

2000 AND 2001 NONRESIDENTIAL LARGE SPC EVALUATION STUDY

FINAL REPORT

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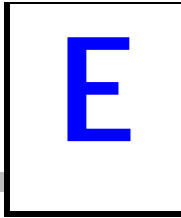
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In this report, we present results from a set of evaluation activities focused on California's Large Nonresidential Standard Performance Contract (LNSPC) Program for Program Years 2000 and 2001. These evaluation activities form part of a longer-term, comprehensive evaluation of the LNSPC program model that began in 1998.¹

E.1 EVALUATION CONTEXT AND SCOPE

E.1.1 The Program and Context

The LNSPC Program (then known as the NSPC Program)² was developed in late 1997, and contains elements associated with both resource acquisition *and* market transformation program strategies. The LNSPC is designed to provide cost-effective net energy savings (and, in 2000 and 2001, peak demand reductions), and produce a net increase in the amount of sustainable business that is conducted between third-party energy-efficiency service providers (EESPs) and end users.

Some changes from the 1999 program were implemented in 2000 and continued through 2001, including standardization of procedure manuals and forms across the utilities, simplification of the M&V protocols, a summer peak demand incentive in both 2000 and 2001 as a response to the California energy crisis, and, in 2001, the introduction of a new calculated savings option in place of M&V for several measures. However, the basic framework and requirements of the 2000 and the 2001 LNSPC Programs are very similar.

E.1.2 Evaluation Objectives and Scope

This evaluation includes a broad statewide process and tracking data evaluation of the 2000 and 2001 LNSPC Programs focused on:

- Interviewing customer and EESP participants for both years
- Characterizing how the Program worked
- Estimating self-report based net-to-gross ratios for each year
- Reviewing and integrating the results of utility tracking, monitoring and measurement activities

¹ Please see past program evaluations: Evaluation of the 1998 Nonresidential Standard Performance Contract Program. Volume I Final Report. XENERGY, Inc., June 1999 and 1999 Nonresidential Large SPC Program. Volume I Final Report. XENERGY. January 2001. For more information on the Small Business SPC Program refer to Appendix A or XENERGY, Inc., 1999 State-Level Small/Medium Nonresidential MA&E Study, Final Report, December 2000.

² The original (1998 NSPC) program had no explicit customer size requirements. In 1999, the program was split into separate programs (the LNSPC Program and the SBSPC Program) for large and small customers respectively.

Our primary goal was to provide feedback to program planners in time for the PY2002 program planning process. To facilitate this, a draft of the results presented in this report was also presented in two workshops to program managers and the public in August and October 2001.

E.2 OVERALL SUMMARY OF KEY FINDINGS AND IMPLICATIONS FOR FUTURE LNSPC PROGRAMS

Evaluations of earlier program years have suggested that the program had moderately high free-ridership and suffered from limited EESP and customer satisfaction with the measurement and verification (M&V) and other participation requirements. In the course of this evaluation, it became clear that these concerns have been fairly well addressed by changes to the program requirements over time and, particularly, simplifications in the application process and M&V procedures between the 2000 and the 2001 LNSPC.

E.2.1 Summary of Key Findings

The key findings from the current study are summarized below:

- ***Demand for the program was strong in both PY2000 and PY2001.*** In PY2000, the program achieved its largest level of participation. In PY2001, the program budget was reduced as compared with PY2000, and the program was subscribed by early summer.
- ***Lighting measures fell as a percent of expected program savings*** from roughly one-third in 1998/1999 to one-fifth in 2001.
- ***The self-report based net-to-gross ratio rose sharply in 2001*** to a weighted level of 0.65 after dropping to 0.41 in 2000.
- ***A significant share of end user participants reported that participation in the program did lead to changes in their decision-making processes*** related to energy efficiency. On the other hand, as in previous evaluations, ***most EESPs reported that the program had minimal effects on their business practices.***³ However, a number of EESPs in the PY2001 program reported that ***participation had resulted in net increases in their sales.***
- ***The proportion of contracts that are exclusively performance-based fell*** to 20 percent in 2000 and 28 percent in 2001.
- ***Levels of performance uncertainty among participants were low***, that is, customer and EESP participants report relatively high levels of confidence in estimates of energy savings.
- ***Satisfaction levels with the M&V process continue to rise***, in part due to the introduction of the calculated savings option. Most participants in 2001 chose the calculated option.

³ For the purposes of this report, EESPs are defined as third-party firms that provide any of a number of energy-efficiency related products and services to end users. End users that are participating in the program and are sponsoring their own project are not defined as EESPs but are classified as self-sponsoring customers (see Sections 5 and 6).

E.2.2 Implications for Future LNSPC Programs

As part of our previous evaluation of the 1999 LNSPC Program we made several recommendations, including the following:

- Continue efforts to reduce free ridership
- Reassess which, if any specific EESP changes the Program should seek to induce
- Reassess the role of performance contracting and M&V
- Continue to reduce perceived and actual costs of participation in the program.

The utility administrators have made substantial progress in all of these areas. Free-ridership in the program increased somewhat in PY2000 but then fell dramatically in PY2001. Since 1999, the utility administrators have also refined their approach to program requirements and M&V in ways that have encouraged participation and increased satisfaction.

Overall, the changes made to the LNSPC Program over the years have been fairly well received among both the customer and EESP participants, especially the streamlining and standardization of application forms and the introduction of a calculated savings option for M&V for PY2001. In addition, as a result of both increased customer demand resulting from the energy crisis and a reduction in funding that occurred for the Program between PY2000 and PY2001, the PY2001 LNSPC was fully subscribed by less than halfway through the Program Year. On the whole, though with some exceptions, customers and EESPs appear to be reasonably aware of the program and satisfied with the PY2001 approach.

There is a continuing need to balance utility administrators' provision of technical assistance to end users with the aim of following a "hands off" approach to meeting applicant and prospective applicant needs. Providing up-front technical support does appear to increase customer participation and satisfaction; however, some ESCOs continue to believe that providing such support may come at the expense of the ESCO industry's services. We believe that a balance should be struck by continuing to encourage customers to use ESCOs and EESPs as sponsors as much as possible, but also by continuing to allow provision of utility-arranged technical support for those customers who either cannot attract EESP services or decidedly do not want such services.

The program streamlining appears to have also somewhat lessened the need for EESP-sponsorship of applications, though many self-sponsors are still hiring third-party firms for assistance. There continues to be a need for the specialized knowledge provided by EESPs, but we do not believe that it is necessary in most cases to promote the use of performance contracts between the customer and the EESP. At the same time, we have observed that the standard performance contract between the EESP and the utility administrator has been viewed positively by end users and is generally seen as a vote of confidence for EESPs' estimates of savings. Such third-party approval does appear to reduce some customers' perceived risk of moving forward with EESP projects (i.e., it reduces the asymmetric information barrier).

In PY2001, most applicants chose the “calculated” instead of the “measured” M&V program option. Most applicants perceived the costs of the “measured” option to outweigh the 10-percent higher incentive payment it offered. We believe that an approach that maps projects with easily estimated savings to the calculated option, but that allows the administrator the option of requiring M&V for projects for which *a priori* estimates are highly uncertain, is reasonable. This approach, if carried out consistently and according to a clear set of protocols and criteria, is likely to appropriately balance the need to accurately estimate program savings and maximizing overall program cost-effectiveness.

In short, based on our ongoing evaluation of this program, we believe that the LNSPC does currently fulfill an important role in the portfolio of nonresidential energy-efficiency programs by promoting large or complex energy-efficiency projects undertaken by large customers. While many customers prefer the simplicity of the Express Efficiency Program, only certain measures and straightforward projects are appropriate for its standardized design. Prior to 1998, customized rebates fulfilled the market niche occupied after 1997 by the SPC program. The most recent version of the LNSPC appears to be achieving a good balance by capturing most of the benefits provided by the previous customized rebate program, while also providing an increased stimulus to private market EESPs and a process for increasing the certainty of project savings estimates when necessary.

Finally, another important issue associated with this program is estimation of the program net-to-gross ratio. As discussed in our companion LNSPC net-to-gross ratio (NTGR) report,⁴ the current regulatory-required value of 0.53, which currently must be used to estimate the cost-effectiveness of the LNSPC program, likely underestimates the true value. This is because the value being used was taken directly from the self-report based free-ridership method, without adjustments that take into account that the self-reported method is probably biased downward and does not sufficiently address the spillover and other market effects associated with program participation. In our companion NTGR report, we recommend that the self-report based, NTGR be increased by 0.15 to account for the downward bias of the method and spillover.

E.3 SUMMARY OF TRACKING DATA RESULTS

In this subsection we present a summary of key findings of the analyses of extracts from utility program tracking data for both the 2000 and the 2001 LNSPC, taken in June 2001. Table E-1 shows that the number of customers and applications fell between 2000 and 2001, partly because overall LNSPC funding fell from \$28 to \$18 million. Expected savings for 2001 are lower than for 2000, reflecting reduced program budgets. This trend is also due to several large gas projects that have no kWh savings. The incentive/kWh figure rises from \$0.095 in 2000 to \$0.101/kWh in 2001. In addition, the number of third-party EESPs in the Program fell by almost half, likely due in part to the introduction of the calculated savings option for M&V.

⁴ *Improving the Standard Performance Contracting Program: An Examination of the Historical Evidence and Directions for the Future*, prepared for Southern California Edison, December 2001.

Table E-1
Summary of Program Activity Indicators to Date

Activity Level	2000 LNSPC	2001 LNSPC
Total unique customers	201	180
Total number of applications	252	220
Total unique third-party Energy-Efficiency Service Providers	52	28
Total incentives funds committed (\$ million)	\$28.43	\$18.32
<i>Total incentives funds committed – PG&E</i>	\$12.3	\$10.8
<i>Total incentives funds committed – SCE</i>	\$11.5	\$4.5
<i>Total incentives funds committed – SDG&E</i>	\$4.6	\$2.5
Total Savings from applications with active Basic Program Applications (Btu, trillions)*	3.63	1.89
<i>Total Savings from applications with active Basic Program Applications (therms, millions)</i>	5.62	5.92
<i>Total Savings from applications with active Basic Program Applications (GWh)</i>	300	126
Average Incentives per kWh	\$0.095	\$0.101
Total incentives funds committed to gas measures (\$ million)	\$4.92	\$6.28
Average Incentives per therm	\$0.27	\$0.99

* Conversion rates obtained from 2001 *Energy Efficiency Standards for Residential and Non-residential Buildings*, California Energy Commission, June 2001.

In summary, the profile of the typical LNSPC project changed somewhat from 2000 to 2001. The 2001 projects are more likely to be smaller and self-sponsored, and to have HVAC/R (heating, ventilation, and air conditioning or refrigeration) or process end uses rather than lighting end uses. They are likely to cover fewer sites but more measures. While HVAC/R measures dominated in 2000, process measures dominated in 2001. Incentives from lighting measures fell by almost two-thirds between 2000 and 2001 due to efforts to assign the majority of lighting projects to the Express Efficiency program.

In this report, we present results from a set of evaluation activities focused on California's Large Nonresidential Standard Performance Contract Program for program years 2000 and 2001. These evaluation activities form part of a longer-term, comprehensive evaluation of the LNSPC program model that began in 1998. Previous evaluation reports were published in 1999 and 2000.¹ This section provides a brief introduction to the content of the current report.

1.1 EVALUATION CONTEXT, OBJECTIVES, AND SCOPE

1.1.1 Program and Evaluation Context

The public policy objectives and strategies associated with intervening in energy-efficiency markets have been in a state of dynamic change over the past 6 years. The LNSPC Program (then known as the NSPC Program)² was developed in late 1997, and contains elements associated with both resource acquisition *and* market transformation program strategies. Throughout its history, the program has existed in an environment characterized by a lack of consensus among stakeholders on the relative importance of its resource acquisition and market transformation-related design elements. Perhaps the two elements of the nonresidential SPC programs that share the broadest support are the general notions that the programs should provide cost-effective net energy savings (and, in 2001, peak demand reductions) and that it produce a net increase in the amount of sustainable business that is conducted between third-party energy-efficiency service providers (EESPs) and end users.

1.1.2 Objectives and Scope

This evaluation focuses on the program effects and participant experiences with the program process and procedures. The bulk of our resources were focused on process evaluation and net-to-gross estimates. Analysis of potential near-term market effects was not a primary focus as it had been in the two prior evaluations. However, some information was collected and analyzed with respect to potential market effects. Our primary goal was to provide feedback to program planners in time for the PY2002 program planning process. To facilitate this, a draft of the results presented in this report was also presented to program managers and the public in August and October 2001.

¹ Please see past program evaluations: *Evaluation of the 1998 Nonresidential Standard Performance Contract Program*. Volume I Final Report. XENERGY, Inc., June 1999 and *1999 Nonresidential Large SPC Program*. Volume I Final Report. XENERGY. January 2001. For more information on the Small Business SPC Program refer to Appendix A or XENERGY, Inc., *1999 State-Level Small/Medium Nonresidential MA&E Study*, Final Report, December 2000.

² The original (1998 NSPC) program had no explicit customer size requirements. In 1999, the program was split into separate programs (the LNSPC Program and the SBSPC Program) for large and small customers respectively.

The evaluation, as defined in the original study's request for proposal, involves several processes. This includes a broad statewide process and tracking data evaluation of the 2000 and 2001 LNSPC Programs focused on: (a) characterizing how the program actually worked; (b) estimating net-to-gross ratios for each year; and (c) reviewing and integrating the results of utility tracking, monitoring, and measurement activities. In addition, a companion report provides additional analysis of issues associated with estimation of the net-to-gross ratio for this and similar programs.³

1.2 SUMMARY OF APPROACH AND STUDY TIMELINE

Five major areas of primary research were conducted for this study:

- Interviews with customer participants in the 2001 LNSPC Program
- Interviews with customer participants in the 2000 LNSPC Program
- Interviews with EESP participants (covering both 2000 and 2001 program years)
- Integration and analysis of utility program tracking data
- Integration of results into key project findings.

Table 1-1 presents more detail on the types of interviews completed for this evaluation.

Table 1-1
Summary of Data Collection Activities for the 1999 LNSPC Study

Market Actor	Survey Approach	Sampling Approach	Number of Interviews Completed
2001 LNSPC Customer Participants	In-depth	Stratified into three size strata by accepted incentives associated with each unique customer for each utility. Completed as many interviews as possible of customers with largest incentive amounts for each utility (Stratum 1); random samples from remaining two strata.	39
2000 LNSPC Customer Participants	In-depth	Stratified into three size strata by accepted incentives associated with each unique customer for each utility. Completed as many interviews as possible of customers with largest incentive amounts for each utility (Stratum 1); random samples from remaining two strata.	38
EESPs	In-depth	Segmented between 2000 participants and 2001 participants.	20

A summary timeline showing when key elements of the project occurred over the course of the study is shown in Figure 1-1.

³ *Improving the Standard Performance Contracting Program: An Examination of the Historical Evidence and Directions for the Future*, prepared for Southern California Edison, December 2001.

**Figure 1-1
LNSPC Evaluation Study Timeline**

Spring 2001	Summer 2001	Fall 2001	Winter 2001
Analysis of Program Tracking Data	Customer Interviews	Analysis of Interviews	Final Report
	EESP Interviews	LNSPC Evaluation Workshop for Public	
	LNSPC Evaluation Workshop for Program Managers	Draft Final Report	

1.3 SUMMARY OF THE 2000 AND 2001 LNSPC PROGRAM REQUIREMENTS

As with the 1998 and 1999 programs, the 2000 and 2001 LNSPC Programs were administered by Pacific Gas & Electric Company (PG&E), Southern California Edison Company (SCE), and San Diego Gas & Electric Company (SDG&E).⁴

Under the 2000 and 2001 LNSPC Program, the program administrators offered fixed-price incentives to project sponsors for measured kWh energy savings achieved by the installation of energy-efficiency measures. The fixed price per kWh, performance measurement protocols, payment terms, and other operating rules of the programs were specified in a standard contract.

The programs were both “pay-for-performance” programs. With traditional utility rebate programs, the utility pays an incentive directly to its customer, based on an estimate of annual savings from a project. However, under the LNSPC Program, the utility program administrator pays a variable incentive amount to the project sponsor (a third-party EESP⁵ or a customer acting without a third-party EESP) based on measured energy savings (some exceptions are made in 2001 due to program rule changes, described below) in accordance with a project-specific measurement and verification (M&V) plan. The M&V plan must be prepared by the project sponsor in accordance with the program procedures manual and must be approved by the program administrator prior to project installation.

The LNSPC Program also differs from traditional utility rebate programs in that the total incentive payments are divided into payments spread over the performance period. During this performance period, the project sponsor must measure and verify the energy savings actually

⁴ In this report, we focus on the 2000 and 2001 LNSPC.

⁵ In the context of the program, an EESP can be any company, organization, or individual that contracts with the administrator to receive payment for measured energy savings resulting from an energy-efficiency project. In the LNSPC Program, a customer could act as an EESP by contracting directly with their utility and installing and measuring savings from an energy-efficiency project at their own facility. Within the context of this paper, however, we refer separately to self-sponsoring customers and EESPs. Our references to EESPs in the remainder of this report refer to third-party firms, not customers.

achieved using the protocol in the approved M&V plan (projects utilizing the calculated savings option offered in 2001 were handled differently).

To qualify for the LNSPC, a project must produce a minimum level of energy savings; however, two or more projects may be aggregated to meet this requirement. The programs are open to almost any equipment replacement or retrofit project for which the savings can be measured and verified with a useful life of greater than 3 years. A sample of eligible measures includes:

- Replacement of standard fluorescent lighting with high-efficiency fluorescent lighting
- Installation of variable-speed drives on electric motors
- Installation of lighting controls to reduce lighting operating hours
- Replacement of standard-efficiency air conditioning with high-efficiency equipment.

Projects that are not eligible include, but are not limited to:

- Any power generation or co-generation project
- Fuel substitution or fuel-switching projects
- New construction projects
- Any repair or maintenance project.

A number of important milestones must be completed as part of the project approval process. Readers unfamiliar with these milestones and other implementation details may review Appendix A, which provides a brief overview of key program elements, or the program manuals or web sites for more information.⁶

1.3.1 Differences between 2000 and 2001 Programs

Some changes from the 1999 program were implemented in 2000 and continued through 2001, including:

- Standardizing procedure manuals and forms across the utilities
- Offering a summer peak demand incentive in both 2000 and 2001 as a response to the California energy crisis.

While the basic framework and requirements of the 2000 and the 2001 LNSPC Programs are very similar, there are a few substantial changes between the 2 years. Key differences in the program requirements for the 2000 and 2001 LNSPC Programs are shown in Table 1-2.

⁶ Additional programmatic details on the California nonresidential SPC Programs can be found at each utility's web site; PG&E: http://www.pge.com/003_save_energy/003b_bus/003b1e0_stand_perf_cont.shtml, SCE: <http://www.scespc.com/>, SDG&E: http://www.sdge.com/efficiency/reb_specializedincentives.html.

**Table 1-2
Differences from PY 2000 to 2001**

Program Details	2000	2001
Program Distribution	Separate Programs: LNSPC and SBSPC	Combined Programs: LNSPC and SBSPC are one program with different budgets and incentive levels. However, participants, costs and impacts are tracked separately to allow the creation of separate reports of program accomplishments.
Minimum Project Size	100,000 kWh or 10,000 therms per year in annual savings	5,000 kWh or 1,000 therms per year in annual savings
Basic Project Application	Optional	Eliminated
Security Deposit	2.5% of incentive payment > \$100,000	None
M&V	Same as 1999 except for some lighting simplifications	Two approaches allowed: calculated and measured
Payout Schedule	Two years in three payments: 40%, 30%, and 30%	One year for measured savings and six months for calculated savings in two payments: 60% and 40%

The incentive structure also changed between 2000 and 2001 LNSPC. The per-unit incentive levels for the 2000 program are shown in Table 1-3.

**Table 1-3
2000 Program Incentive Levels by Measure Type and Year**

Measure Type	2000 LNSPC
Lighting	\$0.050/kWh
HVAC&R	\$0.165/kWh
Motors/Other	\$0.080/kWh
Gas	\$0.27/therm

Two different incentive levels were available for the 2001 program. The measured savings approach, the only option in prior years of the program, has slightly higher levels to help offset M&V costs. The calculated savings approach streamlines the process, while offering lower incentive levels. Table 1-4 details the incentive levels for the 2001 program. Note the increases in the incentive levels, especially for gas projects. For the 2000 and 2001 programs, the amount paid for savings from heating, ventilation, and air conditioning and refrigeration (HVAC/R) measures is approximately three times the amount paid for savings from lighting measures. “Other” measures are paid at about one-and-a-half times the rate paid for lighting.

**Table 1-4
2001 Program Incentive Levels by Measure Type and Year**

2001 LNSPC	Measure Type	Incentive levels
Calculated Savings Approach	Lighting	\$0.055/kWh
	HVAC&R	\$0.180/kWh
	Motors/Other	\$0.090/kWh
	Gas	\$1.00/therm
Measured Savings Approach	Lighting	\$0.060/kWh
	HVAC&R	\$0.200/kWh
	Motors/Other	\$0.100/kWh
	Gas	\$1.10/therm

1.4 GUIDE TO FINAL REPORT

Descriptions of each of the elements included in this final report are provided below. These descriptions are organized as they appear in the report, by section and appendix.

Main Body

- **Section E: Executive Summary**

The Executive Summary provides a short summary of the evaluation results.

- **Section 1: Introduction**

The Introduction includes a discussion of the overall objectives and scope of the project, evaluation tasks, a brief program overview, and a report guide.

- **Section 2: Key Findings**

This section provides a more detailed summary than is provided in the Executive Summary of the evaluation results, multi-year trends, and recommendations.

- **Section 3: Summary of 2000 LNSPC Program Tracking Data**

Section 3 summarizes our analysis of the 2000 LNSPC Program utility tracking data. The data summary in this section includes a summary of program activity, program applicant composition, and statewide participation by end-user segments.

- **Section 4: Summary of 2001 LNSPC Program Tracking Data**

Section 4 summarizes our analysis of the 2001 LNSPC Program utility tracking data.

- **Section 5: Results from 2000 LNSPC Participating Customers**

In this section, we present responses to a set of structured interviews we conducted with a representative sample of customers participating in the 2000 LNSPC Program. Topics covered in the interviews include: general participant characteristics, decision-making procedures, net-to-gross characteristics, financial impact of program participation,

experience with third-party firms, comments on program process issues, and an analysis of the program's effect on future energy-efficiency actions.

- **Section 6: Results from 2001 LNSPC Participating Customers**

This section presents responses to a set of structured interviews we conducted with a representative sample of customers participating in the 2001 LNSPC Program.

- **Section 7: Results from EESP Interviews**

Section 7 presents responses to structured interviews conducted with participant EESPs in both the 2000 LNSPC and the 2001 LNSPC Programs. Topics covered in the interviews include: general characteristics of the EESPs, a comparison of customer and EESP perspectives, comments on program process issues, and an analysis of the potential effects of the program on the EESP market.

Appendices

- **Appendix A: LNSPC Program Description**

This appendix provides a brief description of the 2001 LNSPC Program and how it differs from the 2000 LNSPC Program.

- **Appendix B: Survey Instruments**

This appendix contains full text versions of customer and participant survey instruments used in this study.

This section summarizes key findings and results from this study and provides our conclusions and recommendations. It presents information based on analyses of program tracking data, interviews conducted with 2000 and 2001 LNSPC customer and energy-efficiency service provider (EESP) participants, and other sources. This section contains the following subsections:

- Overall Summary of Key Findings and Implications for Future LNSPC Programs (2.1)
- Summary of Tracking Data Results (2.2)
- Summary Net-to-Gross Findings (Free-Ridership) (2.3)
- Summary of Customer Participant Survey Results (2.4)
- Summary of EESP Participant Survey Results (2.5)
- Overview of Four-Year Program Trends (2.6)

Detailed results on each of the topics above are provided in Sections 3 to 7 of this report.

2.1 OVERALL SUMMARY OF KEY FINDINGS AND IMPLICATIONS FOR FUTURE LNSPC PROGRAMS

Evaluations of earlier program years have suggested that the program had moderately high free ridership, and suffered from limited EESP and customer satisfaction with the measurement and verification (M&V) and other participation requirements. In the course of this evaluation, it became clear that these concerns have been fairly well addressed by changes to the program requirements over time and, particularly, simplifications in the application process and M&V procedures between the 2000 and the 2001 LNSPC.

2.1.1 Summary of Key Findings

The key findings from the current study are summarized below:

- ***Demand for the program was strong in both PY2000 and PY2001.*** In PY2000, the program achieved its highest level of participation. In PY2001, the program budget was reduced as compared with PY2000, and the program was fully subscribed by early summer.
- ***Lighting measures fell as a percent of expected program savings*** from roughly one-third in 1998/1999 to one-fifth in 2001.
- ***The self-report based net-to-gross ratio rose sharply in 2001*** to a weighted level of 0.65 after dropping to 0.41 in 2000.
- ***A significant share of end user participants*** (21 percent in 2001 and 38 percent in 2000) reported that ***participation in the program did lead to changes in their decision-making***

processes related to energy efficiency. On the other hand, as in previous evaluations, *most EESPs reported that the programs had minimal effects on their business practices.*¹ However, four of 10 EESPs in the PY2000 program and 9 of 10 EESPs in the PY2001 program reported that *participation had resulted in net increases in their sales.*

- *The proportion of contracts that were exclusively performance-based fell* to 20 percent in 2000 and 28 percent in 2001. In 2001 there was a very small sample of EESP-sponsored projects from which to draw as the percent of self-sponsored applications increased.
- *Levels of performance uncertainty among participants were low*, that is, customer and EESP participants report increasingly high levels of confidence in their estimates of energy savings.
- *Satisfaction levels with the M&V process continue to rise*, in part due to the introduction of the calculated savings option in 2001. Most participants in 2001 chose the calculated savings path.

2.1.2 Implications for Future LNSPC Programs

As part of our previous evaluation of the 1999 LNSPC Program we made several recommendations, including the following:

- Continue efforts to reduce free ridership
- Reassess which, if any specific EESP changes the Program should seek to induce
- Reassess the role of performance contracting and M&V
- Continue to reduce perceived and actual costs of participation in the program.

The utility administrators have made substantial progress in all of these areas. Free-ridership in the program increased somewhat in PY2000 but then fell dramatically in PY2001. Since 1999, the utility administrators have also refined their approach to program requirements and M&V in ways that have encouraged participation and increased satisfaction. Both the perceived and actual costs of participation in the program appear to have been reduced through further streamlining of the application procedures and M&V protocols and the introduction of a calculated savings option for M&V.

Overall, the changes made to the LNSPC Program over the years have been fairly well received among both the customer and EESP participants, especially the streamlining and standardization of application forms and the introduction of a calculated savings option for M&V for the 2001 program year. In addition, as a result of both increased customer demand resulting from the energy crisis and a reduction in funding that occurred for the program between PY2000 and

¹ For the purposes of this report, EESPs are defined as third-party firms that provide any of a number of energy-efficiency related products and services to end users. End users that are participating in the program and are sponsoring their own project are not defined as EESPs but are classified as self-sponsoring customers (see Sections 5 and 6).

PY2001, the PY2001 LNSPC was fully subscribed less than halfway through the program year. On the whole, customers and EESPs appear to be reasonably aware of the program and satisfied with the PY2001 approach. Many EESPs and customers, however, were frustrated with the fact that funding ran out in 2001, resulting in dislocations to the business activities of a number of participating firms, and with the timing of payments, which may have been delayed by the financial difficulties of utility administrators during Spring 2001.

There is a continuing need to balance utility administrators' provision of technical assistance to end users with the aim of following a "hands off" approach to meeting applicant and prospective applicant needs. On the one hand, the simplification of the program application process has lessened the time and effort expended by utility program staff and applicants to reach the program milestones. On the other hand, program activity appears to have accelerated in the latter half of PY2000 and first-half of PY2001 due to an increased level of up-front technical support. At least one of the utilities provided such support through a team of support contractors that specialized in M&V. Providing this kind of technical support does appear to increase customer participation and satisfaction; however, some ESCOs continue to believe that providing such support may come at the expense of the ESCO industry's services. We believe that a balance should be struck by continuing to encourage customers to use ESCOs and EESPs as sponsors as much as possible, but also by continuing to allow provision of utility-arranged technical support for those customers who either cannot attract EESP services or decidedly do not want such services.

The program streamlining appears to have also somewhat lessened the need for EESP- sponsorship of applications, though many self-sponsors are still hiring third-party firms for assistance. There continues to be a need for the specialized knowledge provided by EESPs, but we do not believe that it is necessary in most cases to promote the use of performance contracts between the customer and the EESP. At the same time, we have observed that the standard performance contract between the EESP and the utility administrator has been viewed positively by end users and is generally seen as a vote of confidence for EESPs' estimates of savings. Such third-party approval does appear to reduce some customers' risk of moving forward with EESP developed projects (i.e., it reduces the asymmetric information barrier).

In PY2001, most applicants chose the "calculated" instead of the "measured" M&V program option. Most applicants perceived the costs of the "measured" option to outweigh the 10-percent higher incentive payment it offered. One utility compelled a significant share of applicants to use the "measured" option because they felt uncertain about the energy savings projections for specialized or complex projects. We believe that an approach that maps projects with easily estimated savings to the calculated option, but allows the administrator the option of requiring M&V for projects for which *a priori* estimates are highly uncertain, is reasonable. This approach, if carried out consistently and according to a clear set of protocols and criteria, is likely to appropriately balance the need to accurately estimate program savings and maximize overall program cost-effectiveness.

We recommend that the utilities continue efforts to further refine the measures included in the LNSPC program. The calculated savings option in the LNSPC provides an intermediate level of tailoring that is higher than would be appropriate for Express Efficiency projects, but lower than the extensive M&V necessary for “measured” path projects in the LNSPC. To the extent feasible, utilities should expand calculated savings options for measures eligible in the LNSPC Program. It appears likely that the “measured” path will continue to play a smaller, but important role for projects that are extremely specialized or complex. This path has allowed projects to move forward that would not have been attempted otherwise. However, it is often unnecessary to require any but the most complex or specialized projects to submit this level of M&V.

In short, based on our ongoing evaluation of this program, we believe that the LNSPC fulfills an important role in the portfolio of nonresidential energy-efficiency programs by serving large or complex energy-efficiency projects undertaken by large customers. While many customers prefer the simplicity of the Express Efficiency Program, only certain measures and straightforward projects are appropriate for its standardized design. Prior to 1998, customized rebates fulfilled the market niche occupied after 1997 by the SPC program. The most recent version of the LNSPC appears to be achieving a good balance in the portfolio of nonresidential energy-efficiency programs by capturing most of the benefits provided by the previous customized rebate program, while also providing an increased stimulus to private market EESPs and a process for increasing the certainty of project savings estimates when necessary.

Finally, another important issue associated with this program is estimation of the program net-to-gross ratio. As discussed in our companion LNSPC net-to-gross ratio (NTGR) report,² the regulatory-required value of 0.53, which is to be used to estimate the cost-effectiveness of the LNSPC program, likely underestimates the true value. This is because the value being used was taken directly from the self-reported free-ridership estimation method, without adjustments that take into account that the self-reported method is probably biased downward. In addition, the method does not sufficiently address the spillover and other market effects associated with program participation, and may require further adjustment in the future. In our companion NTGR report, we recommend that the self-report based, NTGR be increased by 0.15 to account for the downward bias of the method and spillover.

2.2 SUMMARY OF TRACKING DATA RESULTS

This subsection summarizes key findings from analyses of utility program tracking data for both the 2000 and the 2001 LNSPC.

Because the program requires sponsors to verify gross savings on a site-by-site basis, it is not within the scope of this evaluation to assess independently the gross energy savings of the 2000 and 2001 programs. We are able, however, to develop an integrated analysis of program accomplishments using the three utility program-tracking databases.

² *Improving the Standard Performance Contracting Program: An Examination of the Historical Evidence and Directions for the Future*, prepared for Southern California Edison, December 2001.

Separate program-tracking databases are maintained by each of the program administrators. We combined extracts from each of the three program-tracking databases to produce a summary of program activity at an aggregate, statewide level. Each utility database uses a different format and is updated according to different protocols. The analyses of utility tracking data presented in this report are based on data received from the utilities in June 2001. Note that for the 2001 LNSPC, changes are still occurring with respect to project cancellations and project characteristics. Therefore, population characteristics for the 2001 LNSPC will eventually differ from those presented in this report; those for the 2000 program year should be relatively stable.³

Table 2-1 shows that the number of customers and applications fell between 2000 and 2001, partly because overall LNSPC funding fell from \$28 to \$18 million. The number of third-party EESPs in the program fell by almost half. Incentive commitments for SCE fell by two-thirds; those for PG&E and SDG&E decreased slightly. Expected savings for 2001 are lower than for 2000, reflecting reduced program budgets. This trend is also due to several large gas projects that lack kWh savings. The incentive/kWh figure rises from \$0.095 in 2000 to \$0.101/kWh in 2001.

Table 2-1
Summary of Key LNSPC Program Activity Indicators to Date

Activity Level	2000	2001
Total unique customers	201	180
Total number of applications	252	220
Total unique third-party EESPs	52	28
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<i>Total incentives funds committed – SCE</i>	\$11.5	\$4.5
<i>Total incentives funds committed – SDG&E</i>	\$4.6	\$2.5
Total savings from applications with active basic program applications (Btu, trillions)*	3.63	1.89
<i>Total Savings from applications with active basic program applications (therms, millions)</i>	5.62	5.92
<i>Total Savings from applications with active basic program applications (GWh)</i>	300	126
Average Incentives per kWh	\$0.095	\$0.101
Total incentives funds committed to gas measures (\$ million)	\$4.92	\$6.28
Average Incentives per therm	\$0.27	\$0.99

* Conversion rates obtained from 2001 Energy Efficiency Standards for Residential and Non-residential Buildings, California Energy Commission, June 2001.

Table 2-2 uses a variety of indicators to compare the characteristics of self-sponsored and EESP-sponsored applications. In the 2000 LNSPC Program, 58 percent of the project applications, 62 percent of the incentives, and 62 percent of the GWh savings are attributed to EESP-sponsored applications. In 2001, 34 percent of project applications, 27 percent of incentives, and 30 percent of GWh savings are attributed to EESP-sponsored applications. EESP-sponsored customers generally received more incentives, submitted more applications, and covered more sites.

³ Two utilities' programs were fully subscribed by June 2001, and one was not.

Table 2-2
Characteristics of Customer Self-Sponsored vs. EESP-Sponsored Active Applications

	2000			2001		
	Self-sponsored Applications	EESP-sponsored Applications	All Applications	Self-sponsored Applications	EESP-sponsored Applications	All Applications
Activities			Total			Total
Number of unique customers	92	109	201	116	64	180
Number of applications	107	145	252	147	73	220
Total \$ incentive (thousands)	\$11,020	\$17,414	\$28,434	\$13,737	\$4,586	\$18,323
Total Btu (trillions)*	1.46	2.18	3.63	1.38	0.51	1.89
<i>Total GWh</i>	117	182	300	93	33	126
<i>Total therms (millions)</i>	3.21	2.41	5.62	1.34	3.58	5.92
Comparative Indicators			Average			Average
Applications per customer	1.16	1.33	1.25	1.27	1.14	1.22
Sites per application	1.16	1.97	1.63	1.22	1.23	1.22
Incentive \$ per customer (000's)	\$120	\$160	\$141	\$118	\$72	\$102
Incentive \$ per application (000's)	\$103	\$120	\$113	\$93	\$63	\$83

*Conversion rates obtained from 2001 Energy Efficiency Standards for Residential and Non-residential Buildings, California Energy Commission, June 2001.

Table 2-3 shows that the profile of the typical LNSPC project changed from 2000 to 2001. The 2001 projects are more likely to be smaller and self-sponsored and to have HVAC or process end uses rather than lighting end uses. They are likely to cover fewer sites but more measures.

Table 2-3
Characteristics of typical LNSPC projects

Characteristics of typical projects	2000	2001
# of sites/application	1.63	1.23
# of end uses/application	1.05	1.02
# of measures/application	1.60	2.45
Most common measure	lighting	process
M&V approach	measured	calculated
Incentives	\$113,000	\$83,000

Based on the information presented above, the proportion of savings from lighting projects has dropped over time. In the 2000 LNSPC, 19 percent of the incentives and 33 percent of the kWh savings were from lighting projects; in 2001 this fell to 8 percent of the incentives and 23 percent of the kWh savings. This fall is partly due to an effort to ensure that the majority of lighting projects occur as part of the Express Efficiency Program.

Figure 2-1 presents estimated incentives by end-use category. While HVAC/R measures dominated in 2000, process measures dominated in 2001. Incentives from lighting measures fell by almost two-thirds between 2000 and 2001.

