitive edge. The attendees said it is a market advantage when buyers are informed and interested, but the associated costs are often a barrier. Several builders also agreed the market is the primary driver for these decisions. Builders indicated it is important to have well-trained sales staff who can effectively explain the benefits of homes built with energy efficiency above code to interested home buyers.

Barriers to Participation

The group facilitation staff distributed a one-page outline of SCE's current CANHP and asked attendees to review the program offerings. The focus group attendees were then asked if they saw any barriers to participation based on the information shared with them.

One barrier expressed by an attendee was the requirement to build their projects within 30 months, especially in a down market. The one attendee building homes in the desert stated he felt the costs of participation outweighed the benefits of participation for his construction area.

Feedback on 2009-2011 Proposed Program Changes

Focus group attendees were next asked about their responses to the being proposed for the program during the 2009-2011 cycle.

Graduated Incentive Structure

Attendees were intrigued with the proposed graduated incentive structure. Several requested that SCE provide additional information on how the incentive would work with their projects. They were hopeful they could reach higher energy savings levels in a cost-effective manner. In general, attendees remarked that the graduated incentive structure was more flexible than the pervious structure, and could encourage participation.

Zero Peak Design Bonus

Reactions to the Zero Peak bonus were mixed and limited by the lack of detailed information. The builders expressed concern that the incentives would be insufficient for offsetting the cost of including PVs. They did remark that, in the future, the cost of including PVs would drop, and demand from home buyers would increase. Attendees from the multifamily building sector commented that increased lighting efficiency and occupancy sensors were already required under code. These attendees asked for more specific information on the measures SCE planned to include under this bonus.





Compact Home Design Bonus

Group participants were asked to comment on this bonus for constructing homes smaller than the area average. Several respondents indicated the incentive would not impact building design, while one attendee mentioned he was already seeing the market move towards smaller homes. Overall, builders maintained market demand would continue to be the greatest determinant of home size.

Green Points Bonus

The attendees thought additional incentives for green design features were of interest. Several mentioned that the costs versus benefits of building to achieve a higher Green Points rating would be the ultimate determinant of participation. Attendees also commented that certification or labeling of a home or building would only be effective if the branding was well known (e.g., ENERGY STAR®).

Guaranteed Home Performance

Though they were interested in the option, attendees were unsure how the guaranteed home performance bonus would function, and there was great concern that guaranteed utility bills could be a warranty issue for the builder. One participant said this could only work if it was the utility's responsibility and not the builder's. Ultimately, attendees were hopeful that program details could be clarified and be an effective marketing tool for both potential home buyers and renters.

Marketing Incentives

Interest in marketing incentives varied widely among participants. Several attendees agreed that recognition under the SCE CANHP or CAHP could provide builders a competitive edge with buyers. These attendees suggested the program benefits should be marketed to consumers through avenues such as home and garden magazines. In addition, participants also agreed consumer education focused on energy and dollars saved could be beneficial (e.g., focused mass marketing campaign to increase the level of understanding for potential home buyers and renters). Overall, attendees agreed a range of marketing support provided by SCE could be helpful, including bill inserts, brochures, office and grand-opening signs, and workshops to train sales and field staff.

Training and Technical Assistance

Attendees expressed the greatest interest in training for Title 24 changes, green building techniques, and sales staff training. However, builders frequently mentioned their limited staff time as a potential barrier to attending trainings. They did respond positively to the idea of Webbased trainings. Participants also indicated interest in easily understandable material concerning the 2009-2011 program and incentives.





Interest and Suggestions

Attendees expressed increased interest in participating in the program after reviewing the 2009-2011 proposed changes. The greatest level of interest in the program options was for the graduated incentive structure and the guaranteed home bonus. One participant commented that if SCE stood behind the guaranteed home bonus, it could be a huge advantage to participating builders. Attendees also noted that on-line tracking and submittal of paperwork would be of use. Additionally, a builder stated that new modeling software to help with design of higher energy-efficiency buildings would be a great benefit to participants.

One mentioned it would be helpful if SCE, when reviewing the plan check, notified the builder of any additional energy saving opportunities that might be present and overlooked. This builder stated he would be likely to reconsider the home design if additional opportunities were present.

Another builder commented that working with an account manager would increase their interest in the program. Another suggested SCE should present successful case studies for both single-family and multifamily homes to encourage both home-buyers/renters and builders.

Non-participant Phone Interviews

Because of the difficulty of recruiting non-participating multifamily home builders for the focus groups, Cadmus staff conducted phone interviews with representatives of this sector responsible for designing, managing, and overseeing building projects in their organizations. We interviewed a company partner for a low-income multifamily home developer, a project manager for an affordable housing corporation, and a lead purchasing agent for a builder of a wide scope of projects, from moderate to luxury multifamily housing.

Builder Practices and Feedback on Current Program

Energy Efficient and "Green" Building Practices

Reactions from the multifamily home builders about energy-efficient and green building practices were mixed. One respondent said that exceeding current Title 24 code was a major goal for his company—the company's CEO had made it a top priority to be the "greenest" affordable housing developer in their market. Another interviewee reported his company already builds 15% above Title 24 code because the company's financing requires it. The third builder explained his company's homes are built to just meet current Title 24 code requirements, though some projects slightly exceed code by including some additional energy-efficient measures such as efficient lighting and windows. He stated, however, that building energy-efficient homes is not a priority or a standard they are striving to reach.

Despite the focus of two of the three builders on green, energy-efficient buildings, none reported this was done to provide a competitive edge in the multifamily market. As explained by one affordable housing builder, energy efficiency is not a major concern in the low-income market segment—the concern is keeping the cost of building low so the project remains as affordable as possible. Another builder had a little different view, noting that affordable housing tenants are





very interested in energy-efficient housing to keep utility bills lower, but the local agencies funding the housing projects are not consistently supportive of providing the funds for increased efficiency. One respondent noted financing is an important factor in the market now for buyers; since they are very concerned about qualifying for loans, energy efficiency is a lower priority. Another provided similar feedback, noting that under current market conditions many builders view energy efficiency as an added feature not worth the added cost and they are taking steps such as lowering their ceilings from 9 feet to 8 feet to reduce costs.

