Final Report for

The Evaluation of the 2002-2003 School Energy Efficiency Program

Program 177-02

Submitted by:

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1 EXECUTIVE SUMMARY

1.1 Overview

1.1.1 Program Background

In 2002, the California State and Consumer Services Agency (SCSA) was awarded funding from the California Public Utilities Commission (CPUC) to provide a local, information-only school energy efficiency program. This program was titled Local K-12 Schools Energy Efficiency (SEE) Program. Funding was originally provided for the period beginning in 2002 and continuing through December 2003. However, changes in the State of California's Gubernatorial and subsequent SCSA administration necessitated changes in the administration of the SEE Program. Given the delays due to the complexity of this transfer, the Program requested and was granted an extension of the program period to December 1, 2004 in order to complete planned program activities. The Program administration was officially transferred to the California Integrated Waste Management Board (CIWMB) as of May 2004.

The Program, under both the SCSA and CIWMB administrations[1], offered a unique program design, which funded a number of agencies and organizations (collectively referred to as "Program Partners") to offer a menu of curriculum and technical services to school districts. The Program was targeted at school districts in the 11 counties that comprise California's Central Valley (schools outside of the Central Valley Region could access a few resources, such as online tools). The SEE Program provided direct services to 55 school districts, which were intended to help them understand and take advantage of available opportunities to improve the energy performance of their schools. Also, the SEE Program planned and coordinated classroom energy education activities to teach students about energy conservation and efficiency and organized energy efficiency demonstration projects to be used as interactive learning tools for teachers and their students.

The primary role of the CIWMB/SCSA was coordination. In this role as coordinator, the CIWMB/SCSA capitalized on its established network of state partner agencies and private entities to create a portfolio of energy efficiency resources and services from a set of new and existing energy efficiency programs and services which, then, could be accessed by SEE Program participants.

1.1.2 Evaluation Activities

Vanward Consulting, in conjunction with Equipoise Consulting Inc., KEMA Consulting, Ridge & Associates, and Shel Feldman Management Consulting (the Team), conducted

[1] In this section we refer, separately, to both SCSA and CIWMB Program Administrators in order to detail more clearly the background of the Program. However, in the remaining sections, the report refers to CIWMB as the Program Administrator in that this agency ultimately assumed the role initially begun by SCSA. Only in those cases where it is particularly relevant to delineate SCSA do we refer to this agency as Administrator; however, the overall intent is one of simplification and is not intended to disassociate the connection of this agency with the Program.

the evaluation of the PY2002-2003 SEE Program. The evaluation entailed four primary activities that had multiple objectives as indicated below. Summarized findings and results are provided in the sections that follow.

The evaluation entailed the following main tasks and intended objectives:

- Level One Process Evaluation Activities: Designed to provide a complete program description and document marketing and program activities.
- Level Two Process Evaluation Activities: Designed to verify the accuracy of information provided by the Program (e.g., through audits, demonstrations, mobile labs, program materials, etc.).
- Level Three Process Evaluation Activities: Designed to provide a comprehensive process review, including interviews with district/school administrators and staff responsible for developing the district participation plans in conjunction with the SEE Program staff.
- Level One Impact Evaluation Activities: Designed to verify and/or document the achieved Program goals.

To conduct the process review the evaluation team conducted interviews and reviewed program data, materials, and progress reports. The Team conducted in-depth interviews with Program Staff[2]; representatives of programs funded through the SEE Program, and representatives of school districts participating in the SEE Program. The range of interviews was designed to capture the perspective and experiences of the myriad actors involved in the program, from administration, through implementation and participation.

From the review of all Program data received and the process interview results, the Team developed the Program description and documented program activities. The results of the process review (summarized below and discussed in detail in later sections of this report) are the expressed viewpoints of those interviewed as noted. While the findings are organized under various sub-headings in the report, they include all of the interview results rather than a selective reporting. Only in those cases where multiple respondents voiced the same opinion were the statements generalized and reported as a single finding. Where relevant, the total number of respondents making a specific statement is also indicated. In some cases only a single respondent or limited number of respondents make certain statements; however, these responses were also included, especially when they supported broader findings presented in the report.

Based on the overall process review, the Team developed recommendations that can be applied to future programs, including recommendations that may be helpful in avoiding obstacles and/or mitigating similar problems that could arise in the future with other programs.

[2] In this report "Program Staff" is a collective term that includes CIWMB staff, as well as contract employees who worked on the SEE Program under both the SCSA and CIWMB administration of the SEE Program.