Figure 2-1
End Use Category Breakdown of Incentives by Year

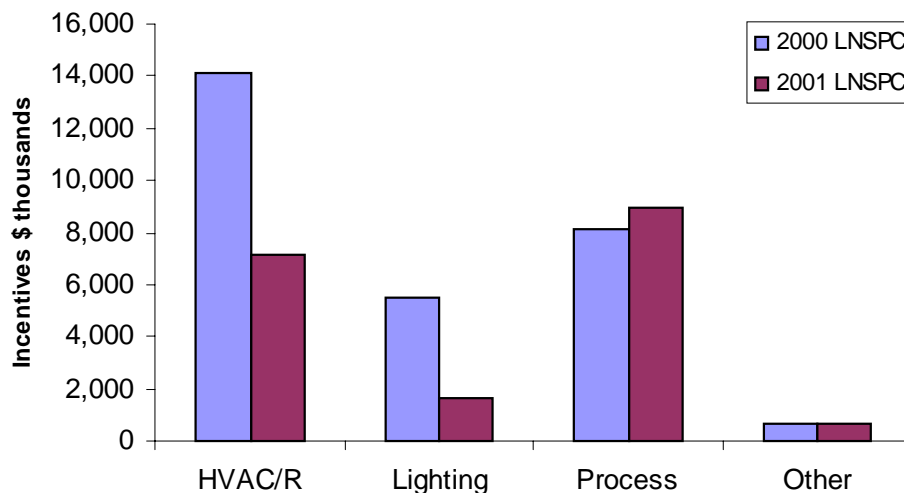
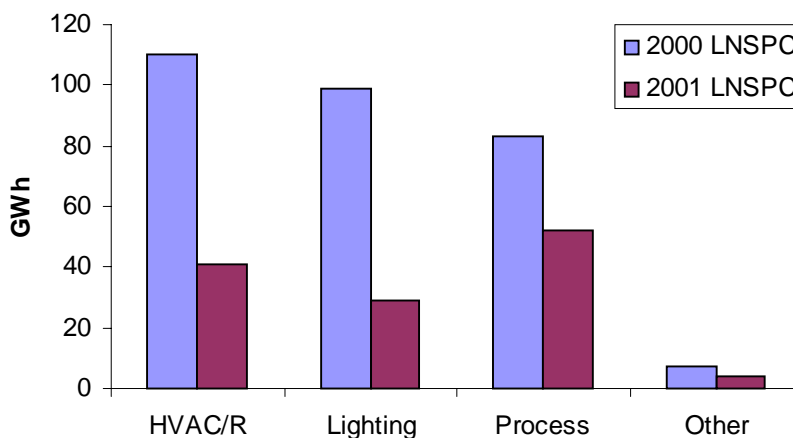


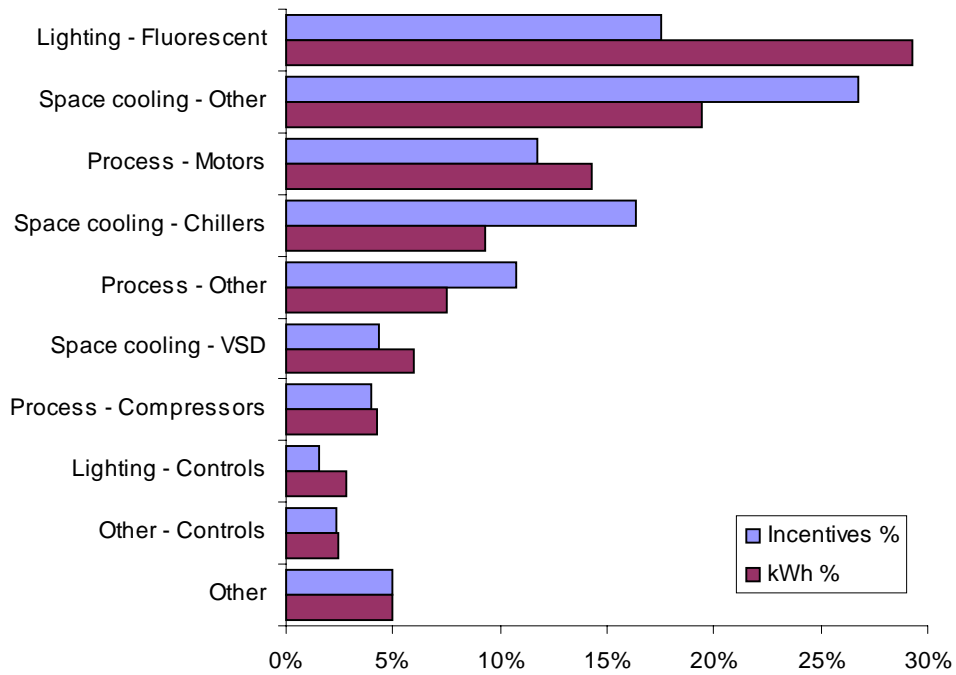
Figure 2-2 presents estimated savings in GWh by end-use category. They substantially resemble Figure 2-1, with the exception that process savings fall in 2001. This is because overall GWh savings were lower in 2001. To facilitate comparison, we supply percentages of different measures as well as their absolute savings in Figures 2-3 and 2-4. For details on savings and incentives by measure, see Sections 3 and 4.

Figure 2-2
End-Use Category Breakdown of GWh by Year

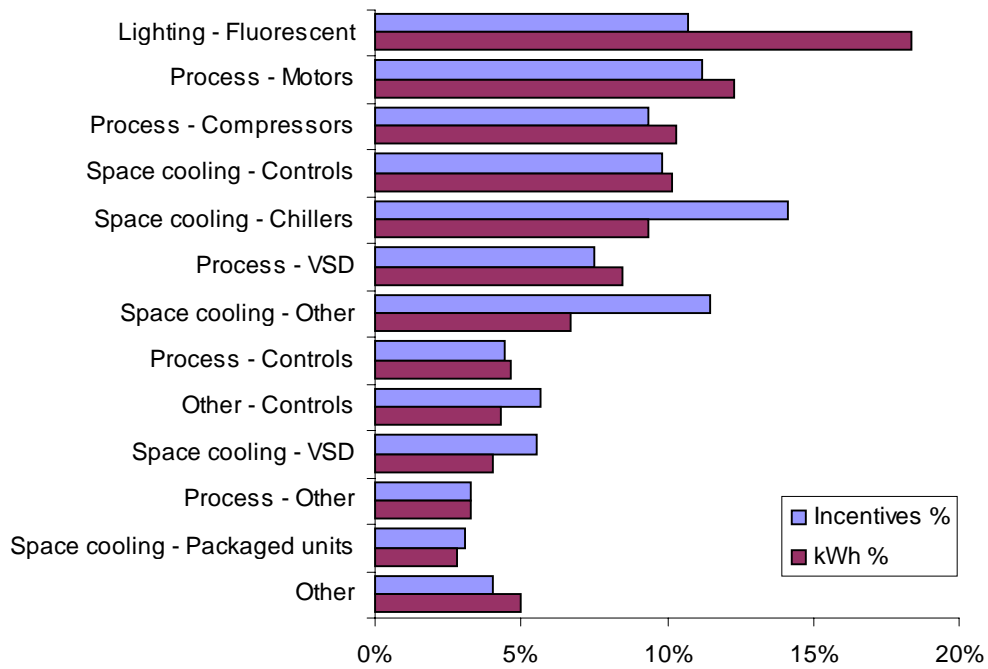


Figures 2-3 and 2-4 compare the percentages of incentives and kWh by specific end uses. The percentages vary dramatically within and between years. In 2000, indoor fluorescent lighting accounts for the highest percentage of energy savings, followed by “Space Cooling – Other,” a category including chiller controls, VAV conversions, HVAC high-efficiency motors, non-process boilers, and refrigeration. In 2001, large gas projects dominate the incentive percentages, but with that exception no end use clearly dominates.

**Figure 2-3
kWh and Incentives by End Use* (2000 LNSPC)**



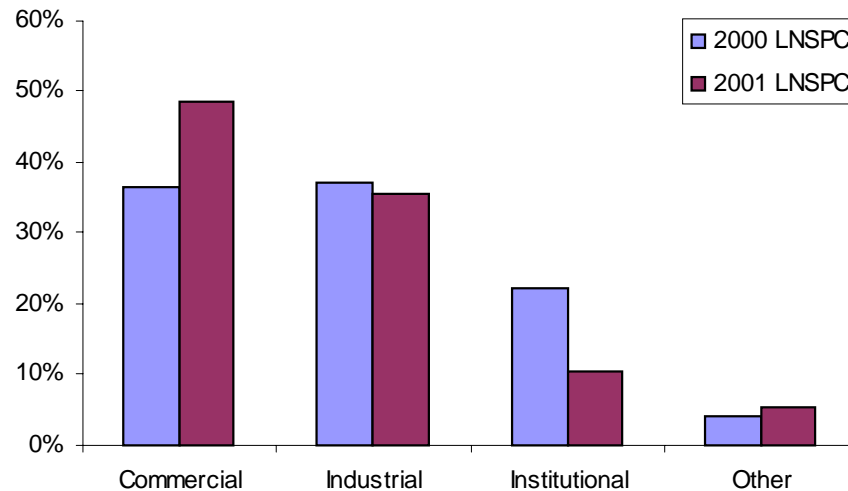
**Figure 2-4
kWh and Incentives by End Use* (2001 LNSPC)**



*Incentive figures relating to gas savings are excluded.

Figure 2-5 compares customer participants by end-user segment for the 2000 and 2001 LNSPC. In 2001, participation by institutional customers fell, leading to a corresponding increase in the proportions of commercial and industrial customers.

Figure 2-5
Breakdown of Customer Participants by End-User Segment



The top 10 end users accounted for 28 percent of total incentives in 2000, rising to 35 percent of total incentives in 2001; the 2000 figure was low compared to all other years of the program, meaning that the incentives were more evenly distributed in 2000, perhaps because the program was larger than in any other year. In 2000, the top five end users accounted for only 18 percent of total incentives, as opposed to 26 percent in 2001.

2.3 NET-TO-GROSS FINDINGS (FREE-RIDERSHIP)

As a result of detailed interviews conducted with participating end users, estimates of the net-to-gross ratios for both program years were developed. Note that the net-to-gross ratios reported here are based only on free-ridership; that is, they do not include any adjustments for participant or non-participant spillover (thus, the net-to-gross ratio equals 1 minus the free-ridership rate; see sections 5 and 6 for further discussion). The method used to calculate the ratio is based on self-reported information provided by participating customers. This method has been used extensively as part of previous utility program impact evaluations for programs that require site-specific net-to-gross estimates; it was also used in the 1999 LNSPC Program.

The net-to-gross estimate for the 2000 LNSPC, weighted by kWh savings, was 0.41. Self-sponsored customers had a lower net-to-gross ratio than EESP-sponsored customers (0.38 versus 0.45). This was in line with previous years. The overall weighted net-to-gross estimate for the 2001 LNSPC was considerably higher at 0.65. In contrast to results from 1998-2000, the net-to-gross estimate for self-sponsored customers in 2001 was higher than the estimate for EESP-sponsored applications (0.70 versus 0.40).

We found that both program years may have a significant amount of participant spillover; that is the program appears to be stimulating some participants to take additional actions beyond those captured in the program. Our best estimates of participant spillover suggest that the NTGRs for the program should be adjusted upward 0.17 in the 2000 LNSPC and 0.27 in 2001.

Acknowledging that these figures are based on customer self-reports that have not been independently verified, pursuing a more conservative approach of only adding half the estimated spillover to the NTGR would still result in significant increases for both years.

A companion report⁴ discusses broader issues associated with whether self-reported estimates of free-ridership should be adjusted rather than used directly for cost-effectiveness testing and estimation of net program benefits. This report concludes that net-to-gross results could typically be adjusted upwards by a minimum of 10 points from the current estimates established to address bias inherent in the self-reporting method. In addition, another five points could be added to reflect spillover associated with the program. If these proposed adjustments were made to the weighted NTGR for 2001, the adjusted value would be 0.80 (0.65 + 0.15). The adjusted NTGR for 1999 would have been 0.68 (0.53 + 0.15).

2.4 SUMMARY OF CUSTOMER PARTICIPANT SURVEY RESULTS

2.4.1 General Characteristics of the 2000 Participant Customer Sample

This subsection presents characteristics of the sample of 2000 and 2001 LNSPC customer participants with whom in-depth interviews were conducted in July and August 2001. The sample was stratified into three strata based on the amount of accepted incentives associated with each *unique* customer for *each* utility, resulting in one sample list per utility. We tried to complete as many interviews as possible of customers with the largest incentive amounts in the program for each utility (Stratum 1) and to draw random samples from within each of the remaining two strata. Each stratum represented, as closely as possible, one-third of the incentives in the 2000 and 2001 LNSPC Programs. A comparison of the aggregated sample versus the statewide population of LNSPC participants by accepted interviews is shown in Table 2-4.

Table 2-4
Targets by Utility

Utility	Goal (2000)	Complete (2000)	Goal (2001)	Complete (2001)
PG&E	15	14	20	19
SCE	15	15	10	11
SDG&E	10	9	10	9
<i>Total</i>	<i>40</i>	<i>38</i>	<i>40</i>	<i>39</i>

Table 2-5 shows that the sample in both program years somewhat overrepresented agricultural customers and under-represented commercial customers.

⁴ *Improving the Standard Performance Contracting Program: An Examination of the Historical Evidence and Directions for the Future*, prepared for Southern California Edison, December 2001.

Table 2-5
Breakdown of Number of Participants in Customer Sample by Market Segment

Business type	Sample (2000)	Population (2000)	Sample (2001)	Population (2001)
Industrial	47%	44%	49%	51%
Commercial	24%	33%	28%	37%
Agricultural	8%	3%	10%	2%
Institutional	21%	20%	10%	11%

2.4.2 Origin of Decisions and Role and Significance of Third-Party Firms

Respondents were asked a series of questions about how they made decisions about the energy-efficiency measures installed under the Program. When asked how they first heard about the energy-efficient measures installed as part of the Program, they most often responded, “from a previous installation” (41% in 2000, 35% in 2001). The vast majority learned of the LNSPC Program, rather than the energy-efficiency opportunities it provides, from their utility (63% in 2000, 71% in 2001).

Customers were asked to pick from a list of statements describing their role versus the role of any third-party firms in developing the ideas included in their projects. Table 2-6 shows the results. EESP-sponsored customers in 2001 were twice as likely as EESP-sponsored customers in 2000 to report that they had originated the idea of installation themselves (66% versus 33%), though the small number of EESP customers interviewed in 2001 made any but dramatic changes statistically insignificant.

Table 2-6
Description of Process to Decide to Install Energy-Efficiency Equipment

Process Which Led to Installation	2000			2001		
	EESP-sponsored	Self-sponsored	All	EESP-sponsored	Self-sponsored	All
Own idea, pursued on our own	20%	52%	39%	33%	52%	49%
Third party's idea, pursued on our own	33%	13%	21%	17%	9%	10%
Own idea, convinced by third party	13%	13%	13%	33%	6%	8%
Third party's idea, convinced by third party	27%	17%	21%	17%	30%	28%
Joint decision	0%	4%	3%	17%	3%	5%
Missing	7%	0%	3%	0%	0%	0%
<i>Total</i>	15	23	38	6	33	39

Participants entered into various contractual agreements with their third-party firms. While 47 percent of all EESP-sponsored projects in the 2000 LNSPC contained some performance element,⁵ this fell to 43 percent in 2001.⁶

⁵ These figures include shared savings projects where the contract was only partially on a performance basis. Only 20 percent of EESP-sponsored projects in 2000 and 29 percent in 2001 had contracts with the EESP that were entirely performance based.

⁶ The number of EESP-sponsored customers in 2001 was very small, at 7 out of 39 customers; the significance of the 2001 figure is therefore limited.

We asked customers to rate the significance of the overall value of the services provided by the third-party firm for their decision to install the LNSPC-related measures. Table 2-7 presents the results. This indicator shows little change between 2000 and 2001, and continues a previously observed trend of high significance.

Table 2-7
Significance of Third-Party Firm Services in Decision to Implement Projects

Significance	2000			2001		
	EESP-sponsored	Self-sponsored with third party	All	EESP-sponsored*	Self-sponsored with third party	All
Extremely significant	53%	40%	50%	86%	50%	62%
Somewhat significant	20%	40%	25%	14%	29%	24%
Somewhat insignificant	13%	0%	10%	0%	0%	0%
Extremely insignificant	13%	0%	10%	0%	21%	14%
Don't know	0%	20%	5%	0%	0%	0%
<i>Total</i>	<i>15</i>	<i>5</i>	<i>20</i>	<i>7</i>	<i>14</i>	<i>21</i>

*Responses for EESP-sponsored refer to the significance of the third-party sponsor of record on the LNSPC application, not of any other companies that may be involved in the process.

Respondents were asked if they planned any additional measures as a result of the program. Two-thirds of the 2000 respondents and 54 percent of the 2001 respondents said they planned to implement additional measures as a result of participation in the program.

Respondents also rated the significance of the program on their decision to implement additional measures. Approximately three-fourths of all respondents in both years said that the program was “somewhat” to “extremely” significant in their decision to implement additional measures.

2.4.3 Process Issues

Customers in both years were asked to assess the main strengths and weaknesses of the program. In both years, the main strength suggested was the incentives. In 2000, the second most popular answer was that the program encouraged customers to save energy, but in 2001 it was that the program was simple. This suggests that, due to 2001 program changes, customers find the program easier to handle than they did in previous program years. The main weakness cited in both years was the burden posed by the M&V process. Respondents in 2000 also complained that they were receiving their incentive payments late; respondents in 2001 also complained that they were unable to submit projects in time for the deadline to receive the Summer Peak Incentive. These criticisms clearly reflect the different application stages through which customers were passing at the time of interview.

While 66 percent of customers in 2000 found the application procedures and timing of feedback reasonable, this rose to 74 percent in 2001, reinforcing the impression that steps taken to streamline the program between 2000 and 2001 have improved levels of satisfaction with the program process.

Sixty-eight percent of respondents in 2000 reported a “good” or “excellent” overall experience with their utility company; this rose to 72 percent in 2001.

Respondents were asked to estimate the reduction in the payback period attributed to the program incentives. As indicated in Table 2-8, the incentives were reported to have reduced the payback period by a year and a half on average in 2001, versus over 2 years in 2000. This is mostly because the incentive rates in 2001 were higher.

Table 2-8
Self-Reported Payback Estimates with and without LNSPC Program Incentives

Reduction	Years (2000)	Years (2001)
Mean payback with incentives	3.3	1.9
Mean payback without incentives	5.4	3.5
Mean reduction in payback period	2.1	1.5

2.4.4 M&V Requirements

The 2000 respondents and the 2001 respondents were asked very different questions regarding the M&V requirements, due to the different application stages and changes to the 2001 program.

Respondents in the 2000 LNSPC were asked to comment on the M&V process and the M&V requirements separately. While 74 percent of respondents made positive comments about the M&V requirements, only 29 percent made positive comments about the M&V process. This suggested that the M&V requirements were theoretically reasonable but that customers found the requirements laborious and confusing to fulfill. In 2001, respondents were asked to comment on the process and requirements in a single question. No respondent voiced criticism of the M&V requirements for the measured savings option; criticism of requirements for the calculated savings option was limited to one respondent who thought that the requirements were lax enough to enable customers or EESPs to defraud the system. Other specific criticisms focused on process issues, such as the expense and length of the process (4 out of 30 respondents).

In the 2000 LNSPC, respondents were asked a series of questions relating to the cost of M&V. Fifty percent of respondents would definitely value the M&V results enough to pay for them and would be willing to pay an average of 7 percent of the incentives; their average estimate of the actual cost of M&V for the LNSPC projects was 9 percent. Respondents in the 2001 LNSPC were asked no cost-related M&V questions.

Both the 2000 and the 2001 LNSPC respondents were asked how certain they had been at the beginning of the project about how much energy they would save. Over four-fifths (82 percent) of the 2001 respondents were “extremely” or “somewhat” certain, rising from 77 percent in 2000. EESP-sponsored respondents from both years were also asked whether the fact that the program required their EESP to have a contract for measured savings with the utility had affected their confidence in the EESP’s estimates of savings. Fifty-eight percent of the 2001

respondents reported that it had increased their confidence “greatly” or “somewhat”, a slight fall on the previous year’s figure of 73 percent.

2.4.5 Program Effect on Organizational Decision-Making Processes

The surveys in both 2000 and 2001 included one question addressing the issue of whether the LNSPC program had changed the customer’s internal decision-making processes relating to energy-efficient equipment. Overall, 21 percent of the respondents in 2001 said that participation in the program had affected their decision-making policies in some way, down from 38 percent in 2000. This comparison is affected by the fact that 2000 respondents had had one year longer to alter their decision-making processes before they were interviewed than the 2001 respondents.

2.5 SUMMARY OF EESP PARTICIPANT SURVEY RESULTS

This subsection provides a general summary of information collected from in-depth interviews with EESPs sponsoring projects in the 2000 and 2001 LNSPC Program.

2.5.1 LNSPC Participant EESP Sample Frame

We constructed the samples for the EESPs who participated in the 2000 and 2001 LNSPC using data extracts provided by the utilities in June 2001. Our target was to conduct interviews with 10 EESPs who participated in each year, for a total of 20 interviews. We were particularly interested in gaining input from EESPs whose customers we had also interviewed to facilitate comparison of perspectives. Another objective of the sample design was to obtain input from EESPs that had participated in multiple years of program implementation and thus might be able to provide a comparison of participation experiences between years.

2.5.2 Samples versus Populations

We completed a total of 20 interviews with EESPs, 10 representing the 2000 program and 10 for the 2001 program. We were able to reach five EESPs in 2000 and three in 2001 for whom we also interviewed at least one customer regarding the program that year. This greatly facilitated the comparison of differing perspectives between EESPs and customers for the same projects.

Table 2-9 compares the energy savings and incentive levels of the EESPs sampled versus the population of EESPs participating in the 2000 and 2001 LNSPC Programs. In 2001, the sample represents 31 percent of the population of EESP participants and 23 percent of the incentives. The proportions were lower in 2000 because our sampling technique favored EESPs whose customers we had already sampled, and in 2000 these came disproportionately from the lowest stratum.

**Table 2-9
Distribution of 2000 EESP Participant Interview Results by Savings**

	2000			2001		
	Sample	Population	% Sampled	Sample	Population	% Sampled
Number of EESPs	10	49	20%	10	32	31%
Total kWh savings	10,689,462	154,318,756	7%	9,396,540	40,935,564	23%
Total therm savings	1,654,356	5,617,454	29%	3,152,419	5,921,451	53%
Total incentives	\$918,987	\$13,995,876	7%	\$1,399,471	\$3,854,724	36%

2.5.3 Demographics of Participant EESP Sample

In contrast to previous years, only one firm in each year identified themselves as an ESCO. The most common type of firm choosing to sponsor project applications were equipment vendors or distributors, followed by engineering firms.

The number of full-time equivalent employees located in California varied significantly between 2000 and 2001. In 2001, the average EESP had 400 employees, with two being one-person operations, and with a maximum of 2,500 employees. In 2000, the average EESP had 107 employees, with a range from two to 800. For the 10 firms with a nationwide or international focus, the average was over 1,000 employees.

2.5.4 Process-Related Issues

The EESP respondents were asked several open-ended questions regarding their experiences with the program, including perceived strengths and weaknesses, experiences with payment procedures, and the M&V process. We also asked specifically about perceptions of the new calculated savings option for M&V in 2001.

Overall, the comments regarding process-related issues of the program were similar to those in prior years, where there were two opposing themes. Many were quite satisfied with the program and/or understanding of paperwork and M&V requirements. However, another substantial group complained of the complexity or onerous nature of requirements or the difficulty of getting sufficient or timely assistance from the utility. Similarly, 60 percent of EESPs believed that the incentives are good to generous, while a much smaller group wanted higher incentives, or for more measures to be eligible.

The main reported strength of the program, at 50 percent, was simply that it is good that the program provides incentives. One-quarter of the 2001 EESP respondents specifically mentioned the helpfulness of the utility, in several cases mentioning their account representative by name. Also, one-quarter mentioned that an important component of the program is that it does require savings to be verified to minimize manipulation and gaming, even if they later state that they would prefer that these M&V requirements were less demanding.

The comments on weaknesses are similar to those in prior years. However, there is a distinct difference in flavor between comments in 2000 versus 2001. The 2001 respondents were significantly more likely than 2000 respondents to comment that the utility was unhelpful, or provided confusing or conflicting information. Several voiced frustration that the program funds had run out so soon in the program year. The 2000 EESP participants interviewed were more likely to complain of complicated paperwork or M&V than the 2001 EESP participants. This perhaps reflects the continued streamlining of program requirements, the new calculated savings option, and the flurry of activity generated by the energy crisis in PY2001.

2.5.5 Incentives and Payment Process

About 40 percent of the EESPs reported that the payment processes seemed reasonable, even if there were a few delays. Another 40 percent had primarily negative comments, such as delays in receiving payment or needing better communication from utilities. Three EESPs specifically mentioned that it complicated matters to have the incentive checks sent to them as the project sponsor, rather than directly to the customer.

2.5.6 Measurement and Verification

Half of the EESPs interviewed had generally positive comments on the M&V process. Another 20 percent either had no comment, usually because they had not reached the M&V stage yet, or were neutral. Negative comments focused on the difficulty or inflexibility of the M&V requirements. One EESP mentioned elsewhere in the interview that it was particularly difficult to handle M&V on seasonal-use equipment under the program requirements.

The majority of EESPs interviewed had positive opinions on the new calculated savings option for M&V offered in the 2001 LNSPC. Several also mentioned that they were glad that the option existed, but would probably opt for the measured option in order to earn as much incentive as possible. Four of the EESPs liked the calculated savings option but were dissatisfied that a particular measure was not eligible. The most negative comments were from two EESPs that expressed concern that this option did not provide sufficient supervision and would allow project sponsors to manipulate the numbers.

When asked how their firm's standard practice for M&V differed from that required by the LNSPC, 40 percent of the 2001 respondents said that that the program requirements were more extensive. Interestingly, another 35 percent said that the program requirements were similar to or essentially the same as their normal M&V practices. One EESP participating in the 2000 program reported that his firm typically does even more extensive M&V for the type of measure installed under the program.

Generally, the utilities received good ratings from the EESPs, with 14 of 20 EESPs rating their experiences with their utility as good or excellent. Five of the 2000 and three of the 2001 respondents specifically mentioned that the utility staff was very helpful, supportive, or "would do whatever it takes" to assist them. Only two EESPs, both participating in the 2000 program,

rated their experiences as somewhat poor, one of whom said that he was happy with the project management but not with the M&V review process.

2.5.7 Comparison of Customer and EESP Perspectives

To gain further insight on the perspectives of EESPs as they relate to their customers, we asked a series of similar questions to both parties in order to compare their responses (see Appendix B for the actual text of the surveys used in this analysis). When we compare the responses between customer and EESP, some comparisons are easy, especially of closed-ended questions like “likelihood of installing anyway in absence of the program.” However, more questions required the comparison of open-ended responses or collapsing the answers from two or more questions to obtain a comparable response. Responses were considered a match if the customer responses were very similar, even if not actually identical.

Two of the eight cases where we have overlapping information from the EESP and the customer substantially agree in their perspective, one is extremely inconsistent, and the remaining five fall somewhere in the middle.

For the question regarding likelihood of installing anyway in absence of the program, three of the eight cases agreed completely, while another two were very similar. The remaining three cases had substantively different customer and EESP responses. For example, one customer said that they definitely would have installed anyway, while its EESP thought it somewhat unlikely. Four cases agreed completely on whether the absence of the program would have affected the timing of the project. Another two cases disagreed completely. The remaining two cases are ambiguous: customers said there would have been no change, while their EESPs said that a delay was possible. This ambiguity perhaps points up the hypothetical nature of the question.

Overall, customers and EESPs had similar views on the significance of the EESPs in the decision-making process as well as what services they provided. This seems to discount the hypothesis that the person being interviewed would be more likely to somewhat overstate their role, in which case the customer would be more likely to underreport the actual significance of the EESP, while the EESP would then tend to overreport their actual significance. We also asked the EESP how likely was it that the customer would have hired them anyway for this project in absence of the program. Four of the eight EESPs said that they believe that the customers would have hired them in absence of the program or were already under contract, and another three EESPs believed that they would not have been hired; one EESP did not know.

Six of the EESPs reported that the M&V process was reasonable or that none was required due to opting for the calculated savings option in 2001. The remaining two reported some negative experiences. In one case, both the customer and the EESP reported the same difficulty of having to do measurements twice because the utility required it. Generally, the customers had very little to say on the M&V process and requirements, saying that the EESP handled it.

2.5.8 Potential Market Effects of Program

The EESPs reported that around half of their projects would have proceeded anyway in the absence of the program (48% in 2000, 56% in 2001). For the remaining projects the EESPs stated that the program incentives made the project attractive enough for the customer to proceed.

Four EESPs in 2000 and nine EESPs in 2001 said that participation had benefited their business by increasing their sales activity, and that the program had now become part of their sales pitch. Another four EESPs in 2000 reported no effect on their overall business activities, as did the remaining EESP in 2001. The other two 2000 EESPs said that participation had had a negative effect: These two spent significant time on participation and on customer training, but got little out of it.

When asked about the effect of the state's energy crisis on their business, 50 percent said that the energy crisis has increased their overall sales. Another 25 percent reported that while sales volume is similar, they have changed the emphasis of their business activities as a result.

2.6 OVERVIEW OF FOUR-YEAR PROGRAM TRENDS

This section presents a summary selection of trends that showed significant change over the four program years.

2.6.1 Program Statistical Trends

Two sets of trends are apparent in the basic program statistics, which are shown in Table 2-10. Most indicators steadily rise until 2000 and then fall off in the 2001 LNSPC. This group includes the total number of unique customers, applications, and participating EESPs in the program, as well as the total savings measured by kWh and by Btu. Trends in these variables are conditioned by the fall in program funding from the 2000 LNSPC to the 2001 LNSPC, especially considering that the 2001 program was fully subscribed before half the year was over.

The major exception to this is related to the fact that the incentives per therm dramatically increased in the 2001 LNSPC Program, from \$0.27 per therm to \$1 per therm for calculated savings projects and \$1.10 for measured savings projects. This increase offset the effects of decreased program funding and produced an increase in the quantity of savings resulting from gas projects under the program.

Table 2-10
Program Statistics, 1998-2001

Activity Level	1998	1999	2000	2001
Total unique customers	90	122	201	180
Total number of applications	139	179	252	220
Total unique third-party Energy-Efficiency Service Providers	33	33	52	28
Total incentives funds committed (\$ million)	\$24.23	\$24.24	\$28.43	\$18.32
<i>Total incentives funds committed – PG&E</i>	\$6.3	\$9.4	\$12.3	\$10.8
<i>Total incentives funds committed – SCE</i>	\$10.3	\$11.5	\$11.5	\$4.5
<i>Total incentives funds committed – SDG&E</i>	\$7.5	\$3.3	\$4.6	\$2.5
Total Savings from applications with active Basic Program Applications (Btu, trillions)*	1.92	3.03	3.63	1.89
<i>Total Savings from applications with active Basic Program Applications (therms, millions)</i>	2.57	3.46	5.62	5.92
<i>Total Savings from applications with active Basic Program Applications (GWh)</i>	162	262	300	126
Average Incentives per kWh	\$0.150	\$0.093	\$0.095	\$0.101
Total incentives funds committed to gas measures (\$ million)	\$0.95	\$0.78	\$4.92	\$6.28
Average Incentives per therm	\$0.37	\$0.22	\$0.27	\$0.99

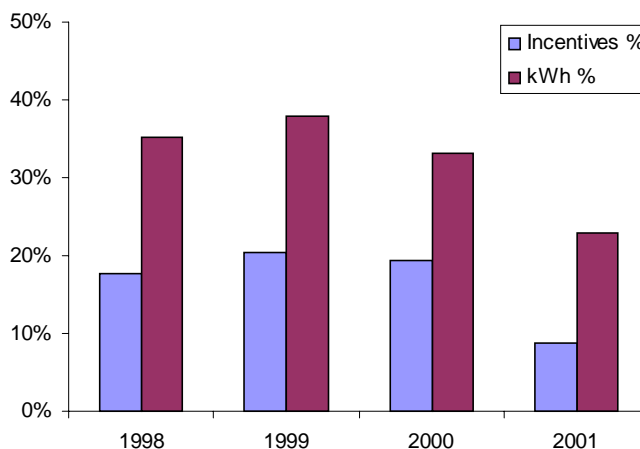
* Conversion rates obtained from 2001 Energy Efficiency Standards for Residential and Non-residential Buildings, California Energy Commission, June 2001.

2.6.2 Tracking Data Trends

There are several more specific trends, which show clear patterns over the past four years. Figure 2-6 shows that lighting measures as a proportion of GWh savings and of incentives have fallen since 1999, partly through deliberate efforts to focus the program on non-lighting projects.

The number of EESPs sponsoring applications in the program fell from 52 in the 2000 LNSPC to 28 in the 2001 LNSPC. The disappearance of several EESPs dominant in 1998-2000 reversed a trend towards increased concentration of applications into the hands of a few EESPs. In 1998, the top two firms captured 35 percent of the total EESP incentives, rising to 51 percent in 1999; in 2000 this rose further to 52 percent, and in 2001 fell back to 28 percent.

Figure 2-6
Lighting Measures: Percentage of Program Incentives and Energy Savings



2.6.3 Customer and EESP Participant Survey Data Trends

Certain indicators from the customer and EESP participant surveys exhibited interesting trends over the four years of the program. Among these were:

- Customers' descriptions of the process by which they decided to install energy-efficient equipment under the program
- Their level of certainty about how much energy they would save
- The level of satisfaction with the M&V process and requirements
- The amount of performance contracting in the LNSPC program

Table 2-11 suggests that an unusually large proportion of customer participants in 1999 reported that they had exclusive control of the installation decision process. The role of third parties has become somewhat more significant over time, with 28 percent of customers suggesting that third parties had exclusive control of the process in the 2001 LNSPC, versus 15 percent in 1998.

Table 2-11
Customer Installation Decision Process

Process Which Led To Installation	1998	1999	2000	2001
Own idea, pursued on our own	44%	71%	39%	49%
Third party's idea, pursued on our own	-	18%	21%	10%
Own idea, convinced by third party	31%	4%	13%	8%
Third party's idea, convinced by third party	15%	7%	21%	28%
Joint decision	-	-	3%	5%
Missing	-	-	3%	-
<i>Total</i>	29	45	38	39

Customers exhibit a steadily increasing level of certainty about how much energy they would save under the program. The proportion of customers who are somewhat or extremely certain increases from 64 percent to 82 percent over the 4 years of the program (Table 2-12).

Table 2-12
Customer Certainty about Projected Energy Savings

Certainty	Percent (1998)	Percent (1999)	Percent (2000)	Percent (2001)
Extremely uncertain	7%	5%	11%	0%
Somewhat uncertain	29%	16%	6%	18%
Somewhat certain	21%	38%	26%	36%
Extremely certain	43%	41%	57%	46%
<i>Total</i>	29	41	35	39

Customer and EESP satisfaction with the M&V process and requirements generally rose over the 4 years of the program. Customers were more positive about the M&V requirements than the

M&V process in 2001, suggesting that the M&V requirements were theoretically reasonable, but that customers found fulfilling those requirements laborious and confusing.

Table 2-13 shows that the proportion of contracts between customers and sponsoring EESPs that contain any element of performance increases to 2000 and then declines sharply in 2001.

Table 2-13
Percentage of Energy Performance Contracts in NSPC/LNSPC, 1998-2001

	1998	1999	2000	2001
Percentage of energy performance contracts	38%	43%	47%	43%

Finally, and perhaps most importantly, Table 2-14 shows that the net-to-gross ratio shows a significant increase in 2001.

Table 2-14
NTGR Ratios, 1998-2001

NTGR	1998	1999	2000	2001
Weighted	0.53*	0.51	0.41	0.65
Unweighted	0.49	0.48	0.46	0.55

*Weighted by incentives rather than by kWh savings.

3

SUMMARY OF PROGRAM TRACKING DATA

In this section, we present summaries of program activity levels for the 2000 LNSPC Program. The purpose is to provide as much information as possible on the impacts of the program, both in terms of total savings and expenditures and of participation trends among market actors. Information for the 2001 LNSPC Program is presented in Section 4.

The three utility program administrators maintain separate program tracking databases. We aggregated extracts of these from June 2001 to create a summary of program activity at a statewide level. As each utility database is formatted differently, we made every effort to reconcile differences in definitions and correct inconsistencies when compiling the data. However, readers should be aware that our report presents only an approximate description of the program at a single point in time. Our results are based on data received from all three utilities in June 2001. This section contains the following subsections:

- Summary of Program Activity (3.1)
- Composition of Applicants (3.2)
- Statewide Participation Details (3.3).

3.1 SUMMARY OF PROGRAM ACTIVITY TO SUMMER 2000

Table 3-1 summarizes program activity as of summer 2001. There were 201 unique customers with 252 applications, representing \$28.4 million in incentives statewide. A total of 300 GWh and 5.6 million annual therms were saved, which combined represent 3.65 trillion BTU of energy savings. Approximately 17 percent of the incentives, or \$4.92 million, went to gas measures. The incentive structure allowed for \$0.095/kWh and \$0.27/therm.

The data supplied by one utility were incomplete with regard to the number of unique customers. On further analysis, we were able to construct tables presenting a reasonable estimate of program activity. There were also inconsistencies in the databases regarding EESP sponsorship. To the extent possible, we have clarified the status of submitted applications, but the EESP-related data presented should also be considered approximate.

3.2 COMPOSITION OF APPLICANTS: CUSTOMER SELF-SPONSORS VS. EESP-SPONSORED CUSTOMERS

Table 3-2 summarizes program activity and a variety of key indicators for customer self-sponsors and EESP-sponsored customers. “Customer Self-Sponsors” are defined as customers who contract directly with the utility administrators and who are the sponsors of record on their submitted applications. “EESP-Sponsors,” as defined in this analysis, are third-party sponsors, such as contractors, engineers, or energy services companies (ESCOs), who contract with the

utility administrators on behalf of a host customer facility. In 2000, EESP-sponsored applications produced 58 percent of the project applications, 62 percent of the incentives, and 62 percent of the GWh savings. EESP-sponsored customers generally received more incentives, submitted more applications, and covered more sites.

Table 3-1
Summary of Program Activity (2000 LNSPC)

Activity Level	2000
Total unique customers*	201
Total number of applications	252
Total unique third-party EESPs	52
Total incentives funds committed (\$ million)	\$28.4
<i>Total incentives funds committed – PG&E</i>	\$12.3
<i>Total incentives funds committed – SCE</i>	\$11.5
<i>Total incentives funds committed – SDG&E</i>	\$4.6
Total Savings from applications with active basic program applications (Btu, trillions)	3.63
<i>Total Savings from applications with active basic program applications (GWh)</i>	300
<i>Total Savings from applications with active basic program applications (therms, millions)</i>	5.62
Average Incentives per kWh	\$0.095
Total incentives funds committed to gas measures (\$ million)	\$4.92
Average Incentives per therm	\$0.27

*“Unique” indicates the total number of different customers (or EESPs) regardless of number of applications submitted.

Table 3-2
Composition of Characteristics for Customer Self-Sponsored vs. EESP-sponsored Active Applications (2000 LNSPC)

	Self-sponsored applications	EESP-sponsored Applications	All applications
2000			
Activities			Total
Number of unique customers	92	109	201
Number of applications	107	145	252
Total \$ incentive (thousands)	\$11,020	\$17,414	\$28,434
Total Btu (trillions)	1.46	2.18	3.63
<i>Total GWh</i>	117	182	300
<i>Total therms (millions)</i>	2.47	3.15	5.62
Comparative Indicators			Average
Applications per customer	1.16	1.33	1.25
Sites per application	1.16	1.97	1.63
Incentive \$ per customer (000's)	\$120	\$160	\$141
Incentive \$ per application (000's)	\$103	\$120	\$113

Figure 3-1 presents the number of sites per customer for both self-sponsored and EESP-sponsored applications. Most of the customers with more than one site were EESP-sponsored. The overwhelming majority of applications involved only one site. However, 15 percent of the self-sponsored applications and 32 percent of the EESP-sponsored applications covered more than one site.