When asked who makes the decision about incorporating energy-efficient measures above code, we were told project managers, the director of housing developments, and CEOs were involved in the decision process. It was noted that finance and budgeting play a role as a large decision factor in this process. Additionally, one interviewee explained the decision is a group effort related to construction marketing and design. The process taken for this particular company is to build the building according to their own design/plans, then sell it to a buyer about 30 days before completion of the project. At that point, the buyer has minimal input that is mostly aesthetically related. Because of this, it is not very feasible to accommodate customer requests.

Awareness of CANHP

Two of the three interviewees reported being unaware of the opportunity to participate in the CANHP. The builder that was aware of the opportunity to participate but chose not to, had never participated in the program before, and said they received an e-mail but did not have time to read it. They explained their understanding of the program as a rebate program for energy-efficient appliances and fixtures. None of the respondents were aware of any other SCE energy-efficiency or other utilities' residential efficiency programs.

Barriers to Participation

Interviewees were emailed a one-page outline of SCE's current CANHP and asked to review the program offerings. Those interviewed identified several barriers that might keep them from participating in the program.

One builder said he did not know who at SCE to contact or when to contact someone. Another builder said the temperate climate in Southern California greatly reduces the demand for energy-efficient measures. A barrier that was emphasized is the feeling the program does not reach multifamily home builders and is not tailored to target them. One builder commented that it appeared the program mainly targets the high-rise market segment and barely applies to low- to mid-rise buildings. She would like to see more incentive opportunities in the low- to mid-rise segment.

A major barrier listed by all three respondents was that builders have no significant incentive to be concerned about energy efficiency. Additionally, there was confusion on behalf of one builder that thought incentives would be received by the customer and not the builder.

Two of the multifamily home builders indicated they would appreciate more clarity on where their segment fits into the program. They would especially like to receive information directly targeted to multifamily home builders. It was also suggested that if SCE offers greater incentives





in the form of rebates and lowering the upfront cost for builders, he would be more inclined to participate in the future.

Feedback on 2009-2011 Proposed Program Changes

The three multifamily builders were also provided with a description of changes proposed for the 2009-2011 cycle and asked to provide their feedback.

Graduated Incentive Structure

After reviewing the proposed 2009-2011 graduated incentive structure, one builder thought it sounded like a good offering, but the other two builders were confused and felt the benefits were aimed at the end user, not builders. They further explained their view that, with this incentive structure, only the utility customers, not the builders, would benefit because their energy usage and bills would be reduced.

Zero Peak Design Bonus

Solar cells (PVs) were of interest to all builders; however, the high cost of this measure was noted as a barrier. One builder expressed interest in the Zero Peak design bonus because her company already has been using efficient lighting and occupancy sensors, and she thought it would be beneficial if they could start receiving incentives for these measures. Two builders stated that if the money were offered to help reduce costs up front, it would be very helpful.

Compact Home Design Bonus

Two of the three builders expressed interest in this component of proposed changes to the 2009-2011 program. One commented that this program component was interesting, but he would prefer if the builders were not penalized for bedroom square footage. The builder in the affordable housing market noted they were already building small units anyway because of the market segment's nature.

Green Points Bonus

Two of the three builders were not involved in any green building design. One of them felt it would only be a "hassle," and the other builder was concerned about costs associated with additional inspections. One builder, already building some structures to LEED levels, was concerned about the complications arising from getting involved in another program.





Guaranteed Home Performance

There was concern on the part of builders interviewed that this program component does not account for the variability in customer behaviors. One builder said he had no interest in this component because his residences are all individually metered.⁹

Marketing Incentives

Builders expressed a variety of opinions related to marketing support from the CANHP. One of the three multifamily builders commented that she would like information to give to prospective buyers or renters. Another builder thought SCE should provide public announcements to customers when a new development is completed in their area. Lastly, a comment was made by one builder who did not see the value in using valuable budget resources on marketing when those funds could be allocated toward investing in new technology that would increase energy efficiency and lower utility bills.

Training and Technical Assistance

Cadmus staff reviewed the list of planned trainings with the builders and asked about their interest level and if there were additional trainings they would like SCE to offer. Builders indicated overall that they would appreciate trainings and informational presentations from SCE. There was a demand among multifamily home builders interviewed for "consulting" on building design and program assistance from SCE. They expressed particular interest in trainings about new energy-efficient technology, and how updated codes and standards will affect the multifamily sector. One builder was eager to learn about new technologies such as PVs, LED lighting, and underground overnight heating/cooling systems. Additionally, one builder suggested all SCE trainings and presentations be available to access online.

Interest and Suggestions

When asked to comment on the additional enhancements being considered by SCE, the builders responded favorably to many. All three felt that a personal account manager would be very beneficial to them if they were to participate in the program. In-person delivery of checks was not considered to be a benefit and felt to be an inefficient use of SCE resources. One builder said quarterly meetings and in-person presentations would be a strong addition to the program, while the two others felt it would be too time consuming and preferred an on-line interface and program information available via the Internet. In fact, all three builders stated the on-line interface and e-filing of paperwork would be the best enhancement SCE could provide, and might eliminate the need for SCE to hire account managers.

Overall program interest increased after learning about the new program features SCE has proposed offering in the 2009-2011 program cycle. One builder was particularly interested in the new graduated incentive structure, zero peak, and compact home options. Another builder felt

⁹ This clearly identified the need to communicate the nature of this component in more detail to these builders and how it applies in the case of multifamily properties.





she was now more aware of how multifamily home builders could fit into the CAHP. One builder, however, straightforwardly explained that until SCE is able to offer better incentives that help decrease the upfront costs associated with increased energy efficiency, his interest in the program has not changed.





6. Best Practices in Residential New Construction Programs

Introduction

Cadmus staff reviewed literature from several sources describing best practices for a number of utility residential new construction programs. We specifically searched for information that could provide guidance to SCE on particular "pain points" associated with the CANHP delivery, which were identified through focus groups, and implementer and SCE staff interviews. This chapter summarizes best practices used to achieve success in utility new homes programs.

Best practices in Residential New Construction (RNC) programs were divided, in our research, into the following elements: design, program components and implementation, marketing and outreach, and management and quality control. This research utilized several reports, including a National Energy Efficiency Best Practice Study, and several of the ACEEE's exemplary and honorable mention residential new construction programs. The findings of these reports are presented below.