1.2 Process Activities

A central issue framing the Program implementation and results was the need to transfer the program administration from the SCSA to the CIWMB as a result of the changes in the California State Administration in October 2003. The full impact of this transfer on the implementation process may have been significant enough to reasonably argue that the Program process did not receive a fair test. Nevertheless, the process evaluation aimed to examine and assess the effectiveness of Program processes and performance. Interviews with Staff, Partners, and Participants provided different perspectives on the Program depending on the issues and level of involvement each respondent had with particular elements of the Program. The following points summarize the key evaluation findings, the primary successes and issues identified, and form the basis for the evaluation team's overall recommendations.

Key Findings:

- **The evaluation team was unable to independently verify many Program goals due to data difficulties.** The Program Staff used the CPUC mandated monthly and quarterly reporting documents and templates to track Program activities and accomplishments and compiled a separate spreadsheet that reported the percent of goals achieved. The Evaluation Team used these monthly and quarterly reports submitted by Program Partners in an attempt to determine what activities were completed. The Team had difficulty determining from these documents what activities were conducted and were unable to independently verify the achievement of most goals. For a more thorough discussion of this finding, see Section 4.1.3 (Reporting and Communication) and Section 4.2.1 (Program Goals and Achievements).
- **The Program administration transfer had significant negative impacts on the Program process.** SEE Program momentum and effectiveness was stifled as a result of the state-mandated transfer of the program from SCSA to CIWMB. Despite the fact that the Program Staff made concerted efforts to lessen the impact of this transfer, both Staff and Partners expressed frustration with the contract and budget freeze (lasting approximately eight months beginning in 2003 that occurred during the transfer process).
- **Program Partners felt that the Program collaboration was positive.** Most Partners gave positive feedback regarding collaboration with the CIWMB and other Partner Programs. There were positive anecdotes about collaboration/resource sharing on events held. Two Partners interviewed were particularly positive about their interactions with other Program Partners, noting that they were "inspired" by the collaboration and creative ideas.
- **There was an effective approach to recruitment.** A majority of Program Partners indicated that the Program's approach to recruitment was appropriate and effective. Six of the seven Program Participants interviewed also indicated that the process to sign-up for the SEE Program was smooth.

- **The quality of information provided by the Program was good.** Based on an assessment of the information reviewed for this evaluation, the Team concluded that the quality of information provided by the Program was good. The energy education materials were tied to California curriculum standards, audit reports provided a high level of information to school administrators, and participants seemed to value information provided through the community energy education activities. One participant respondent noted that the "program materials were great."

In a few cases, there were mixed results as it relates to key issues examined:

- **Coordination of Partner activities**. Respondents had both praise and criticism related to the Program's coordination of Partner activities. Some respondents noted that the frequent conference calls were helpful in terms of knowing what other people involved with the Program were doing. Others found this approach to coordination excessive. Both Program Staff and Partners commented that the Program approach to managing multiple partner activities often led to double-and triple-calls from Program staff to check on implementation activities. One Partner interviewed indicated that their initial scope of work was scaled back because another Partner offered similar SEE activities.

- **The scope of Program activities.** A majority of Program Participants thought the wide menu of Program offerings to choose from was a good idea. Four of nine Partner agencies interviewed, however, were concerned that the Program over-saturated some school districts with too much information at once, making it difficult for some schools to clearly identify what materials or programs might be best for them. Partners expressed mixed views on the geographic coverage of the program. Two Program Participants noted that the program seemed "spread too thin" and could have had a deeper impact if participation had been limited. Three Partners were unclear why the SEE Program was limited to the Central Valley.

The program had a number of noted successes:

- **The Program reached under-served/disadvantaged communities.** Low income/rural schools in 11 Central Valley counties were targeted to receive the programs and services offered under the SEE Program. Program Staff and Partners interviewed emphasized that these under-served school districts would not have been as effectively reached without the SEE Program

- **Facility audits went very well.** Program Partners expressed interest and excitement about the information received in the facility audits. There was anecdotal information about dedicated facility staff, who saw significant savings on their monthly utility bills. Two Case Study respondents noted that the audit report information was used in presentations to school districts about best practices to save energy and money, and that audit no-cost recommendations were implemented.

- **The quality of information provided by the Program was good.** The evaluation team reviewed the information provided in the energy audits conducted by the Program and a sample of the energy education materials

provided to schools. In both cases, the quality of information reviewed was determined to be reasonably accurate and useful to participants.

- **The process to review Program curriculum materials was viewed as positive.** Interviewees noted that there was excellent communication with Program staff on review of Program curriculum materials to make sure it was all good quality. There was a technical/science review of materials, and they were screened for legal/social compliance and to ensure the content was accurate.