Figure 3-1
Number of Sites per Customer for Accepted Applications (2000 LNSPC)

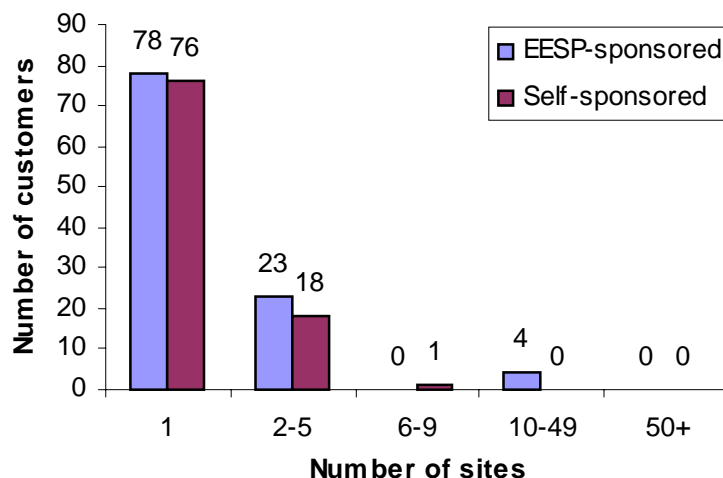


Table 3-3 shows that the percentage of total incentives accounted for by EESP sponsorship varied considerably by utility. The average percentage statewide was 58 percent.

Table 3-3
Percentage of EESP-Sponsored Incentives by Utility (2000 LNSPC)

Utility	Percent (2000)
PG&E	44%
SCE	69%
SDG&E	56%

3-3 STATEWIDE PARTICIPATION BY END-USER SEGMENTS

Figure 3-2 compares customer participants by end-user segment for the 2000 Program. Industrial customers form the largest percentage, with 44 percent of the total. Commercial customers form the next largest segment, with approximately one-third.

Table 3-4 shows the end-user segments and percent of incentives for active applications for the top 10 end-user participants (including both self-sponsors and EESP-sponsored customers) in each program year. The top 10 end users accounted for 28 percent of total incentives in 2000, and the top 5 end users for 18 percent; the 2000 figures were low compared to all other years of the program, meaning that incentives were more evenly distributed in 2000.

Figure 3-2
Breakdown of Customer Participants by End-User Segment (2000 LNSPC)

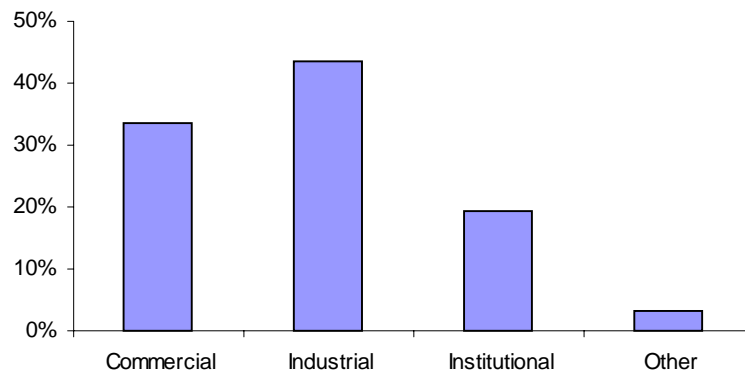


Table 3-4
Percent of Program Incentives for Top 10 End Users (2000 LNSPC)

Rank	Sponsorship	Segment	% of Incentives	Cumulative %
1	EESP	Industrial	5%	5%
2	EESP	Industrial	5%	10%
3	EESP	Commercial	3%	13%
4	EESP	Industrial	3%	16%
5	SELF	Other	2%	18%
6	SELF	Commercial	2%	20%
7	EESP	Industrial	2%	22%
8	EESP	Industrial	2%	24%
9	EESP	Institutional	2%	26%
10	EESP	Institutional	2%	28%

Table 3-5 shows the end-uses included in active applications for the 2000 LNSPC. It shows that HVAC/R accounts for the largest number of applications and amount of incentives in 2000 when including the HVAC/R elements of the multiple end-use applications.

Figure 3-3 includes all single-end-use applications as well as disaggregated multiple-end-use applications. It shows that HVAC/R measures received more than twice the incentives going to lighting end uses in the 2000 LNSPC. Figure 3-4 presents estimated savings in GWh by end-use category. We exclude therms from these figures, because therm savings occur only in a restricted range of end uses (Process–Other, Space cooling–Other, and Other–Controls). However, incentives for therms totaled approximately \$2.3 million, or 8 percent of incentives awarded.

Table 3-5
End Uses Included for Accepted Applications (2000 LNSPC)

Sponsorship	End-use category*	Number of applications	Total incentives	Average incentives	% of incentives	Total kWh	% of kWh
Self-sponsored	L	18	\$747,062	\$41,503	7%	14,585,656	12%
	H	32	\$3,662,814	\$114,463	33%	31,992,923	27%
	O	2	\$83,395	\$41,698	1%	807,281	1%
	P	34	\$3,586,887	\$105,497	33%	36,168,775	31%
	Multiple	22	\$2,939,502	\$139,976	26%	33,773,583	29%
	<i>Total</i>		<i>107</i>	<i>\$11,019,660</i>	<i>\$102,987</i>	<i>100%</i>	<i>117,328,218</i>
EESP-sponsored	L	58	\$3,428,389	\$59,110	20%	60,046,121	33%
	H	37	\$5,284,346	\$142,820	30%	37,032,395	20%
	O	4	\$420,215	\$105,054	2%	4,495,653	2%
	P	25	\$2,553,539	\$102,142	15%	24,951,019	14%
	Multiple	21	\$5,727,456	\$272,736	33%	55,904,488	31
	<i>Total</i>		<i>145</i>	<i>\$17,413,945</i>	<i>\$120,096</i>	<i>100%</i>	<i>182,429,676</i>
Both	L	76	\$4,175,451	\$54,940	15%	74,631,777	25%
	H	69	\$8,947,160	\$129,669	31%	69,025,318	23%
	O	6	\$503,610	\$83,935	2%	5,302,934	2%
	P	59	\$6,140,426	\$104,075	22%	61,119,794	20%
	Multiple	42	\$8,666,958	\$206,356	30%	89,678,071	30%
	<i>Total</i>		<i>252</i>	<i>\$28,433,605</i>	<i>\$112,832</i>	<i>100%</i>	<i>299,757,894</i>

*L=Lighting, H=HVAC/R, O=Other, P=Process

Figure 3-3
End-Use Category Breakdown of Incentives (2000 LNSPC)

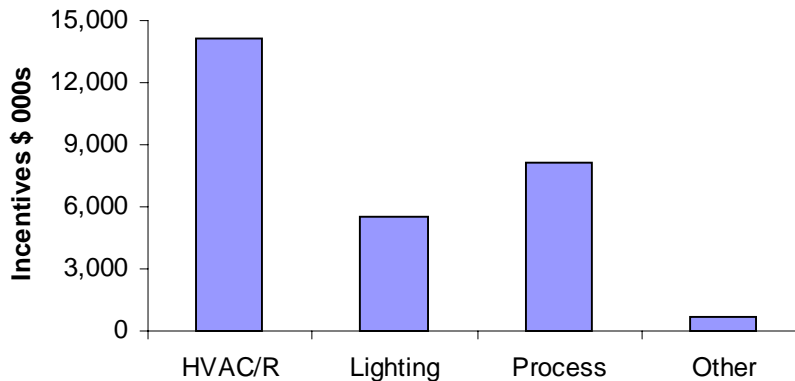


Figure 3-4
End-Use Category Breakdown of GWh (2000 LNSPC)

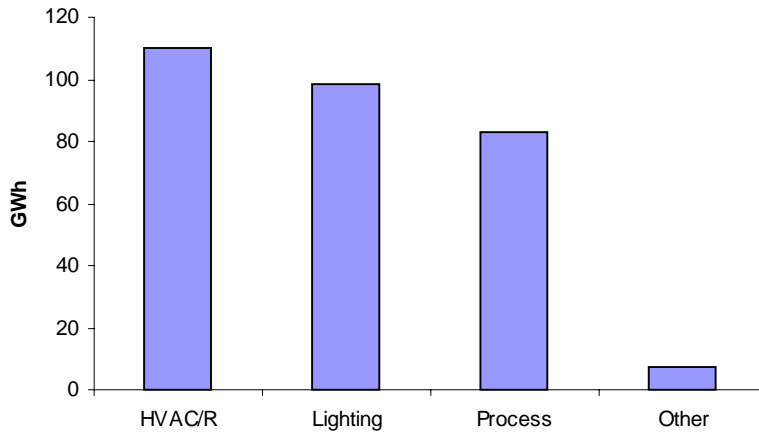
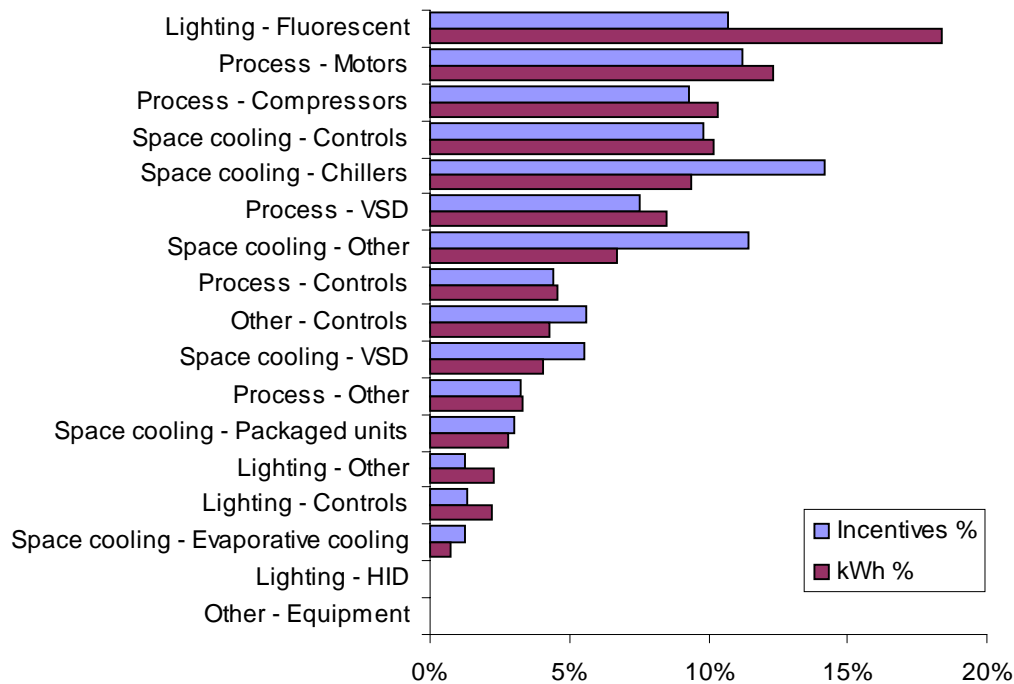


Figure 3-5 presents the incentives and kWh savings by end use. The ratios between the two are affected both by the level of incentives per kWh awarded under the program and by the fact that the data supplied by two utilities did not distinguish between the end-use incentive paid and the amount of the summer peak incentive. Indoor fluorescent lighting measures and “Space cooling – Other” (consisting mainly of refrigeration measures, but also of chiller controls, VAV conversions, non-process boilers and HVAC/R energy-efficient motors) account for the highest percentages of both incentives and kWh savings.

Figure 3-5
kWh and Incentives by End Use* (2000 LNSPC)



*Incentive figures relating to gas savings are excluded.

4

SUMMARY OF 2001 LNSPC PROGRAM TRACKING DATA

As discussed in Section 3, which summarized the 2000 LNSPC tracking data, the three utility program administrators maintain separate program tracking databases. We aggregated June 2001 extracts of these to create a summary of program activity at statewide level.

The particular challenges of analyzing the 2001 data were as follows: We requested the data before the program was fully subscribed in order to provide feedback in time for the planning process for the 2002 SPC Programs. As data processing was still in process, the energy-efficiency service providers (EESP) names, customer names, and project names were sometimes inconsistent. Also, one utility did not supply data on kWh savings for most of its applications. To compensate, we calculated conservative estimates for kWh savings levels on those applications from the incentive levels provided.

We have made every effort to reconcile differences in definitions and correct inconsistencies and are confident that the analysis we present is the most accurate possible given the data with which we were supplied. However, this information should be viewed only as an approximate picture of 2001 LNSPC Program activity in June 2001. This section contains the following subsections:

- Summary of Program Activity (4.1)
- Composition of Applicants (4.2)
- Statewide Participation Details (4.3).

4.1 SUMMARY OF PROGRAM ACTIVITY TO JUNE 2001

Table 4-1 summarizes program activity as of June 2001.¹ There were 180 unique customers with 220 applications representing \$28.4 million in incentives. The kWh and therm figures combine to reflect 1.89 trillion BTU of energy savings.

There are 126 GWh in savings. The figure of \$0.101 per kWh is slightly higher than in previous years. Contributing factors include the rise in incentives per kWh. In addition, \$6.28 million was reserved for gas measures, representing savings of 5.92 million therms with an average of \$0.99 per therm.

¹ The program was not yet fully subscribed for one utility, while the other two already had established waiting lists.

Table 4-1
Summary of Program Activity to June 2001

Activity Level	2001
Total unique customers	180
Total number of applications	220
Total unique third-party EESPs	28
Total incentives funds committed (\$ million)	\$18.32
<i>Total incentives funds committed – PG&E</i>	\$10.8
<i>Total incentives funds committed – SCE</i>	\$4.5
<i>Total incentives funds committed – SDG&E</i>	\$2.5
Total Savings from applications with active basic program applications (Btu, trillion)	1.89
<i>Total Savings from applications with active basic program applications (therms, million)</i>	5.92
<i>Total Savings from applications with active basic program applications (GWh)</i>	126
Average Incentives per kWh	\$0.101
Total incentives funds committed to gas measures (\$ million)	\$6.28
Average Incentives per therm	\$0.99

We caution the reader that the numbers of unique EESPs should be considered provisional due to the inconsistencies in the data regarding EESP sponsorship. Unfortunately, the databases did not always make clear whether an application was self-sponsored or EESP-sponsored. Also, in some instances the company listed as an EESP sponsor turned out to be the customer, or a contractor, or to act in a capacity other than as sponsor. With those caveats, the number of EESPs was lower in 2001 than in any previous year as there were far fewer EESP-sponsored applications, while the number of customers per EESP rose.

4.2 COMPOSITION OF APPLICANTS: CUSTOMER SELF-SPONSORS VS. EESP-SPONSORED CUSTOMERS

Table 4-2 compares a variety of indicators of program activity and characteristics of self-sponsored and EESP-sponsored applications.²

In the 2001 LNSPC Program, 33 percent of the project applications, 25 percent of the incentives, 26 percent of the GWh savings, and 23 percent of the therm savings are attributed to EESP-sponsored applications. EESP-sponsored applications tend to include more sites and have larger incentives.

² “Customer self-sponsors” are defined for this discussion as those customers who contract directly with the utility administrators and who are the sponsors of record on their submitted applications. “EESP-sponsors,” as defined in this analysis, are third-party sponsors, such as contractors, engineers, or energy services companies (ESCOs), who contract with the utility administrators on behalf of a host customer facility.

Table 4-2
Composition of Characteristics for Customer Self-Sponsored vs.
EESP-Sponsored Active Applications (2001 LNSPC)

	Self-sponsored Applications	EESP-sponsored Applications	All Applications
Activities			Total
Number of unique customers	116	64	180
Number of applications	147	73	220
Total \$ incentive (000s)	\$13,737	\$4,586	\$18,323
Total Btu (trillions)	1.38	0.51	1.89
<i>Total GWh</i>	93	33	126
<i>Total therms (millions)</i>	3.21	2.41	5.62
			Average
Applications per customer	1.27	1.14	1.22
Sites per application	1.22	1.23	1.22
Incentive \$ per customer (000s)	\$118	\$72	\$102
Incentive \$ per application (000s)	\$93	\$63	\$83

In contrast to prior years, there is a considerable majority of self-sponsored applications in the 2001 LNSPC. This may be due to the introduction of the calculated savings option for M&V in 2001. Unfortunately, the tracking data do not specify what proportion of the 2001 LNSPC applicants used this option. Of the interviewed customers, 54 percent used calculated savings for all or part of their applications. However, utility staff estimated that approximately 90 percent of PG&E and SCE customers used the calculated savings option, along with around 50 percent of SDG&E customers.

Figure 4-1 shows the number of sites per customer for both self-sponsored and EESP-sponsored applications. There was no significant difference in the distribution of the number of sites per customer between self-sponsored and EESP-sponsored applications.

Figure 4-1
Number of Sites per Customer for Accepted Applications (2001 LNSPC)

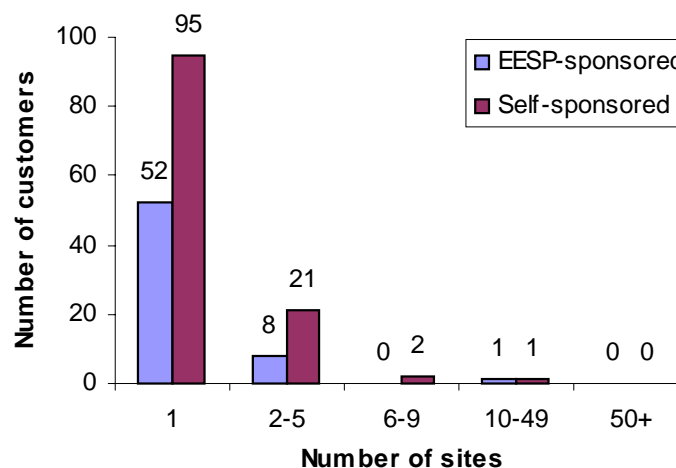


Table 4-3 shows that the percentage of total incentives accounted for by EESP sponsorship varied considerably by utility, ranging from 26 to 53 percent, with the lowest figure being for PG&E and the highest for SDG&E.

Table 4-3
Percentage of EESP-Sponsored Incentives by Utility (2001 LNSPC)

Utility	Percent (2001)
PG&E	26%
SCE	33%
SDG&E	56%

3-3 STATEWIDE PARTICIPATION BY END-USER SEGMENTS

Figure 4-2 compares customer participants by end-user segment for the 2001 LNSPC Program. Industrial customers represent over 50 percent of the participating customers, with the commercial segment the next largest, at just over one-third.

Figure 4-2
Breakdown of Customer Participants by End-User Segment (2001 LNSPC)

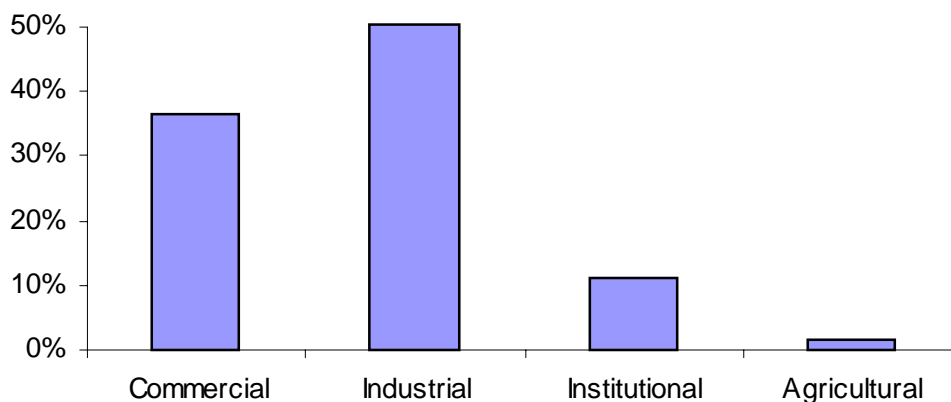


Table 4-4 presents the percent of EESP sponsorship by customer business type. For the first time in the LNSPC, average incentives per customer and per application were lower for EESP-sponsored applications than for self-sponsored applications. However, the sample is very small at this level of segmentation, so this change may not necessarily represent the population.

Table 4-4
Percent of Unique Customers with EESP-Sponsored Applications (2001 LNSPC)

Business type	Percent (2001)
Commercial	49%
Industrial	36%
Institutional	11%
Other	5%
<i>Total</i>	<i>100%</i>

Table 4-5 shows the end-user segments and percent of incentives for active applications for the top 10 end-user participants (including both self-sponsors and EESP-sponsored customers) in 2001. The top 10 end users accounted for 35 percent of total incentives in 2001. The top five end users account for 26 percent of total incentives. Seven out of 10 end users in 2001 are industrial customers.

Table 4-5
Percent of Program Incentives for Top 10 End Users (2001 LNSPC)

Rank	Sponsorship	Business type	% of Incentives	Cumulative % of Incentives
1	SELF	Industrial	11%	11%
2	SELF	Commercial	5%	16%
3	SELF	Industrial	4%	20%
4	EESP	Industrial	3%	23%
5	SELF	Industrial	3%	26%
6	EESP	Institutional	2%	28%
7	SELF	Industrial	2%	30%
8	SELF	Commercial	2%	32%
9	SELF	Industrial	2%	34%
10	SELF	Industrial	1%	35%

Table 4-6 shows the end uses included in active applications for the 2001 LNSPC. It shows that HVAC/R and process applications account for the largest number of applications and amount of incentives in 2001.

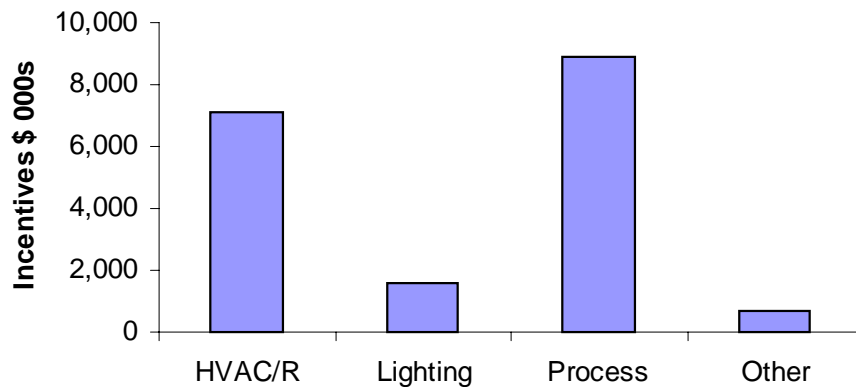
Table 4-6
End Uses Included for Accepted Applications (2001 LNSPC)

Sponsorship	Enduse category	Number of applications	Total incentives	Average incentives	% of incentives	Total kWh	% of kWh
Self-sponsored	L	23	\$813,512	\$35,370	6%	13,786,960	15%
	H	54	\$5,738,116	\$106,261	40%	33,464,760	37%
	O	1	\$2,427	\$2,427	0%	26,962	0%
	P	62	\$6,392,449	\$103,104	45%	33,505,069	37%
	Multiple	8	\$1,343,016	\$167,877	9%	8,630,080	10%
	<i>Total</i>		<i>148</i>	<i>\$14,289,520</i>	<i>\$96,551</i>	<i>100%</i>	<i>89,413,831</i>
EESP- sponsored	L	22	\$776,911	\$35,314	17%	13,574,460	41%
	H	21	\$1,474,119	\$70,196	32%	6,656,156	20%
	O	3	\$101,123	\$33,708	2%	905,237	3%
	P	24	\$2,173,753	\$84,712	47%	10,833,657	33%
	Multiple	3	\$60,400	\$10,067	1%	809,490	2%
	<i>Total</i>		<i>73</i>	<i>\$4,586,306</i>	<i>\$62,826</i>	<i>100%</i>	<i>32,779,000</i>
Both	L	45	\$1,590,423	\$35,343	8%	27,361,420	22%
	H	75	\$7,212,235	\$96,163	38%	40,120,916	33%
	O	4	\$103,550	\$0	1%	932,199	1%
	P	86	\$8,566,202	\$0	45%	44,338,726	36%
	Multiple	11	\$1,403,416	\$66,908	7%	9,439,570	8%
	<i>Total</i>		<i>221</i>	<i>\$18,875,826</i>	<i>\$159,377</i>	<i>100%</i>	<i>122,192,831</i>

*L=Lighting, H=HVAC/R, O=Other, P=Process

Figure 4-3 includes all single-end-use applications as well as disaggregated multiple-end-use applications. The kWh figures represent lower bounds because many applications lacked explicit kWh savings data. Process measures dominated the incentives disbursed, receiving over five times the incentives than went to lighting end uses in 2001. This reflects efforts to transfer lighting efficiency projects to the Express Efficiency Program.

Figure 4-3
End-Use Category Breakdown of GWh Incentives (2001 LNSPC)



The preponderance of process measures, as Figure 4-4 shows, is even more marked for GWh than for monetary incentives. We exclude therms from the analysis here because therm savings occur only in a restricted range of enduses (Process–Other, Space cooling–Other, and Other–Controls). However, incentives for therms totaled just over \$6 million, or 21 percent of incentives awarded.

Figure 4-4
End-Use Category Breakdown of GWh (2001 LNSPC)

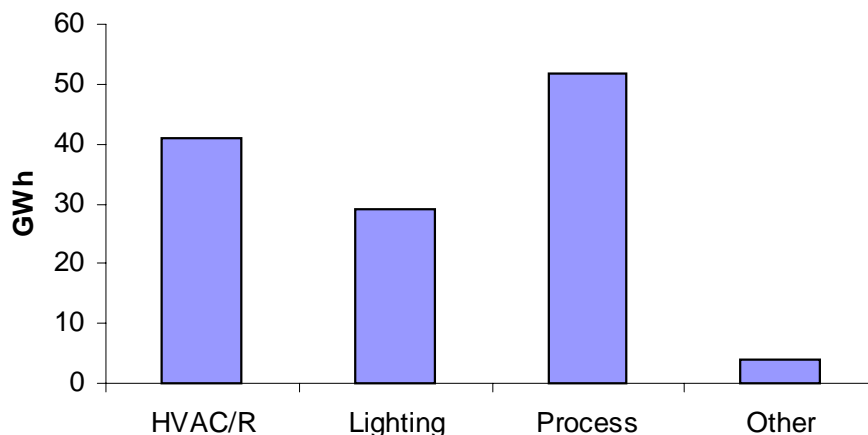
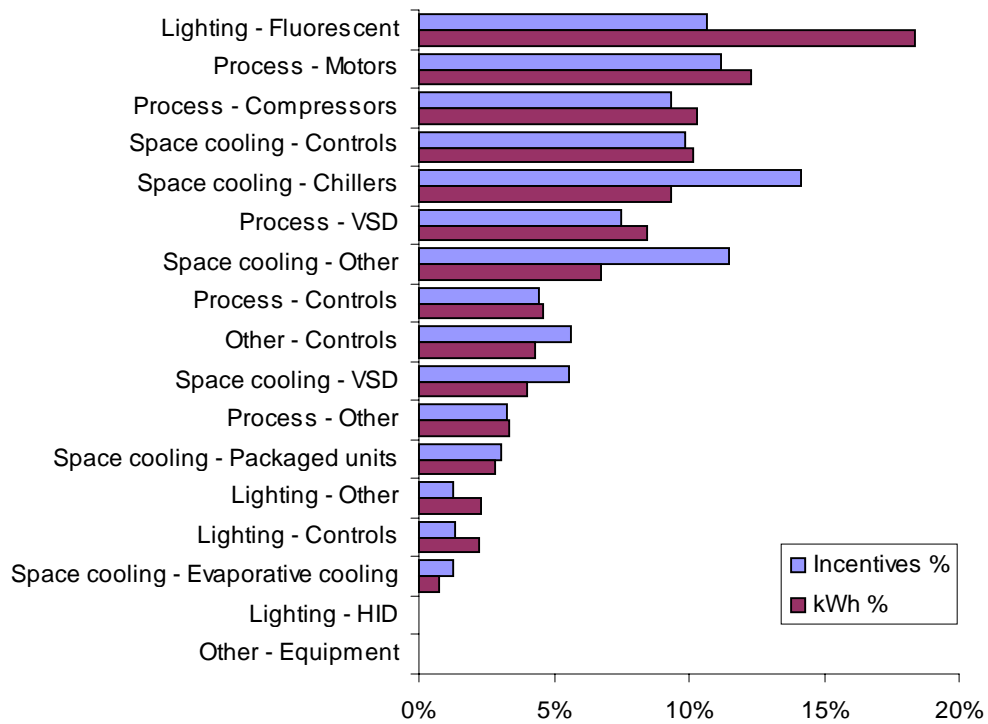


Figure 4-5 breaks down the incentives and energy savings by end use. The ratios of incentives to kWh vary considerably by type of end use. Here, this is mostly because of a few very large gas measures that garnered substantial incentives in the “Process-Other” category, but naturally produced no kWh savings.

Figure 4-5
kWh and Incentives by Enduse* (2001 LNSPC)



*Incentive figures relating to gas savings are excluded.

5

CUSTOMER PARTICIPANT RESULTS, LNSPC 2000

This section presents responses to a set of structured interviews we conducted with a representative sample of customers participating in the 2000 LNSPC Program. Results from interviews with customers participating in the 2001 LNSPC Program are in Section 6. This section contains the following subsections:

- General Characteristics of the 2000 Participant Customer Sample (5.1)
- Program-Related Decisions (5.2)
- Analysis of First-Year Net Savings Impact (Free-Ridership) (5.3)
- Financial Impact of Program Participation (5.4)
- Program Participant Experience with Third-party Firms (5.5)
- Process-Related Issues (5.6)
- Program Effect on Future Energy Efficiency Actions (5.7).

5.1 GENERAL CHARACTERISTICS OF THE 2000 PARTICIPANT CUSTOMER SAMPLE

This subsection presents characteristics of the sample of 2000 LNSPC customer participants with whom in-depth interviews were conducted in July and August 2001. As we received the utility data at different intervals, the sample was stratified into three strata based on the amount of accepted incentives associated with each *unique* customer for *each* utility, resulting in one sample list per utility. We tried to complete as many interviews as possible of customers with the largest incentive amounts in the program for each utility (Stratum 1) and to draw random samples from within each of the remaining two strata. Each stratum represented, as closely as possible, one-third of the incentives in the 2000 LNSPC. Table 5-1 indicates the customer population and sample for each utility by stratum. A comparison of the aggregated sample versus the statewide population of LNSPC participants by accepted interviews is shown in Table 5-2.

This approach resulted in our capturing 21 percent of the accepted incentives in 2000. This proportion is lower than in previous years, perhaps because the number of customers in the 2000 LNSPC was considerably higher and also because the top 10 customers in the 2000 LNSPC represent a smaller percentage of the population incentives than in other years.

Table 5-1
Interview Targets by Utility (2000 LNSPC)

	PG&E		SCE		SDG&E		Statewide	
	Goal	Complete	Goal	Complete	Goal	Complete	Goal	Complete
Stratum 1	2	1	2	2	2	1	6	4
Stratum 2	5	5	5	4	3	4	13	13
Stratum 3	8	8	8	9	5	4	21	21
<i>Total</i>	<i>15</i>	<i>14</i>	<i>15</i>	<i>15</i>	<i>10</i>	<i>9</i>	<i>40</i>	<i>39</i>

Table 5-2
Comparison of Customer Stratification by Accepted Incentives (2000 LNSPC)

Stratum	Definition	n	Sample Incentives	N	Population Incentives
Stratum 1	Customers from top third of incentives	4	3,940,878	9	\$9,468,101
Stratum 2	Customers from middle third of incentives	13	3,396,806	34	\$9,543,844
Stratum 3	Customers from bottom third of incentives	21	1,196,428	159	\$9,438,042
<i>Total</i>		<i>38</i>	<i>\$5,869,160</i>	<i>202</i>	<i>\$28,433,604</i>

For the purpose of calculating the net-to-gross ratio (NTGR), we used a second stratification based on a weighted sum of the kWh savings and therm savings for each customer, shown in Table 5-3. Therm savings were converted to kWh using a source energy method to facilitate stratification. The results of this second stratification are shown in Table 5-3. Each stratum represents one-third of these “combined kWh” in the sample. This was considered to be a more accurate way to represent the size of projects. This sampling approach resulted in our capturing 26 percent of the kWh savings and 79 percent of the therm savings for the program. The NTGR calculations are discussed later in this section.

Table 5-3
Comparison of Customer Stratification by Combined kWh (2000 LNSPC)

Stratum	Definition	n	Sample kWh	Sample therms	N	Population kWh	Population therms
Stratum 1	Customers--top third of combined kWh figure	2	21,552,038	4,078,741	5	38,272,038	4,078,741
Stratum 2	Customers--middle third of combined kWh figure	9	33,438,439	263,017	28	113,959,770	1,284,509
Stratum 3	Customers--bottom third of combined kWh figure	27	22,963,387	93,282	168	147,526,086	254,204
<i>Total</i>		<i>38</i>	<i>77,953,864</i>	<i>4,435,040</i>	<i>201</i>	<i>299,757,894</i>	<i>5,617,454</i>

As shown in Table 5-4, of the total of 38 participating customers interviewed, 61 percent sponsored their own applications while 39 percent used a third-party EESP as the project sponsor. The sample overrepresents self-sponsored applications, which constitute only 42 percent of the population.

Of the self-sponsors, five (13 percent of the total) also used third-party firms to help with aspects of the process such as gathering information about measures one might install, energy audits, and M&V. Where appropriate, we asked questions about third-party interactions, such as significance of services provided and contract type, which are included in subsection 5.5.

Table 5-4
Breakdown of Customer Participant Sample by Sponsorship (2000 LNSPC)

Participant Type	Sample (2000)	Percent (2000)
Used third-party EESP as Sponsor	15	39%
Self-sponsored	23	61%
<i>Total</i>	38	100%

In Table 5-5, we present the distribution of the customer sample by utility. The sample underrepresented SCE customers and overrepresented SDG&E customers. One multi-site customer had applications accepted in the 2000 LNSPC in more than one utility.

Table 5-5
Breakdown of Customer Participant Sample by Utility (2000 LNSPC)

Utility	Sample (2000)	Percent (2000)	Percent of Population
PG&E	14	36%	38%
SCE	16	41%	48%
SDG&E	9	23%	14%
<i>Total (multiple responses permitted)</i>	39	100%	100%

Table 5-6 presents respondents' reported statistics on the square footage at the sites for which project applications were submitted. The mean size of the facilities is about 250,000 square feet, with a range from 2,500 to 1 million square feet. This suggests that the 2000 LNSPC Program contains a large number of applications from relatively small facilities.

Table 5-6
Square Footage of Participating Sites (2000 LNSPC)

Square footage (n=29)	Statistics (2000)
Mean	254,776
Median	175,000
Minimum	2,500
Maximum	1,000,000

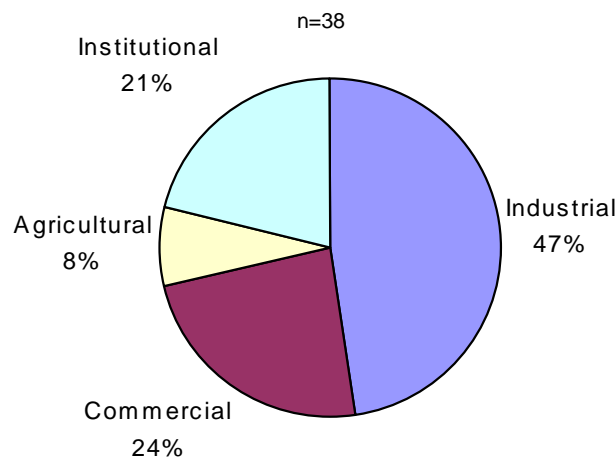
Table 5-7 illustrates the distribution of reported average monthly electric usage. The median electricity bill was about \$54,000 per month. These figures are based on customer self-reports rather than utility billing records.

As shown in Figure 5-1, the sample of customers also includes respondents from each of the four major market segments, commercial, industrial, institutional and agricultural. About half were industrial customers (47 percent), followed by commercial customers at 24 percent.

Table 5-7
Electric Usage of Participating Sites (2000 LNSPC)

Average Monthly Electric Bill	Percent (2000)
< \$10,000	5%
\$10,000 - \$99,999	50%
\$100,000 - \$499,999	29%
\$500,000 - \$999,999	0%
> \$1,000,000	0%
Don't know / Missing	16%
<i>Total</i>	<i>38</i>

Figure 5-1
Breakdown of Sample by Market Segment (2000 LNSPC)



Another characteristic of the sample may be seen in Table 5-8, which shows that three-quarters of participating customers are also part of multi-site organizations. This is much the same as the proportion in the population at large.

Table 5-8
Breakdown of Sample by Single- versus Multiple-Site Customers (2000 LNSPC)

Response	Percent (2000)
Only Location	21%
Part of Multiple-Site Organization	74%
Missing	5%
<i>Total</i>	<i>38</i>

Table 5-9 shows percentage breakdowns for whether respondents own and occupy their facilities or lease them from someone else. Most respondents in the sample owned their facilities (84 percent).

Table 5-9
Breakdown of Facility Ownership or Lease Arrangement (2000 LNSPC)

Response	Percent (2000)
Owner-occupier	84%
Lessee	11%
Other / Don't know	5%
<i>Total</i>	<i>38</i>

5.2 PROGRAM-RELATED DECISIONS

In this subsection, we present the responses to a variety of questions customers were asked about the decision-making process for their LNSPC projects.

5.2.1 Origin of Decisions, Role and Significance of Third-party Firms

As shown in Table 5-10, customers in the 2000 LNSPC were asked to describe what led to their decision to install the measures in their applications. The most common response was the need to reduce energy costs (47 percent). The need to replace older equipment was next at 23 percent; all other reasons totaled 30 percent. Some customers gave multiple responses, as their applications covered a wide diversity of sites or because they had several reasons for pursuing installation.

Table 5-10
Reason for Decision to Pursue Installation (2000 LNSPC)

Reason	Percent (2000)
Reduce Energy Costs	47%
Replace Older Equipment	23%
Reduce Demand	9%
Improve Measure Performance	7%
Remodel, Build-Out, Expansion	7%
More Control of Equipment Use	5%
Acquire Rebate	2%
<i>Total (multiple responses permitted)</i>	<i>37</i>

Table 5-11 shows that 59 percent of measures installed by 2000 program respondents replaced existing equipment that was fully functioning. Another 18 percent of the equipment had failed or was experiencing significant problems.

Table 5-11
Condition of Equipment Replaced (2000 LNSPC)

Condition	Percent (2000)
Fully Functional	59%
Did Not Replace Existing Equipment	13%
N/A, Ancillary Equipment (VSD, Controls, etc.)	10%
Functioning with Problems	10%
Failed/Did Not Function	8%
<i>Total (multiple responses permitted)</i>	<i>39</i>

The 2000 respondents first heard about the energy-efficient equipment they installed under the program from various sources. As shown in Table 5-12, the most common response was that they learned about it from a previous installation in which they or their firm was involved (41 percent). The next most common response, at 30 percent, was that they heard about the equipment from an ESCO, contractor, or equipment vendor. Utility representatives played a very minor role in bringing energy-efficient equipment information to the attention of customers but were customers' main source of initial information about the LNSPC program itself (see Table 5-13).