Program Design

During the program design phase, a utility should carefully consider which stakeholders to involve in the process. There are several key elements to review to ensure a strong design. These include, but are not limited to:

- Recruiting builder participation
- Participation requirements
- Marketing
- Setting performance targets
- Types and delivery of incentives
- Trainings or technical assistance
- Certification requirements and process

Careful consideration and clear definitions of the elements above can help ensure a successful launch to an RNC program. In addition, key administration staff and upper management support is imperative for the program success. ¹⁰ Many established RNC programs such as the Texas

¹⁰ National Energy Efficiency Best Practices Study. 2004. Quantum Consulting, Inc.



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ENERGY STAR® Homes Program also reported that taking the time to build ample buy-in from stakeholders is critical for the program's success. 11

The program foundation, built with the input and endorsement of stakeholders, must also maintain flexibility for the utility to make necessary adjustments to the program as they arise due to market or technology changes. Additionally, keeping stakeholders well informed throughout all phases of the program provides a feedback loop for those administering the program and helps maintain positive relationships. ¹² Positive relationships between stakeholders, such as program staff, implementers, and participants, are as important as financial resources to the success of the program.

Program Components and Implementation

Successful program implementation can be facilitated by providing the following: easy entry for participants, clear requirements, ongoing support, clear incentives and emphasis on the non-feature benefits of participation, and established benchmarks and tracking results.

Participation Requirements and Ease of Entry

A key component to program success is creating easy entry for participants and setting clear requirements. Successful RNC programs, such as Vermont ENERGY STAR®, highlight the importance of creating easily identifiable steps to encourage participation and achieve objectives. Programs that establish clear participant and program goals and have high, but enforceable, standards will ensure quality and improve the likelihood that participants will achieve their initial goals. This increases the potential for the program as a whole to meet its objectives. One method employed to enforce standards is to establish and utilize an independent verification protocol that is carried out by a third party to ensure performance targets have been achieved and measures installed. An additional effort identified to enforce standards is to hold monthly team meetings for appropriate stakeholders to monitor progress and receive feedback. Monthly meetings make it easier for the program to have a quick response to issues that may arise.

Ongoing Support and Assistance

RNC programs should offer continuous support for program participants. For example, participation in the program can include opportunities for builders to attend ongoing training and/or seminars throughout the year. ¹⁴ The utility can offer or subsidize (where appropriate) inclass sessions, field-based training, technical assistance, technical exchanges, and train-the-

¹⁴ ENERGY STAR ® for New Homes Sponsor and Utility Partner Guide Appendices. Focus on Energy: Objectives and Lessons Learned.



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¹¹ ACEEE Exemplary programs 2008. Texas ENERGY STAR ® Homes Program.

¹² National Energy Efficiency Best Practices Study. 2004. Quantum Consulting, Inc.

¹³ ACEEE Exemplary programs 2008. Vermont ENERGY STAR ® Homes efficiency Vermont and Vermont Gas Systems.

trainer type meetings. 15 Additionally, by offering public outreach seminars and/or sponsoring events the utility can generate home-buyer interest in energy-efficient homes. 16

There are multiple benefits resulting from offering ongoing support and assistance including: increased program awareness, positive feedback loops that promote open and clear communication between participants and program implementers, staff awareness of issues or concerns that participants may have, boosting staff and participant morale, and a better understanding of local conditions, e.g., housing market and consumer demands.

Incentives and Additional Program Benefits

Larger incentives tend to increase participation rates, but there are exceptions. Connecticut reports a 40% RNC program penetration despite relatively small incentives. They do, however, pay for all training and certification expenses for participants. Also, a graduated incentive structure can help ensure builders are recognized for the effort they contribute and paid for all energy-efficiency measures included in their projects. ¹⁷

Offering incentives along with additional program benefits may increase the overall perceived value of energy-efficient homes, therefore positively differentiating the participating builder. An example of an additional program benefit can be found in NYSERDA's ENERGY STAR® Homes Program where builders and sales staff are encouraged to pitch the benefits that an energy-efficient home can deliver, such as the long-term impact of lowering monthly utility bills and increased comfort levels with appropriate insulation, as well as the features of energy-efficient appliances and heating and cooling systems. ¹⁹

Setting Benchmarks and Tracking Results

Benchmarks and tracking program results for new homes programs are crucial to success. Best practices include:

- identifying the necessary tracking data
- designing user-friendly databases which can be easily upgraded as the program changes, and
- utilizing the internet to serve as a data entry and reporting interface.

¹⁶ National Energy Efficiency Best Practices Study. 2004. Quantum Consulting, Inc

¹⁹ ENERGY STAR ® for New Homes Sponsor and Utility Partner Guide Appendices. NYSERDA: Reaching a Dispersed and Diverse Builder Audience.





¹⁵ Ibid.

¹⁷ Conant, D. Blake, W. Bonanno, S. and B. Tolkin. 2007. *New Energy Star Homes Requirements: Is it harder to recruit and keep builders?* International Energy Program Evaluation Conference. http://www.iepec.org/2007PapersTOC/papers/45_1045_ab_381.pdf

¹⁸ Ibid

Implementing these practices can minimize duplications within administrative paperwork. An on-line interface can be linked to the database and may be used to generate monthly reports, ensuring that all necessary program documents are in order and on track.²⁰

Marketing and Outreach

Common marketing and outreach efforts used by most of the RNC programs highlighted by the ACEEE study are: print advertising in newspapers, magazines, and trade journals; radio and TV interviews; fact sheets, brochures, and interactive CDs; dedicated webpage and utility websites; and sponsorships of activities both at home and at trade shows and local events.²¹

NYSERDA includes a few less-traditional methods of marketing such as offering marketing materials and sales training, which act as additional incentives. ²² Another notable marketing technique is integrated advertising, such as the Texas ENERYG STAR ® Homes Program provides in their incentive package for participant co-funding marketing efforts covering up to 50% of the costs. ²³

Although there are many places to allocate marketing dollars, best practices indicate a targeted message aimed at a specific audience may reap greater rewards than general mass messaging. ²⁴ Marketing efforts should be extended to both builders and customers. In order to gain participation across segments, it is recommended to tailor benefit messaging to each targeted segment. In doing so, there will be less ambiguity among participants on how they can enter the program and the benefits that pertain specifically to them. Additionally, by providing program information through marketing to the targeted segments, a lack-of-information barrier is addressed.