The evaluation also identified some process and implementation issues:

- **Program reporting requirements caused frustration among Partners and resulted in inconsistent information.** The Program was required by the California Public Utilities Commission to use reporting protocols and templates that proved challenging for Partners. Four of the five Program Staff and a majority of Program Partners interviewed reported frustration with the monthly reporting requirements. They found the requirements unclear and the resulting reports were inconsistent over the course of the program. Program staff report offering initial training and on-going assistance with the reports, but these efforts did not result in improved reports over time. The evaluation teams review of the filed reports found that the information provided was inconsistent and some reports were missing.
- **Insufficient follow-up with Participants regarding curriculum materials may have negatively affected program impacts.** After interviewing seven school participants across six schools, four respondents (one "high" and all three "medium" activity schools) indicated that they were not certain how (or whether) the curriculum materials distributed to their schools were utilized.
- **There was no central Program tracking database.** While the Program was not required by the CPUC to maintain a centralized tracking database that tracked either Partner or Participant activities, the lack of one made it difficult to assess Program progress towards goals. All Program Staff and Partners interviewed indicated there was no updated, single, central tracking system of school district Program activities. An additional Program Staff member referred to a comprehensive spreadsheet tracking progress by Partner, but this sheet showed percentage progress toward goals without supporting information of actual activities or the basis for the percentages.

  The District Participation Plans were designed to track Participant activities. Four of five Program Staff directly involved with Program implementation activities indicated that the DPPs were not updated to reflect changes in participation. A limited verification of District Participation Plans with school district activities indicated that the plans were not current, despite the Program's effort to update them in October 2004.
- **Collaborative approach to information dissemination.** Evaluation results are mixed regarding the efficacy of this type of collaborative approach to energy-efficiency information dissemination. Some Partners felt that the collaborative process was beneficial while others felt that they would have done better

operating outside the Program. While some evidence suggested that participants were overwhelmed with too much information and the Program lacked a cohesive vision, a final determination regarding the efficacy of this approach cannot be made without examining evidence on Program outcomes and impacts.

1.3 Impact Activities

The Program goal to enroll 55 school districts in the Program (at varying levels of involvement in each school district selected) was met, with 53 schools enrolled under the SCSA's administration of the Program, and the remaining two schools enrolled when the Program transferred to the CIWMB in 2004. While interviews with Partners and participants and Program documentation such as the total number of audits conducted provided some information about program performance, a lack of program tracking data and inadequate program documentation made it impossible for the team to verify the greater majority of the Program goals (see Section 4.2.1.2, Verifying Program Goals).

1.4 Recommendations

Although this specific Program is not funded for the 2004-2005 program year, the Evaluation Team developed general recommendations that are applicable across programs and, more specifically, for programs of this type and scope. Based upon interview feedback and a thorough review of program reports, the Team makes the following recommendations that cover all areas assessed:

- **Centralize tracking of Program information.** The Evaluation Team recommends that a centralized database of Program activities (both in terms of tasks and deliverables met to date, budget spent and budget remaining) be created and maintained for any program, but especially for a program of this size and scope. While individual reporting documents (monthly and quarterly narrative and cost reports) may be effective for providing program updates and progress reports, they are inefficient and ineffective tools for tracking and documenting program accomplishments.
- **Reporting requirements**. The Evaluation Team recognizes that the reporting templates used by the Program were developed and required by the CPUC. These requirements were designed by the CPUC for consistency across a wide variety of mandated programs implemented in California. Individual programs should, and usually do, institute additional reporting requirements with their subcontractors (in this case, Program Partners) that are specific to the program's activities and allow for ongoing monitoring and evaluation of program progress. This was not done for the SEE program. These program specific reporting requirements should take into account the specific deliverables of the individual Partners and clearly report progress toward each Partner's specific deliverables within a reporting period and program-to-date. The need for this tracking and reporting must be balanced against the Partner's limited resources to both deliver the Program activities and meet administrative requirements.

  - **Measure outcomes**. The Evaluation Team strongly recommends that programs of this type either survey participants or take steps to collect information about the program outcomes, in an attempt to document program successes.

- **Incremental and customized distribution of curriculum materials.** In cases where there are numerous quantities of Program materials to disburse to Participants, the Evaluation Team recommends phasing in materials as they fit into the course curriculum to increase the likelihood of utilization.
- **Wider material distribution.** The Evaluation Team recommends that sufficient quantities of curriculum materials be made available per district to have a broader impact in the classrooms.
- **Better-planned and sustained Program Participant follow-up**. The Evaluation Team recommends that Programs sustain a plan to follow-up with schools throughout the Program's timeline to ensure Program success. Though interview respondents offered examples of follow-up phone calls, e-mails, and in-person meetings with school districts, it is difficult to independently verify the degree and level of ongoing follow-up, since monthly and quarterly reports did not include this level of weekly detail. The Evaluation Team suggests consideration of a system to track all follow-up activities on an ongoing basis for any future program implementation.