Table 5-12
How Customers Learned about Equipment Installed (2000 LNSPC)

Response	Percent (2000)
Previous Installation	41%
ESCO / Contractor / Vendor	30%
Unregulated Electricity Supplier	8%
Colleague, Trade Show	8%
Self-knowledge	5%
Utility Representative	5%
Parent company	3%
<i>Total (multiple responses permitted)</i>	<i>39</i>

Table 5-13
How Customers Learned about the Program (2000 LNSPC)

Source	Percent (2000)
Utility	63%
ESCO / Contractor	23%
Vendor	5%
Self-knowledge	3%
Previous installation	3%
Parent Company	3%
<i>Total</i>	<i>38</i>

As shown in Table 5-14, half of the 2000 respondents heard about the program before they first thought about installing the energy-efficient equipment installed under the program. Only 21 percent heard about the program after they had decided to install the equipment, seeking to install sooner because of the incentives or simply to take advantage of the incentives offered.

Table 5-14
When Customers Heard about Program (2000 LNSPC)

Response	Percent (2000)
Before installation decision, Before thought about project	51%
Before installation decision, After thought about project	13%
At same time as installation decision	13%
After installation decision	21%
Missing	3%
<i>Total</i>	<i>38</i>

Customers were also asked to select an option that reflected the role third-party firms played in their decision to submit an application. Responses to this question are shown in Table 5-15 for all interviewees and by sponsorship type. Thirty-nine percent claimed to have developed the project ideas and pursued installation themselves. Among self-sponsors, this figure rises to 52 percent. Twenty-one percent said that a third party was responsible for developing the idea but that they decided on their own to pursue installation. Twenty-one percent also said that a third party was responsible for actually convincing them to pursue project implementation. All answers differ considerably when segmented by sponsorship. As would be expected, those customers who were EESP-sponsored were influenced more by third-party firms than were self-sponsoring customers.

Table 5-15
How Customer Decided to Install Energy-Efficiency Equipment (2000 LNSPC)

Process Which Led To Installation	EESP-sponsored	Self-sponsored	Percent (2000)
Own idea, pursued on our own	20%	52%	39%
Third party's idea, pursued on our own	33%	13%	21%
Own idea, convinced by third party	13%	13%	13%
Third party's idea, convinced by third party	27%	17%	21%
Joint decision	0%	4%	3%
Missing	7%	0%	3%
<i>Total</i>	15	23	38

Customers who self-sponsored their applications were asked whether they worked with any third-party firms as part of their LNSPC application. As shown in Table 5-16, 61 percent (14 of 23) of the self-sponsors reported that they were they were doing all of the work relating to their application, such as project or equipment specification and M&V, in-house. Twenty-six percent were using third-party firm(s) in some significant capacity; 9 percent used third-party firm(s), but in ways that did not contribute significantly to the decision-making for the project.

Table 5-16
Self-sponsors' Use of Third-party Firms (2000 LNSPC)

Response	Percent (2000)
Yes, third-party firm contributed to decision	26%
Yes, third-party firm did not contribute to decision	9%
No, not using third-party firm	61%
Missing	4%
<i>Total</i>	23

We asked customers to rate the significance of the overall value of the services provided by the third-party firm for their decision to install the LNSPC-related measures. The results are presented in Table 5-17. All self-sponsored customers who knew an answer to the question regarded the contribution of third-party firms as being extremely or somewhat significant; only 26 percent of EESP-sponsored customers regarded the contribution of their EESP to their decision as being somewhat or extremely insignificant.

Table 5-17
Significance of Third-party Firm Services in Decision to Participate (2000 LNSPC)

Significance	EESP-sponsored ¹	Self-sponsored with third party	Overall
Extremely significant	53%	40%	50%
Somewhat significant	20%	40%	25%
Somewhat insignificant	13%	0%	10%
Extremely insignificant	13%	0%	10%
Don't know	0%	20%	5%
<i>Total</i>	<i>15</i>	<i>5</i>	<i>20</i>

5.2.2 Reported Importance of Program to Implementation Decision

Customers were asked two key questions centering on the role of LNSPC incentives in their decision to implement the projects included in their program applications. The first question phrases the influence of the incentives in terms of their significance (see Table 5-18), while the other question is phrased in terms of what they would have done had the incentives not been available (see Table 5-19). Forty-two percent of respondents reported that the incentives had a very significant influence on their decision, but at the same time only 8 percent would definitely not have installed the project without the program. Sixty percent probably or definitely would have installed the projects anyway, though the project schedule may have been affected by non-participation.

Table 5-18
Significance of Incentives (2000 LNSPC)

Significance of Incentives	Percent (2000)
Extremely significant	42%
Somewhat significant	34%
Somewhat insignificant	11%
Extremely insignificant	13%
<i>Total</i>	<i>38</i>

Table 5-19
Likelihood of Installation Without Program (2000 LNSPC)

Response	Percent (2000)
Definitely would NOT have installed	8%
Probably would NOT have installed	27%
Probably would have installed	22%
Definitely would have installed	38%
Don't know / Refused	5%
<i>Total</i>	<i>38</i>

¹ Responses for EESP-sponsored refer to the significance of the third-party sponsor of record on the LNSPC application, not of any other companies that may be involved in the process.

Customers who responded that they probably or definitely would have installed or who responded “Don’t know” (25 out of 38) were asked what type of equipment they would have installed in the absence of the program. Most said that they would have installed equally efficient equipment (68 percent); many also said that they would rather install less equipment or no equipment at all than install less-efficient equipment (see Table 5-20).

Table 5-20
Type of Equipment Would Have Installed Without the Program (2000 LNSPC)

Response	Percent (Those who would have installed)
Probably as efficient	68%
Less equipment	12%
Not Applicable for Measure	20%
<i>Total</i>	<i>25</i>

Respondents were also asked when they would have installed the equipment in the absence of the program. Table 5-21 illustrates that none of those who would probably or definitely have installed without the program would have waited more than 4 years to install the equipment.

Table 5-21
Timing of Installation Without Program (2000 LNSPC)

Timing	Those who would have installed	Those who would not have installed
Within six months	56%	0%
Six months to a year	24%	0%
One to two years	12%	15%
Two to three years	0%	23%
Three to four years	4%	0%
Four or more years	4%	0%
Never	0%	46%
Don't know	0%	15%
<i>Total</i>	<i>25</i>	<i>13</i>

Eighty percent of respondents who reported that they would definitely or probably have installed equipment anyway would have installed it within a year. This is much higher than the 1999 figure of 10 percent. None of those who would probably or definitely not have installed without the program would have waited less than a year; nearly half would never have installed at all.

5.3 ANALYSIS OF FIRST-YEAR NET SAVINGS IMPACT (FREE-RIDERSHIP)

This subsection presents the methodology used to calculate NTGRs for both the 2000 and 2001 LNSPC Programs, and presents the NTGR for the 2000 program. Note that the NTGRs reported here are based only on free-ridership; that is, it does not include any adjustments for participant or non-participant spillover (thus, the NTGR equals 1 minus the free-ridership rate).

5.3.1 Methodology

The NTGR is an estimate of the percentage of the gross first-year savings that are attributable to the LNSPC. The method used to calculate the ratio is based on self-reported information provided by participating customers. This method has been used extensively as part of previous utility program impact evaluations for programs that require site-specific net-to-gross estimates.² Analysis of the sensitivity of the NTGR as a measure of program effectiveness is included in a separate report.³ The method does not adjust for participant or non-participant spillover. Essentially the same method was used to calculate the NTGRs for the 1999 LNSPC as was used in 2000 and 2001.

STEP 1

Initial net-to-gross values were assigned based on customers' responses to questions regarding the *significance of program incentives* and *EESP services* (PD6a and PD6c; see Appendix B). Table 5-22 presents the values assigned to the responses and the 2000 results. This method recognizes that the LNSPC consists of both the incentives and the services provided by an EESP.

Table 5-22
Assignment of NTGR Values for Significance of Program (2000 LNSPC)

Significance	Assigned NTGR	Significance of Incentive (n=38)	Significance of EESP Services (n=22)
Extremely Significant	1.0	42%	50%
Very Significant	0.667	34%	23%
Somewhat Significant	0.333	11%	9%
Insignificant	0.0	13%	13%

The program changed the market, both by providing the financial incentives and by encouraging EESPs to deliver project services. Incentives were usually given higher significance rankings. Twenty percent of the respondents differed sharply in their significance rating of these two factors. For example, two customers rated EESP services as very significant, but incentives as only somewhat significant or insignificant. When we separate out customers who either were EESP-sponsored or received significant help from EESPs (Table 5-23), we see that their responses are highly correlated; that is, when they report that incentives played a significant role in their decision, they also report that the overall value provided by the EESP was significant.⁴

² For a discussion of issues related to estimating NTGRs and free-ridership using participant self-reports, see *Quality Assurance Guidelines for Statistical, Engineering, and Self-report Methods for Estimating DSM Impacts*, prepared for the California Demand Side Management Measurement Advisory Committee: The Subcommittee on Modeling Standards for End Use Consumption and Load Impact Models, April 1998.

³ For a sensitivity analysis of the questions and scoring system used, see *Improving the Standard Performance Contracting Program: An Examination of the Historical Evidence and Directions for the Future Prepared for Southern California Edison* (XENERGY, December, 2001)

⁴ A reminder here of one of the limitations of self-reported data: *customers often have difficulty sorting out the relative weight of numerous possible influences on energy-related decisions*. In particular, one reason for the observed correlation between the high significance ratings of the incentives and EESP may be an actual correlation in that the customers needed the EESPs assistance to meet the program requirements and thereby obtain the incentives.

Table 5-23**Comparison of Significance Rating for Incentives versus Third-party Firm (2000 LNSPC)**

Significance	Significance of Incentives*	Significance of Third-party Firm
Very Significant	42%	50%
Somewhat Significant	34%	23%
Somewhat Insignificant	11%	9%
Insignificant	13%	18%
<i># Respondents</i>	22	22

* Responses refer to the significance of the third-party sponsor of record on the LNSPC application, not of any other companies that may be involved in the process.

Based on these data and the interview responses, it appeared that many customers were influenced primarily through one mechanism of the program (incentive or EESP involvement), but to a lesser extent through the other. This appeared to be reasonable, given that EESPs were likely to vary in how much information they provided to customers about the incentives and that the EESPs were probably likely to stress the incentive less if they provided more comprehensive services to the customers. This is consistent with what most EESPs report; their projects must be financially justified first, and then incentives can be added as an additional benefit.

STEP 2

As a result of the above observations and in the interest of being conservative in our estimates, we defined the program significance as being equal to the maximum value of the response to questions about the significance of incentives (PD6c) and significance of EESP services (PD6a). This value was then averaged with the value assigned to the *likelihood of installing anyway* question (PD7a), as shown in Table 5-24, to create the initial NTGR, called NTGR1.

Table 5-24**Assignment of NTGRs for Likelihood of Installing in Absence of Program (2000 LNSPC)**

Likelihood of Installing Anyway (PD7a)	Assigned NTGR	Percent (2000) (n=38)
Definitely Would Not Have Installed	1.0	8%
Probably Would Not Have Installed	0.667	29%
Probably Would Have Installed	0.333	24%
Definitely Would Have Installed	0.0	37%
Don't Know	-	3%

STEP 3

Once NTGR1 was determined, each project was examined regarding the level of efficiency or number of measures the customer intended to install in the absence of the program, such as those cases where a customer said they would have installed equipment of lower efficiency or installed high-efficiency equipment at fewer sites (PD8a or PD9a). The adjustment ranged from 0.0 to +0.2. Adjustments were then added to NTGR1 to create the second ratio, called NTGR2.

STEP 4

Next, the issue of *deferred* free-ridership was considered. Deferred free riders are customers who, in the absence of the program, would have *eventually* installed exactly the same equipment that was installed through the program. However, the effect of the program could have been to *accelerate* equipment installation and its subsequent savings. Responses to the timing questions (PD8b or PD9b) were translated, using the conversion table in Table 5-25, into NTGR3.

Table 5-25
Forecasted Installation Conversion (2000 LNSPC)

Forecasted Installation of Same Equipment (PD8b or PD9b)	Assigned NTGR	Percent (2000) (n=38)
At the same time	0.0	34%
Six months to one year	0.063	18%
1 to 2 years	0.25	13%
2 to 3 years	0.5	8%
3 to 4 years	0.75	3%
4 or more years	1.0	24%

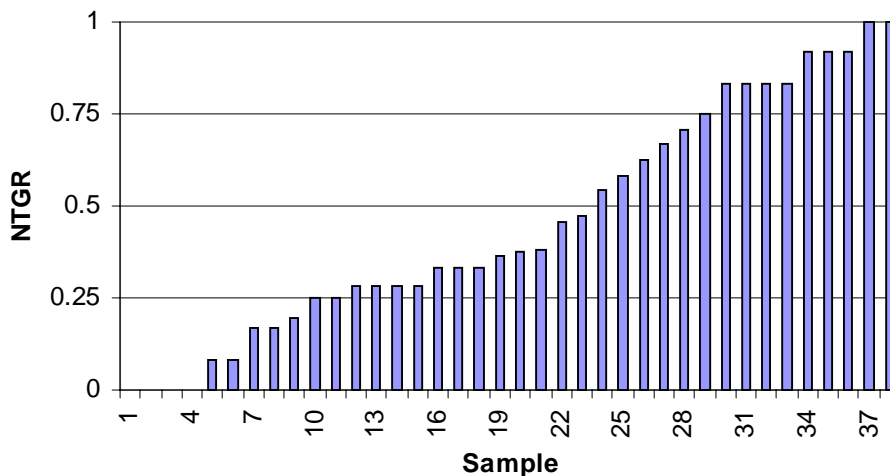
STEP 5

Lastly, NTGR2 and NTGR3 were averaged to create the final NTGR. In addition, all cases of inconsistency or response discrepancy as well as all large projects were reviewed to ensure that the final NTGRs were as accurate and reliable as possible. Minor adjustments, if necessary, were made based on other responses in the net-to-gross sequence, including questions on the stage in decision-making when the customer first learned of the program and payback estimates.

5.3.2 Estimate of the 2000 NTGR

Both the weighted and unweighted estimates involve averaging across individual customer project NTGRs calculated for each unique customer project in the sample. The range of NTGRs calculated across the sampled customers for 2000 is shown in Figure 5-2.

Figure 5-2
Range of Unweighted NTGRs across Sampled Customers/Projects (2000 LNSPC)



Both weighted and unweighted NTGRs for the 2000 LNSPC projects are shown in Table 5-26. The weighting adjusts for the effect of the kWh savings levels for different projects; higher kWh savings received heavier weighting and lower kWh savings less. Therm savings were converted to kWh values using a source energy method.

Table 5-26
Overall LNSPC Program NTGRs (2000 LNSPC)

Estimate	2000 Net-to-Gross Ratio
Number of projects	38
Weighted by kWh	0.41
Unweighted	0.46

Table 5-27 presents the NTGRs by customer type. The 2000 NTGRs were higher for EESP-sponsored customers (0.45 weighted, 0.50 unweighted) than for self-sponsored customers (0.38 weighted, 0.43 unweighted).

Table 5-27
Net-to-Gross Ratios by Customer Type (2000 LNSPC)

Customer Type	Net-To-Gross Ratio (Weighted)	Net-To-Gross Ratio (Unweighted)
Self sponsored	0.38	0.43
EESP-Sponsored	0.45	0.50

As seen in Table 5-28, we also examined results by strata. The sample was divided into three equal strata, based upon incentives received. The first stratum has a few customers with large incentive levels, while the third stratum has many customers, but with relatively small incentive levels.

Table 5-28
Unweighted NTGRs by Customer Incentive Stratum (2000 LNSPC)

Stratum	NTGR
Strata 1	0.29
Strata 2	0.44
Strata 3	0.47

5.4 FINANCIAL IMPACT OF PROGRAM PARTICIPATION

The 2000 customers were asked what percentage of the program incentives were expended on M&V. Percentages reported varied from three to 20 percent, with stratum 1 customers reporting the lowest and stratum 3 customers reporting the highest percentages. However, these conclusions are not statistically significant because only 10 customers out of 38 answered this question. It is possible that few customers isolate M&V costs out from the overall measure cost.

Respondents were also asked to estimate the reduction in the payback period attributed to the program incentives. As indicated in Table 5-29, the incentives were reported to have reduced the payback period by approximately 2 years.

Table 5-29
Self-reported Payback Estimates with and without Program Incentives (2000 LNSPC)

Reduction	Years (2000)
Mean payback with incentives (n=24)	3.3
Mean payback without incentives (n=16)	5.4
Mean reduction in incentives (n=16)	2.1

5.5 PROGRAM PARTICIPANT EXPERIENCE WITH THIRD-PARTY FIRMS

Participating customers were asked a series of questions concerning their experiences with third-party firms, either the program-sponsoring EESP in the case of EESP-sponsored customers or a contractor hired by the customer to help with significant aspects of the program process.

EESP-sponsored customers on their applications were asked to identify from a list the type of contract they had with the firm in question. The breakdown of the different types of contract is shown in Table 5-30. Energy performance contracts with no fee-for-service component accounted for only 20 percent of the total. Fee-for-service contracts accounted for 47 percent of contracts.

Table 5-30
Type of Contractual Arrangement With Third-party Firm (2000 LNSPC)

Type of Contract	Percent (2000)
Fee for service contract	47%
Combination of fee for service and performance contract	27%
Shared savings performance contract	13%
Guaranteed savings performance contract	7%
Don't know	7%
<i>Total</i>	<i>15</i>

Respondents who had any performance element to their contract (e.g., sharing incentives on a percentage basis with the EESP) were asked why they chose that type of contract. Only four customers answered this question; no two customers gave the same answer. They attributed their choice to a desire to hold the EESP responsible for incentives, to a requirement to prove savings to their corporate division, to a perception that their contract choice would make it easier to get the project done, and to a theory that shared savings contracts produce better savings estimates.

As shown in Table 5-31, 2000 sees a shift towards EESP-sponsored customers using all program incentives themselves, rather than sharing them with EESPs or allowing EESPs to retain them.

Table 5-31
Customer-EESP Incentive Arrangement (2000 LNSPC)

Arrangement	Percent (2000)
Incentives Used by Customer	60%
Split Incentives/Reduced Fee	33%
Incentives Used by EESP	7%
Don't know	0%
<i>Total</i>	<i>15</i>

EESP-sponsored customers were also asked who initiated the contact leading to the contract for LNSPC Program services. As shown in Table 5-32, customers were twice as likely as the EESP to initiate contact. Some respondents (7 percent) reported that they already had an ongoing relationship with the EESP.

Table 5-32
Initiator of First Contact for Services (2000 LNSPC)

Response	Percent (2000)
Customer Initiated Contact	67%
EESP Initiated Contact	25%
Ongoing Customer-EESP Relationship	7%
<i>Total</i>	<i>15</i>

EESP-sponsored customers were then asked whether any of the energy-efficiency products, services, opportunities, or M&V approaches provided by third-party firms were new to them at the time they were offered. Table 5-33 shows that fewer people said that something was new to them than said that no aspect of the project was new to them.

Table 5-33
Customer Opinion on Whether Products and Services New (2000 LNSPC)

Response	Percent (2000)
Yes	39%
No	55%
Don't know	5%
<i>Total</i>	<i>38</i>

Table 5-34 shows what was new to customers; their answers focus mainly on the types of energy-efficient equipment provided, rather than the structure of the program itself.

Table 5-34
New Products and Services (2000 LNSPC)

Response	Percent (2000)
Specific equipment new	45%
Whole service new	36%
M&V process new	18%
TOTAL	11

5.6 PROCESS-RELATED ISSUES

In this subsection we present responses to questions concerning the implementation of the 2000 LNSPC program. These questions were generally asked on an open-ended basis. In some cases we have post-coded responses, while in others we use direct (un-ascribed) quotations in order to allow respondents to speak in their own voices. They are broadly similar to the implementation questions asked of EESPs, presented in Section 7. The topics covered include the following:

- Strengths and weaknesses of the program
- Program forms and requirements
- M&V requirements
- Opinions on program administration.

5.6.1 Strengths and Weaknesses of the Program

We asked customers to express what they thought were the strengths and weaknesses of the program. The ranges of responses were categorized and are shown in Table 5-35 and Table 5-36. Half the respondents cited the main benefit as being the incentives. The next most cited benefits were that it provides an incentive to save energy, that it encourages energy efficiency, and that it helps sell projects or upgrades to management.

Table 5-35
Strengths of 2000 LNSPC

Strengths of 2000 LNSPC	Percent (2000)
Program incentives	48%
Program saves energy / rewards energy efficiency	19%
Encourages people to buy energy-efficient equipment	12%
Program justifies energy-efficiency to management	6%
Useful M&V process	6%
Other	10%
<i>Total (multiple responses permitted)</i>	<i>52</i>

When discussing their opinions of the perceived weaknesses of the program, there was more convergence in the responses. Of the respondents who offered opinions on the program's weaknesses, the most common responses were that the M&V or the application generally required too much paperwork. The second most common complaint was that the incentives were paid out late, an issue connected to fallout from the energy crisis. A small number (4 responses out of 44) complained that the utilities had been insufficiently responsive to their needs.

Table 5-36
Weaknesses of 2000 LNSPC

Response	Percent (2000)
M&V onerous	32%
Money late	25%
Whole application took too long	18%
Lack of feedback from utility	9%
Should give incentives for shift to off-peak operating hours	2%
No comment / No weaknesses	14%
<i>Total (multiple responses permitted)</i>	<i>44</i>

5.6.2 Program Forms and Requirements

As shown in Table 5-37, the majority of respondents were content with application procedures and timing of feedback (68 percent). However, nine respondents noted that the application process was taking too long; three complained that the utility had not given them enough feedback in general.

Table 5-37
Reasonableness of Application Procedures and Timing of Feedback (2000 LNSPC)

Response	Percent (2000)
Yes	66%
No	21%
Don't know	13%
<i>Total</i>	<i>38</i>

5.6.3 M&V Requirements

Customer respondents were asked about the LNSPC Program's M&V requirements. As shown in Table 5-38, 65 percent of the customers felt able to comment on the M&V process. The comments themselves varied from finding the process useful, simple or appropriate (12 of 38 customers), to those who found it very cumbersome (6 customers). Comments on the M&V process suggested that the process was laborious and could be streamlined, but customers generally agreed that it was necessary.

Table 5-38
Comments on M&V Process (2000 LNSPC)

Comments	Percent (2000)
Positive Comment	29%
Neutral Comment	21%
Negative Comment	14%
No Experience of M&V Process / Don't know	36%
<i>Total (multiple responses permitted)</i>	<i>42</i>

Table 5-39 shows that the majority of all respondents felt that the M&V requirements were reasonable (74 percent). Only 16 percent of the customer sample felt the requirements were not reasonable, most of whom were self-sponsors. Opinions of the requirements have polarized between a minority of customers with bad experiences, and a large majority who found the requirements reasonable. Several respondents who stated that the requirements were reasonable overall noted that they were onerous, but that it was understandable given that the program requires the savings to be proven in order to receive the incentive. It should be noted that the M&V requirements for lighting applications were considerably simplified half way through the program year.

Table 5-39
Comments on M&V Requirements (2000 LNSPC)

Comments on M&V requirements	Percent (2000)
Positive Comment	74%
Negative Comment	16%
No Experience of M&V Process / Don't know	11%
<i>Total (multiple responses permitted)</i>	<i>38</i>

As indicated in Table 5-40, only 34 percent of respondents were able to estimate how much the M&V for the program would cost. Their estimates ranged from 3 percent to 20 percent of the incentives, with an average of 9 percent. The percentage estimates are correlated positively with the dollar cost of the M&V for that project.

Table 5-40
Percentage of Customers Who Estimated M&V Cost (2000 LNSPC)

Response	Percent (2000)
Yes	34%
No	58%
Don't Know	8%
<i>Total</i>	<i>38</i>

Overall, 50 percent of respondents reported that they would pay for at least some level of M&V on energy-efficiency improvements in the absence of a program requirement to do so (see Table 5-41).

Table 5-41
Percentage of Customers Valuing M&V Results Enough to Pay for Them (2000 LNSPC)

Response	Percent (2000)
Yes	50%
No	26%
Depends	13%
Don't know	11%
<i>Total</i>	<i>38</i>

Only five respondents were able to provide estimates of how much they would be willing to pay for M&V as a proportion of incentives. The average willingness to pay was 7.2 percent, and estimates varied from 0 to 15 percent. EESP-sponsored customers provided the two highest estimates.

Respondents were asked how certain or uncertain they were about the estimated energy savings when they first decided to implement the projects. As shown in Table 5-42, most claimed to be extremely certain. For both “somewhat” and “extremely” certain, the total figure was 83 percent.

Table 5-42
Certainty About Estimated Savings (2000 LNSPC)

Certainty	Percent (2000)
Extremely uncertain	11%
Somewhat uncertain	5%
Somewhat certain	24%
Extremely certain	53%
Don't know	8%
<i>Total</i>	<i>38</i>

EESP-sponsored customers were also asked if the program requiring the EESP to have a contract for measured savings with the utility increased their confidence in EESPs' estimates of savings. Over two-thirds reported that their confidence increased “greatly” or “somewhat” (Table 5-43).

Table 5-43
Confidence Level Increase from Contract (2000 LNSPC)

Response	Percent (2000)
Yes, greatly	40%
Yes, somewhat	33%
No	27%
<i>Total</i>	<i>15</i>

The 2000 customers gained more confidence from these contracts than 1999 respondents. As might be expected, those who were most uncertain about how much they would save tended to have their confidence greatly increased by the contract.

5.6.4 Opinions on Administration

Customer respondents were questioned about their experiences with the utility or the utility's administrative representatives. As illustrated in Table 5-44, two-thirds of the respondents indicated that their experience was excellent (26 percent) or good (42 percent), while 16 percent said their experience was somewhat or very poor.

Table 5-44
Overall Program Experience With Utility (2000 LNSPC)

Experience	Percent (2000)
Excellent	26%
Good	42%
Acceptable, About What Expected	13%
Somewhat Poor	8%
Very Poor	8%
No Contact With Utility	3%
<i>Total</i>	38

Comments from those who specifically commented on their utility's performance may be divided into five broad categories (Table 5-45). The largest number of respondents complimented the ability and helpfulness of their utility representative, often mentioning them by name; some mentioned the pressures on utilities caused by the energy crisis.

Table 5-45
Comments on Utility Performance (2000 LNSPC)

Comment	Percent (2000)
Utility representative very helpful	33%
Very supportive and responsive	25%
Utility's performance poor	17%
Utility's performance satisfactory	8%
Utility overwhelmed by energy crisis	8%
Utility has "undeservedly bad reputation"	8%
<i>Total</i>	12

5.7 PROGRAM EFFECT ON FUTURE ENERGY-EFFICIENCY ACTIONS

5.7.1 Dissemination of Program Results

Respondents were also asked if they planned to use the M&V results to sell further energy-efficiency projects to management. Sixty-one percent of respondents said that they were planning to do so.

5.7.2 Program Effect on Future Plans for Energy-Efficient Measures

Respondents were asked if they planned any additional measures as a result of the program. Two-thirds of the 2000 respondents said they planned to implement additional measures as a result of participation in the program. Another 13 percent said that they were planning additional measures not as a result of the program, and 18 percent are not planning any new measures at all. The measures being planned as a result of the program are more or less equally divided between HVAC/R, lighting, process, and other end uses, with a slight preponderance of HVAC/R measures. This may be because HVAC/R measures offer the highest incentives per kWh.

Respondents who would install additional measures also rated the significance of the program on their decision to install those measures (Table 5-46). Sixty-two percent responded that it was “extremely” or “somewhat significant.”

Table 5-46
Significance of Program on Decision to Plan More Measures (2000 LNSPC)

Significance of Program	Percent (2000)
Extremely significant	23%
Somewhat significant	39%
Somewhat insignificant	10%
Extremely insignificant	19%
Don't know	10%
<i>Total</i>	<i>31</i>

Spillover

By combining the percentage of customers who said they planned additional measures as a result of their program participation with their assessment of the significance of the program on their decision to install additional measures, we can estimate a qualitative upper limit on the amount of participant spillover associated with the program. The formula may be expressed as follows:

The fraction saying they will install additional measures as a result of participation (0.66), multiplied by the fraction saying the program was extremely or somewhat significant in this decision (0.62), multiplied by the fraction that were net (non-freerider) participants (0.41), equals 0.17.

Note that this value has no weighting by measure; that is, we do not have quantitative information on the exact number and type of measures or verified evidence of energy savings associated with them. Also, the figure is essentially participants’ forecast of future intent; quantifying actual spillover would require verification that the additional measures were installed, estimation of the savings associated with these measures, and reconfirmation of the effect of the program on the decisions. For all of these reasons, the figure should be considered an upper limit on participant spillover. However, even with the caveats above, we can conclude that there is likely to be a positive participant customer spillover effect from the program. (For example, if we assume that the actual spillover is half of the maximum possible, the result would be a nine percent increase in the effect of the program).

5.7.3 Program Effect on Organizational Decision-Making Processes

The survey included one question addressing the issue of whether the program had changed the customer’s internal decision-making processes relating to energy-efficient equipment. Overall, 38 percent of the respondents said that participation in the program had affected their decision-making policies in some way. Examples included the creation of a dedicated energy conservation group and more generally increased attention, funding, and management time being devoted to the subject of energy efficiency.

6

CUSTOMER PARTICIPANT RESULTS, LNSPC 2001

This section presents responses to a set of structured interviews we conducted with a representative sample of customers participating in the 2001 LNSPC Program in June and July 2001. While several key program milestones had not yet been reached, such as for M & V, when these interviews were conducted, our goal was primarily to provide feedback in time for PY2002 planning. These results follow from customer participant interviews conducted for the evaluations of the 1998 NSPC and 1999 LNSPC Program, as well as from customer participant interviews conducted for the 2000 LNSPC Program (see Section 5) (XENERGY, 1999, 2000). This section contains the following subsections:

- General Characteristics of the 2001 Participant Customer Sample (6.1)
- Program-Related Decisions (6.2)
- Analysis of First-Year Net Savings Impact (Free-Ridership) (6.3)
- Financial Impact of Program Participation (6.4)
- Program Participant Experience with Third-Party Firms (6.5)
- Process-Related Issues (6.6)
- Program Effect on Future Energy Efficiency Actions (6.7)

6.1 GENERAL CHARACTERISTICS OF THE 2001 PARTICIPANT CUSTOMER SAMPLE

This subsection presents characteristics of the sample of 2001 LNSPC customer participants with whom in-depth interviews were conducted in June and July 2001. As we received the utility data at different intervals, the sample was stratified into three roughly equal-sized strata based on the amount of accepted incentives associated with each *unique* customer for *each* utility, resulting in one sample list per utility. Table 6-1 compares the sample targets by strata and utility with the interviews actually completed.

Our approach was to try to complete as many interviews as possible of customers with the largest incentive amounts in the program for each utility (Stratum 1) and to draw random samples from within each of the remaining two strata. A comparison of the sample obtained aggregated across utilities versus the statewide population of LNSPC participants is shown in Table 6-2.

Table 6-1
Interview Targets by Utility (2001 LNSPC)

	PG&E		SCE		SDG&E		Statewide	
	Goal	Complete	Goal	Complete	Goal	Complete	Goal	Complete
Stratum 1	2	2	1	0	1	2	4	4
Stratum 2	8	8	4	5	4	3	16	16
Stratum 3	10	9	5	6	5	4	20	19
<i>Total</i>	<i>20</i>	<i>19</i>	<i>10</i>	<i>11</i>	<i>10</i>	<i>9</i>	<i>40</i>	<i>39</i>

The sampling approach resulted in our capturing 26 percent of the accepted incentives with a sample size of 39, or 22 percent of the 180 unique customers in the program at that time. In addition, the interviews represent a diversity of project types and sizes.

Table 6-2
Comparison of Customer Stratification by Accepted Incentives (2001 LNSPC)

Stratum	Definition	n	Sample Incentives	N	Population Incentives
Stratum 1	Customers from top third of incentives awarded	5	\$1,984,376	8	\$6,263,313
Stratum 2	Customers from middle third of incentives awarded	11	\$1,982,933	31	\$6,164,853
Stratum 3	Customers from bottom third of incentives awarded	23	\$807,009	141	\$6,244,993
<i>Total</i>		<i>39</i>	<i>\$4,774,318</i>	<i>180</i>	<i>\$18,659,153</i>

For the purpose of calculating the net-to-gross ratio (NTGR), which is discussed later in this section, we used a second stratification based on a weighted sum of the kWh savings and therm savings for each customer. Each stratum represents one-third of these “combined kWh” in the sample. This was considered to be a more accurate way to represent the size of projects for weighting purposes than using incentives. This sampling approach resulted in our capturing 28 percent of the kWh savings and 61 percent of the therm savings for the program. It is interesting to note that the 2001 program year had a much higher proportion of gas savings than in prior years, perhaps owing to the \$1-per-therm incentive rate.

Table 6-3
Comparison of Customer Stratification by Energy Savings (2001 LNSPC)

kWh stratum	Definition	n	Sample kWh	Sample therms	N	Population kWh	Population therms
Stratum 1	Customers--top third of combined kWh figure	2	2,194,656	2,578,862	4	6,484,703	3,413,243
Stratum 2	Customers--middle third of combined kWh figure	7	11,417,713	1,001,719	18	28,425,776	2,227,574
Stratum 3	Customers--bottom third of combined kWh figure	30	23,346,151	36,325	158	91,608,875	280,634
<i>Total</i>		<i>39</i>	<i>36,958,520</i>	<i>3,616,906</i>	<i>180</i>	<i>126,519,354</i>	<i>5,921,451</i>

As shown in Table 6-4, 59 percent of respondents self-sponsored their applications. This broadly reflects the proportion found in the program population and is consistent with the trend toward self-sponsorship found in the overall 2001 LNSPC program-tracking data discussed in Chapter 4. Customers who self-sponsored their applications were also asked if they used any third-party firms for assistance with the project. Almost 30 percent of the self-sponsors sampled reported having hired third parties for assistance. These firms were hired most frequently to install the equipment or to provide energy audits and calculations of savings.

Table 6-4
Breakdown of Customer Participant Sample by Sponsorship (2001 LNSPC)

Participant Type	Sample (2001)	Percent (2001)
Used Third-Party EESP as Sponsor	7	18%
Self-sponsored	23	59%
Combination EESP- and self-sponsored	9	23%
<i>Total</i>	<i>39</i>	<i>100%</i>

Table 6-5 presents the distribution of the customer sample by the utility for which applications were submitted. Consistent with the changes in utility program funding, PG&E represented about half of program participants and therefore about half of the sampled customers.

Table 6-5
Breakdown of Customer Participant Sample by Utility (2001 LNSPC)

Utility	Sample (2001)	Percent (2001)
PG&E	19	49%
SCE	11	28%
SDG&E	9	23%
<i>Total (multiple responses permitted)</i>	<i>39</i>	<i>100%</i>

Table 6-6 presents reported statistics on the square footage at the sites for which project applications were submitted. The mean size of the facilities is about 475,000 square feet, with a range from 12,000 to 3.8 million square feet.

Table 6-6
Square Footage of Participating Sites (2001 LNSPC)

Square footage (n=32)	Statistics (2001)
Average	488,321
Median	200,000
Minimum	12,000
Maximum	3,750,000

Table 6-7 illustrates the distribution of reported average monthly electric usage. The median electricity bill was about \$100,000 per month.¹

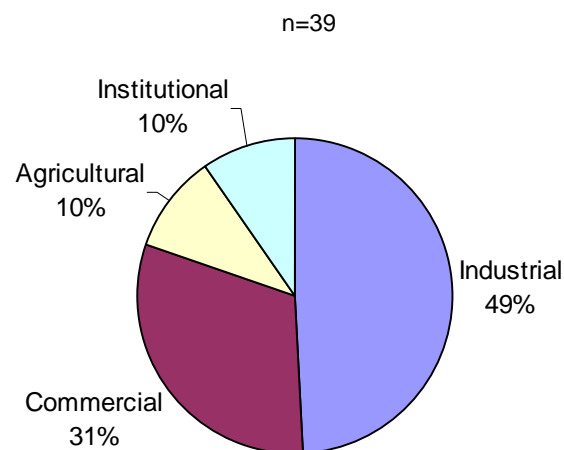
¹ Figures are based on customer self-reports, not utility billing records.

Table 6-7
Electric Usage of Participating Sites of Sampled Customers (2001 LNSPC)

Average	Percent (2001)
<\$10,000	5%
\$10,000 - \$99,999	33%
\$100,000 - \$499,999	33%
\$500,000 - \$999,999	5%
>\$1,000,000	5%
Don't know	18%
<i>Total</i>	<i>39</i>

As shown in Figure 6-1, the sample of customers also includes respondents from each of the four major market segments, commercial, industrial, institutional, and agricultural. The industrial sector represented a particularly high proportion, at almost half of the sample.

Figure 6-1
Breakdown of Sampled Customer Participants by Market Segment (2001 LNSPC)



Another characteristic of the sample can be seen in Table 6-8, which shows that most participating customers are also customers who are part of multi-site organizations (62 percent).

Table 6-8
Breakdown of Sample by Single versus Multi-Site (2001 LNSPC)

Location Type	Percent (2001)
Only location	31%
Part of multi-site organization	62%
Don't know	8%
<i>Total</i>	<i>39</i>

Table 6-9 shows the percentage breakdown of facility ownership versus lease arrangement. Most of the facilities in the sample (79 percent) are owned by the customer. A total of 18 percent of our sample leased their facility space.

Table 6-9
Facility Ownership or Lease Arrangement (2001 LNSPC)

Response	Percent (2001)
Owner-occupier	79%
Lessee	18%
Other / Don't know	3%
<i>Total</i>	39

6.2 PROGRAM-RELATED DECISIONS

In this subsection, we present responses to a variety of questions customers were asked about how they made decisions related to LNSPC projects.

6.2.1 Origin of Decisions and Role and Significance of Third-Party Firms

As shown in Table 6-10, customers in the 2001 program were asked to describe what led to their decision to install the measures in the LNSPC applications. The most common response, at 54 percent, was the need to reduce energy costs. The need to replace older equipment was the next most common reason, at 17 percent. Some customers gave multiple responses to this question because their applications covered a wide diversity of sites or because they had more than one reason for pursuing installation.

Table 6-10
Reason for Decision to Pursue Installation (2001 LNSPC)

Reason	Percent (2001)
Reduce Energy Costs	54%
Replace Older Equipment	17%
Reduce Demand	8%
Acquire Rebate	8%
Remodel, Build-Out, Expansion	6%
More Control of Equipment Use	4%
Improve Measure Performance	4%
<i>Total (multiple responses permitted)</i>	52

As Table 6-11 illustrates, only 8 percent of the measures installed by the 2001 program respondents consisted of replacing fully functional existing equipment. Another 41 percent of the equipment had failed or was experiencing significant problems.