When utilizing marketing channels it is important not to overlook the importance of word-of-mouth advertising among builders, customers, and consultants in the industry such as HERS raters and Title 24 consultants. One-on-one meetings between program implementers and builders, once the building project has begun, will also help ensure proper requirements are being met in the building process and address any questions or issues that may arise. Added benefits of close communications among program implementers, consultants, and builders are increases in informational feedback related to program strengths, weaknesses, and opportunities. Other useful ways that builders can gain information on the program and be encouraged to participate include the following:

- Outreach on websites
- Builder e-mail network

²⁴ National Energy Efficiency Best Practices Study. 2004. Quantum Consulting, Inc.





²⁰ National Energy Efficiency Best Practices Study. 2004. Quantum Consulting, Inc.

²¹ ACEEE Exemplary programs 2008. Austin, TX. Green Building program.

²² ENERGY STAR ® for New Homes Sponsor and Utility Partner Guide Appendices. NYSERDA: Reaching a Dispersed and Diverse Builder Audience.

²³ ACEEE Exemplary programs 2008. Texas ENERGY STAR ® Homes Program.

- Trade publications
- Media advertising
- Mass mailings
- Newsletters
- Tradeshows and Industry events
- Presentations
- Targeting Customers

Another method of promoting increased participation is to create customer demand through enhancing program and energy-efficiency awareness. Information about the program can be delivered to customers in multiple ways including:

- Bill inserts
- Newspaper ads and inserts
- Builder and developer websites
- Home and real estate magazines
- Home flyers
- Published case studies

Management and Quality Control

A National Study on Energy Efficiency Best Practices in RNC suggests several steps to make program management most effective. ²⁵ First, this study recommended including stakeholders in the development of a program process or operational plan. The best practices programs identified in this study relied almost exclusively on in-house program management and cited the need to "avoid giving a single contractor exclusive responsibility for program implementation." However, programs such as the Massachusetts RNC ENERGY STAR® Homes program have proven using one contractor who is responsible for both implementation and marketing can be successful. ²⁶ Overall, the consensus is that implementation teams should be kept small to avoid bottle necks, avoid redundancy, and keep communication clear and effective. The national study concluded: "The structure of program management appears less important than how well the program activities were aligned with program objectives and market characteristics…."

²⁶ ACEEE RNC: ENERGY STAR® Homes Joint Management Committee (Massachusetts).





²⁵ Ibid. R8-8.

Regardless of the overall project management structure ... program staff repeatedly mentioned the importance of knowing the market within which the program works, respecting the fact that the program is intervening in a market, and investing in the communication required to build relationships with a variety of market actors."

Certification Requirements and Process

Regardless of the number of contractors involved in the process, successful programs work collaboratively with participants enabling them to satisfy the verification requirements.²⁷ Types of support provided to facilitate this process may include:

- Frequent ongoing personal contact between implementer, participant, and program staff
- Checklists for required documentation.
- Reducing financial barriers when requiring third-party verification, such as that provided by HERS raters.

Verification and Quality Control

Best practices pertaining to quality control and verification include establishing an ongoing relationship with builders so third-party inspections can be viewed as educational opportunities, not simply a requirement to receive an incentive. This has worked best when inspections are streamlined to take less time and the builders are required to be on-site and take an active role. Timely and frequent feedback to both the builder and the program staff is also key to maintaining clear channels of communication running from pre-construction to completion of the project.²⁸

Conclusion

In summary, two of the most critical aspects of implementing a successful RNC program are: 1) clear and consistent communication between participating builders, implementer(s), and program staff and 2) clear and enforceable requirements. Communication is key in the program design, defining requirements, benefits, incentives, tracking, reporting, and continued marketing. Enforceable requirements can be addressed by applicable tracking software, verification protocol, and frequent personal communications to review processes and receive feedback. A successful RNC program can assist in market transformation, support the building industry by offering builders opportunities to gain increased skills and a competitive advantage, support new housing construction with lower utilities bills, and maintain or increase customer's home comfort.

²⁸ National Energy Efficiency Best Practices Study. 2004. Quantum Consulting, Inc.



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²⁷ ACEEE Exemplary programs 2008. Vermont ENERYG STAR ® Homes efficiency Vermont and Vermont Gas Systems.

7. Conclusions and Recommendations

The data collection activities Cadmus carried out led us to the following conclusions and recommendations. It should be noted the CANHP has undergone significant changes in the past few months. Therefore, where appropriate, we note any changes currently in process or expected that will affect the conclusions and recommendations. In these cases, conclusions from our research can further justify program revisions already in process.

Conclusions

We first present our conclusions based on information about the current program. These are followed by conclusions regarding proposed features of the 2009–2011 program.

Current Program

Communications

An overriding issue that arose during discussions about current program components that will likely require attention in the 2009–2011 cycle is the relationship between SCE and outside implementer(s). The implementer staff we interviewed cited one of their main concerns as uncertainties about their roles and SCE's roles in the current program. Generally, they felt they could make a more positive contribution to the program if: 1) roles were more clearly defined; 2) they could provide more feedback in defining the program components during the development process; and 3) communications between them and SCE were enhanced. As our best practices research revealed, understanding the market, the program's role in the market, and good communications among all parties are keys to program success.

Marketing

Both implementers and SCE staff indicated program marketing roles had changed in the past few months as new management and additional program staff have joined the SCE CANHP. SCE had originally taken a relatively small role in program marketing and outreach. Implementers were responsible for coordinating and conducting most of the program marketing efforts. Recently, SCE's program management and staffing have changed, and SCE is conducting much more direct outreach to builders on behalf of the program. This has created some uncertainty for implementers as they try to determine their roles in marketing and conducting outreach to builders and third-party consultants for the program.

The other challenge identified by implementers was the slow turnaround time for marketing materials developed by SCE. While the implementers are fully aware of the need for SCE's communications staff to generate the materials, they feel the turnaround time has impeded their marketing efforts. In addition, implementer staff would like to have the opportunity to provide significant input on these products. Implementers felt this could help ensure needed clarifications in the program characterization could be identified and adjusted early in the development process.





Marketing and outreach to single-family and multifamily home builders were noted by several people interviewed as requiring different tactics. One SCE staff person said it was more difficult to connect with multifamily builders, with one reason cited being there are fewer industry events focused on multifamily builders. On the other hand, we heard from multifamily builder participants that the CANHP was not present at a large conference on multifamily building held by the builders association. Several non-participant multifamily home builders interviewed indicated program materials did not seem to apply to them. There was a request that SCE develop materials specifically targeted towards multifamily builders; so they could more easily determine how program participation might fit for them.

When discussing outreach to single-family builders, several people, including SCE staff and participating and non-participating builders, confirmed there is generally one person who makes the decision about whether to build homes and buildings exceeding code. Participant and non-participant project managers indicated they are able to provide their CEO or president information on program participation, but, ultimately, that person will make the final decision. The final decision was noted by several as being dependent on the immediate costs and benefits of participation.

While much of the marketing discussions focused on outreach to builders, it was noted by implementer staff that outreach to third-party consultants is a key component of marketing the program to builders. Good relationships with third-party consultants can be an effective means of indirectly marketing to builders.

Design Assistance

Design assistance was a benefit mostly accessed or sought by multifamily builders. The implementer for the program's multifamily segment, participating builders, and non-participant multifamily home builders interviewed felt design assistance was a very important part of the program offering. These same interviewees also felt the program should offer training to third-party consultants.

Application Process

While both SCE staff and implementers felt the application process had significant difficulties, it was interesting to note that participating builders had limited complaints about the application process.²⁹ In recent months, SCE has tightened their quality control on applications received from implementers and routinely reject incorrect and incomplete applications. Implementers noted this change was burdensome for them and for participating builders.

Implementers also saw the requirement for "wet" signatures (i.e., original signatures) on documents as unnecessary and somewhat of a barrier; at least, it created an added frustration for program participants. While participating builders did not echo this concern exactly, both participating and non-participating builders encouraged SCE to develop an online system of filing applications to ease the process.

As noted earlier, implementers often take on the majority of the task of completing applications. This could be the reason builders did not comment widely on difficulties with the application process.





Builders commented that communications were inadequate between builders, implementers, and SCE following the application process. SCE and implementers also noted builders have frequently, especially in the current market downturn, changed their phasing or plans to meet the needs of customers able to qualify and purchase a new home. These changes have not been communicated sufficiently to SCE and the implementers. All parties indicated more regular communication between builders and implementers or SCE was desirable. Builders again recommended a Web-based tracking system, so they could easily review their projects and see where they were in the process.

Incentives Paperwork

SCE is the entity responsible for processing and delivering incentive checks to builders. The only comment from implementers on this portion of the process was they would like to be informed when a builder is paid on their project, so they could be prepared if they were asked any questions. Participating builders in the focus groups indicated the incentives took too long to arrive and SCE's checks did not identify the specific builder projects. Additionally, multifamily builders complained the paperwork required for the incentives was developed with a single-family builder in mind. The CANHP requires invoices for all energy-saving appliances purchased for the units, and this is cumbersome for multifamily projects.

SCE already has some changes underway to address at least one of these concerns. The accounting department now has a larger "memo" field for checks, which will help builders identify what the incentive is for. The SCE program team also expressed interest in sending letters to builders receiving checks; the letter would identify the project, the incentive level achieved, and the payment builders should expect. SCE staff also expressed much interest in hand-delivering incentive checks similar to SCG's. However, participant and non-participant builders alike felt hand delivery would not be an effective use of program staff time and resources as long as information with the check clearly identified the program and project it was for.

2009–2011 Proposed Program Changes

Several innovative changes have been proposed for the CAHP during the 2009–2011 program cycle, and have been presented in drafts of the Program Implementation Plan. A primary objective of research conducted for this evaluation has been to provide SCE feedback on these changes in a timely manner to allow fine tuning changes before they are finalized.

Graduated Incentive Structure

SCE currently proposes wholesale changes for incentive structures offered in the 2009–2011 CAHP. The graduated incentive structure fundamentally changes the program's offering. This structure will provide incentives based on actual energy use reduction expected for homes built to surpass code, with incentives offered for both kWh and therm savings, and increasing incentive levels for each increase in the percentage savings achieved above code. In their interviews, SCE staff recognized this change may be difficult for builders to understand in the short term. However, SCE staff hope the changes will make the program more accessible to builders that have found the prior years' programs do not provide incentives consistent with





energy savings in the climate zones where they build. Also, SCE staff feel rewarding builders for every percentage they surpass code will lead to builders reaching to achieve greater savings in their homes.

Implementer staff were concerned, however, that this change could be difficult for builders and third-party consultants to respond to. They felt it would require a significant amount of training and assistance to bring builders and their consultants up to speed. One implementer also encouraged SCE to create very clear guidelines and expectations on how projects would be assessed under this structure and hoped SCE would refrain from changing those guidelines once the program was underway. Implementers were hopeful that modeling software could be developed to ease this transition for builders.

Both participating and non-participating builders found the new incentive structure difficult to conceptualize, and encouraged SCE to provide training, case studies, and software to help them meet the requirements. One non-participant builder stated he was very interested in learning how the new incentive structure could make it more cost-effective for him to build homes to a higher energy-efficiency level. In the past, this builder had not participated because he builds in a climate zone where participation did not "pencil out" as a benefit to the builder.

Bonus Incentives

SCE plans to offer several "bonuses" on top of the graduated incentive for builders interested in pursuing not only more energy-efficient homes, but homes that have "green" features and incorporate other design features to reduce energy use and demand. These bonuses include: Zero Peak, Compact Home, Green Home, and Non-code based design elements.

Overall, builders and implementers, when asked about these proposed bonuses, had mixed reactions, and generally found them to be of only marginal interest. We believe these responses were due, in part, to the fact that it was possible to provide only limited information on each and many of the details are yet to be worked out.

Multifamily home builders and the multifamily focused architects we interviewed were found to be of more interested than single-family home builders. Single-family home builders almost uniformly reported these features were market driven and would be difficult to change while staying competitive in the marketplace. These builders felt consumers were not willing or could not pay extra for homes that include "green" features or PVs. They also stated that the size of homes is generally dictated by the market, lot sizes, and municipal regulations. However, as the multifamily architects participating in our focus group said, some developers in the marketplace are very interested in "green" building, and these bonuses could encourage them to include more energy-saving and green features.

Participating multifamily home builders and some of non-participants interviewed indicated they are required to exceed code and in some areas, required to meet a certain Green Point rating. These builders were enthusiastic about designs that could also net them additional incentive dollars.