Table 6-11
Condition of Equipment Replaced through Program (2001 LNSPC)

Condition	Percent (2001)
Fully Functional	26%
Did Not Replace Existing Equipment	8%
Failed / Did not function	5%
Functioning with Problems	36%
N/A, Ancillary Equipment (VSD, Controls, etc.)	26%
<i>Total</i>	<i>39</i>

The 2001 respondents first heard about the energy-efficient equipment they installed under the program from various sources. As shown in Table 6-12, the most common response was that they learned about it from a previous installation in which they or their firm was involved. Another 23 percent heard about it from a contractor or vendor.

Table 6-12
How Customers Learned about Equipment Installed (2001 LNSPC)

Response	Percent (2001)
Previous Installation	35%
Contractor	13%
Self-knowledge	13%
Equipment Vendor	10%
Colleague, Trade Show	10%
Utility Representative	8%
Non-Utility Literature	3%
Don't know	5%
Refused	5%
<i>Total (multiple responses permitted)</i>	<i>40</i>

While utility representatives played only a minor role in first bringing energy-efficient equipment to the attention of customers, they were customers' main source of initial information about the LNSPC program in particular (see Table 6-13).

Table 6-13
How Customers Learned about Program (2001 LNSPC)

Response	Percent (2001)
Utility	71%
Trade show or seminar	7%
Contractor	7%
Energy Services Company	7%
Self-knowledge	5%
Previous installation	2%
<i>Total (multiple responses permitted)</i>	<i>41</i>

As shown in Table 6-14, half of the 2001 respondents heard about the program before or at the same time as they first thought about installing the energy-efficient equipment installed. Only 22 percent heard about the program after they had decided to install the equipment, seeking to then take advantage of the money or install sooner.

Table 6-14
When Customers Decided to Install (2001 LNSPC)

Response	Percent (2001)
Before installation decision, Before thought about project	45%
Before installation decision, Same time as thought about project	5%
Before installation decision, After thought about project	20%
Before installation decision, Don't know when thought about project	2%
At same time as installation decision	5%
After installation decision	23%
<i>Total</i>	<i>39</i>

Customers were also asked to select an option that reflected the role third-party firms played in their decision to submit an application. Responses to this question are shown in Table 6-15, both overall and by sponsorship type. Forty-nine percent reported having developed the project ideas and pursued installation themselves. Among self-sponsors, this figure rises to 52 percent. Another 10 percent said that a third party was responsible for developing the idea, but that they decided on their own to pursue installation. Another 28 percent said that a third party was responsible for actually convincing them to pursue implementation of the projects. As would be expected, all answers differ considerably when segmented by sponsorship. Interestingly, almost half of the self-sponsors reported that a third party was involved in the decision-making process.

Table 6-15
How Customer Decided to Install Energy Efficiency Equipment (2001 LNSPC)

Response	EESP-sponsored ²	Self-sponsored	Percent (2001)
Own idea, pursued on our own	33%	52%	49%
Third party's idea, pursued on our own	17%	9%	10%
Own idea, convinced by third party	33%	6%	8%
Third party's idea, convinced by third party	17%	30%	28%
Joint decision	17%	3%	5%
<i>Total</i>	<i>6</i>	<i>33</i>	<i>39</i>

Customers who self-sponsored their applications were also asked whether they worked with any third-party firms as part of their LNSPC application. As shown in Table 6-16, 54 percent (18 of 33) of the self-sponsors reported using a third-party firm, which is consistent with responses to the decision-making question discussed above. However, only five firms (15 percent of the self-sponsors) reported that the third-party firm they hired contributed to the decision to enter the program.

² Responses for EESP-sponsored refer to the significance of the third-party sponsor of record on the LNSPC application, not of any other companies that may be involved in the process.

Table 6-16
Self-sponsors' Use of Third-Party Firms (2001 LNSPC)

Response	Percent (2001)
Yes, third-party firm contributed to decision	15%
Yes, third-party firm did not contribute to decision	39%
No, not using third-party firm	46%
<i>Total</i>	<i>33</i>

We asked customers to rate the significance of the overall value of the services provided by the third-party firm for their decision to install the LNSPC-related measures. The results are presented in Table 6-17. Only 50 percent of self-sponsored customers regarded the contribution of third-party firms as being very significant, as opposed to 86 percent among EESP-sponsored customers.

Table 6-17
Significance of Third-Party Firm Services in Decision to Participate (2001 LNSPC)

Significance	EESP-sponsored²	Self-sponsored with third party	Percent (2001)
Extremely significant	86%	50%	62%
Somewhat significant	14%	29%	24%
Somewhat insignificant	0%	0%	0%
Extremely insignificant	0%	21%	14%
<i>Total</i>	<i>7</i>	<i>14</i>	<i>21</i>

6.2.2 Reported Importance of Program to Implementation Decision

Customers were asked two key questions centering on the role of LNSPC incentives in their decision to implement the projects included in their program applications. The first question phrases the influence of the incentives in terms of their significance, while the other question is phrased in terms of what they would have done had the incentives not been available. These questions are part of the series used to calculate the net-to-gross ratios discussed in subsection 6.3.

As shown in Tables 6-18 and 6-19, half of the respondents reported that the incentives had an extremely significant influence on their decision, but at the same time only 18 percent would definitely not have installed the project without the program. Fifty-nine percent probably or definitely would have installed the projects anyway, though the project schedule or efficiency level may have been affected by non-participation. We may surmise that for most customers, incentives had a partial effect on their decision to participate and that incentives were vital to a smaller number of them. This issue is addressed further in subsection 6.3.

When asked what type of equipment they would have installed in the absence of the program, most said that they would have installed equally efficient equipment anyway (52 percent); some said that they would rather install no equipment at all than install less-efficient equipment.

Table 6-18
Significance of Incentives (2001 LNSPC)

Significance	Percent (2001)
Extremely significant	51%
Somewhat significant	38%
Somewhat insignificant	5%
Extremely insignificant	5%
<i>Total</i>	39

Table 6-19
Likelihood of Installing in Absence of Program (2001 LNSPC)

Response	Percent (2001)
Definitely would NOT have installed	18%
Probably would NOT have installed	21%
Probably would have installed	36%
Definitely would have installed	23%
Don't know / Refused	3%
<i>Total</i>	39

Table 6-20
Type of Equipment Would Have Installed in Absence of Program (2001 LNSPC)

Response	Percent (2001)
Probably as efficient	52%
Less efficient equipment	7%
Not Applicable for Measure (e.g. VSD)	41%
<i>Total</i>	27

Respondents were also asked when they would have installed the equipment in the absence of the program. Table 6-21 illustrates that none of those who would probably or definitely have installed without the program would have waited more than 4 years to install the equipment. Fifty-eight percent of respondents who reported that they would definitely or probably have installed equipment anyway would have installed it within a year. Half of those who would probably or definitely not have installed without the program would have installed the equipment within a year if they had gone ahead with the project.

6.3 ANALYSIS OF FIRST-YEAR NET SAVINGS IMPACT (FREE-RIDERSHIP)

This subsection presents the NTGR for the 2001 program. For further detail on methodological notes, please refer to subsection 5.3. The text of the survey questions is located in Appendix B. Table 6-22 presents the values assigned to the significance of program incentives and EESP services in the 2001 results.

Table 6-21
Time of Installation Without Program (2001 LNSPC)

Years	Those who would have installed	Those who would not have installed
Within six months	46%	50%
Six months to a year	12%	0%
One to two years	19%	0%
Two to three years	12%	17%
Three to four years	4%	0%
Never	4%	17%
Don't know / Refused	4%	17%
<i>Total</i>	26	6

Table 6-22
Assignment of NTGR Values for Significance of Program (2001 LNSPC)

Significance	Assigned NTGR	Significance of Incentive (n=39)	Significance of EESP Services (n=21)
Extremely Significant	1.0	51%	62%
Very Significant	0.667	38%	24%
Somewhat Significant	0.333	5%	-
Insignificant	0.0	5%	14%

Incentives were usually given higher significance rankings. Twenty-four percent of the respondents differed sharply in their significance rating of these two factors. For example, one customer rated incentives as insignificant, but EESP services as very significant. When we separate out customers who either were EESP-sponsored or received significant help from EESPs (Table 6-23), we see that their responses are highly correlated; that is, when they report that incentives played a significant role in their decision, they also report that the overall value provided by the EESP was significant: only three customers out of 16 gave assessments of significance that differed at all.³

Table 6-23
Comparison of Significance Rating for Incentives versus EESP Services (2001 LNSPC)

Significance	Significance of Incentives*	Significance of EESP services
Very Significant	56%	69%
Somewhat Significant	38%	25%
Somewhat Insignificant	-	0%
Insignificant	6%	6%
# Respondents	16	16

* Responses refer to the significance of the third-party sponsor of record on the LNSPC application, not of any other companies that may be involved in the process.

³ A reminder here of one of the limitations of self-reported data: *customers often have difficulty sorting out the relative weight of numerous possible influences on energy-related decisions.* In particular, one reason for the observed correlation between the high significance ratings of the incentives and EESP may be an actual correlation in that the customers needed the EESPs assistance to meet the program requirements and thereby obtain the incentives.

We defined the program significance as being equal to the maximum value of the response to questions about the significance of incentives (PD6c) and significance of EESP services (PD6a). This value was then averaged with the value assigned to the *likelihood of installing anyway* question (PD7a), as shown in Table 6-24, to create the initial NTGR, called NTGR1.

Table 6-24
Assignment of NTGRs for Likelihood of Installing in Absence of Program (2001 LNSPC)

Likelihood of Installing Anyway (PD7a)	Assigned NTGR	Percent (2001) (n=39)
Definitely Would Not Have Installed	1.0	18%
Probably Would Not Have Installed	0.667	21%
Probably Would Have Installed	0.333	36%
Definitely Would Have Installed	0.0	23%
Don't Know	-	3%

Once NTGR1 was determined, each project was examined regarding the level of efficiency or number of measures the customer intended to install in the absence of the program, such as those cases where a customer said they would have installed equipment of lower efficiency or installed high-efficiency equipment at fewer sites (PD8a or PD9a). The adjustment ranged from 0.0 to +0.2. Adjustments were then added to NTGR1 to create the second ratio, called NTGR2.

Next, the issue of *deferred* free-ridership was considered. Responses to the timing questions (PD8b or PD9b) were translated, using the conversion table in Table 6-25, into NTGR3.

Table 6-25
Forecasted Installation Conversion (2001 LNSPC)

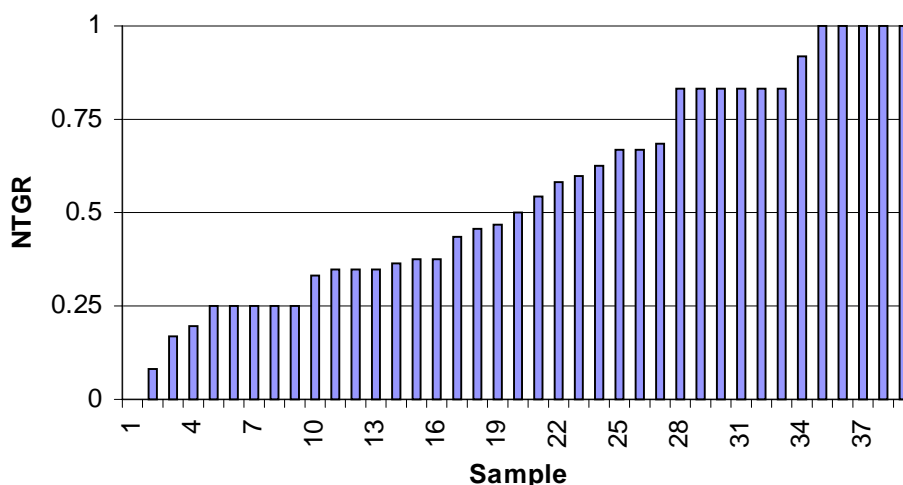
Forecasted Installation of Same Equipment (PD8b or PD9b)	Assigned NTGR	Percent (2001) (n=39)
At the same time	0.0	33%
Six months to one year	0.063	8%
1 to 2 years	0.25	10%
2 to 3 years	0.5	13%
3 to 4 years	0.75	3%
4 or more years	1.0	31%
Don't know	-	3%

Lastly, NTGR2 and NTGR3 were averaged to create the final NTGR. In addition, all cases of inconsistency or response discrepancy as well as all large projects were reviewed to ensure that the final NTGRs were as accurate and reliable as possible. Minor adjustments, if necessary, were made based on other responses in the net-to-gross sequence.

6.3.1 Estimate of the 2001 NTGR

Both the weighted and unweighted estimates involve averaging across individual customer project NTGRs calculated for each unique customer project in the sample. The range of NTGRs calculated across the sampled customers for 2001 is shown in Figure 6-2.

Figure 6-2
Range of Unweighted NTGRs across Sampled Customers/Projects (2001 LNSPC)



Both weighted and unweighted NTGRs for the 2001 LNSPC projects are shown in Table 6-26. The weighting adjusts for the effect of the kWh savings levels for different projects; higher kWh savings received heavier weighting and lower kWh savings less. Therm savings were converted to kWh values using a source energy method.

The average unweighted NTGR is 0.55, and the weighted NTGR rises to 0.65.

Table 6-26
Overall LNSPC Program NTGRs (2001)

Estimate	Statistics (2001)
Number of projects	39
Weighted by kWh**	0.65
Unweighted	0.55

Table 6-27 presents the NTGRs by sponsor type. The 2001 NTGRs were higher for self-sponsored customers (0.70 weighted, 0.54 unweighted), unlike all previous years.

Table 6-27
Net-to-Gross Ratios by Customer Type (2001 LNSPC)

Customer Type	Net-to-Gross Ratio (Weighted)	Net-to-Gross Ratio (Unweighted)
Self-sponsored	0.70	0.54
EESP-Sponsored	0.40	0.60

As seen in Table 6-28, we also examined results by strata. The sample was divided into three equal strata, based upon incentives received. The first stratum has a few customers, with large incentive levels, while the third stratum has many customers, but with relatively small incentive

levels. The unweighted NTGRs for stratum 2 and stratum 3 customers are similar, at 0.53 and 0.55 respectively; the NTGR for stratum 1 customers rises to 0.62.

Table 6-28
Unweighted Net-to-Gross Ratios by Customer Incentive Stratum (2001 LNSPC)

Stratum	Net-To-Gross Ratio
Stratum 1	0.62
Stratum 2	0.53
Stratum 3	0.55

6.4 FINANCIAL IMPACT OF PROGRAM PARTICIPATION

Respondents were asked to estimate the reduction in the payback period attributed to the program incentives. As indicated in Table 6-29, the incentives were reported to have reduced the payback period by a year and a half on average.

Table 6-29
Self-reported Payback Estimates with and without Program Incentives (2001 LNSPC)

Reduction	Years (2001)
Mean payback with incentives (n=24)	3.5
Mean payback without incentives (n=16)	1.9
Mean reduction in incentives (n=16)	1.5

6.5 PROGRAM PARTICIPANT EXPERIENCE WITH THIRD-PARTY FIRMS

Participating customers were asked a series of questions concerning their experiences with third-party firms, either the sponsoring EESP in the case of EESP-sponsored customers or a contractor hired by a self-sponsoring customer to help with significant aspects of the application process.

Customers who were working with third-party firms were asked to identify from a list the type of contract they had with the firm in question. The breakdown of the different types of contract is shown in Table 6-30. Energy performance contracts with no fee-for-service component accounted for only 43 percent of the total. Fee-for-service contracts accounted for 57 percent of contracts and are the dominant form of contract in the LNSPC Program.

Table 6-30
Type of Contractual Arrangement with Third-Party Firm (2001 LNSPC)

Arrangement	Percent (2001)
Fee-For-Service	57%
Energy performance contract: Shared Savings	14%
Energy performance contract: Guaranteed Savings	14%
EESP Paid from Incentives: Fixed Fee or 1st Payment	14%
<i>Total</i>	<i>7</i>

The 28 percent of respondents who had any performance element to their contract (e.g., sharing incentives on a percentage basis with the EESP) were asked why they chose that type of contract. The only customer who responded to this question said that the decision had been taken nationally, so they were not sure of the reason.

As shown in Table 6-31, 2001 sees the majority of customers using the program incentives wholly themselves, rather than arranging to share them with EESPs or have EESPs to retain all of the incentives.

Table 6-31
Customer-EESP Incentive Arrangement (2001 LNSPC)

Arrangement	Percent (2001)
Incentives Used by Customer	80%
Incentives Used by EESP	10%
Split Incentives/Reduced Fee	10%
<i>Total</i>	<i>10</i>

Respondents were also asked who initiated the contact that led to the contract for services through the LNSPC Program. As shown in Table 6-32, customers were more likely than the EESP to initiate contact. Some respondents (9 percent) reported that they already had an ongoing relationship with the EESP.

Table 6-32
Initiator of First Contact for Services (2001 LNSPC)

Response	Percent (2001)
Customer Initiated Contact	55%
EESP Initiated Contact	36%
Ongoing Customer-EESP Relationship	9%
<i>Total</i>	<i>11</i>

Customers were asked whether any of the energy-efficiency products, services, opportunities, or M&V approaches provided by third-party firms were new to them at the time they were offered. Table 6-33 shows that a third of all customers found some aspect of the products or services provided by third-party firms as part of the LNSPC application to be new to them.

Table 6-33
Customer Opinion on Whether Products and Services New (2001 LNSPC)

Response	Percent (2001)
Yes	33%
No	59%
Don't know	8%
<i>Total</i>	<i>39</i>

The 33 percent of customers who reported that something was new were then asked what products or services were new. As reported in Table 6-34, one-third mentioned the specific equipment installed was new to them, followed by 28 percent who mentioned that the whole service was new to them. Other customers mentioned that the LNSPC program, the M&V process generally, or the calculated savings option was new to them.

Table 6-34
Products and Services New to Customer (2001 LNSPC)

Response	Percent (2001)
Specific equipment new	33%
Whole service new	28%
Program new	22%
Calculated savings option new	11%
M&V process new	6%
<i>Total</i>	<i>18</i>

6.6 PROCESS-RELATED ISSUES

In this subsection we present responses to questions concerning the implementation of the 2001 LNSPC Program. These questions were generally asked on an open-ended basis. In some cases we have post-coded responses, while in others we use direct (un-ascribed) quotations to allow respondents to speak in their own voices. They are also broadly similar to the implementation questions asked of EESPs, presented in Section 7. The topics covered include:

- Strengths and weaknesses of the program
- Program forms and requirements
- M&V requirements
- Opinions on program administration.

6.6.1 *Strengths and Weaknesses of the Program*

We asked customers to express what they thought were the strengths and weaknesses of the program. The ranges of responses were categorized and are shown in Table 6-35 and Table 6-36. As would be expected, the most common strength mentioned was the incentives (48 percent). The next most cited benefit was the simplicity of the program (23 percent), which testifies to program administrators' efforts to streamline the application and M&V processes.

Of the respondents who offered opinions on the program's weaknesses, the most common response was that the M&V process was too onerous; as might be expected, this response was restricted to those who chose the measured savings approach. The next most common weakness cited was that too little time was given to apply to the program before the deadline expired to qualify for the Summer Peak Incentive. A few also complained that they had to change M&V approach unexpectedly or resubmit their applications because the criteria to qualify for

calculated savings were not made sufficiently clear. Some 2000 customers had to resubmit their applications as 2001 LNSPC applications, which caused some confusion.

Table 6-35
Strengths of 2001 LNSPC

Strengths	Percent (2001)
Program gives you money	48%
Program is simple	23%
Program saves energy / rewards energy efficiency	9%
Program is fast	7%
Excellent service provided by utility representative	5%
Other	9%
<i>Total</i>	<i>44</i>

Table 6-36
Weaknesses of 2001 LNSPC

Weaknesses	Percent (2001)
M&V onerous	29%
Too little time to qualify for Summer Peak Incentive	20%
Whole application took too long	12%
Too little money	6%
Requirement to change M&V approach or resubmit application	6%
Other	12%
No drawbacks	16%
<i>Total</i>	<i>51</i>

6.6.2 Program Forms and Requirements

As shown in Table 6-37, the majority of respondents were content with the application procedures and timing of feedback (74 percent). Four respondents particularly emphasized the need for more time to prepare the application between the forms' becoming available and the Summer Peak Incentive deadline of June 1.

Table 6-37
Reasonableness of Application Procedures and Timing of Feedback (2001 LNSPC)

Response	Percent (2001)
Yes	74%
No	23%
Don't know	3%
<i>Total</i>	<i>39</i>

6.6.3 M&V Requirements

Customer respondents were asked whether they used the calculated savings or the measured savings option in their application(s). Table 6-38 shows that the calculated savings option was the most common, with 41 percent of the respondents using it exclusively and another 13 percent

using a combination of calculated and measured savings in their applications. Unfortunately, several customers (15 percent) did not know which option was used for their project.

Table 6-38
M&V Option (2001 LNSPC)

Option	Percent (2001)
Calculated	41%
Measured	31%
Combination	13%
Don't Know	15%
<i>Total</i>	39

Table 6-39 presents respondents' reasons for choosing their preferred M&V option, stratified according to the responses in Table 6-38. Most of those who chose the calculated savings option (75 percent) chose it because it was the easiest option or because they felt that the measured savings option was not worth the hassle or cost. Those who chose the measured savings option did so for several different reasons—because it was easiest for them, because they wanted to get the most money available, or because it was the only option available for the measure they were installing. The only respondents who gave the reason for their choice as being a recommendation from the utilities were respondents who combined both savings options.

Table 6-39
Reason for choosing M&V option (2001 LNSPC)

Reason	Calculated savings	Measured savings	Combination	Don't know	Percent (2001)
Easiest option	56%	33%	-	-	39%
Only option available for measure	-	25%	40%	-	15%
Wanted to get the most money available	-	33%	-	-	12%
Measured savings not worth hassle / cost	19%	-	-	-	9%
EESP recommended it	6%	8%	-	-	6%
Utility recommended it	-	-	40%	-	6%
Don't know / Refused	13%	-	-	100%	6%
Other	6%	-	20%	-	6%
<i>Total</i>	16	12	5	6	39

Respondents were asked about the LNSPC Program's M&V process and requirements. Table 6-40 shows that over two-thirds of the customers felt able to comment on the M&V process. The comments varied greatly; some found the process simple (5 of 30), and a few found it very cumbersome (2 of 30). Specific criticisms of the M&V process focused on its expense and its length (4 of 30). No respondents voiced criticism of the program's M&V requirements.

Table 6-40
Comments on M&V Process and Requirements (2001 LNSPC)

Comments	Percent (2001)
Positive Comment	29%
Neutral Comment	24%
Negative Comment	15%
No Experience of M&V / Don't know	33%
<i>Total</i>	30

Respondents were asked how certain or uncertain they were about the estimated energy savings when they first decided to implement the projects. As shown in Table 6-41, over 80 percent claimed to be somewhat or extremely certain.

Table 6-41
Certainty about Estimated Savings (2001 LNSPC)

Certainty	Percent (2001)
Extremely uncertain	0%
Somewhat uncertain	18%
Somewhat certain	36%
Extremely certain	46%
Don't know	0%
<i>Total</i>	39

EESP-sponsored customers were also asked if the fact that the program required their EESP to have a contract for measured savings with the utility had affected their confidence in the EESP's estimates of savings. Fifty-eight percent reported that their confidence increased "greatly" or "somewhat" (see Table 6-42).

Table 6-42
Confidence Level Increase from Contract (2001 LNSPC)

Response	Percent (2001)
Yes, greatly	29%
Yes, somewhat	29%
No	43%
<i>Total</i>	7

As might be expected, those who were most uncertain about how much they would save tended to have their confidence greatly increased by the contract.

6.6.4 Opinions on Administration

Customers were also questioned about their experiences with the utility or the utility's administrative representatives. As illustrated in Table 6-43, over two-thirds of the respondents

indicated that their experience was excellent (31 percent) or good (41 percent), while 8 percent said their experience was somewhat or very poor.

Table 6-44 divides customers' comments about their experience into six broad categories. The largest number of respondents complimented the ability and helpfulness of their utility representative, often mentioning them by name; a few mentioned the pressures on utilities caused by the energy crisis.

Table 6-43
Overall Program Experience with Utility (2001 LNSPC)

Experience	Percent (2001)
Excellent	31%
Good	41%
Acceptable, About What Expected	13%
Somewhat Poor	8%
Very Poor	0%
No Contact With Utility	8%
<i>Total</i>	<i>38</i>

Table 6-44
Comments on Utility Performance (2001 LNSPC)

Comments	Percent (2001)
Very supportive and responsive	43%
Utility rep very helpful	20%
Utility staff not knowledgeable or efficient	13%
Utility's performance poor	10%
Utility's performance satisfactory	7%
Software problems	3%
Utility has undeservedly bad reputation	3%
<i>Total</i>	<i>30</i>

6.7 PROGRAM EFFECT ON FUTURE ENERGY-EFFICIENCY ACTIONS

6.7.1 Program Effect on Future Plans for Energy Efficient Measures

Respondents were asked if they planned any additional measures as a result of participating in the program. Over half (54 percent) of the 2001 respondents said they planned to implement additional measures as a result of their participation. Another 23 percent said that they were planning additional measures but not as a result of the program, and 18 percent are not planning any new measures at all. The measures being planned as a result of the program are more or less equally divided between HVAC, lighting, process and other end uses, with a slight preponderance of HVAC and process measures.

Respondents who would install additional measures also rated the significance of the program on their decision to install those measures (Table 6-45). Over three-quarters responded that program participation was “extremely” or “somewhat significant.”

Table 6-45
Significance of Program on Decision for More Measures (2001 LNSPC)

Significance	Percent (2001)
Extremely significant	29%
Somewhat significant	48%
Somewhat insignificant	6%
Extremely insignificant	6%
Don't know	10%
<i>Total</i>	<i>31</i>

Spillover

By combining the percentage of customers who said they planned additional measures as a result of their program participation with their assessment of the significance of the program on their decision to install them, we can estimate a qualitative upper limit on the amount of participant spillover associated with the program. The formula for doing so may be expressed as follows:

The fraction saying they will install additional measures as a result of participation (0.54), multiplied by the fraction saying the program was extremely or somewhat significant in this decision (0.77), multiplied by the fraction that were net (non-freerider) participants (0.65), which equals 0.27.

Note that this value has no weighting by measure; that is, we do not have quantitative information on the exact number and type of measures or verified evidence of energy savings associated with them. Also, the figure is essentially participants’ forecast of future intent. Quantifying actual spillover would require verification that the additional measures were installed, estimation of the savings associated with these measures, and reconfirmation of the effect of the program on the decisions. For all of these reasons, the figure should be considered an upper limit on participant spillover. However, even with the caveats above, we can conclude that there is likely to be a positive participant customer spillover effect from the program. (For example, if we assume that the actual spillover is half of the maximum possible, the result would be a 10-percent increase in the effect of the program).

6.7.2 Program Effect on Organizational Decision-Making Processes

The survey also included a question addressing the issue of whether the program had changed the customer’s internal decision-making processes relating to energy-efficient equipment. Overall, 21 percent of the respondents said that participation in the program had affected their decision-making policies in some way. Examples included the creation of an incentive payback system, changes in fund allocations, and the full incorporation of energy-efficiency concerns at an early stage of the decision-making process.

This section provides a detailed summary of information collected from in-depth interviews with energy-efficiency service providers (EESPs) participating in the 2000 and 2001 LNSPC Program.¹ EESPs sponsor LNSPC projects for customers and play a central role in marketing, developing, and implementing energy-efficiency projects. This section contains the following subsections:

- Overview and Approach (7.1)
- Firmographics of Participant EESP Sample (7.2)
- Process-related Issues (7.3)
- Comparison of Customer and EESP Perspectives (7.4)
- Potential Market Effects of Program (7.5).

7.1 OVERVIEW AND APPROACH

7.1.1 LNSPC Participant EESP Sample Frame

We constructed the samples for the EESPs who participated in the 2000 and 2001 LNSPC using data extracts provided by the utilities in June 2001. Our target was to conduct interviews with 10 EESPs who participated in each year, for a total of 20 interviews. In addition, some of the EESPs participated in both years. In these cases, they are only included in the official tally for the year for which they were formally interviewed, but any comments specific to the other year are also included in the text.

In undertaking these interviews, we used a sampling approach that would capture a broad range of firms and perspectives. To facilitate a comparison of perspectives, we were particularly interested in gaining input from EESPs whose customers we had also interviewed. Another objective of the sample design was to obtain input from the EESPs that had only participated in one year of the LNSPC Program and were thus new to the program in that year, as well as EESPs that had participated in multiple years of program implementation and might be able to provide a comparison of participation experiences between years.

2000 EESP Sample

We completed 10 interviews with EESPs who had participated in the 2000 LNSPC Program. In the following text, we have also included comments, where available, from the three EESPs interviewed for the 2001 program that had also participated in 2000. As shown in Table 7-1,

¹ For the purposes of this report, EESPs are defined as third-party firms that provide any of a number of energy-efficiency related products and services to end users. End users that are participating in the program and are sponsoring their own project are not defined as EESPs but are classified as self-sponsoring customers (see Sections 5 and 6).

each of the utilities is represented by at least two EESPs. In addition to the EESPs operating solely in that utility area, one EESP was active in all three utility areas. We were able to reach five EESPs for whom we also interviewed at least one customer regarding the 2000 program as well. This greatly facilitated the comparison of differing perspectives between EESPs and customers for the same projects. Interestingly, only one of the EESPs interviewed for the 2000 program had participated in prior years, though two were also participating in the 2001 program.

Table 7-1
Distribution of 2000 EESP Participant Interview Results by Utility

Utility	Distribution of interviews by utility	Customer also interviewed for 2000	Also participated in 2001	Also participated in 1998 or 1999
PG&E	3	2	-	-
SCE	4	1	-	1
SDG&E	2	1	1	-
ALL	1	1	1	-
<i>Total</i>	<i>10</i>	<i>5</i>	<i>2</i>	<i>1</i>

Table 7-2 compares the energy savings and incentive levels of the EESPs sampled versus the population of EESPs participating in the 2000 LNSPC Program. The sample represents 20 percent of the population of EESP participants and 7 percent of the incentives reserved. While the sample reflects only 7 percent of the kWh savings, it reflects almost one-third of the therm savings in the 2000 LNSPC.

Table 7-2
Distribution of 2000 EESP Participant Interview Results by Savings

	2000 Sample	2000 Population	Sample as % of population
Number of EESPs	10	49	20%
Total kWh savings	10,689,462	154,318,756	7%
Total therm savings	1,654,356	5,617,454	29%
Total incentives	\$ 918,987.12	\$ 13,995,876.04	7%

In 2000, the relatively low representation of total incentives and savings as compared to the percentage of EESPs represented is partially due to the sampling technique. The sample design placed priority on interviewing EESPs for whom we also had customer interview results in order to make comparisons easier. The customer sample design resulted in customer interview results that come disproportionately from stratum 3, the smallest incentive category. Therefore, the EESPs selected for interviews were disproportionately likely to have sponsored smaller projects.

2001 EESP Sample

As with the 2000 sample, the 2001 sample contains 10 EESP participants. Table 7-3 presents the breakdown of the EESP sample by utility as well as providing information on participation in

other years. While we did not interview any EESPs operating solely in the SCE service area for 2001, three EESPs were active in SCE in addition to being active in other utility service areas.

We were able to reach three EESPs for whom we had also interviewed at least one customer for comparison. Three of the EESPs interviewed for 2001 had participated in prior years.

Table 7-3
Distribution of 2001 EESP Participant Interview Results by Utility

Utility	Distribution of interviews by utility	Customer also interviewed for 2001	Also participated in 2000	Also participated in 1998 or 1999
PG&E	3	1	-	-
SCE	-	-	-	-
SDG&E	4	-	-	-
SCE & SDG&E	1	1	1	1
ALL	2	1	2	2
<i>Total</i>	<i>10</i>	<i>3</i>	<i>3</i>	<i>3</i>

Table 7-4 compares the energy savings and incentive levels of the EESPs sampled versus the population of EESPs participating in the 2001 LNSPC. The sample represents just under one-third of the population of EESP participants, 36 percent of the incentives reserved, 23 percent of the kWh savings, and over one-half of the therm savings in the 2001 LNSPC. While the sampling technique was the same for 2000 and 2001 LNSPC programs, by chance the 2001 sample is somewhat more representative of the population as a whole than the 2000 sample. While eight out of the 10 top customers by incentives awarded in PY2000 were EESP-sponsored, in PY2001 eight out of the 10 top customers were self-sponsored.

Table 7-4
Distribution of 2001 EESP Participant Interview Results by Savings

	2001 Sample	2001 Population	Sample as % of population
# of EESPs	10	32	31%
Total kWh	9,396,540	40,935,564	23%
Total therm savings	3,152,419	5,921,451	53%
Total incentives	\$ 1,399,471	\$ 3,854,724	36%

Project Stage

As would be expected, the projects in the 2000 LNSPC were farther along in the process than those initiated in 2001.² In 2000, half of the EESPs reported that at least one of their projects had reached the M&V stage at the time of the interview. The remaining projects were either at the PIR or PA³ stage. In 2001, 4 of the 10 projects had already reached the PIR stage; in addition,

² For further detail on project stages, refer to Appendix A or the program manuals.

³ Project Installation Report; Project Application.

one had already reached the first M&V reporting stage. The remaining projects were at the PA stage at the time of the interview. In 2000, two EESPs reported that they also had other projects that were put on hold by the customer but may proceed at a later date.

Measures

As shown in Table 7-5, the EESPs interviewed had installed a wide variety of measures under the program. The most common end use installed was lighting, followed by HVAC retrofits and controls. For a more detailed and representative analysis of measures installed, refer to Sections 3 and 4 of this report, which present summaries of the utility program tracking data for the 2000 and 2001 LNSPC, respectively. It is also interesting to note that gas measures were significantly more popular in the 2001 program than in prior years, presumably due to the increased incentive rate.

Table 7-5
List of Measures Installed by EESPs in Sample

Measures	2000	2001	00/01 Total Percentage
Lighting	4	4	30%
HVAC retrofits, controls	2	4	22%
VFDs	1	2	11%
EMS	3	-	11%
Air compressors	1	1	7%
Chiller/cooling tower	-	2	7%
Laundry Dryer	1	-	4%
Pumps	-	1	4%
Dehydrator	-	1	4%
<i>Total</i>	<i>12*</i>	<i>15*</i>	<i>27</i>

*Does not sum to 10 due to multiple measures by EESP

7.1.2 Survey Design

A detailed survey was developed for these interviews, addressing the following broad topic areas:

- Project history and current status
- Measures being installed
- Process-related experiences
- Program experiences related to measurement and verification
- Program and market effects
- Comparison with customer interviews (where possible).

Over half of the survey questions were open-ended in nature, allowing EESPs to comment in their own words on their activities and experiences with the program. We were especially interested in gathering information related to the overall program process, and we wanted to explore respondents' reactions to the changes made to the program, particularly in 2001. In addition we were interested in respondents' experiences with data-collection equipment, required through the M&V protocols established in the program.

7.2 FIRMOGRAPHICS OF PARTICIPANT EESP SAMPLE

Table 7-6 shows that the most common type of firm choosing to sponsor project applications were equipment vendors or distributors, followed by engineering firms. Only one firm in each year self-identified as an ESCO.

Table 7-6
Type of Energy Services Firms Participating in Program

Firm Type	2000	2001	00/01 Total Percentage
Equipment vendor/distributor	6	3	45%
Engineering/Equipment Specifier	2	3	25%
Energy-Efficiency Services Company	1	3	20%
ESCO	1	1	10%
<i>Total</i>	<i>10</i>	<i>10</i>	<i>20</i>

The participating firms interviewed were most likely to have either a regional (7 of 20) or national (7 of 20) focus. As shown in table 7-7, three firms reported international operations.

Table 7-7
Geographic Focus of EESPs Participating in Program

Geographic Focus	2000	2001	00/01 Total Percentage
Regional	4	3	35%
Statewide (CA)	2	1	15%
National	3	4	35%
International	1	2	15%
<i>Total</i>	<i>10</i>	<i>10</i>	<i>20</i>

Interestingly, the firms interviewed regarding their participation in the 2001 program had been in business over twice as long on average than those that interviewed for the 2000 program, with an average of 26 years in 2001 versus 12 years in 2000. For example, the range of years in business spanned 79.5 years, from 6 months to 80 years, for 2001 interviewees, but only 19 years, from 3 to 22, years for the 2000 participants interviewed. However, it is important to note here and throughout this section, that the use of a purposive, non-random, small sample hinders us from extrapolating definitive statistics with confidence.

As with the length of time in business, the number of full-time equivalent employees located in California varied significantly between 2000 and 2001. In 2000, the average EESP had 107 FTEs, with a range from 2 to 800. For the 10 firms with a nationwide or international focus, the average was over 1,000 FTEs. In 2001, the average EESP had 400 employees, with 2 being 1-person operations, and with a maximum of 2,500 FTEs.

7.3 PROCESS-RELATED ISSUES

The EESP respondents were asked several open-ended questions regarding their experiences with the program, including perceived strengths and weaknesses, experiences with payment procedures, and the M&V process. We also asked specifically about perceptions of the calculated savings option for M&V introduced in 2001. Where feasible, the responses to the open-ended questions presented below have been grouped and tabulated to facilitate understanding of themes and trends.

Overall, the comments regarding process-related issues of the program were similar to those in prior years where there were two opposing themes. Many are quite satisfied with the program and/or understanding of paperwork and M&V requirements. However, another substantial group complains of the complexity or the burden of requirements and the difficulty of getting sufficient or timely assistance from the utility. Similarly, a number of EESPs believe that the incentives are good to generous, while another group wants higher incentives or an increase in the number of eligible measures.

7.3.1 Program Strengths and Weaknesses

Strengths

Table 7-8 presents the perceived strengths of the LNSPC Program mentioned by the EESPs we interviewed. Not surprisingly, the number on reported strength of the program, at 50 percent, is simply that it is good that the program provides incentives that help to finance energy-efficiency projects. One-quarter of the respondents specifically mentioned the helpfulness of the utility, often mentioning their representative by name. Also, one-quarter mentioned that an important component of the program is that it does require savings to be verified, in order to minimize manipulation and gaming, even if at a later stage in the interview they state that they would prefer that these M&V requirements were less demanding.

**Table 7-8
EESP Perceptions of Strengths of LNSPC Program**

Strengths	2000	2001	00/01 Total Percentage
Generally positive, helps finance energy efficiency	6	4	50%
Utility cooperative and receptive/useful information	3	2	25%
Provides incentives based on verifiable savings	1	4	25%
Simple contracts, not too onerous	-	2	10%
Flexibility of measures allowed in program	1	-	5%
Generally negative	1	-	5%
Don't know/No comment	2	-	10%
<i>Total # of respondents (multiple responses permitted)</i>	<i>10</i>	<i>10</i>	<i>100%</i>

Weaknesses

As shown in Table 7-9, the comments on weaknesses are similar to those in prior years. However, there is a distinct difference in flavor between comments in 2000 versus 2001. The 2001 respondents were significantly more likely than 2000 respondents to comment that the utility was unhelpful or provided confusing or conflicting information. The 2000 EESP participants interviewed were more likely to complain of complicated paperwork or M&V than the 2001 participants. This perhaps reflects the continued streamlining of program requirements, new calculated savings option, as well as the flurry of activity generated by the energy crisis in the 2001 program year.