Of all the bonuses, the Zero Peak and Green Home were most popular, while the non-code based building option was of the least interest. However, this could be because there were even fewer details available about this program component at the time of the interviews and focus groups.

Guaranteed Home Performance

This component of the 2009–2011 CAHP was met with quite a bit of skepticism from builders and implementers. Implementers wondered how SCE could implement this component effectively, while both participant and non-participant builders were concerned about their liability under the guarantee. The non-participant builders did have an opportunity to discuss this component in more depth, and, ultimately, said they would be very interested if they would carry no liability.

Recommendations

Our recommendations, presented below, are based on primary data collection activities conducted during this study, our experience evaluating similar programs, and secondary research on best practices. Cadmus recognizes the CANHP is undergoing a significant amount of change, both as a result of new management as well as the transition to the 2009–2011 program. In cases where SCE is already addressing some of these recommendations, we have included information on changes in progress.

- 1. *Improve communications with implementers*. Implementers expressed a great deal of concern about a perceived lack of communication with SCE staff. Implementer staff interviewed felt "out of the loop" at a number of places in the implementation process. SCE and ICF have recently instituted a conference call every other week to discuss the project, and we encourage both parties to use this time for making certain each party is updated on the other's plans to contact builders, along with addressing any questions or concerns on applications and/or incentives. SCE staff could also take this opportunity to discuss quality control with ICF, educate their staff on the necessity of the quality control procedures, and determine if requirements can be relaxed. We also recommend SCE and ICF meet, as needed, to thoroughly discuss changes being made to the program, or challenges either party is experiencing.
- 2. Clearly define roles, responsibilities, and requirements with implementers. Cadmus heard from both implementers and SCE staff that program marketing and outreach roles were not clearly defined. Additionally, SCE staff and implementers expressed the need for very clear builder and paperwork requirements to be established prior to the launch of the new program cycle. We recommend the 2009–2011 program be fully vetted, and all requirements, paperwork, standards, and division of responsibilities be determined and set in writing prior to program launch. This will help ensure implementers, builders, and SCE staff have a shared understanding of the program and can help minimize confusion and frustration.
- 3. *Plan to provide a substantial amount of training on the new program structure and requirements*. All parties interviewed believed training builders on the new program design and requirements would be paramount to its success. Builders and implementers





- also felt training should be provided for third-party consultants as they are integral to the design process. Training for third-party consultants can also serve as an avenue for increasing program participation.
- 4. *Marketing materials should be vetted and targeted*. Marketing materials can be vetted by program implementers as well as consumers to test the information transferred by the material and the program interest it may generate. In addition, we clearly heard from multifamily builders that marketing materials should be targeted separately to multifamily and single-family builders. Even when marketing pieces are created to address both segments, it leaves multifamily builders wondering if the program applies to them or if they can receive the same incentives. Marketing materials providing information directly to the two different market segments will help mitigate any confusion about the program.
- 5. *Institute an ongoing assessment process*. The CAHP could benefit from soliciting and receiving regular feedback from program participants and third-party consultants involved in the program, especially with the roll-out of the 2009–2011 program changes. SCE and the implementers could design a feedback process as simple as participant e-mail or Web surveys to help program staff determine if participants have the information and tools they need to successfully participate in the program and what could be done to improve the usefulness and effectiveness of the tools and information.
- 6. *Maintain design assistance for multifamily builders and application assistance for all builders*. Participating and non-participating builders and implementers said design assistance was an important feature of the program for them. Participating multifamily builders were concerned that HMG was no longer implementing the program, and expressed hope that the comprehensive assistance offered to them would still be available. Non-participating builders, from both the multifamily and single-family sectors, indicated a desire for assistance with their building and home designs. Additionally, most non-participating builders indicated their future participation in the program would depend on the amount of paperwork the program required. Almost universally, builders indicated they would only be able to participate in the program if the paperwork and amount of time they had to commit to the program were minimal.
- 7. *Incorporate new tools for providing key information*. Builders identified several types of information that would facilitate their participation and cited mechanisms for providing it. One was to provide training via Webcasts or have training available to download from SCE's Web site. Another request was for builders to be able to track the status of their projects with SCE via the Internet. Both implementers and builders recommended the creation of a modeling tool that could help builders design homes and buildings that would achieve energy efficiency above code. This tool could also be structured to help "sell" participation in the program by directly illustrating program benefits and the ease of building homes to exceed code requirements. These suggestions will help builders access information on the program, provide details on their applications, and offer incentives in a manner most efficient for them.





8. Continue working with SCG to purchase kWh savings and sell therm savings. The elimination of SCE's and SCG's competition for projects will enhance both programs and increase overall program participation and impacts. Not only will it reduce confusion for builders, but it will help both companies achieve their savings goals. The development of this relationship may actually prove to be the most productive improvement for the program overall.

SCE staff, implementers, and participating builders will face challenges in the coming months while instituting the 2009–2011 program. SCE staff already have many process improvements in place to help the transition to succeed. We encourage attending to the preceding recommendations to further program success.





Appendix A: SCE Staff Interview Guide

SCE Staff Interview Guide

The purpose of these interviews is to draw out detailed information about Southern California Edison's (SCE) California New Homes Program (CANHP), so many of the questions are openended. Because this is an interview guide and not a survey, the interviewer can explore additional relevant topic threads that interviewees may bring up. The interviews will also give the CANHP staff an opportunity to give frank opinions anonymously to the evaluators.

Introduction

Hello, this is ______ from The Cadmus Group. As you know, we are under contract to SCE to conduct a focused process evaluation of the California New Homes Program, which will inform SCE program managers of current program performance and the ease of program processes. This study is also meant to inform SCE's program filing for the 2009–2011 cycle by assessing the Program Implementation Plan SCE proposes and identifying the benefits and any perceived challenges of these changes.

Just as a reminder, this interview will last between 45 and 60 minutes. Also, although the answers you provide will be used in the report we submit, your answers will not be identified as yours. All responses are anonymous.

Thank you for scheduling time to speak with us. We appreciate your candid feedback on the program.

Personal Details

First, I'd like to confirm some details about you:

What is your job title?

What are your typical job duties for the New Homes Program?

What do you see as being the main goals of SCE's California New Homes program?

Program Procedures

Next, we have some questions about the program procedures SCE currently has in place and whether you feel there is room for improvement.

We would appreciate your walking us through the steps in which a participant enters the program, from outreach and marketing to project completion. These steps may include applications, eligibility determination, design assistance, energy analysis, verification, and incentive payments.





For each of the identified steps in the program process, can you tell us:

- Who implements this step?
- In your opinion, how effectively is this step implemented?
- Are there any bottlenecks or issues in this step that effect the program internally?
- Are there any bottlenecks or issues in this step that effect the program participants?
- Are there any bottlenecks or issues in this step that effect external perceptions of the program?
- Is this process implemented differently for single-family projects than for multifamily projects?
- If the program step is implemented externally, are there any communication gaps or other issues?
- Are there other procedures that you would like to discuss?

Perceptions & Feedback

Do you feel that your staff levels are sufficient to meet the current program requirements?

Do you feel that staff levels will be sufficient to meet the requirements of the 2009-2011 program changes?

Are there any other challenges you foresee (either internally or externally) that will affect implementation of the 2009-2011 program changes? Do you perceive any potential challenges for the implementer?

What, if any, barriers to participation do you see in the program as it is currently structured?

In what ways do you think the 2009-2011 program changes will reduce these barriers?

Do you foresee barriers to participation being created as a result of the 2009-2011 program changes?

Do you have any suggestions to improve the New Homes Program that are not addressed in the 2009-2011 Program design?

What benefits do you see in the Guaranteed Home Performance element of the 2009-2011 program?

How do you expect the Guaranteed Home Performance element to effect program participation?

What problems do you think may need to be addressed for Guaranteed Home Performance to work effectively?

What benefits do you see in including non-code-based building design elements in the program, such as passive cooling and GHG emission reductions?

How do expect non-code-based design elements to effect program participation? What problems do you think may need to be addressed for it to work effectively?





If Time Permits

We would also like your brief comments on several other items:

- The perceived value of different types of education and technical assistance;
- The role of incentives in encouraging more efficient buildings;
- The perceived value of HERS incentives (for multifamily);
- The perceived value of the ENERGY STAR® label (for single-family);
- The perceived value of new graduated incentive structure;
- The perceived value of proposed Zero Peak, Compact Home, and Green Home components in the 2009–2011 program design;
- The coordination of SCE efforts with other utilities' new homes programs;
- The perceived value of marketing and promotion assistance to builders; and
- The perceived benefits of energy-efficient or "green" homes in the marketplace.





Appendix B: Implementer Interview Guide

Hello, this is ______ from The Cadmus Group. As you know, we are under contract to SCE to conduct a focused process evaluation of the California New Homes Program, which will inform SCE program managers of current program performance and the ease of program processes. This study is also meant to inform SCE's program filing for the 2009–2011 cycle by assessing the Program Implementation Plan SCE proposes and identifying the benefits and any perceived challenges of these changes.

Just as a reminder, this interview will last between 60 and 90 minutes. Also, although the answers you provide will be used in the report we submit, your answers will not be identified as yours. All responses are anonymous.

Thank you for scheduling time to speak with us. We appreciate your candid feedback on the program.

Personal Details

First, I'd like to confirm some details about you:

What is your job title?

What are/were your typical job duties for the New Homes Program?

What do you see as being the main goals of SCE's California New Homes program for single-family/multifamily housing?

Current Program Procedures

Next, we have some questions about the program procedures SCE currently has in place and whether you feel there is room for improvement.

We would appreciate your walking us through the steps in which the implementer plays a role in the program. Steps we are interested in include:

- promotion and recruiting
- applications
- eligibility determination
- design assistance
- energy analysis
- verification, and
- incentive payments.

For each of the identified steps in the program process, can you tell us:





- Who implements this step?
- In your opinion, how effectively is this step implemented?
- Are there any bottlenecks or issues in this step that affect your (the implementer's) ability to carry out your role?
- Can you identify any bottlenecks or issues in this step that affect program participants?

Are there other procedures that you would like to discuss? [If so, ask for the same information above.]

Perceptions & Feedback

What single-/multifamily building sector market actors do you work with in this program?

What specific barriers and/or challenges have there been to working with market actors in this sector? (E.g., communication or documentation requirements)

What, if any, barriers to participation are there in the current program?

Do you feel that your staff levels have been sufficient to meet the current program requirements? Are there specific capabilities that you think would be helpful to add? If so, what are they?

ICF ONLY:

How familiar are you with the proposed changes for the 2009 -2011 program cycle?

How have you learned about the proposed changes?

Has the information you have received concerning these changes been sufficient?

Would you like more specific information? If so, for which features?

Do you feel that your staff levels will be sufficient to meet the requirements of the 2009-2011 program changes?

What steps has your firm taken to accommodate implementation of the multifamily housing program?

Given what you know about the proposed changes for 2009, what benefits do you see coming from these changes?

In what ways do you think the program changes will reduce current program barriers?

What challenges do you foresee that might affect implementation of the program changes?

Do you foresee new barriers to participation being created as a result of the 2009-2011 program changes?

Do you have any suggestions to improve the New Homes Program that are not addressed in the 2009-2011 program design?

[Read for HMG] SCE is proposing significant changes to the New Homes Program for the 2009-2011 program cycle. We would like to get your thoughts about some of these changes.





[Read for ICF] We would like to get your thoughts about some of the changes SCE is proposing for the 2009 New Homes Program.

The proposed graduated incentive structure, modeled after the Savings by Design approach, provides higher incentives per unit of savings as savings increase. This would replace the current tiered incentives at 15%, 20%, and 35% above code.

- What benefits do you see from this incentive design?
- What about effects on participation?
- What problems might it encounter?

The proposed Zero Peak design bonus provides incentives to promote designs that offset or shift on-peak electricity use; they can be achieved through installing PVs, occupancy sensors, and other measures.

- What benefits do you see from this incentive design?
- What about effects on participation?
- What problems might it encounter?

The Compact Home design bonus offers an added incentive to build homes smaller than the average home size in each climate zone. The bonus is a percent equal to the percentage the home size is under the average. For example, a 1,800 square foot home would receive a 10% bonus if average size was 2,000 square feet.

- What benefits do you see from this incentive design?
- What about effects on participation?
- What problems might it encounter?