**Table 7-9
EESP Perceptions of Weaknesses of LNSPC Program**

Weaknesses	2000	2001	00/01 Total Percentage
Utility unhelpful, contradictory information, confusion	3	7	50%
Complicated application/paperwork	6	3	45%
Delayed payments, takes too long to receive incentives	1	2	15%
Complicated/cumbersome M&V	2	-	10%
Ran out of money too fast	-	2	10%
Doesn't allow O&M improvements	-	1	5%
Don't know/No comment	1	-	5%
<i>Total # of respondents (multiple responses permitted)</i>	<i>10</i>	<i>10</i>	<i>20</i>

Regarding comments on unhelpfulness or confusing information from the utilities, 4 of the EESPs participating in the 2001 LNSPC specifically mentioned that the utility representative was hard to reach by phone; 5 of the 10 EESPs commented that the contracting process was slow. One of the 2000 respondents mentioned receiving incomplete documentation from the utility and then added that the forms were difficult without a glossary of definitions or procedural guidance. One commented that there was no clear way to check the application status online for the 2001 program, as the status was only updated on line "every 6 months or so."

Comparisons between Years of Program

We interviewed nine EESPs who knew enough about both the 2000 and 2001 LNSPC to comment on the differences between the 2 years. Six of the EESPs generally felt that the process in 2001 was easier, that the program requirements were less burdensome, and that the customers were more knowledgeable and therefore more willing to participate. Two of the EESPs commented that there was more money available through more of the year in 2000 than in 2001; one 2000 EESP participant said that he missed the opportunity to reserve funds in 2001 because it was fully subscribed so quickly. Finally, an EESP that participated in both years commented that it was much easier to reach the utility representatives in 2000 than it has been so far in 2001.

7.3.2 Incentives and Payment Process

Program Incentives

Approximately 60 percent of the EESPs interviewed felt that the incentive structure of the 2001 LNSPC was good to excellent, with one commenting, “it’s almost too generous.” As would be expected, there were also a handful of more negative comments. For example, two were disappointed in the level of incentive available for one of their measures, and one was disappointed that occupancy sensors were not allowed under the 2001 LNSPC. One mentioned that the SPC Program was not as lucrative for innovative technologies as the Express Efficiency Program but did not provide examples. Another 20 percent did not know enough about the incentive structure of the 2001 program to comment.

Payment Timing and Processes

Table 7-10 summarizes the EESPs’ comments on the payment processes for the LNSPC Program. Generally, the comments from the 2000 and 2001 EESP participants were similar. About 40 percent of the EESPs reported that the processes seemed reasonable, even if there were a few delays. Another 40 percent had primarily negative comments, such as delays in receiving payment or needing better communication from utilities. Three EESPs specifically mentioned that it complicated matters to have the incentive checks sent to them as the project sponsor, rather than directly to the customer.

Table 7-10
EESP Comments on Payment Processes

Comments	2000	2001	00/01 Total Percentage
Generally positive, seems reasonable	2	2	20%
Some delays, otherwise reasonable	2	2	20%
Generally negative, taking too long	2	3	25%
Generally negative, need reassurance from utility	2	-	10%
Better if checks go to customer	2	1	15%
Not paid due to bankruptcy	1	-	5%
Don't know/have not yet received payment yet	3	4	35%
<i>Total # of respondents (multiple responses permitted)</i>	<i>10</i>	<i>10</i>	<i>20</i>

7.3.3 Measurement and Verification

As shown in Table 7-11, half of the EESPs interviewed had generally positive comments on their experiences with the M&V process as part of the LNSPC Program. Another 20 percent had either no comment, usually because they had not gotten to that stage yet, or only a completely neutral comment. Negative comments focused on the difficulty or inflexibility of the M&V requirements. One EESP mentioned elsewhere in the interview that it was particularly difficult to handle M&V on seasonal-use equipment under the program requirements.

Table 7-11
EESP Comments on M&V Process of Program

Comments	2000	2001	00/01 Total Percentage
Generally positive	4	6	50%
Lack of support/information from utility	3	2	25%
Took a long time to get M&V plan approved	2	1	15%
Hard to estimate M&V parameters	1	2	15%
Onerous, inflexible	1	2	15%
EESP's monitoring devices would have been better	1	-	5%
A blackout reset the monitoring devices	1	-	5%
Neutral or no comment	2	2	20%
<i>Total # of respondents (multiple responses permitted)</i>	<i>10</i>	<i>10</i>	<i>20</i>

EESP reports on customer reactions to M&V were split roughly into thirds. As shown in Table 7-12, just over one-third reported customer reactions were generally positive and that customers recognized that the M&V was necessary. Another 30 percent reported dissatisfaction on the part of the customer. The remaining 35 percent said that their customer(s) had offered no opinion.

Table 7-12
Customer Reaction to EESPs Regarding M&V

Customer reaction	2000	2001	00/01 Total Percentage
Positive/Seen as necessary	3	4	35%
Unsatisfied with specific problems in process	2	-	10%
Unsatisfied with utility assistance	2	-	10%
Unsatisfied-seen as unreasonable	-	2	10%
Customer had no opinion/was not involved	3	4	35%
<i>Total</i>	<i>10</i>	<i>10</i>	<i>20</i>

When asked how their firm's standard practice for M&V differed from that required by the LNSPC, 40 percent said that that the program requirements were more extensive. Interestingly, another 35 percent said that the program requirements were similar to or essentially the same as

their normal M&V practices. One EESP participating in the 2000 program reported that his firm typically does even more extensive M&V for the type of measure installed under the program.

Calculated Savings in 2001 LNSPC

Overall, the majority of EESPs interviewed had positive opinions on the new calculated savings option for M&V offered in the 2001 LNSPC. Several also mentioned that they were glad that the option existed but would probably opt for the measured option in order to earn as much incentive as possible. Four of the EESPs liked the calculated savings option but were dissatisfied that a particular measure was not eligible. The most negative comments were from two EESPs that expressed concern that this option did not provide sufficient supervision and would allow project sponsors to manipulate the numbers.

7.3.4 Experiences with Utility

As shown in Table 7-15, the utilities received good ratings from the EESPs, with 14 of 20 EESPs rating their experiences with their utility as good or excellent. Five of the 2000 and three of the 2001 respondents specifically mentioned that the utility staff was very helpful, supportive, or “would do whatever it takes” to assist them. Only two EESPs, both participating in the 2000 program, rated their experiences as somewhat poor, one of whom said that he was happy with the project management but not with the M&V review process.

Table 7-13
EESP Ratings of Experiences with Utility and Contractors

Rating	2000	2001	00/01 Total Percentage
Excellent	4	4	40%
Good	3	3	30%
Acceptable, about what expected	1	3	20%
Somewhat poor	2	-	10%
<i>Total</i>	<i>10</i>	<i>10</i>	<i>20</i>

7.3.5 General Comments

At the conclusion of the interviews, the EESPs were asked if they have any final comments or suggestions regarding their experiences in the program. Several EESPs commented that the 2001 program needed more funding or needed to be continued throughout the year, particularly given the increase in demand.

Sample of comments from 2000 LNSPC participants:

- One complained of the amount of paperwork and was glad that M&V process was improved, saying that an even shorter process would be better and that the incentives should be received as soon as possible after the M&V is over.

- One suggested making SPC more transparent to customers to get them involved and that the threat of utility bankruptcies is making people very wary.
- Another claimed that the utility representative implied to the customer that the incentive belonged wholly to them (which is not true), which caused him considerable difficulty in his negotiations with the customer.
- One said that the utilities should spread out money among many projects, splitting funding more fairly between large and small projects; the fact that big companies take all the money makes the program run out of money too fast.

Sample of comments from 2001 LNSPC participants:

- One suggested that administrators continue to try and streamline the program requirements, make it more user friendly, broaden the measures that qualify for calculated savings, and de-emphasize hardware.
- Another suggested that if the data were not confidential, it would be great to list those projects that have been successful.
- One mentioned that individual utilities run the programs and asserted that it would work much more effectively if one body administered it. They believe that the M&V requirements diminish the effect of the incentive.
- Another suggested that the program should keep trying to improve, to “get more involved with the specifics of vendors”, and that there should be no sampling or M&V up front.

7.4 COMPARISON OF CUSTOMER AND EESP PERSPECTIVES

To gain further insight on the perspectives of EESPs as they relate to their customers, we asked a series of similar questions to both parties in order to compare their responses, including the likelihood that the project would have happened anyway without the program and significance of the EESPs’ involvement (see Appendix B for the actual texts of the surveys used in this study).

When we compare the responses between customer and EESP, some comparisons are easy, especially of closed-ended questions like the “likelihood of installing anyway in absence of the program.” However, more questions required the comparison of open-ended responses or collapsing the answers from two or more questions to obtain a comparable response. For example, customers were not asked directly if the payback for the project was satisfactory without the incentives as the EESPs were. Instead, the customer responses are derived from the “likelihood of installing anyway” question, as well as the estimates of the length of the payback period with and without program incentives.

Responses were considered a match if the customer responses were very similar, even if not actually identical. For example, if one said, “somewhat likely,” and the other said, “very likely,” that was considered to be sufficiently similar to represent a consistent story. Unfortunately, the text of the possible responses to questions varies slightly, in order to tailor them to the audience,

but does not significantly affect the ability to compare responses. For example, the “likelihood of installing anyway” question uses “definitely” and “probably would/would not” for customers, while using “very” and “somewhat likely/unlikely” for EESPs (because EESPs are asked to state what they think the customer would have done). It is also important to note that a few of the cases have incomplete information from the interviews, which hinders the comparison of perspectives.

There are eight projects for which we have interviews with both the customer and EESP, five in the 2000 program and three in the 2001 program. To facilitate this comparison, Tables 7-14 and 7-15 summarize key answers for the eight case studies. Cases A through E participated in the 2000 LNSPC, while cases F through H represent 2001 LNSPC projects.

Table 7-14
Five Customer-EESP Interview Comparisons for the 2000 LNSPC

Case A	Customer	EESP
Likelihood of installing anyway Change in timing of installation Change in efficiency of installation or number of sites Significance of EESP role in decision making* Payback satisfactory without incentives**	Definitely would No, within 1 year No change Very significant Yes	Somewhat unlikely Yes, delayed Yes fewer sites Very significant No
Case B	Customer	EESP
Likelihood of installing anyway Change in efficiency of installation or number of sites Change in efficiency of installation Significance of EESP role in decision making* Payback satisfactory without incentives**	Probably would No, within 1 year Not applicable for measure Very significant Yes	Somewhat unlikely Possible delay No change Very significant N/A
Case C	Customer	EESP
Likelihood of installing anyway Change in efficiency of installation or number of sites Change in efficiency of installation Significance of EESP role in decision making* Payback satisfactory without incentives**	Definitely would No, within 1 year No change Very significant Yes	Very likely No change No change Somewhat significant Yes
Case D	Customer	EESP
Likelihood of installing anyway Change in efficiency of installation or number of sites Change in efficiency of installation Significance of EESP role in decision making* Payback satisfactory without incentives**	Definitely would not Yes, do in 2-3 years Yes, less efficient Very significant No	Very unlikely Yes, would not do project Yes, would not do project Very significant No
Case E	Customer	EESP
Likelihood of installing anyway Change in timing of installation Change in efficiency of installation or number of sites Significance of EESP role in decision making* Payback satisfactory without incentives**	Definitely would No, within 1 year No change N/A Yes	Somewhat unlikely No change Yes, less efficient Very significant Yes

*Response implied by EESP comments on project and whether they would have been hired anyway

**Response implied by customer comments and responses to payback-related questions

Table 7-15
Three Customer-EESP Interview Comparisons for the 2001 LNSPC

Case F	Customer	EESP
Likelihood of installing anyway	Definitely would	Somewhat likely
Change in timing of installation	No, within 1 year	Yes, possibly postponed
Change in efficiency of installation or number of sites	Not applicable for measure	Yes, possibly reduced
Significance of EESP role in decision making*	Very significant	Very significant
Payback satisfactory without incentives**	No	Yes
Case G	Customer	EESP
Likelihood of installing anyway	Probably would	Very unlikely
Change in timing of installation	Yes, 1-2 year delay	Yes, would not do project
Change in efficiency of installation or number of sites	Not applicable for measure	Yes, would not do project
Significance of EESP role in decision making*	Very significant	Very significant
Payback satisfactory without incentives**	No	Yes
Case H	Customer	EESP
Likelihood of installing anyway	Definitely would	Very likely
Change in timing of installation	Yes, 1-2 year delay	No change
Change in efficiency of installation or number of sites	Not applicable for measure	No change
Significance of EESP role in decision making*	Very significant	Very significant
Payback satisfactory without incentives**	No	N/A

*Response implied by EESP comments on project and whether they would have been hired anyway

**Response implied by customer comments and responses to payback-related questions

7.4.1 Consistency between Customer and EESP perspectives

When the cases are taken as a whole, two of the eight (Cases C and D) substantially agree in their perspective, one is extremely inconsistent, and the remaining five fall somewhere in the middle. For further insight, we examine each question in turn below.

Likelihood of Installing Anyway

For the question regarding likelihood of installing anyway in absence of the program, three of the eight cases agreed completely, while another two were very similar. The remaining three cases had substantively different customer and EESP responses. For example, one customer said that they definitely would have installed anyway, while its EESP thought it somewhat unlikely.

Changes in the Project

Four cases agreed completely on whether the absence of the program would have affected the timing of the project. Another two cases disagreed completely. The remaining two cases are ambiguous; customers said there would have been no change, while their EESPs said that a delay was possible. This ambiguity perhaps characterizes the hypothetical nature of the question.

We also attempted to compare responses regarding changes to the level of efficiency of the equipment that would have been installed in the absence of the program. Unfortunately, in half of the cases, the customer reported that this did not apply for the measure installed, a response

that inhibited our ability to compare perspectives. The EESPs associated with these same projects provided responses; two said that there would have been no change while two said that the project would not have been done.

In the four cases for which we have comparable responses, two cases agreed and two cases disagreed that the efficiency of the equipment installed would have been reduced in the absence of the LNSPC. In all cases, both the customer and EESP agreed that the program incentive caps associated with the LNSPC did not affect the type or extent of the project installed.

EESPs Role in Decision-Making

Overall, customers and EESPs had similar views on the significance of the EESPs in the decision-making process as well as what services they provided. This seems to discount the hypothesis that the person being interviewed would be more likely to somewhat overstate their role, in which case the customer would be more likely to underreport the actual significance of the EESP, while the EESP would then tend to overreport their actual significance.

We also asked the EESP how likely was it that the customer would have hired them anyway for this project in absence of the program.⁴ Four of the eight EESPs said that they believe that the customers would have hired them in absence of the program or were already under contract, and another three EESPs believed that they would not have been hired.

The respondents were asked whether the payback period would have been satisfactory in the absence of the incentives. The customer and the EESP agreed in three cases and disagreed in two; in two cases there were insufficient data for comparison.

Experiences with M&V Requirements

Generally, the customers had very little to say on the M&V process and requirements, saying that the EESP handled it. In one case both the customer and the EESP reported the same difficulty of having to do measurements twice because the utility required it.

7.5 POTENTIAL MARKET EFFECTS OF PROGRAM

7.5.1 Likelihood of Projects in Absence of Program

The 10 EESPs interviewed for the 2000 LNSPC submitted a total of 21 projects. Of those projects, they estimated that 48 percent (10 of 21) would have proceeded anyway in the absence of the program, though one EESP stated that a less costly and therefore less efficient option might have been installed. The 10 EESPs interviewed in 2001 reported that 56 percent of the 27 projects they submitted would have proceeded anyway in the absence of the program. For the remaining projects, the EESPs stated that the program incentives were what made the project attractive enough to the customer to proceed.

⁴ Customers were not asked a comparable question.

7.5.2 Effect of Participation on EESP Business Activities

Four EESPs in 2000 and nine EESPs in 2001 said that participation had benefited their business by increasing their sales activity, and that it had now become part of their marketing strategy. Another four EESPs in 2000 reported no effect on their overall business activities, as did the remaining EESP in 2001. The other two 2000 EESPs said that participation had had a negative effect; they spent significant time on participation and customer training but got little out of it.

The EESPs interviewed in the 2000 LNSPC estimated that they promote the LNSPC in an average of 40 percent of their sales efforts with large customers (over 500 kW) in California; the average in 2001 increased to 65 percent. Estimates ranged from 0 to 100 percent with three EESPs (all in 2000) reporting 0 percent, and another seven at over 75 percent. The criteria used to decide whether they promote the LNSPC ranged from automatic promotion if available to whether they expected to make more through a customer's participation, to only automatically recommending the program for some project profiles (such as measure or customer types).

Effect of California's Energy Crisis on Business Activities

When asked about the effect of the state's energy crisis on their business, 50 percent said that the energy crisis has increased their overall sales. Another 25 percent reported that while sales volume is similar, they have changed the emphasis of their business activities as a result. Only one EESP noted that it has increased their distrust of the utilities. The remaining four EESPs reported that there has been no discernable impact on their activities.

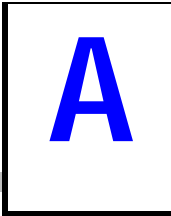
Examples of Innovative Projects under LNSPC

EESPs were asked for any success stories of innovative or unusual projects they were able to complete as a result of participating in the LNSPC. Examples of what EESPs mentioned as innovative projects in the LNSPC included:

- Replacing two-lamp T12 garage light fixtures with one-lamp T8s, greatly reducing load
- Installing thermostats with motion and heat sensors for hotels
- Ability to include parabolic reflectors as part of a relamping project
- Installing dimmable ballasts without additional wiring per fixture; by using fiber optics to detect ambient lighting levels.

Potential for Future Participation

Eight of the 10 EESPs participating in 2000 and all of the EESPs interviewed for 2001 plan to participate again in 2002 if the program is still available. Three already have customers or projects in mind. One also mentioned that while he planned to participate, he hopes that it will be easier, with less feedback requirements. Another EESP said that they would be participating in Express Efficiency instead. Finally, one EESP, who participated in 2000, was not sure whether they would participate in 2002, saying that the program saved a lot of energy for the customer but that the contract was confusing, and it was hard to get the inspections done.



SPC PROGRAM DESCRIPTION

This appendix provides an overview of the SPC Program and its evolution since its inception in 1998. We focus on the Large Nonresidential Standard Performance Contract (LNSPC) Program for the program years (PY) 2000 and 2001.¹ The following subsections are found in this section:

- History of the Program (A-1)
- Description of the Large Nonresidential Standard Performance Contract Program (A-2)
- LNSPC Project Eligibility Requirements (A-3)
- Incentive Payments for Energy Savings (A-4)
- Project Applications and Approval Process (A-5)
- The Small Business Standard Performance Contract Program (A-6)
- LNSPC Acronym Glossary (A-7).

A.1 HISTORY OF THE PROGRAM

In 1998, the program's first year was called the "Nonresidential Standard Performance Contract Program" (NSPC). In 1999, the program was split into two separate programs based on customer size. The 1999 and 2000 Large Nonresidential Standard Performance Contract (LNSPC) Programs were designed to serve end users with peak demand of 500 kW or more, while the 1999 and 2000 Small Business Standard Performance Contract (SBSPC) Programs were designed to serve customers of less than 500 kW peak demand. The 2001 Standard Performance Contract Program (SPC) combined large and small customers together in terms of program procedures; however, size of customer and incentive amounts still differentiate the two. We will continue to refer to the 2001 programs separately as LNSPC and SBSPC respectively to facilitate this analysis. The utilities also had separate budgets for the two and tracked them separately in 2001.² Additionally, there are major changes to the program requirements in 2001, summarized below. We discuss the LNSPC first, and include a brief overview of the SBSPC in subsection 6.2.

¹ See the Procedures Manuals for the two program years for more information. 2000: *California's 2000 Non-Residential Standard Performance Contract Program Procedures Manual*, May 2000; 2001: *2001 SPC Procedures Manual*. March 2001. See also the utility program websites: for PG&E, at http://www.pge.com/003_save_energy/003b_bus/003b1e0_stand_perf_cont.shtml; for SCE, at <http://www.scespc.com/>; and for SDG&E, at http://www.sdge.com/efficiency/reb_specializedincentives.html.

² In 2001, the large and small customers were combined under one program and referred to as large customer SPC (LCSPC) and small customer SPC (SCSPC) in the program procedures manual.

A.2 THE LARGE NONRESIDENTIAL STANDARD PERFORMANCE CONTRACT PROGRAM

The LNSPC is an energy-efficiency program offered by the Utility Program Administrators (SCE/SDG&E/PG&E) under the auspices of the California Public Utilities Commission (CPUC). The LNSPC Program was a key element of the CPUC goal of market transformation and the creation of a self-sustaining energy-efficiency services industry. With this program, the utilities offer a fixed-price incentive to project sponsors, including self-sponsoring customers and energy-efficiency service providers (EESPs) for kilowatt-hour (kWh) energy or gas (therms) savings achieved by the installation of an energy-efficiency project. The fixed price per kWh, performance measurement protocols, payment terms, and other operating rules of the program are specified in a standard contract.

A.2.1 Utility/Program Administrator's Role

The role of the program administrator is to manage the program in a fair and nondiscriminatory manner, promote the program, educate customers and EESPs on the program, and enter into contracts with the project sponsor to pay for measured energy savings.

A.2.2 LNSPC Program Differences from the Traditional Utility Rebate Programs

The LNSPC is a "pay-for-performance" program. With traditional utility rebate programs, the utility pays an incentive directly to its customer based on an estimate of annual savings from a project. However, with the LNSPC Program, the utility pays a variable incentive amount to a project sponsor (either a third-party EESP or a customer acting as their own EESP), based on measured energy savings. The LNSPC is also different from traditional utility rebate programs in that the total incentive is paid over a specified performance period (dependent on program type and year). During the performance period, the project sponsor must measure and verify the energy savings actually achieved using a mutually agreed-upon measurement protocol.

A.2.3 The Role of Energy Efficiency Service Providers (EESPs)

An EESP can be any company, organization or individual that contracts with the administrator to receive payment for measured energy savings resulting from an energy-efficiency project. In the LNSPC Program, a customer can act as an EESP by contracting directly with their utility and installing and measuring savings from an energy-efficiency project at their own facility. A third-party EESP is any firm that implements all or part of an energy-efficiency project at a customer's facility. An EESP may perform some or all of the following services related to an energy-efficiency project: detailed or "investment grade" audits; engineering studies to assess project feasibility; engineering design; project financing; construction management; project installation and construction; and engineering measurement and verification of energy performance (e.g., project savings). EESPs that offer all of these services as a "turnkey" contractor are also commonly referred to as energy service companies, or ESCOs. In this report, we use EESP to refer exclusively to third-party firms, not self-sponsoring customers.

A.3 LNSPC PROJECT ELIGIBILITY REQUIREMENTS

A.3.1 Measurement and Verification of Energy Savings

Because of the pay-for-performance nature of the LNSPC Program, a key requirement for project eligibility has been that the savings resulting from the project must be measured in accordance with a project-specific measurement and verification (M&V) plan.³ The M&V plan must be prepared by the project sponsor in accordance with the Program Procedures Manual and be mutually agreed upon by the program administrator and the project sponsor before work on project installation begins.

A.3.2 Minimum Project Savings

To qualify for the LNSPC Program, a project must produce a minimum amount of savings. The following table shows these requirements for the 1998-2001 program years. Note the changes over the years to allow more flexibility for the applicants.

Table A-1
Minimum Project Savings

Program	kWh	therms
1998 NSPC	200,000	N/A
1999 LNSPC	200,000	20,000
2000 LNSPC	100,000	10,000
2001 LNSPC*	5,000	500

Two or more projects may be combined, or "aggregated," to meet this requirement. Aggregated projects must employ the same energy-efficiency measures and be installed at similar sites in order to make measurement and verification of multiple projects feasible. Note that customers exceeding loads of 500 kW or 250,000 therms per year must be categorized as large customers and apply for the LNSPC.

A.4 INCENTIVE PAYMENTS FOR ENERGY SAVINGS

A.4.1 Total program funding

Program administrators committed to contract (i.e., subscribed) for up to \$35.6 million in total incentive payments for the 2000 LNSPC program year. The 2001 LNSPC program year had subscribed their total incentive budget of \$18 million.

³In the 2001 LNSPC, some customers were permitted to use calculated savings instead.

A.4.2 Payment for kWh savings

The incentive payment per kWh saved for the four measure categories in the 1998–2000 LNSPC are shown in Table A-3. The incentives were the same in 1999 and 2000, which were a reduction from the 1998 levels.

Table A-2
LNSPC Incentive Levels

Measure Type	1998 NSPC	1999 LNSPC	2000 LNSPC
Lighting	\$0.075/kWh	\$0.050/kWh	\$0.050/kWh
HVAC/R*	\$0.210/kWh	\$0.165/kWh	\$0.165/kWh
Motors/Other	\$0.110/kWh	\$0.080/kWh	\$0.080/kWh
Gas	N/A	\$0.27/therm	\$0.27/therm

*Heating, Ventilating, Air-Conditioning & Refrigeration

Table A-4 details the incentive levels for the 2001 LNSPC. Both a calculated and a measured savings approach to the M&V process are allowed in 2001 and are described in further detail in subsection A.4.3. The incentive in 2001 for both the calculated and measured savings options are higher than in 1999-2000, but lower than the 1998 levels.

Table A-3
2001 LNSPC Incentive Levels

2001	Measure Type	LNSPC
Calculated Savings Approach	Lighting	\$0.055/kWh
	HVAC/R	\$0.180/kWh
	Motors/Other	\$0.090/kWh
	Gas	\$1.00/therm
Measured Savings Approach	Lighting	\$0.060/kWh
	HVAC/R	\$0.200/kWh
	Motors/Other	\$0.100/kWh
	Gas	\$1.10/therm

The Lighting measure category includes lighting equipment retrofits and lighting control measures. The HVAC/R category includes heating, ventilation, air-conditioning and refrigeration equipment retrofits in commercial and industrial applications. The Motors/Other category includes any measure that is not categorized as either lighting or HVAC/R. The amount paid for savings from HVAC/R measures is approximately three times the amount paid for savings from lighting measures. Motors/Other measures are paid at about one-and-a-half times the rate paid for lighting. Please refer to section A.4.4 for a more detailed list of eligible measures.

A.4.3 Changes to the M&V Approach

2000 M&V

In 2000, the M&V requirements were not altered significantly from the previous program years.⁴ The main changes included:

- The number of sampling points required for lighting M&V was reduced.
- The lighting equipment form was no longer required to use the last point of control concept for each line item.
- The project sponsor did not need to identify usage groups but needed only to record the expected annual areas for each area.
- The number of monitoring points was reduced.
- Low-use areas were eliminated from the sample size.

2001 M&V

In 2001, the SPC Program allowed two different incentive levels based on the two approaches to M&V, calculated savings and measured savings. There are three options for the calculated method:

- Reference tables provided by the SPC program administrators and based on “typical” operating parameters for use in popular measures such as lighting and variable-speed drives for HVAC
- Estimation software on the SPC program CD-ROM for use in dairy vacuum pumps, injection molders, and other measures
- Engineering calculations, which were not recommended if the measure was covered by the other two calculation methods. The engineering calculations have to be detailed and convincing, or the utility administrator could require that the measured approach must be performed instead.

The measured savings approach had a slightly higher incentive than the calculated savings option to help offset incurred costs. The only change to this approach from PY2000 to PY2001 was that the required performance period fell from 2 years to 1. As in past years, the measured savings approach adheres to the International Measurement and Verification Protocol (IPMVP). Also as with past years of the program, multiple plans are normally needed for multiple sites. Multiple sites sharing the same M&V plan must have the same schedule, functional use, occupancy, and energy consumption patterns.

⁴ Please refer to the Procedures Manual, see footnote 1.

A.4.4 Eligible Energy-Efficiency Technologies

The LNSPC Program is open to almost any equipment replacement or retrofit project for which the savings can be measured and verified. However, the project must have a useful life of greater than 3 years. Eligible energy-efficiency technologies, or "measures," include, but are not limited to, replacement of standard fluorescent lighting with high-efficiency fluorescent lighting, installation of variable-speed drives on electric motors, installation of lighting controls to reduce lighting operating hours, and replacement of standard-efficiency air conditioning equipment with high-efficiency equipment. Projects that are not eligible include any power generation project, cogeneration, fuel substitution or fuel switching projects, new construction projects, and any repair or maintenance project. The following is a list of sample eligible technologies for all years (except in 1998, when end-use categorization was more liberal for motor and control HVAC measures).

Eligible Technologies

Lighting Technologies

- Lighting efficiency projects
- Lighting controls projects
- Daylighting

HVAC&R Technologies

- Chiller replacement projects
- Air cooling and refrigeration compressor replacement projects
- Packaged cooling unit replacement projects
- Cooling tower motor efficiency upgrades
- Cooling tower motor variable speed drive installations
- Evaporative cooling
- Evaporative pre-cooling
- Building mass storage
- Indirect evaporative cooling (single stage and dual stage)
- Heat transfer (including heat pumps) to heat sinks, such as ground source cooling in air conditioned buildings
- Projects that upgrade the efficiency of heating equipment (if are electric)
- Chiller and electric boiler heat reclaim

Motors/Other Technologies

- Variable air volume conversion projects
- Air side economizer projects
- Water side economizer projects
- Air handler motor efficiency upgrades
- Air handler variable speed drive installations
- Variable speed drive installations on chilled water and condenser water pumps
- Energy management systems that control HVAC&R equipment
- Control installations for HVAC&R equipment
- Special window glazing and glazing treatments in air conditioned buildings
- Exterior and interior window shading in air conditioned buildings
- Natural cooling (e.g., operable windows) in air conditioned buildings
- Hot-spot ventilation in air conditioned buildings (such as attic vents and fans)
- Exhaust hood and fan projects
- Refrigerated case door projects
- Industrial process applications
- Variable-speed drive installations on industrial fans and pumps
- Trimming impellers on industrial fans and pumps
- Projects improving building hot water efficiency
- All motor projects that do not fall under HVAC&R
- Electrical savings resulting from the installation of water flow controls

Gas Technologies

- Projects that upgrade the efficiency or controls of heating equipment
- Boiler heat recovery
- Industrial process applications

Technologies not eligible under the SPC Program

- All technologies with a measure life of less than 3 years
- All technologies that are below federal and state minimum standards
- All measures that decrease building plug loads, such as "Green Plugs" or computer inactivity time-out controls
- All measures that are removable without the use of tools, such as screw-in compact fluorescent lamps
- Projects that save energy because of operational changes
- Load shifting technologies
- All measures that do not reduce electrical consumption
- Fuel-switching projects
- Self-generation or cogeneration projects
- New construction projects
- Repair or maintenance projects
- LED traffic lights (some 2000 projects and all 2001)
- Express Efficiency-eligible projects (2001 only).

A.4.5 Minimum Energy-Efficiency Standards

State and Federal minimum energy-efficiency standards are applied to the "baseline" or existing system energy consumption to calculate energy savings that are eligible for LNSPC incentive payments. Only energy savings that exceed the applicable minimum energy efficiency standards are eligible for incentive payments under the program. Applicable standards include, but are not limited to, State of California Title 20, Title 24, and The Energy Policy Act of 1992.

A.4.5 Total Incentive Payment***PY2000 LNSPC***

The total possible incentive payment for a project is calculated as the estimated annual kWh or therm savings multiplied by the price per kWh or per therm. In the 2000 LNSPC, the total incentive was paid to the project sponsor over a 2-year period in three payments. One payment of 40 percent of the estimated incentive will be paid upon verification of project installation. Two payments of 30 percent are paid after completion of the first and second measurement, or performance, periods of 1 year each. The actual incentive that is paid on a project is prorated and averaged based on the measured savings during each of the two performance periods. Thus, the total incentive paid on a project is determined by the actual performance of the project. The

performance is measured in accordance with a M&V plan mutually agreed to between the program administrator and the project sponsor.

In addition, the 2000 and 2001 LNSPC Programs offered a “Summer Peak Incentive” as a result of the energy crisis. This new demand incentive became a part of the program in late August 2000 and continued through PY2001. The peak incentive was based on the rates listed in Table A-5 and was paid at project installation. The summer peak incentive did not depend on or require additional M&V results.

Table A-4
Summer Peak Demand Savings Incentive Amounts for 2000 and 2001

Measure Type	LNSPC
Lighting	\$100/kW
HVAC/R	\$225/kW
Motors/Others	\$150/kW

PY2001 LNSPC

Program regulations have changed significantly in 2001, including in the way incentives are paid out and the development of two M&V approaches.

The total possible incentive payment for a project is calculated as the estimated annual kWh or therm savings multiplied by the price per kWh or per therm. However, the two M&V approaches have different ways of disseminating the incentive:

- *Measured Savings:* The total incentive is paid to the project sponsor over a one-year period in two payments, versus over a 2-year period in previous years of the program. The actual incentive paid for a measured project is pro-rated and averaged based on the measured savings during the performance period. Thus, the total incentive paid on a project is determined by the actual performance of the project. The performance is measured in accordance with a measurement and verification (M&V) plan mutually agreed upon by the program administrator and the project sponsor.
- *Calculated Savings:* The total incentive is paid to the project sponsor over a 6-month period in two payments. This approach typically uses stipulated savings and requires no additional performance period.

One payment of 60 percent of the estimated incentive will be paid upon verification of project installation. The second payment of 40 percent will be paid after completion of the measurement, or performance, period of 1 year or 6 months for the calculated savings approach.

The 2001 program continued providing the summer peak incentives instituted in 2000. This incentive was designed to encourage projects to be installed in time to reduce the summer peak

demand for 2002. The summer peak incentive is similar in both incentive amount per peak kW saved and in its procedural requirements to the 2000 incentive (see Table A-5).

A.4.6 Limitations on EESP and Customer Incentive Payments

For the SPC Program in general, third-party project sponsors are limited to a maximum of 25 percent of the SPC incentive budget within the affiliated utility administrator's service territory. The limit for a utility affiliate is 15 percent of the budget within the affiliated utility administrator's service territory. Table A-6 indicates the caps on customer incentive payments.

**Table A-5
Customer Incentive Payment Limits**

Program Year	Customer Site	Corporate Parent	State and Federal Governments
2000 LNSPC	\$400,000	\$1.5 million	\$6 million
2000 SBSPC	\$200,000	\$200,000 statewide	\$200,000 statewide
Combined 2000 LNSPC and SBSPC	Not applicable	\$2 million statewide	\$6 million statewide
2001 LNSPC	\$500,000	\$2 million statewide	\$6 million statewide
2001 SBSPC	\$200,000	\$200,000 statewide	\$200,000 statewide
Combined 2001 LNSPC and SBSPC	Not applicable	\$2 million statewide	\$6 million statewide

A.5 PROJECT APPLICATION AND APPROVAL PROCESS

A.5.1 Overview

Table A-7 shows a project timeline and a summary of required LNSPC submittals. In past years, a project sponsor would ensure funding for a project by submitting and receiving approval of a Basic Project Application (BPA); this requirement was made optional in 2000 and eliminated entirely in 2001. The approval of the Project Application (PA) for 2000 or the SPC Application (henceforth referred to as PA) for 2001 requires the project sponsor to adhere to a timeline for receiving approval of detailed information about the project, including a M&V strategy for determining energy savings. If no BPA was submitted, the approval of the PA guaranteed incentive funds for the project. Ultimately, the project sponsor must install the project and receive approval of the project installation before receiving the first incentive payment.

After a project is installed, the project sponsor moves into the performance period of the contract, during which the project sponsor must follow the approved M&V plan, whether calculated or measured, to determine the actual energy savings for the project. The project sponsor submits and receives approval of the measurement and verification results at the end of each of the performance periods (only one period in the case of 2001 projects) to receive the next incentive payments. The first incentive payment, which is based on estimated savings, will be trued up by the second incentive payment, which is based on the measured results. For the

calculated savings projects, the payment is made 6 months after project installation approval with no additional measurement.

Table A-6
Summary of Required Project Submittals

Submittals Preceding Contract	Purpose	Project Sponsor Submittal Schedule	Administrator Review Cycle*
Basic Project Application (BPA) Optional in 2000 Eliminated 2001	Project Sponsor notification to Utility Administrator requesting the reservation of funding	Before December 31, 2000, subject to program funding availability	30 days
Project or SPC Application (PA)	Detailed project proposal and basis for an agreement	Lighting projects, within 45 days of BPA approval Non-lighting projects, within 100 days of BPA approval If BPA is submitted and before the end of the year	Single project-site applications, within 45 days of PA submittal Calculated savings projects, within 10 days of PA submittal
Signed LN-SPC Agreement	A standard agreement between the Utility Administrator and Project Sponsor based on the PA	Issued with PA approval letter; must be returned within 30 days of PA issuance with 2.5% installation deposit (if required) – or within 10 business days in 2001	
Submittals Following Agreement Execution			
Project Installation Report (PIR) or Installation Report	Description of the installed project	Within 60 days (30 days in 2001) of project installation and commissioning (recommended); Before December 31, 2001 (for 2000) and June 2002 (for 2001)	Single-site applications, within 45 days Calculated savings, with 10 days
Installation Invoice for Payment	Request for payment based on approved PIR	Within 30 days of PIR approval	30 days
1st and 2nd Annual Savings Reports (ASR1 and ASR2) or Operating Report	Reports that presenting first-year and second-year verified energy savings	ASR1 due within 30 days after the 1 st anniversary of PIR approval; ASR2 due within 30 days after the second anniversary of PIR approval	Single-site applications, within 45 days Calculated savings, within 15 days
Invoices for 1st and 2nd Performance Payments (only one payment for 2001)	1 st payment request based on ASR1 2 nd payment request based on ASR2	Within 30 days following approval of each ASR; Before May 10, 2004/5.	30 days

*The number of days listed are estimates. Some projects may require more/less time.