The Green Home design bonus provides an incentive based on the home's Green Points score if it exceeds 50 points. For example, a home with a 55-point rating would receive an additional 5% incentive.

- What benefits do you see from this incentive design?
- What about effects on participation?
- What problems might it encounter?

Another option being considered is Guaranteed Home Performance in which SCE guarantees buyers of program homes that their heating and cooling costs will not exceed a certain amount.

- What benefits do you see from this program option?
- What about effects on participation?
- What problems might it encounter?

Finally, SCE is considering including non-code-based building design elements in the program, such as passive cooling and greenhouse gas emission reductions.





- How do you think such non-code-based design elements would affect program participation?
- What problems would you anticipate?

If Time Permits

We would also like your brief comments on several other items:

- The perceived value of different types of education and technical assistance;
- The role of incentives in encouraging more efficient buildings;
- The perceived value of HERS incentives (for multifamily);
- The perceived value of the ENERGY STAR® label (for single-family);
- The coordination of SCE efforts with other utilities' new homes programs;
- The perceived value of marketing and promotion assistance to builders; and
- The perceived benefits of energy-efficient or "green" homes in the marketplace.

Closing

Are there any other comments you would like to provide that might help SCE assess its program and improve the program in the future?

Thank you for your time and feedback.





Appendix C: Participant Focus Group Guide

California New Homes Program Participant Focus Groups Guide

- 1) Introductions & Agenda (15 minutes)
 - a) Who we are and why we're here
 - b) Who the participants are
 - i) Role in industry, types of buildings (single- and multifamily), construction volumes
 - ii) CANHP participation and projects
- 2) CANHP Discussion (85 minutes)
 - a) How participants learned about the CANHP and why they chose to participate
 - b) Perceived value of the CANHP to builders
 - c) Ability of CANHP to influence the new construction market:
 - i) In general
 - ii) Participant's projects
 - iii) Opinions on program process:
 - iv) Availability of program information
 - v) Enrollment
 - vi) Verification
 - vii) Audits
 - viii) Incentives and payment process
 - d) Perceived value of Southern California Edison's (SCE) marketing and public recognition of builders
 - e) Suggestions for program improvements
 - f) Perceived value of proposed components in the 2009-2011 program design:
 - i) Zero Peak





- ii) Compact Home
- iii) Green Home
- g) Interest in and reactions to a Guaranteed Home Performance program element
- h) Training and technical assistance
 - i) Feedback on current trainings
 - ii) Feedback on proposed trainings
 - iii) Suggestions for additional training and/or technical assistance
- i) Suggestions on ways SCE can help communicate and market the value of energyefficiency and sustainable building designs to differentiate builder offerings and create demand
- i) ENERGY STAR®
 - i) Perceived value of label compared to builder's own energy efficiency branding efforts
 - ii) Challenges meeting requirements
- k) Building design process
 - i) Key decision makers in their organization
 - ii) How to influence choices made by key decision makers
- 1) Perceived value of including non-code based building design elements in the program (e.g., passive cooling, GHG emission reductions)
- m) Interest in and reactions to proposed 2009-2011 graduated incentive structure
- n) Opinions on the coordination of CANHP between different area IOUs
- 3) **Ending Questions and Conclusions** (10 minutes)
 - a) Final feedback and comments
 - b) Thank you
 - c) Answer any questions from participants on the study





Appendix D: Non-participant Focus Group and Interview Guide

Introductions & Agenda (15 minutes)

- a. Who we are and why we're here
- b. Who are you? What is your role in your organization, what kind of construction volume do you have, what part of the market is your main focus?

CANHP Discussion (65 minutes)

- c. To what extent are you currently building energy efficient homes that exceed code requirements? (Duct work or insulation above code, installation of ENERGY STAR ® appliances, "green design" elements).
 - i. Where do you get information about programs that promote energy efficiency and building green?
 - ii. Do you feel that building energy efficient buildings that exceed code gives you a competitive edge in the market?
 - iii. How important is it to make energy efficient and green building features available to your consumers? Why?
- d. Who makes the decision to incorporate (or not incorporate) energy efficient features into a building/home?
- e. Were you aware of the opportunity to participate in the 2006-2008 program cycle for the CANHP?
 - i. (IF YES) How did you learn of the CANHP? How would you describe the program?
 - ii. (IF YES) Did you participate in the program before? Why did you discontinue your participation?
 - iii. Are you aware of other SCE energy-efficiency programs? Other utilities' new residential efficiency programs?
- f. (Hand out program description) Do you think there are any specific barriers to your company participating in the program? (Market forces, management/decision maker attitudes or business models, program application or





- other features of the program) What type of changes or enhancements to the Program could SCE make that would encourage your participation?
- g. Interest in and reactions to proposed 2009-2011 graduated incentive structure
- h. Perceived value of proposed components in the 2009-2011 program design and their interest in each of the following:
 - i. Zero Peak
 - ii. Compact Home
 - iii. Green Home
 - iv. Marketing incentives, i.e., 2% or 5% bonus
- i. Interest in and reactions to a Guaranteed Home Performance program element
- j. SCE is considering some additional enhancements to the Program offering, which would you be most interested in? A personal account manager, in-person delivery of incentive checks, quarterly in-persons presentations/update meetings, online interface, e-filing of paper work, and utility HERS services.
- k. Now that you've had a chance to review some of the new program features, overall, has your interest level in the Program increased, decreased, or remained the same and why?
- 1. Training, technical assistance, and informational presentations on the Program
 - i. Feedback on proposed trainings and availability of informational presentations
 - ii. Do you think there are any trainings or information that could be offered by SCE that might prepare your organization to participate in the Program?
- m. Do you see value in SCE's marketing and public recognition for participation? What other marketing or information do you think would be helpful? Would it be useful to have SCE develop materials to communicate the value of energy efficient, green, or sustainable construction to the consumer?

OPTIONAL TIME PERMITTING

n. ENERGY STAR ®





- i. Would they be more confident creating and using their own 'green building' brand or working within existing green building certification programs such as ENERGY STAR®?
- o. Do you see any value in SCE having an incentive for including non-code based building design elements in the program (e.g., passive cooling, GHG emission reductions)
- p. Opinions on the coordination of CANHP between different area IOUs

Ending Questions and Conclusions (10 minutes)

- q. Final feedback and comments
- r. Thank you
- s. Answer any questions from participants on the study