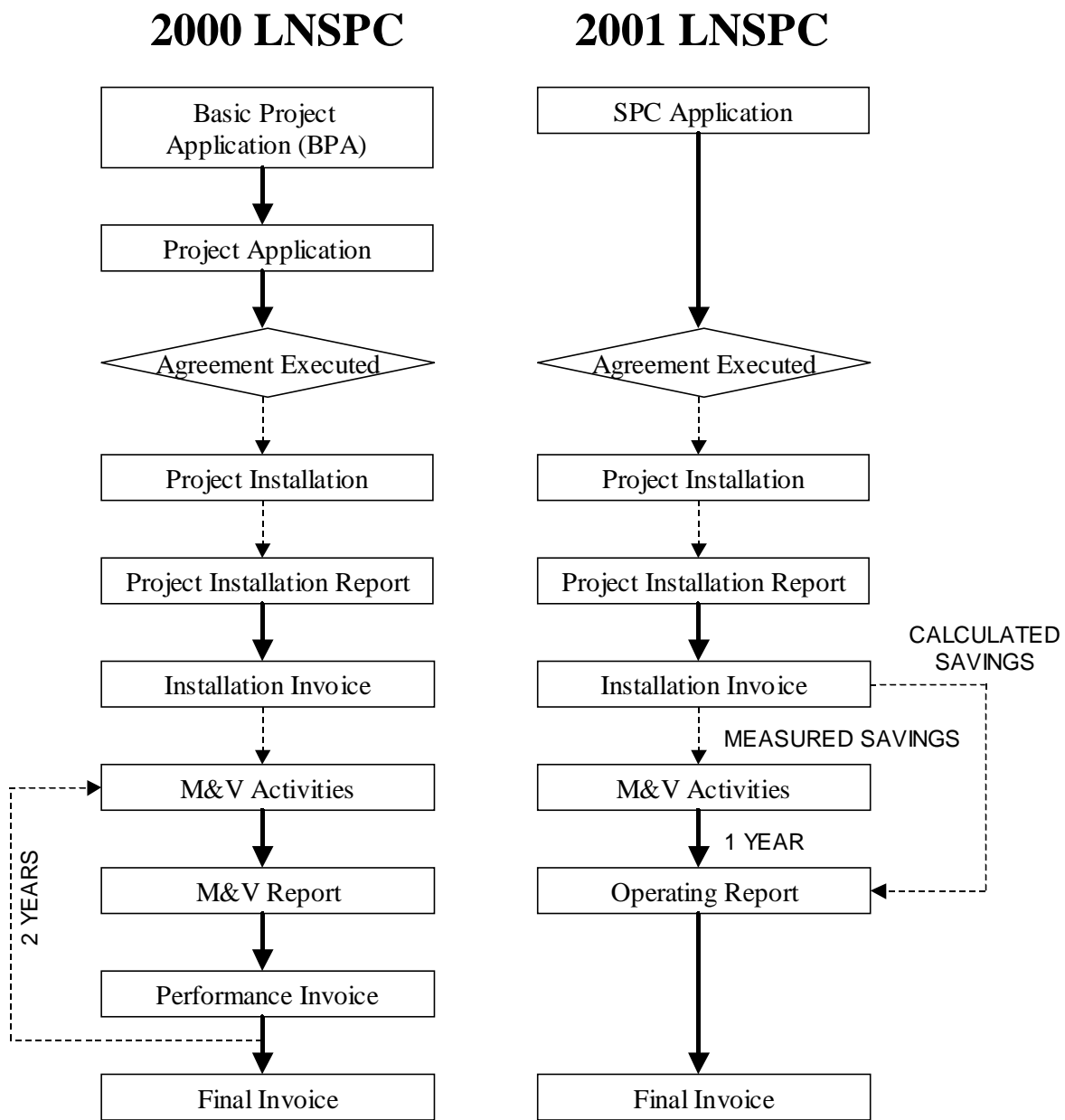
A.5.2 Application Period

Utility administrators for the 2000/2001 program accepted applications until all funds for the program were committed, or until December 31, whichever occurred first. In 2000, applications were accepted until the end of the year, as funding was still available. In 2001, the funds were fully subscribed by June 2001.

A.5.3 Project Application Sequence

The flow of a project through the phases of the LNSPC Program is depicted in Figure A-1. This is a high-level representation and does not show all of the program review and approval sequences. A description of the program application process and submittal requirements is included in the sections following the chart. The program contractual requirements for submittal, review, and approval are contained in the Program Procedures Manual, available on the utility web sites (see footnote 1).

**Figure A-1
Project Application and Review Sequence**



NOTE: Bold arrows indicate where administrative review and approval are required.

Basic Project Application

The BPA became an optional step in the application process for 2000, and 2001 SPC required no BPA. Upon approval of the BPA in 2000, SPC Program incentive funding in the amount of the total estimated incentive was reserved for that project. The BPA was used to ensure that the project met the eligibility requirements for the program, and that the owner of the facility had authorized the project sponsor to proceed with the detailed development of a project for participation in the SPC Program.

The BPA in 2000 became a step for those who wanted to reserve funding and were unsure of the details required for the next step. In addition, there were applicants who submitted a BPA and wanted direction or assistance from the utility with developing the detailed application.

Project Application or SPC Application

The project sponsor must submit a PA in 2000 or a SPC Application (referred to here as PA) in 2001.⁵ To prevent expiration of the project incentive funding, a PA had to be submitted within 45 days of BPA approval for lighting projects and within 100 days of BPA approval for all other projects (if BPA was submitted).

The requirements for the PA include all of the details the program administrator needs to check and verify the estimated savings and estimated incentive payment, and enter into the SPC contract with the project sponsor. The project sponsor (EESP or customer) and administrator enter into a SPC contract after administrator approves the PA, and the approved PA becomes a part of the contract. The PA includes the following:

- A description of the project and all equipment
- An indication of which savings approach used, measured or calculated (2001 only)
- An M&V strategy for determining energy savings (not required for 2001 calculated savings or 2000 SBSPC calculated savings option)
- Savings estimates and calculations
- A schedule and milestones for the project
- An installation deposit of 2.5 percent of the total estimated incentive amount (applies only to 2000 projects with incentives above \$100,000)
- A customer affidavit. Sponsoring EESPs are contractually required to provide the administrator with a signed affidavit from the customer.

⁵ The PA and SPC Application were called a Detailed Project Application in 1998 and 1999.

Project Installation Report

Upon approval of the PA, the project sponsor must install the project according to the LNSPC contract terms. Once the project installation is completed, the project sponsor submits a Post Installation Report (PIR).

The PIR updates the PA to reflect the project's actual as-built condition, to document any measurement and verification activities performed to date, to report actual project costs, and to revise project savings estimates. After approval of the PIR, the first incentive payment is made to the project sponsor based on the estimated savings in the PIR.

Annual Savings Report or Operating Report

After a project is installed, the project sponsor must follow the approved measurement and verification strategy to determine the actual annual energy savings for the project. At the end of a performance year, the project sponsor submits an Annual Savings Report (ASR) or Operating Report that summarizes the measurement and verification results, and calculates the actual energy savings achieved.

In 2000, after approval of the first year ASR, the second incentive payment is made to the project sponsor. The second payment is adjusted from the first incentive payment for the average of actually achieved energy savings. After approval of the second year ASR, the third and final incentive payment is made to the project sponsor.

In 2001, the final payment (there are only two) is made after the Operating Report is submitted. For calculated projects, the final payment is six months after installation, and 12 months for measured projects.

A.6 THE SMALL BUSINESS STANDARD PERFORMANCE CONTRACT PROGRAM

Generally, the Small Business Standard Performance Contract (SBSPC) Program resembles the LNSPC. In addition to customer size requirements, the differences include the payment schedule, incentive amounts, and M&V requirements. The SBSPC Program in 2000 is similar to the 1999 SBSPC Program described in more detail in a previous evaluation.⁶ In all SBSPC years, only 1 year of M&V is required, except for those projects using the calculated savings approach in 2001, where it is reduced to a 6-month period.

After installation, customers of the PY 1999 and 2000 SBSPC were paid 40 percent of the incentive and 60 percent for 2001. After the 1 year of required M&V (or without M&V for 2000 SBSPC calculated projects), the remainder of the incentive payment is given to the project sponsor based on the actual project performance. For 2001 SBSPC, as with the 2001 LNSPC, the remaining 40 percent is after 1 year of M&V or after 6 months for calculated projects.

⁶ See footnote 2.

The incentives paid for the SBSPC program years 1999-2001 are shown in Tables A-7 and A-8. One of the factors accounting for the differences in the SBSPC M&V requirements compared to the LNSPC program is that the utility administrator is aware that less money is available for doing M&V for SBSPC projects. Therefore, the review process and the M&V requirements are more flexible in the SBSPC.

Table A-7
1999 and 2000 SBSPC Incentive Levels

Measure Type	1999 and 2000 SBSPC
Lighting	\$0.055/kWh
HVAC&R	\$0.185/kWh
Motors/Other	\$0.090/kWh
Gas	\$0.340/therm

Table A-8
2001 SBSPC Incentive Levels

2001	Measure Type	SBSPC
Calculated Savings Approach	Lighting	\$0.060/kWh
	HVAC&R	\$0.200/kWh
	Motors/Other	\$0.100/kWh
	Gas	\$1.10/therm
Measured Savings Approach	Lighting	\$0.070/kWh
	HVAC&R	\$0.225/kWh
	Motors/Other	\$0.110/kWh
	Gas	\$1.20/therm

Until the 2001 SBSPC, only EESP-sponsored applications could be submitted to the SBSPC program. The lower threshold for admission to the SBSPC program was 10,000 kWh or 1,000 therms in 2000, which was cut to 5,000 kWh or 500 therms in the 2001 program. The calculated savings option was permitted for the first time for certain types of project in the 2000 SBSPC Program, and was formally instituted in the 2001 program.

Program funding for the SBSPC increased from 2000 to 2001, rising from \$3.1 million to \$3.335 million. The Summer Peak Incentives offered for the 2001 SBSPC Program were \$125/kW for lighting projects, \$280/kW for HVAC/R projects, and \$175/kW for all other projects.

A.7 LNSPC ACRONYM GLOSSARY

AH - Air Handler

AHU - Air Handling Unit

ASR – Annual Savings Report

BPA - Basic Project Application
DPA - Detailed Project Application
CFM - Cubic Feet per Minute
CH - Chiller
CPUC - California Public Utilities Commission
DSM - Demand Side Management
EEM - Energy Efficiency Measure
EESP - Energy Efficiency Service Provider
ESCO - Energy Services Company
HVAC&R - Heating, Ventilation, Air Conditioning, and Refrigeration
INV - Invoice
LC - Lighting Controls
LCSPC - Large Customer Standard Performance Contract
LE - Lighting Efficiency
LNSPC - Large Nonresidential Standard Performance Contract
M&V - Measurement and Verification
PGC - Public Goods Charge
PIR - Project Installation Report
SBSPC - Small Business Standard Performance Contract
SCSPC - Small Customer Standard Performance Contract
SPC - Standard Performance Contract
VSD – Variable-Speed Drive

B

SURVEY INSTRUMENTS

This appendix contains full text versions of all survey instruments used in this study:

- 2001 LNSPC End-User Participant Survey
- 2000 LNSPC End-User Participant Survey
- 2000/2001 LNSPC EESP Survey

2001 Nonresidential SPC Study
2001 LNSPC End-User Participant First-Year Survey

**Prepared for
SCE**

**Prepared by
XENERGY Inc.**

Interviewer _____

LNSPC Utility _____

Tracking # from Utility Dbase _____

Survey Number _____

Completion Date/Survey Length _____

IDENTIFY NAME OF SPONSORING EESP PROVIDED IN TRACKING DATABASE

**IDENTIFY UTILITY IN WHICH APPLICATIONS SUBMITTED (PG&E, SCE, OR SDG&E)
FROM DATABASE**

*****CORRECTED INFORMATION PER INTERVIEWEE (SPONSOR NAME or MEASURES
INSTALLED)*****

END-USER PARTICIPANT INTERVIEW GUIDE – POSSIBLE LEAD IN MATERIAL

May I please speak with [CONTACT_____]? [**Confirm this person is responsible for participation decision.**]

Hello, my name is _____ and I am calling about your participation in [UTILITY’s] Large Nonresidential Standard Performance Contract Program. I am with XENERGY, we are an energy research firm hired to conduct a statewide evaluation of this Program on behalf of the California Public Utilities Commission and with the cooperation of [**your local utility**].

We are interviewing firms that are participating in the 2001 Large Standard Performance Contract program to discuss a number of topics about the program. Your input to this research is extremely important. The interview will take **approximately 30 minutes [or longer]** and any information that is provided will remain strictly confidential. We will not identify or attribute any of your comments or organization information. Is this a good time, or can we schedule a convenient time in the next couple of days to talk?

IF HESITANT: Your input to this survey is very important for ensuring the long-term success of these programs. Without input from the participants, we will have difficulty conducting a fair and complete evaluation of the program.

Thank you for taking part in this survey. The major purposes of this study are (1) to obtain feedback on the design and administrative aspects of the program, and (2) to understand the characteristics of participants in the program and the types of activity the program has generated. This interview is focused on experiences with the program to date.

[If they request a contact at their local utility, the following are the appropriate MAE representatives, not the program managers]

PGE	Chris Ann Dickerson	415-973-4384
SCE	Pierre Landry	626-302-8288
SDGE	Rob Rubin	858-654-1244

RESPONDENT INFORMATION

RI1. First, I'd like to confirm the following information? [CONFIRM CONTACT INFO IN DATABASE; RECORD **BOLDED** ITEMS. COMPLETE ADD'L INFO AS NEEDED]

a. NAME	h. PHONE
b. TITLE	i. FAX
c. COMPANY	j. e-MAIL
d. STREET ADDRESS	
e. CITY	k. INTERVIEWER
f. ZIP	l. CALL DATES

RI1m. Could you please describe your role (regarding your firm's participation in the LNSPC Program)?

[BASED ON DATABASE DETERMINE IF SINGLE OR MULTI-SITE LNSPC APPLICATION THEN CONFIRM]

RI2. According to the LNSPC program records, your application(s) cover(s): **FROM DATABASE: # OF SITES**. Is this information correct?

Yes, that is the correct number of sites 1

No, information appears incorrect [**CLARIFY**] 2

Don't Know/Refused [**CONFIRM RIGHT CONTACT**] 99

IF SELF-SPONSOR ASK RI4, IF EESP-SPONSORED ASK RI5, IF BOTH ASK BOTH

RI4. According to our records, you are your own sponsor for your 2001 LNSPC project(s) : Is this information correct?

Yes 1 SKIP TO PA3

No, information appears incorrect 2 ASK RI5

Don't Know / Refused [**CONFIRM RIGHT CONTACT**] 99

RI5. According to our records, the energy services firm that is the sponsor of the LNSPC program application for which your organization is a host site is: **STATE SPONSOR NAME [FROM DATABASE]**

Is this information correct?

Yes 1

No 2

Don't Know / Refused [**END, CONFIRM RIGHT CONTACT**].... 99

IF NO, ENTER CORRECT EESP NAME: _____

LNSPC PARTICIPATION - ID DECISION MAKERS

Now I'd like to ask some questions about the measures (equipment installations) you planned as part of your LNSPC application.

PA3. How far along are you in the 2001 LNSPC application process? Please tell me how many applications you have in each of the following categories? ←
[BE PREPARED TO REMIND/ EXPLAIN MILESTONES]

Utility	Canceled	Number of Applications at Each Stage					Don't Know
		BPA Accepted	DPA Submitted	DPA Accepted	Project Installation Report	Other (Specify)	
PG&E							
SCE							
SDG&E							
ALL							

[DO AS CONFIRMATION IF INFO AVAILABLE FROM UTILITY TRACKING DATABASES]

PA4. Besides yourself, who else at your organization was involved in authorizing the decision to enter the LNSPC program, and what were their roles in the decision making process? [Ask as needed to confirm you are speaking with the best person to answer the NTG questions]

Name: _____ Name: _____

Role: _____ Role: _____

Phone: _____ Phone: _____

PA5. And who was primarily responsible for the specification of the installed equipment?

Equipment type: _____ Equipment type: _____

Name: _____ Name: _____

Phone: _____ Phone: _____

[CONFIRM/CHECK AGAINST DATA BASE RECORDS]

****IF PROJECT HAS BEEN CANCELLED OR IS ON HOLD: Probe reason(s)****

ESTABLISHMENT CHARACTERISTICS

I'd like to ask you a few questions about your organization and the facilities participating in the LNSPC.

EC1. What is the primary business of the **company/organization**? [ENTER VERBATIM]
 [CHECK APPROPRIATE CODE] ___ Comm ___ Ind ___ Inst ___ Agric ___ Other

EC2. [IF SINGLE-SITE PARTICIPANT ASK]
 Approximately how large is **your organization's** space in this facility?

[ELSE IF MULTI-SITE ASK]
 What is the **average size** of your organization's space **among these participating facilities**? _____sq. ft.

CODE 98 FOR DON'T KNOW; 99 FOR REFUSED, ROUGH ESTIMATE IS OK

EC3. Does your organization...

- ..
- | | | |
|------------------------|----|-------------|
| Own and occupy..... | 1 | SKIP TO EC5 |
| Lease from others..... | 2 | |
| Other | 3 | |
| Don't Know | 98 | SKIP TO EC5 |
| Refused..... | 99 | SKIP TO EC5 |

EC4 (For these participating facilities,) does your organization pay its own electric bill directly to [PG&E/ SCE / SDG&E] or is electricity provided by the owner under your lease arrangement?

- | | |
|---|---|
| Pay own electric bill..... | 1 |
| Part of the lease arrangement..... | 2 |
| Some sites pay own bill, other sites part of lease..... | 3 |
- [ACCEPT EC4=3 ABOVE ONLY IF R12=2]

EC5 [IF SINGLE-SITE PARTICIPANT (R12=1) ASK]
 What is your best estimate of your average monthly electric bill **at this facility**?

[ELSE IF MULTI-SITE (R12=2), ASK]
 What is your best estimate of your **average** monthly total electric bill across **all participating sites**?

EC5b Categorization of electric bill [If gas measures, ask for average monthly total gas bill]

	electricity	gas
< \$10,000.....	1	1
\$10,000 - \$99,999.....	2	2
\$100,000 - \$499,999.....	3	3
\$500,000 - \$999,999.....	4	4
> \$1,000,000.....	5	5
Don't know.....	98	98
Refused.....	99	99

EC6. On how many sites does the organization operate?

Number of sites	#
Don't Know	98
Refused.....	99

EC7a. How many employees are in your organization, overall?

Number of employees	#
Don't Know	98
Refused.....	99

EC7b. How many employees are at the location/participating site(s)?

Number of employees	#
Don't Know	98
Refused.....	99

THIRD-PARTY FIRMS

****IF SELF-SPONSOR ASK PE1, EESP SPONSORS SKIP TO NEXT SECTION TO CONFIRM MEASURES****

PE1a. Are you working with any third party firms as part of your 2001 LNSPC application?

Yes	1
No.....	2
Don't Know/Refused.....	99

PE1b. Could you please specify the Name of the firm(s)

Primary Firm 1 _____ Secondary Firm 2 _____

PE1c. And what was their role? (how significant in your decision to do the project?)

FOR SELF-SPONSORS, DECIDE HERE IF THEY ARE SELF-SPONSORS DOING ALL WORK THEMSELVES OR SELF-SPONSORS WITH SIGNIFICANT HELP IN THE DECISION MAKING PROCESS.

LNSPC PARTICIPATION - ID/CONFIRM MEASURES

[DISCUSS WITH INTERVIEWEE THE MEASURES YOU ARE GOING TO ASK QUESTIONS ABOUT. DETERMINE WHICH MEASURES THEY ARE FAMILIAR WITH AND WHETHER THEY OR SOMEONE ELSE IS THE MORE APPROPRIATE PERSON TO ANSWER THE QUESTIONS. IF NECESSARY, CONDUCT ADDITIONAL INTERVIEWS WITH OTHERS TO ACCURATELY ANSWER THE QUESTIONS ON THE FOLLOWING PAGES.]

[IF MEASURES FROM DATABASES ARE UNAVAILABLE, ASK RESPONDENT WHICH MEASURES WERE INSTALLED AS PART OF THE 2001 LNSPC PROGRAM AND LIST BELOW]

FILL IN TO COMPLEMENT, AS NEEDED, INFO AVAILABLE FROM DATABASE. IF HAVE MULTIPLE END USES- CONDUCT REST OF INTERVIEW FOCUSING ON THE ONE WITH THE LARGEST PORTION OF INCENTIVES. NOTE VOLUNTEERED RESPONSES REGARDING OTHER MEASURES IN THE SIDEBAR.

Sample Text: My understanding that you are doing [End Use/Measure X] and [End Use/Measure Y], is that correct? Ok, for the next series of questions we are going to focus on [Measure X] which has the larger incentives.]

List Measures by type, Describe as Necessary. Or attach and reference sheet with measures currently tracked in program database.
1.
2.
3.
4.

PROGRAM-RELATED DECISION MAKING SECTION - NET-TO-GROSS

[INFORM THE INTERVIEWEE THAT THE FOLLOWING QUESTIONS PERTAIN TO THE PARTICULAR ENERGY EFFICIENCY EQUIPMENT TO BE INSTALLED AS PART OF THE 2001 LNSPC PROGRAM. ASK THEM TO LET YOU KNOW IF THE RESPONSES VARY BY EQUIPMENT TYPE. USE MULTIPLE FORMS IF ANSWERS APPEAR TO VARY SIGNIFICANTLY BY EQUIPMENT TYPE OR PROJECT TYPE FOR THIS SECTION.]

PD1a Why did you decide to install *Program-Related Equipment*? [DO NOT READ]

- To replace old or outdated equipment 1
- To allow remodeling, build-out, or expansion 2
- To gain more control over how the equipment was used. 3
- To improve measure performance..... 4
- To get a rebate from the program..... 5
- To protect the environment..... 6
- To reduce energy costs 7
- To reduce energy demand/likelihood of blackouts 8
- To respond to the energy crisis 9
- To acquire the latest technology..... 10
- Don't Know/Refused..... 99
- Other 77

PD1a1. Describe _____

PD1b Which of the following statements best describes the performance and operating condition of the equipment you replaced as part of the 2001 program?

- New equipment installed, did NOT replace pre-existing equipment 1
- Existing equipment was fully functional 2
- Existing equipment was fully functioning, but with significant problems 3
- Or, existing equipment had failed or did not function..... 4
- Not applicable, ancillary equipment (VSD, EMS, controls, etc.)..... 5
- Don't Know/Refused..... 9
- Other _____ PD1b1. Describe _____ 7

PD1c Did California's current energy crisis affect your decision to install this equipment? If so, how?

PD2 If this is the first time you're installing **Energy Efficiency Equipment**, where did you first hear about it (or have you installed it before)? [READ ONLY AS NEEDED]

- 1 Contractor
- 2 Architect / Engineer
- 3 Equipment Vendor
- 4a *PG&E representative or program literature (confirm, regulated distribution co.)*
- 4b *SCE representative or program literature (confirm, regulated distribution co.)*
- 4c *SDG&E representative or program literature (confirm, regulated distribution co.)*
- 5 Other non-utility literature, including trade publications
- 6 Self-knowledge / Education
- 7 Business colleague / Professional association / Trade show
- 8 From parent company
- 9 **Previous installation**
- 10 Energy Services Company, often referred to as ESCOs (performance contract)
- 11 An unregulated company that provides electricity supply
- 12 Energy Efficiency Program (non-utility)
- 13 **OTHER [SPECIFY, OK TO PUT NAME OF COMPANY]**
- 14 DON'T KNOW / REFUSED

PD3 How did you first learn of the LNSPC Program? [DONT READ; PROBE IF SAME SOURCE AS PD2] CIRCLE CLOSEST CATEGORY

Specify name of company/source: _____

- 1 Contractor
- 2 Architect / Engineer
- 3 Equipment Vendor
- 4a *PG&E representative or program literature (confirm, regulated distribution co.)*
- 4b *SCE representative or program literature (confirm, regulated distribution co.)*
- 4c *SDG&E representative or program literature (confirm, regulated distribution co.)*
- 5 Other non-utility literature, including trade publications
- 6 Self knowledge/Education
- 7 Business colleague / Professional association / Tradeshow
- 8 From parent company
- 9 Previous installation
- 10 Energy Services Company, often referred to as ESCOs
- 11 An unregulated company that provides electricity supply
- 12 Energy Efficiency Program (non-utility)
- 13 **OTHER [SPECIFY, OK TO PUT NAME OF COMPANY]**
- 14 DON'T KNOW / REFUSED

[FOR THE FOLLOWING QUESTIONS, FOCUS ON THE SPECIFIC EQUIPMENT WITH THE EFFICIENCY LEVEL INSTALLED THROUGH THE PROGRAM]

PD4a When did you first learn about the LNSPC Program? Was it **BEFORE** or **AFTER** you decided to install the **Energy Efficient Equipment** that you plan to install?

- 1 BEFORE
- 2 SAME TIME SKIP TO R1
- 3 AFTER SKIP TO R1
- 9 DON'T KNOW / REFUSED

PD4b Was it **BEFORE** or was it **AFTER** you first began to think about installing **Energy Efficient Equipment**?

- 1 BEFORE SKIP TO PD4c
- 2 SAME TIME SKIP TO PD4c
- 3 AFTER
- 9 DON'T KNOW / REFUSED

R1 Did you hear about the financial assistance from the LNSPC program **BEFORE** or **AFTER** you began to actually look at or collect information about the **Energy Efficient Equipment**?

- 1 BEFORE
- 2 SAME TIME
- 3 AFTER
- 4 DON'T KNOW / REFUSED TO ANSWER

PD4c Which of the following best describes the process by which you decided to install the **Energy Efficiency Equipment**?

- 1 Developed the idea ourselves and decided solely on our own to pursue installation
- 2 Developed the idea ourselves but were convinced by a third-party to pursue installation
- 3 Received the idea from a third-party and were also convinced by this party to pursue installation
- 4 Received the idea from a third-party but decided on our own to pursue installation
- 5 Other ➡ PD4c1. Describe _____
- 9 DON'T KNOW / REFUSED

[RECORD ANY EXPLANATORY COMMENTS] _____

****IF SELF-SPONSOR DOING ALL WORK THEMSELVES, SKIP TO PD6c, IF SELF SPONSOR WITH EESP HELP, SKIP TO PD6a, ELSE CONTINUE****

PD4d. Who initiated contact? Did **SPONSOR** approach you or did you approach them to discuss installing the **Energy Efficiency Equipment**?

- 1 Customer initiated contact
- 2 EESP initiated contact
- 3 Other ➡ PD4d1. Describe _____
- 9 DON'T KNOW / REFUSED

PD5b. Which of the following statements best describes the arrangement you have with **SPONSOR** with respect to allocation of the financial incentives from the LNSPC program? [READ LIST AND SELECT ONLY ONE]

- Program incentives will be used by your organization 1
- Program incentives will be used by your LNSPC Project Sponsor. 2
- Program incentives will be split between your organization and your LNSPC Project Sponsor, or you are receiving a reduced fee? 3
- Other _____ 4
- Don't know 98
- Refused 99

PD6a. How significant was the overall value of the services provided by **SPONSOR/FIRM** in influencing your decision to install the **Energy Efficiency Equipment**? Would you say the value of their services was very significant, somewhat significant, somewhat insignificant or very insignificant?

[RECORD PD6a and PD6b BY MEASURE OR END USE IF NEEDED]

- Very significant 1
- Somewhat significant 2
- Somewhat insignificant 3
- Very insignificant 4
- Don't know 98
- Refused 99

PD6b. Please describe the specific ways in which **SPONSOR/FIRM** contributed, if at all, to your decision to install the **Energy Efficient Equipment**?

PD6c. How significant was the LNSPC program financial incentive in influencing your decision to install the **Energy Efficiency Equipment**? Would you say the program’s financial incentive was very significant, somewhat significant, somewhat insignificant or very insignificant?

- Very significant 1
- Somewhat significant..... 2
- Somewhat insignificant..... 3
- Very insignificant 4
- Don’t know..... 98
- Refused 99

R3 Was your organization considering any other (competing) energy efficiency investments at the same time as you were considering the **Energy Efficiency Equipment**, that was not pursued? (Did you have to decide between multiple measures?)

- Yes R3a SPECIFY _____ 1
- No 2 SKIP TO PD7a _____
- DON'T KNOW / REFUSED TO ANSWER 9 SKIP TO PD7a _____

R4 Why was the **Energy Efficiency Equipment** chosen over these other investments?

PD7a. Without the LNSPC program, [READ NEXT CLAUSE FOR CUSTS WORKING WITH 3rd PARTY FIRMS:] including both the incentive **and** the contribution from **SPONSOR/FIRM**, how likely is it you would have installed the **Energy Efficient Equipment**? Would you...

- 1 Definitely would NOT have installed SKIP TO PD 9a _____
- 2 Probably would NOT have installed SKIP TO PD 9a _____
- 3 Probably would have installed
- 4 Definitely would have installed
- 9 DON'T KNOW / REFUSED

PD8 Without the LNSPC program, how likely is it that the equipment you purchased would have been as *energy efficient* as the equipment you did install? Would you say . . .

- 1 Probably NOT as efficient
- 2 Probably as efficient
- 3 Not applicable for measure (e.g. VSD)
- 4 Less energy efficient equipment would have been installed (e.g. fewer sites) of the same efficiency
- 9 DON'T KNOW / REFUSED

PD8b Without the LNSPC program, would you have installed the **Energy Efficient Equipment** at about the same time as currently planned or over a year later?

- 1 within 6 months of when it actually was installed?
- 2 6 months to one year later?
- 3 one to two years later?
- 4 two to three years later?
- 5 three to four years later?
- 6 four or more years later?
- 7 Never
- 9 DON'T KNOW / REFUSED TO ANSWER

SKIP TO PD10a

PD9a Without the LNSPC program, [READ NEXT CLAUSE FOR CUSTS WORKING WITH 3rd PARTY FIRMS:] including both the incentive **and** the contribution from **SPONSOR**, what type of equipment would you have most likely installed? Would you say. . .

- 1 Standard efficiency equipment
- 2 Equipment with above-standard efficiency but with lower efficiency than the equipment that was actually installed
- 3 Would not have installed anything
- 9 DON'T KNOW / REFUSED

PD9b Would you have installed the **Energy Efficient Equipment** at a later date? (How many years later?) [If over 1 year later, probe for best estimate of how many years later.]

- 1 within 6 months of when it actually was installed?
- 2 6 months to one year later?
- 3 one to two years later?
- 4 two to three years later?
- 5 three to four years later?
- 6 four or more years later?
- 8 Never
- 9 DON'T KNOW / REFUSED TO ANSWER

PD10a. Does your organization apply long-term investment analysis to energy equipment selection such as estimates of payback periods, life cycle costs (lcc) or internal rate of return (IRR)?

- Yes 1
- No..... 2 SKIP TO PD12a
- Don't Know/Refused..... 99 SKIP TO PD12a

PD10b. And, typically, how many years or less must the project payback be? _____
[TRY TO FORCE ANSWER IN PAYBACK TERMS EVEN IF IRR OR LCC USED]

PD12a. Have you calculated the payback(s) or used other 'financials' for these projects?

- Yes..... 1
- No 2 SKIP TO P1
- Don't Know/Refused 99 SKIP TO P1

PD 12b And what do you estimate the payback(s) would have been with OR without the incentives?

ADD MORE LINES IF NEEDED BY MEASURE OR END USE

12.b.1 Payback with Incentives _____

12.b.2 Payback without Incentives _____

Don't Know/Refused_____

[CODE AS DON'T KNOW IF CANT GIVE WITHOUT CALCULATING]

LNSPC PROCESS-RELATED EXPERIENCE

P1 What do you like about the 2001 LNSPC program? (what do you view as the primary strengths?)

P2 What don't you like about the program? (what do you view as the primary features that need to be improved?)

P2a What do you think about the current incentive structure of the program? (Such as the payout schedule, energy vs. demand incentive levels, end use incentive levels, incentive levels for measured vs. calculated savings)

P2b Did any of the program incentive caps affect the type or extent of the project you chose?

- Yes 1
- No, did not affect project decision..... 2
- No, was not aware of caps 3
- Don't Know/Refused..... 99

P2b2 Please explain:

P2c Did the project qualify for any Summer Peak Incentive funds?

- Yes1
- No.....2
- Don't know / Refused99

P3 Are application procedures and timing of feedback reasonable?

- Yes 1
- No 2
- Don't Know/Refused..... 99

P3a Please explain:

P4a. How would you say that the overall program experience with [UTILITY] has been to date? Would you say...

- Excellent 1
- Good 2
- Acceptable, about what expected 3
- Somewhat poor 4
- Very Poor 5
- No contact with utility 6
- DON'T KNOW/NOT APPLICABLE..... 9

P4b. Why do you say that? [RECORD VERBATIM]

P5a Have you participated in an SPC program in prior years? (If yes,) in what year? was your application EESP- (sponsored by an energy efficiency service provider) or Self-Sponsored?

1998__ 1999__ 2000__ Small__ Large__

- Yes, Self-Sponsored 1
- Yes, EESP-Sponsored..... 2
- No, did not participate in SPC previously 3 SKIP TO NS3
- DON'T KNOW/NOT APPLICABLE..... 9

P5b How has your experience this year differed from past experiences with the program?

PROGRAM NON-SPONSORS EXPERIENCE WITH 3RD PARTY FIRMS

**THIS SECTION FOR CUSTOMERS WORKING WITH 3rd PARTY FIRMS ON 2001 LNSPC
 SELF-SPONSORS DOING ALL WORK THEMSELVES SKIP TO NS6 ON NEXT PAGE**

NS3 Had you worked with **SPONSOR/FIRM** before you participated in the Program?

- Yes 1
- No 2
- Don't Know/Refused..... 99

NS4a For the purposes of this survey, we are defining Energy Performance Contracting as follows: a retrofit or new construction project in which energy savings are measured and verified (based on assumptions regarding the level of operations and the cost of energy being saved) and the company performing the work is paid only from total dollar savings actually produced by the project.

Would you describe **your** contractual arrangement with **SPONSOR/FIRM** as an **energy performance contract, fee for service contract** or **something else?** [DO NOT READ]

- Energy performance contract 1
- Shared savings (cust has some risk) 2
- Guaranteed savings (EESP has all risk) 3
- Fee-for-service/equipment contract..... 4
- Combination: performance contract & fee-for service..... 5
- EESP paid from incentives: fixed fee or 1st payment only 6
- EESP paid from incentives: tied to savings or % of all 3 pay'ts 7
- Part of larger contract..... 8
- Other 9
- NS4a1 (please describe)_____
- Don't Know/Refused..... 99

Describe Contract: _____

NS4c. And why did you choose a contract with a performance element for this project(s)?
[DON'T READ LIST]

- Uncertainty over estimates of savings..... 1
- Didn't trust EESP 2
- EESP only offered to do work under performance contract 3
- Lack of access to capital, needed EESP to finance 4
- Wanted to share risk with third-party..... 5
- Able to use energy-efficiency savings to make equipment/
 facility upgrades that wouldn't be possible otherwise..... 6
- Other SPECIFY BELOW 7

NS4d. **[DESCRIBE VERBATIM AS NECESSARY]:**

NS6a. Were any of the energy-efficiency products, services, opportunities or M&V approaches [provided by the **FIRM(s)**] you worked with on your 2001 LNSPC project(s) new to you at the time they were offered? (Were there any you had not been aware of?)

- Yes 1
- No 2
- Don't Know/Refused..... 99

NS6b. Please elaborate. **[CLARIFY IF UNDER PROGRAM OR NOT]**

R6 Since you decided to install the Energy Efficient Equipment (through the SPC Program), have you installed any other high efficiency equipment (not part of the program)?

- Yes..... 1
- No 2 SKIP TO NS14a
- DON'T KNOW/REFUSED 9 SKIP TO NS14a

R7 What type(s) of measures were added, and how many?

R8 [If unclear, ask.] Just to confirm, was the additional technology standard efficiency, or did you have to pay extra for high efficiency equipment?

- Yes, high efficiency, paid extra 1
- No, standard efficiency..... 2 SKIP TO NS14a
- DON'T KNOW/REFUSED 9 SKIP TO NS14a

R11 How significant was the LNSPC program in your selection of the additional equipment?

- Extremely significant..... 1
- Somewhat significant..... 2
- Somewhat insignificant..... 3
- Extremely insignificant..... 4
- Don't Know/Refused..... 99

R12 Why didn't your organization buy this equipment through a retrofit or incentive program?

NS14a As a result of your participation in the program, do you plan to implement any additional energy efficiency measures elsewhere at this facility or at other facilities of your organization?

- Yes, plans more measures as result of participation 1
- Yes, plans more measures, NOT as a result of participation..... 2
- No, no plans for more measures 3 SKIP TO MV1
- Don't Know/Refused..... 99 SKIP TO MV1

NS14b **PROBE:** How has program participation affected your plans? Please describe which measures, how many, and why?

NS15a And how significant was your 2001 LNSPC program experience in your plans to implement additional measures? **[CLARIFY PROGRAM EXPERIENCE REFERS TO ALL FEATURES INCLUDING INCENTIVES, M&V, EXPERIENCE WITH ESCOs THAT WOULD NOT HAVE OCCURRED OTHERWISE, ETC.]**

- Extremely significant..... 1
- Somewhat significant..... 2
- Somewhat insignificant..... 3
- Extremely insignificant..... 4
- Don't Know/Refused..... 99

NS15b Would you install the energy efficient equipment anyway without the additional incentives?

- Yes 2
- No..... 3

2001 M&V RELATED EXPERIENCE

Now I'd like to go into some more detail about your organization's experience with the Measurement and Verification requirements and results.

MV1a Does your application use the calculated, or measured savings option for M&V?

- Calculated savings 1
Measured savings 2
Combination, Specify 3
Has not yet been determined 4
Don't Know / Refused 99

MV1b Why was this option used for M&V? (Select all that apply)

- EESP recommended it 1
Utility recommended it 2
Only option available for measure(s) 3
Easiest option 4
Measured savings not worth the hassle/cost 5
Wanted to get the most money available 6
Don't Know / Refused 99
Other _____

MV1b1 What has been your experience so far? __no experience yet __ EESP handling it

MV2 When you first decided to implement the projects included in the 2001 LNSPC, how uncertain, if at all, would you say you were about the estimated energy savings for these projects? Would you say: [CAPTURE DIFFERENCE BY MEASURE IF NEEDED]

- Extremely uncertain 1
Somewhat uncertain 2
Somewhat certain 3
Extremely certain 4
Don't Know/Refused 99

Comments: _____

ASK ONLY IF EESP SPONSORED, ELSE SKIP TO DM3a

MV3 And did the fact that the Program required your EESP to have a contract for measured savings with [UTILITY] increase your confidence in the EESP's estimates of savings?

- Yes, greatly increased confidence 1
Yes, somewhat increased confidence 2
No, no effect on confidence 3
Don't Know / Refused 99

ENERGY-RELATED DECISION MAKING

Now I'd like to ask a question about how your organization generally makes energy-related decisions.

DM3a As a result of your participation in the 2001 LNSPC, have you made any changes in the ways in which your organization makes decisions about whether to implement energy-efficiency projects?

- Yes 1
- No..... 2
- Don't Know/Refused..... 99

DM3b Please Describe. (Use examples, such as specification policy or internal reward system for reducing energy costs. **[RECORD VERBATIM]**)

DM4 Are there any other positive or negative effects of your participation in the 2001 LNSPC that you would like to mention that we have not asked about?

THANK YOU FOR YOUR PARTICIPATION IN THIS STUDY.

OTHER INTERVIEWER NOTES :

(Include any comments on the net-to-gross story not covered in the structured questions):

2000 Nonresidential SPC Study

2000 LNSPC End-User Participant First-Year Survey

Prepared for
SCE

Prepared by
XENERGY Inc.

Interviewer _____

LNSPC Utility _____

Tracking # from Utility Dbase _____

Survey Number _____

Completion Date/Survey Length _____

IDENTIFY NAME OF SPONSORING EESP PROVIDED IN TRACKING DATABASE

IDENTIFY UTILITY IN WHICH APPLICATIONS SUBMITTED (PG&E, SCE, OR SDG&E) FROM DATABASE

*****CORRECTED INFORMATION PER INTERVIEWEE (SPONSOR NAME or MEASURES INSTALLED)*****

END-USER PARTICIPANT INTERVIEW GUIDE

May I please speak with [CONTACT_____]? [**Confirm this person is responsible for participation decision.**]

Hello, my name is _____ and I am calling about your participation in [UTILITY’s] Large Standard Performance Contract Program. I am with XENERGY, we are an energy research firm hired to conduct a statewide evaluation of this Program on behalf of the California Public Utilities Commission and with the cooperation of [**your local utility**].

We are interviewing firms that are participating in the 2000 Large Standard Performance Contract program to discuss a number of topics about the program. Your input to this research is extremely important. The interview will take **approximately 30 minutes [or longer]** and any information that is provided will remain strictly confidential. We will not identify or attribute any of your comments or organization information. Is this a good time, or can we schedule a convenient time in the next couple of days to talk?

IF HESITANT: Your input to this survey is very important for ensuring the long-term success of these programs. Without input from the participants, we will have difficulty conducting a fair and complete evaluation of the program.

Thank you for taking part in this survey. The major purposes of this study are (1) to obtain feedback on the design and administrative aspects of the program, and (2) to understand the characteristics of participants in the program and the types of activity the program has generated. This interview is focused on experiences with the program to date.

[If they request a contact at their local utility, the following are the appropriate MAE representatives, not the program managers]

PGE	Chris Ann Dickerson	415-973-4384
SCE	Pierre Landry	626-302-8288
SDGE	Rob Rubin	858-654-1244

RESPONDENT INFORMATION

RI1. First, I'd like to confirm the following information? [CONFIRM CONTACT INFO IN DATABASE; RECORD **BOLDED** ITEMS. COMPLETE ADD'L INFO AS NEEDED]

a. NAME	h. PHONE
b. TITLE	i. FAX
c. COMPANY	j. e-MAIL
d. STREET ADDRESS	
e. CITY	k. INTERVIEWER
f. ZIP	l. CALL DATES

RI1m. Could you please describe your role (regarding your firm's participation in the LNSPC Program)?

[BASED ON DATABASE DETERMINE IF SINGLE OR MULTI-SITE LNSPC APPLICATION THEN CONFIRM]

RI2. According to the LNSPC program records, your application(s) cover: **FROM DATABASE: # OF SITES**. Is this information correct?

- Yes, that is the correct number of sites 1
- No, information appears incorrect [**CLARIFY**] 2
- Don't Know/Refused [**CONFIRM RIGHT CONTACT**] 99

****IF SELF-SPONSOR ASK RI4, IF EESP SPONSOR ASK RI5, IF BOTH ASK BOTH****

RI4. According to our records, you are your own sponsor for your 2000 LNSPC project(s) : Is this information correct?

- Yes 1 SKIP TO PA3
- No, information appears incorrect 2 ASK RI5
- Don't Know / Refused [**CONFIRM RIGHT CONTACT**] 99

RI5. According to our records, the energy services firm that is the sponsor of the LNSPC program application for which your organization is a host site is: **STATE SPONSOR NAME [FROM DATABASE]**

Is this information correct?

- Yes 1
- No 2
- Don't Know / Refused [**END, CONFIRM RIGHT CONTACT**].... 99

IF NO, ENTER CORRECT EESP NAME: _____



LNSPC PARTICIPATION - ID DECISION MAKERS

Now I'd like to ask some questions about the measures (equipment installations) you planned as part of your LNSPC application.

PA3. How far along are you in the 2000 LNSPC application process? Please tell me how many applications you have in each of the following categories?
[BE PREPARED TO REMIND/ EXPLAIN MILESTONES]

Utility	Number of Applications at Each Stage						Don't Know
	BPA Accepted	DPA Submitted	DPA Accepted	Project Installation Report	ASR1/ 1 st M&V report	Other/ Canceled (Specify)	
PG&E							
SCE							
SDG&E							
ALL							

[DO AS CONFIRMATION IF INFO AVAILABLE FROM UTILITY TRACKING DATABASES]

PA4. Besides yourself, who else at your organization was involved in authorizing the decision to enter the LNSPC program, and what were their roles in the decision making process? [Ask as needed to confirm you are speaking with the best person to answer the NTG questions]

Name: _____ Name: _____

Role: _____ Role: _____

Phone: _____ Phone: _____

PA5. And who was primarily responsible for the specification of the installed equipment?

Equipment type: _____ Equipment type: _____

Name: _____ Name: _____

Phone: _____ Phone: _____

[CONFIRM/CHECK AGAINST DATA BASE RECORDS]

*****IF PROJECT HAS BEEN CANCELLED OR IS ON HOLD: Probe reason(s)*****

ESTABLISHMENT CHARACTERISTICS

I'd like to ask you a few questions about your organization and the facilities participating in the LNSPC.

EC1. What is the primary business of your **company/organization**? [ENTER VERBATIM]
 [CHECK APPROPRIATE CODE] Comm Ind Inst Agric Other

EC2. [IF SINGLE-SITE PARTICIPANT (RI2=1) ASK]
 Approximately how large is your organization's space in this facility?

[ELSE IF MULTI-SITE (RI2=2), ASK]
 What is the **average size** of your organization's space **among these participating facilities**? _____sq. ft.
 CODE 98 FOR DON'T KNOW; 99 FOR REFUSED, ROUGH ESTIMATE IS OK

EC3. Does your organization.....

Own and occupy.....	1	SKIP TO EC5	<div style="border-top: 1px solid black; border-bottom: 1px solid black; border-right: 1px solid black; height: 100%;"></div>
Lease from others.....	2		
Other	3		
Don't Know	98	SKIP TO EC5	
Refused.....	99	SKIP TO EC5	

EC4 (For these participating facilities,) does your organization pay its own electric bill directly to [PG&E/ SCE / SDG&E] or is electricity provided by the owner under your lease arrangement?

Pay own electric bill.....	1
Part of the lease arrangement.....	2
Some sites pay own bill, other sites part of lease.....	3

[ACCEPT EC4=3 ABOVE ONLY IF RI2=2]

EC5 [IF SINGLE-SITE PARTICIPANT (RI2=1) ASK]
 What is your best estimate of your average monthly electric bill **at this facility**? ←

[ELSE IF MULTI-SITE (RI2=2), ASK]
 What is your best estimate of your **average** monthly total electric bill across **all participating sites**? Would you say it is...

EC5b [If there are gas measures, ask for average monthly total gas bill]

	electricity	gas
< \$10,000.....	1	1
\$10,000 - \$99,999.....	2	2
\$100,000 - \$499,999.....	3	3
\$500,000 - \$999,999.....	4	4
> \$1,000,000.....	5	5
Don't know.....	98	98
Refused.....	99	99

EC6. On how many sites does the organization operate, company wide?

Number of sites	#
Don't Know	98
Refused.....	99

EC7a. How many employees are in your organization, overall?

Number of employees	#
Don't Know	98
Refused.....	99

EC7b. How many employees are at the location/participating site(s)?

Number of employees	#
Don't Know	98
Refused	99

THIRD-PARTY FIRMS

****IF SELF-SPONSOR ASK PE1, IF EESP-SPONSORED SKIP TO NEXT SECTION TO CONFIRM MEASURES****

PE1a. Are you working with any third party firms as part of your 2000 LNSPC application?

Yes	1
No.....	2
Don't Know/Refused.....	99

PE1a. Could you please specify the Name(s) of the firm(s)
 Primary Firm 1 _____ Secondary Firm 2 _____

PE1c. And what was their role? (how significant were they in your decision to do the project?)

FOR SELF-SPONSORS, DECIDE HERE IF THEY ARE SELF-SPONSORS DOING ALL WORK THEMSELVES OR SELF-SPONSORS WITH SIGNIFICANT HELP IN THE DECISION MAKING PROCESS.



LNSPC PARTICIPATION - ID/CONFIRM MEASURES

[DISCUSS WITH INTERVIEWEE THE MEASURES YOU ARE GOING TO ASK QUESTIONS ABOUT. DETERMINE WHICH MEASURES THEY ARE FAMILIAR WITH AND WHETHER THEY OR SOMEONE ELSE IS THE MORE APPROPRIATE PERSON TO ANSWER THE QUESTIONS. IF NECESSARY, CONDUCT ADDITIONAL INTERVIEWS WITH OTHERS TO ACCURATELY ANSWER THE QUESTIONS ON THE FOLLOWING PAGES.]

[IF MEASURES FROM DATABASES ARE UNAVAILABLE, ASK RESPONDENT WHICH MEASURES WERE INSTALLED AS PART OF THE 2000 LNSPC PROGRAM AND LIST BELOW]

FILL IN TO COMPLEMENT, AS NEEDED, INFO AVAILABLE FROM DATABASE. IF HAVE MULTIPLE END USES- CONDUCT REST OF INTERVIEW FOCUSING ON THE ONE WITH THE LARGEST PORTION OF INCENTIVES. NOTE VOLUNTEERED RESPONSES REGARDING OTHER MEASURES IN THE SIDEBAR.

Sample Text: My understanding that you are doing [End Use/Measure X] and [End Use/Measure Y], is that correct? Ok, for the next series of questions we are going to focus on [Measure X] which has the larger incentives.]

List Measures by type, Describe as Necessary. Or attach and reference sheet with measures currently tracked in program database.
1.
2.
3.
4.

PROGRAM-RELATED DECISION MAKING SECTION - NET-TO-GROSS

[INFORM THE INTERVIEWEE THAT THE FOLLOWING QUESTIONS PERTAIN TO THE PARTICULAR ENERGY EFFICIENCY EQUIPMENT TO BE INSTALLED AS PART OF THE 2000 LNSPC PROGRAM.]

PD1a Why did you decide to install *Program-Related Equipment*? [DO NOT READ]

- To replace old or outdated equipment 1
- To allow remodeling, build-out, or expansion 2
- To gain more control over how the equipment was used. 3
- To improve measure performance..... 4
- To get a rebate from the program..... 5
- To protect the environment..... 6
- To reduce energy costs 7
- To reduce energy demand/likelihood of blackouts 8
- To respond to the energy crisis 9
- To acquire the latest technology..... 10
- Don't Know/Refused..... 99
- Other 77

PD1a1. Describe _____

PD1b Which of the following statements best describes the performance and operating condition of the equipment you replaced as part of the 2000 program?

- New equipment installed, did NOT replace pre-existing equipment 1
- Existing equipment was fully functional 2
- Existing equipment was fully functioning, but with significant problems 3
- Or, existing equipment had failed or did not function..... 4
- Not applicable, ancillary equipment (VSD, EMS, controls, etc.)..... 5
- Don't Know/Refused..... 9
- Other _____ PD1b1. Describe _____ 7

PD1c Did California's current energy crisis affect your decision to install this equipment? If so, how?

PD2 If this is the first time you're installing **Energy Efficiency Equipment**, where did you first hear about it (or have you installed it before)? [READ ONLY AS NEEDED]

- 1 Contractor
- 2 Architect / Engineer
- 3 Equipment Vendor
- 4a *PG&E representative or program literature (confirm, regulated distribution co.)*
- 4b *SCE representative or program literature (confirm, regulated distribution co.)*
- 4c *SDG&E representative or program literature (confirm, regulated distribution co.)*
- 5 Other non-utility literature, including trade publications
- 6 Self-knowledge / Education
- 7 Business colleague / Professional association / Trade show
- 8 From parent company
- 9 **Previous installation**
- 10 Energy Services Company, often referred to as ESCOs
- 11 An unregulated company that provides electricity supply
- 12 Energy Efficiency Program (non-utility)
- 13 OTHER **[SPECIFY, OK TO PUT NAME OF COMPANY]**
- 14 DON'T KNOW / REFUSED

PD3 How did you first learn of the LNSPC Program? [DONT READ; PROBE IF SAME SOURCE AS PD2] CIRCLE CLOSEST CATEGORY

Specify name of company/source: _____

- 1 Contractor
- 2 Architect / Engineer
- 3 Equipment Vendor
- 4a *PG&E representative or program literature (confirm, regulated distribution co.)*
- 4b *SCE representative or program literature (confirm, regulated distribution co.)*
- 4c *SDG&E representative or program literature (confirm, regulated distribution co.)*
- 5 Other non-utility literature, including trade publications
- 6 Self knowledge/Education
- 7 Business colleague / Professional association / Tradeshow
- 8 From parent company
- 9 Previous installation
- 10 Energy Services Company, often referred to as ESCOs
- 11 An unregulated company that provides electricity supply
- 12 Energy Efficiency Program (non-utility)
- 11 OTHER **[SPECIFY, OK TO PUT NAME OF COMPANY]**
- 12 DON'T KNOW / REFUSED

[FOR THE FOLLOWING QUESTIONS, FOCUS ON THE SPECIFIC EQUIPMENT WITH THE EFFICIENCY LEVEL INSTALLED THROUGH THE PROGRAM]

PD4a When did you first learn about the LNSPC Program? Was it **BEFORE** or **AFTER** you decided to install the **Energy Efficient Equipment** that you plan to install?

- 1 BEFORE
- 2 SAME TIME SKIP TO R1
- 3 AFTER SKIP TO R1
- 9 DON'T KNOW / REFUSED

PD4b Was it **BEFORE** or was it **AFTER** you first began to think about installing **Energy Efficient Equipment**?

- 1 BEFORE SKIP TO PD4c
- 2 SAME TIME SKIP TO PD4c
- 3 AFTER
- 9 DON'T KNOW / REFUSED

R1 Did you hear about the financial assistance from the LNSPC program **BEFORE** or **AFTER** you began to actually look at or collect information about the **Energy Efficient Equipment**?

- 1 BEFORE
- 2 SAME TIME
- 3 AFTER
- 4 DON'T KNOW / REFUSED TO ANSWER

PD4c Which of the following best describes the process by which you decided to install the **Energy Efficiency Equipment**?

- 1 Developed the idea ourselves and decided solely on our own to pursue installation
- 2 Developed the idea ourselves but were convinced by a third-party to pursue installation
- 3 Received the idea from a third-party and were also convinced by this party to pursue installation
- 4 Received the idea from a third-party but decided on our own to pursue installation
- 5 Other ➡ PD4c1. Describe _____
- 9 DON'T KNOW / REFUSED

[RECORD ANY EXPLANATORY COMMENTS] _____

****IF SELF-SPONSOR DOING ALL WORK THEMSELVES, SKIP TO PD6c,
IF SELF SPONSOR WITH EESP HELP, SKIP TO PD6a, ELSE CONTINUE****

PD4d. Who initiated contact? Did **SPONSOR** approach you or did you approach them to discuss installing the *Energy Efficiency Equipment*?

- 1 Customer initiated contact
- 2 EESP initiated contact
- 3 Other ➔PD4d1. Describe _____
- 9 DON'T KNOW / REFUSED

PD5b. Which of the following statements best describes the arrangement you have/had with **SPONSOR** with respect to allocation of the financial incentives from the LNSPC program? [READ LIST AND SELECT ONLY ONE]

- Program incentives will be used by your organization 1
- Program incentives will be used by your LNSPC Project Sponsor . 2
- Program incentives will be split between your organization and your LNSPC Project Sponsor, or you are receiving a reduced fee?..... 3
- Other _____ 4
- Don't know..... 98
- Refused..... 99

PD6a. How significant was the overall value of the services provided by **SPONSOR/FIRM** in influencing your decision to install the *Energy Efficiency Equipment*? Would you say the value of their services was very significant, somewhat significant, somewhat insignificant or very insignificant?

[RECORD PD6a and PD6b BY MEASURE OR END USE IF NEEDED]

- Very significant 1
- Somewhat significant..... 2
- Somewhat insignificant..... 3
- Very insignificant 4
- Don't know..... 98
- Refused..... 99

PD6b. Please describe the specific ways in which **SPONSOR/FIRM** contributed, if at all, to your decision to install the *Energy Efficient Equipment*?

PD6c. How significant was the LNSPC program financial incentive in influencing your decision to install the **Energy Efficiency Equipment**? Would you say the program’s financial incentive was very significant, somewhat significant, somewhat insignificant or very insignificant?

- Very significant 1
- Somewhat significant..... 2
- Somewhat insignificant..... 3
- Very insignificant 4
- Don’t know..... 98
- Refused..... 99

R3 Was your organization considering any other (competing) energy efficiency investments at the same time as the **Energy Efficiency Equipment** included in the LNSPC application that was not pursued?

- Yes R4a SPECIFY _____ 1
- No 2 SKIP TO PD7a _____
- DON’T KNOW / REFUSED TO ANSWER 9 SKIP TO PD7a _____

R4 Why was the **Energy Efficiency Equipment** chosen over these other investments?

PD7a. Without the LNSPC program, [READ NEXT CLAUSE FOR CUSTS WORKING WITH 3rd PARTY FIRMS:] including both the incentive **and** the contribution from **SPONSOR/FIRM**, how likely is it you would have installed the **Energy Efficient Equipment**? Would you...

- 1 Definitely would NOT have installed SKIP TO PD 9a _____
- 2 Probably would NOT have installed SKIP TO PD 9a _____
- 3 Probably would have installed
- 4 Definitely would have installed
- 9 DON’T KNOW / REFUSED

PD8a Without the LNSPC program, how likely is it that the equipment you purchased would have been as *energy efficient* as the equipment you did install? Would you say . . .

- 1 Probably NOT as efficient
- 2 Probably as efficient
- 3 Not applicable for measure (e.g. VSD)
- 4 Less energy efficient equipment would have been installed (e.g. fewer sites) of the same efficiency
- 9 DON’T KNOW / REFUSED

PD8b Without the LNSPC program, would you have installed the **Energy Efficient Equipment** at about the same time as currently planned or over a year later?

- 1 within 6 months of when it actually was installed?
- 2 6 months to one year later?
- 3 one to two years later?
- 4 two to three years later?
- 5 three to four years later?
- 6 four or more years later?
- 7 Never
- 9 DON'T KNOW / REFUSED TO ANSWER

SKIP TO PD10a

PD9a Without the LNSPC program, [READ NEXT CLAUSE FOR CUSTS WORKING WITH 3rd PARTY FIRMS:] including both the incentive **and** the contribution from **SPONSOR**, what type of equipment would you have most likely installed? Would you say. . .

- 1 Standard efficiency equipment
- 2 Equipment with above-standard efficiency but with lower efficiency than the equipment that was actually installed
- 3 Would not have installed anything
- 9 DON'T KNOW / REFUSED

PD9b Would you have installed the **Energy Efficient Equipment** at a later date? (How many years later?) [If over 1 year later, probe for best estimate of how many years later.]

- 1 within 6 months of when it actually was installed?
- 2 6 months to one year later?
- 3 one to two years later?
- 4 two to three years later?
- 5 three to four years later?
- 6 four or more years later?
- 8 Never
- 9 DON'T KNOW / REFUSED TO ANSWER

PD10a. Does your organization apply long-term investment analysis to energy equipment selection such as estimates of payback periods, life cycle costs (LCC) or internal rate of return (IRR)?

- Yes 1
- No..... 2 SKIP TO PD12a
- Don't Know/Refused..... 99 SKIP TO PD12a

PD10b. And, typically, how many years or less must the project payback be? [TRY TO FORCE ANSWER IN PAYBACK TERMS EVEN IF IRR OR LCC USED]

PD12a. Have you calculated the payback(s) or used other 'financials' for this LNSPC project?

- Yes..... 1
- No 2 SKIP TO P1
- Don't Know/Refused 99 SKIP TO P1

PD 12b And what do you estimate the payback(s) would have been with OR without the incentives?

ADD MORE LINES IF NEEDED BY MEASURE OR END USE

12.b.1 Payback with Incentives _____

12.b.2 Payback without Incentives _____

Don't Know/Refused _____

[CODE AS DON'T KNOW IF CANT GIVE WITHOUT CALCULATING]

LNSPC PROCESS-RELATED EXPERIENCE

P1 What do you like about the 2000 LNSPC program? (what do you view as the primary strengths?)

P2 What don't you like about the program? (what do you view as the primary features that need to be improved?)

P2a What do you think about the current incentive structure of the program? (Such as the payout schedule, energy vs. demand incentive levels, end use incentive levels, incentive levels for measured vs. calculated savings)

P2b Did any of the program incentive caps affect the type or extent of the project you chose?

- Yes 1
- No 2
- Did not affect project decision 3
- Don't Know/Refused..... 99

P2b2 Please explain:

- P2c Did the project qualify for any Summer Peak Incentive funds?
 - Yes 1
 - No 2
 - Don't know / Refused 99

- P3 Are application procedures and timing of feedback reasonable?
 - Yes 1
 - No 2
 - Don't Know/Refused..... 99

P3a Please explain:

P4a. How would you say that the overall program experience with [UTILITY] has been to date? Would you say...

- Excellent 1
- Good 2
- Acceptable, about what expected 3
- Somewhat poor 4
- Very Poor 5
- No contact with utility 6
- DON'T KNOW/NOT APPLICABLE..... 9

P4b. Why do you say that? [RECORD VERBATIM]

P5a Have you participated in an SPC program in prior years? (If yes,) in what year? was your application sponsored by an energy efficiency service provider (EESP) or were you a Self-Sponsor?

1998__ 1999__ Small__ Large__

- Yes, Self-Sponsored 1
- Yes, EESP-Sponsored..... 2
- No, did not participate in SPC previously 3 SKIP TO NS3
- DON'T KNOW/NOT APPLICABLE..... 9

P5b How has your experience this year differed from past experiences with the program?

PROGRAM NON-SPONSORS EXPERIENCE WITH 3RD PARTY FIRMS

**THIS SECTION FOR CUSTOMERS WORKING WITH 3rd PARTY FIRMS ON 2000 LNSPC
 SELF-SPONSORS DOING ALL WORK THEMSELVES SKIP TO NS6a ON NEXT PAGE**

NS3 Had you worked with **SPONSOR/FIRM** before you participated in the 2000 LNSPC program?
 Yes 1
 No 2
 Don't Know/Refused..... 99

NS4a For the purposes of this survey, we are defining Energy Performance Contracting as follows: a retrofit or new construction project in which energy savings are measured and verified (based on assumptions regarding the level of operations and the cost of energy being saved) and the company performing the work is paid only from total dollar savings actually produced by the project.

Would you describe **your** contractual arrangement with **SPONSOR/FIRM** as an **energy performance contract, fee for service contract** or **something else?**

Energy performance contract 1
 Shared savings (cust has some risk) 2
 Guaranteed savings (EESP has all risk) 3
 Fee-for-service/equipment contract..... 4
 Combination: performance contract & fee-for service..... 5
 EESP paid from incentives: fixed fee or 1st payment only 6
 EESP paid from incentives: tied to savings or % of all 3 pay'ts 7
 Part of larger contract..... 8
 Other 9
 NS4a1 (please describe)_____ 99
 Don't Know/Refused..... 99

[IF CONTRACT TYPE HAS PERFORMANCE ASK NS4c, ELSE SKIP TO NS6a

NS4c. And why did you choose a contract with a performance element for this project(s)?
[DON'T READ LIST]

Uncertainty over estimates of savings..... 1
 Didn't trust EESP 2
 EESP only offered to do work under performance contract 3
 Lack of access to capital, needed EESP to finance 4
 Wanted to share risk with third-party..... 5
 Able to use energy-efficiency savings to make equipment/
 facility upgrades that wouldn't be possible otherwise..... 6
 Other SPECIFY BELOW 7

NS4d. [DESCRIBE VERBATIM AS NECESSARY]:

NS6a. Were any of the energy-efficiency products, services, opportunities or M&V approaches provided by the **FIRM(s)** you worked with on your 2000 LNSPC project(s) new to you at the time they were offered? (Were there any you had not been aware of?)

- Yes 1
- No 2
- Don't Know/Refused..... 99

NS6b. Please elaborate. [CLARIFY IF UNDER PROGRAM OR NOT]

R6 Since January 2000, have you added to, replaced, or removed any other energy efficient equipment? (After becoming aware of the 2000 LNSPC Program)

- Yes 1
- No 2 SKIP TO NS14a
- DON'T KNOW/REFUSED 9 SKIP TO NS14a

R7 What type(s) of measures were added, and how many?

R8 Just to confirm, was the additional technology standard efficiency, or did you have to pay extra for high efficiency equipment?

- Yes 1
- No 2 SKIP TO NS14a
- DON'T KNOW/REFUSED 9 SKIP TO NS14a

R9 Were these changes made after you (first) participated in the LNSPC program?

- Yes 1
- No 2 SKIP TO NS14a
- DON'T KNOW/REFUSED 9 SKIP TO NS14a

R10 Were these changes in your [ENDUSE] equipment included as a part of your SPC project or other rebate program?

- Yes 1 SKIP TO NS14a
- No 2
- DON'T KNOW/REFUSED 9

R11 How significant was the LNSPC program in your selection of the additional equipment?

- Extremely significant..... 1
- Somewhat significant..... 2
- Somewhat insignificant..... 3
- Extremely insignificant..... 4
- Don't Know/Refused..... 99

R12 Why didn't your organization purchase this equipment through a retrofit or incentive program?

NS14a As a result of your participation in the program, do you plan to implement any additional energy efficiency measures elsewhere at this facility or at other facilities of your organization?

- Yes, plans more measures as result of participation 1
- Yes, plans more measures, NOT as a result of participation..... 2
- No, no plans for more measures 3 SKIP TO MV1
- Don't Know/Refused..... 99 SKIP TO MV1

NS14b **PROBE:** Please describe which measures, how many, and why?

NS15a And how significant was your 2000 LNSPC program experience in your plans to implement additional measures? **[CLARIFY PROGRAM EXPERIENCE REFERS TO ALL FEATURES INCLUDING INCENTIVES, M&V, EXPERIENCE WITH ESCOs THAT WOULD NOT HAVE OCCURRED OTHERWISE, ETC.]**

- Extremely significant..... 1
- Somewhat significant..... 2
- Somewhat insignificant..... 3
- Extremely insignificant..... 4
- Don't Know/Refused..... 99



2000 M&V RELATED experience

Now I'd like to go into some more detail about your organization's experience with the Measurement and Verification (M&V) requirements and results.

MV1. Please describe your experiences with the M&V process for your 2000 LNSPC projects. [Clarify which stage of milestone process issues (if any) arose, e.g., DPA M&V plan, baseline monitoring, actual first-year M&V results, etc.]

[USE IF HELPS] ___ No experience yet, hasn't started ___ EESP Handling it, Don't know what is involved

MV2. When you first decided to implement the projects included in the 2000 LNSPC, how uncertain, if at all, would you say you were about the estimated savings for these projects? Would you say:

[CAPTURE DIFFERENCE BY MEASURE IF NEEDED]

- Extremely uncertain 1
- Somewhat uncertain 2
- Somewhat certain 3
- Extremely certain 4
- Don't Know/Refused 99

IF EESP SPONSOR ASK MV3, ELSE SKIP TO MV4

MV3. And did the fact that the LNSPC Program required your EESP to have a contract for measured savings with [UTILITY] increase your confidence in the EESP's estimates of savings?

- Yes, greatly increased confidence 1
- Yes, somewhat increased confidence 2
- No, no affect on confidence 3
- Don't Know/Refused 99

MV4. Do you plan to use your M&V results to sell further energy-efficiency improvements to management and other decision makers within your organization?

- Yes 1
- No 2
- Don't Know/Refused 99

MV4a. Why/why not?

MV5 And overall, do you think the program Measurement & Verification requirements were reasonable?

- Yes 1
- No 2
- Don't Know/Refused 99

MV5a. Please Explain:

MV6. Do you have a rough estimate of how much the M&V for the program will cost?

- Yes 1
- No 2
- Don't Know/Refused 99

SKIP TO MV8

SKIP TO MV8

MV7. On average, what percent of the program incentives were expended, or are expected to be expended, on M&V? And how about for handling the BPA/DPA submittals (i.e. paperwork)?

- a. _____% of incentives for M&V b. _____% for BPA/DPA submittals
- _____ Don't Know/Refused _____ Don't Know/Refused

MV7b. RECORD ANY COMMENTS:

MV8. If it wasn't a program requirement, does your organization value the M&V results for energy-efficiency projects enough to be willing to pay for them?

- Yes 1
- No 2
- Depends 3
- Don't Know/Refused 99

SKIP TO DM3a

SKIP TO DM3a

MV8a. Explain if necessary:

MV9. (Assuming no incentives are available) Roughly how much on average, as a percent of total incremental project costs, are you generally willing to pay for measurement of savings?

- _____ % of total **incremental** high-efficiency project costs
- _____ Don't know/Refused



ENERGY-RELATED DECISION MAKING

Now I'd like to ask a question about how your organization generally makes energy-related decisions.

DM3a As a result of your participation in the 2000 LNSPC, have you made any changes in the ways in which your organization makes decisions about whether to implement energy-efficiency projects?

- Yes 1
- No..... 2
- Don't Know/Refused..... 99

DM3b Please Describe. (Use examples, such as specification policy or internal reward system for reducing energy costs. **[RECORD VERBATIM]**)

DM4 Are there any other positive or negative effects of your participation in the 2000 LNSPC that you would like to mention that we have not asked about?

THANK YOU FOR YOUR PARTICIPATION IN THIS STUDY.

OTHER INTERVIEWER NOTES :

(Include any comments on the net-to-gross story not covered in the structured questions):

2000/2001 LNSPC Participant EESP Interview Guide

NAME	PHONE
TITLE	FAX
COMPANY	E-MAIL
STREET ADDRESS	
CITY	INTERVIEWER
STATE	CALL DATES
ZIP	COMPLETE DATE
D&B SALES	D&B EMPLOYEES
2000 customers:	
2001 customers:	

Hello, my name is _____ and I am calling on behalf of the California Public Utilities Commission and the program evaluation staff at the California Utilities. May I please speak with _____?

We are conducting a study on behalf of the California Public Utilities Commission. We are contacting energy service companies who participated in California's Large Non-Residential Standard Performance Contract (LNSPC) program. Your input to this research would be very valuable and, if possible, we would like to interview you. The interview will take about 15 minutes, and any information that is provided during the interview will remain strictly confidential. We will not identify or attribute any of your comments or company information. Is this a good time, or can we schedule a convenient time in the next couple of days to talk?

[IF HESITANT:] Your input to this survey is very important for ensuring the long-term success of these programs. Without input from industry representatives such as you, we cannot guarantee that the program will receive a fair and complete evaluation.

[IF SCHEDULED:] Callback date/time:

Thank you for taking part in this survey. The major purposes of this study are to provide feedback to the utilities and CPUC on the design and administrative aspects of the program. This interview is focused on experiences with the program to date.

I. BACKGROUND INFORMATION (fill out before starting interview)

(CHECK DATABASES AHEAD OF TIME and CONFIRM FINDINGS)

A. For background purposes, which years has your firm participated in the SPC Program:

[note number of applications per year only if provided, do not prompt here]

- 1998 NSPC
- 1999 Small 1999 Large
- 2000 Small 2000 Large (detailed below)
- 2001 Small 2001 Large (detailed below)

B. Let's review the status of your (2000 and/or #2001) applications for the LNSPC program (not the small business SPC), how many are in each of the following categories?

[Note utility area as well as stage of project]

2000 LNSPC

Utility	Number of Applications				
	DPA Accepted	Project Installation Report	First-Year M&V Report	First-Year M&V Payment	Second-Year M&V Report
PG&E					
SCE					
SDG&E					
ALL					

2001 LNSPC

Utility	Number of Applications					
	BPA Submitted	BPA Accepted	DPA Submitted	DPA Accepted	Project Installed	First-Year M&V Report
PG&E						
SCE						
SDG&E						
ALL						

C. Have you had any projects that were cancelled, or put on hold?

- Yes.....1
- No.....2

D. If Yes, What happened with these projects?

E. What primary types of measures have you proposed installing in your LNSPC projects ?

F. And do you plan to, participate in the PY2002 LNSPC?

- 2. Plan to participate
- 3. Don't plan to participate
- 4. Don't know/not sure

G. Why?

H. What type of energy services firm are you?

[IMPORTANT: NOTE ANY UNIQUE "SELF-CLASSIFICATION" TERMS.]

- 1. "Traditional" ESCO (*predominantly performance-based contracts*)
- 2. Energy Efficiency Services Company (*EESP, mostly efficiency services*)
- 3. Retail Energy Service Company (RESCO) (*selling both commodity and efficiency services*)
- 4. Architecture / Engineering / Equipment Specifier
- 5. Building Maintenance and Operations
- 6. Equipment Vendor/Distributor
- 7. Other (*please describe*)

Comments:

II. FIRMOGRAPHICS

- A. Which of the following best describes the geographic focus of your operations?
 - 1. Local
 - 2. Regional
 - 3. Statewide (California)
 - 4. National
 - 5. International

- B. How many years has your company been providing energy efficiency services in California?

- C. Approximately how many full-time equivalent employees (FTEs) do you employ, including all in-house contractors?
 - 1. ___ # FTEs in California?
 - 2. ___ # FTEs nationally?

III. LNSPC PROCESS-RELATED INFORMATION

[BE SURE TO FOCUS ON THE YEAR FOR WHICH THEY WERE SAMPLED, Include comments on other year(s) only where provided]

The following questions focus on your experiences with the LNSPC Program specifically.

- A. Based upon your experiences, what do you view as the primary strengths of the LNSPC program and administrative requirements? (Has your perspective changed over time?)

2000: _____

2001: _____

Other: _____

B. Based upon your experiences, what do you view as the primary weaknesses of the LNSPC program? (Has your perspective changed over time?)

2000: _____

2001: _____

Other: _____

C. Please describe your experiences with the M&V process for your LNSPC projects. [Clarify at which stage or milestone, measured vs.calc and any issues with this process]

2000: _____

2001: _____

Other: _____

D. Please describe your experiences with the payment process for your LNSPC projects. Are payment procedures and timing of payments reasonable? Please explain.

2000: _____

2001: _____

Other: _____

E. P4a. How would you say that the overall program experience with the [UTILITY] M&V review has been to date? Would you say...

- 1. Excellent
- 2. Good
- 3. Acceptable, about what expected
- 4. Somewhat poor
- 5. Very Poor
- 6. No contact with utility
- 7. DON'T KNOW/NOT APPLICABLE

Please Explain: _____

F. Please describe any aspects of the Program that you think were better or worse than in prior years? (Make sure to get opinion of 2000 customers)

2000: _____

2001: _____

Other: _____

G. What do you think about the incentive structure of the 2001 LNSPC Program? (e.g. the payout schedule, energy vs. demand incentive levels, end use incentive levels, calculated vs. measured savings?)
___ N/A, Do not know enough about 2001 LNSPC

H. What is your opinion regarding the addition in the 2001 LNSPC Program of both a Calculated and a Measured savings option for (Measurement & Verification) M&V?

___ N/A, Do not know enough about 2001 LNSPC

IF WE DID NOT INTERVIEW ONE OF THEIR CUSTOMERS SKIP TO NEXT SECTION

IV. CUSTOMER SPECIFICS

CUSTOMER NAME	CUSTOMER INCENTIVE (interview customer with largest incentive)
NAME OF INTERVIEWEE	MEASURES INSTALLED
APPLICATION STAGE	NTGR

Now I would like to ask you a few questions regarding your experience with the application(s) you sponsored for *Customer* in PY200__. (We were able to talk briefly with someone from that firm and would like to talk with you to round out our understanding of the project experience.)

A. At what stage (is the application/are the applications)? _____

B. What measures (are being/have been) installed?

- C. In your opinion, how likely is it that *Customer* would have done the same project in absence of the program (same level of efficiency, same number of sites)?
 - 1. Very likely
 - 2. Somewhat likely
 - 3. Somewhat unlikely
 - 4. Very unlikely

D. Could you please elaborate on your role in the decision-making process regarding *Customer's* participation in the LNSPC Program?

SKIP E TO G AS NEEDED

E. In your opinion, in what way, if at all, would *Customer* have changed the project in absence of the LNSPC Program (level of efficiency, number of sites)?

F. (In your opinion) How likely is it that *Customer* would have hired you on this project in absence of the program?

G. (In your opinion) Would the timing of installation of the project been different in absence of the program? Yes, (if so how.. No Don't know

H. Do you recall how the Program incentives affected the payback on the project?

1. Payback already satisfactory to customer without incentives _____

2. Payback unsatisfactory to customer without incentives _____

Notes (incl. actual payback estimates) _____

I. What has been your experience with the M&V requirements for this project?

J. How, if at all, did the program incentive caps affect the type or extent of the project?

IF PARTICIPATING IN 2001 CONTINUE, OTHERWISE SKIP TO NEXT SECTION

K. Are you using Measured or Calculated Savings?
___ Calculated ___ Measured ___ Both

Comments: _____

V. LNSPC-RELATED MARKET AND PROGRAM EFFECTS

A. What effect, if any, has your participation in the LNSPC had on your business? (e.g. efficiency related business development, advertising, targeting, products/services offered)

B. What effect, if any, has California’s current energy crisis had on your business?

C. Do you have any examples of particularly innovative, comprehensive or emerging technologies projects that the LNSPC program made possible? (Try to get customer name)

VI. CONTRACTING, SALES, AND M&V SPECIFICS

A. Thinking about your sales efforts with large (over 500kW) customers in California, in what percentage of your sales efforts with them do you promote participation in the LNSPC?
_____ %

B. *[IF >0% and <100%]* What criteria do you use to decide whether to promote the LNSPC?

C. Of your LNSPC projects *[discussed on page 2]*, how many do you think you would have been able to sell anyway without the LNSPC incentive payments? _____ (# or %)

And why is that? (note if project size would have been reduced or if changes by year)

D. What reactions have you had from your LNSPC customers regarding the M&V results and the M&V requirements?

E. How do program M&V requirements differ from your firms standard practice for energy-efficiency related projects?

VII. WRAP-UP

A. And do you have any other comments or suggestions regarding your experience with the SPC Program?

THE END