The remainder of the report provides details to this summary.

2 OVERVIEW

2.1 Program

2.1.1 Program Background

In 2002, the California State and Consumer Services Agency (SCSA) was awarded funding from the California Public Utilities Commission (CPUC) to provide a local, information-only school energy efficiency program. This program was titled Local K-12 Schools Energy Efficiency (SEE) Program. Funding was provided for the period beginning in 2002 and continuing through December 2003. However, changes in the State of California's Gubernatorial and subsequent agency administration necessitated changes in the administration of the SEE Program. While most of the basic Program elements remained the same, the Program administration was officially transferred to the California Integrated Waste Management Board (CIWMB) as of May 2004, after the CIWMB adopted a resolution in January 2004 to administer the Program. Given delays due to the complexity of this transfer, the Program requested and was granted an extension of the program period to December 1, 2004 in order to complete planned program activities.

2.1.1.1 Program Implementation Overview

The Program, under both the SCSA and CIWMB administrations[3], was designed to fund a number of agencies and organizations (collectively referred to as "Program Partners") to offer a menu of curriculum and technical services to school districts. The Program was not offered statewide; rather, it was targeted at school districts in the 11 counties[4] that comprise California's Central Valley (schools outside of the Central Valley Region could access a few resources, such as online tools). The Program was offered on a voluntary basis to school districts, meaning that school districts in the targeted area choose to become involved with some, all, or none of the Program activities.

The SEE Program provided direct services to 55 school districts. These direct services were intended to help the school districts understand and take advantage of available opportunities to improve the energy performance of their schools. Also, the SEE Program planned and coordinated classroom energy education activities to teach students about energy conservation and efficiency and organized energy efficiency demonstration projects to be used as interactive learning tools for teachers and their students. Industry partners recruited by the SEE Program donated equipment and other in-kind services to help offset the costs of the projects.

The primary role of the CIWMB/SCSA was coordination. The CIWMB/SCSA was also responsible for directly administering some grants (i.e. Champion Grants and After School Grants) as well as overseeing direct implementation activities carried out by

[3] See also **Footnote 1**.

[4] The eleven counties served include: Merced, Stanislaus, Kern, Tulare, Kings, San Joaquin, Madera, Fresno, Yolo, El Dorado, and Mariposa.

ADM, a SEE Program subcontractor, on behalf of the CIWMB/SCSA. In this role as coordinator, the CIWMB/SCSA capitalized on its established network of partner agencies and private entities to create a portfolio of energy efficiency resources and services from a set of new and existing energy efficiency programs and services, which could be accessed by SEE Program participants.

Program Partners became involved in the Program as a result of SCSA's response to the CPUC's 2002 RFP for the Program. According to interviews conducted with Program Staff, the process for selecting which Partners would offer services under the SEE Program auspices was initially the internal decision of the SCSA as part of their proposal to the CPUC to administer the SEE Program and based on SCSA's perspectives about which state agencies and organizations would be best suited to meet the Program's objectives (detailed in **Section 2.1.2**). These Program Partners included[5]:

- CAC (California Arts Council)
- CEC (California Energy Commission)
- CDE (California Department of Education)
- CREEC Network (California Regional Environmental Education Community)
- CDF (California Department of Forestry and Fire Protection)
- CHPS (Collaborative for High Performance Schools)
- CCC (California Conservation Corps)
- DOC (California Department of Conservation)
- SJCOE (San Joaquin County Office of Education)
- FUSD (Fresno Unified School District)

Each Partner had a budget allocated through the Program, with associated tasks and deliverables. For a summary, see **Exhibit E-2** (**Appendix E**). This summary details the Program offerings available to all school districts in the 11 Central Valley counties targeted by the Program. In general, all school districts who enrolled in the Program were offered one set of curriculum materials (listed in **Section 4.1.2.4),** and the option to select a range of technical assistance opportunities (e.g. building audits, demonstration projects), apply for grants such as After School Program grants or Champion Grants, participate in workshops, utilize mobile energy labs, demonstration projects, or have

[5] There was not a clear definition of what constituted a "Program Partner" within either the SCSA or the CIWMB. Some Program budget documents (including the three "Request for Changes" documents summarized in **Exhibit E-2** in **Appendix E**) refer to "Fresno Unified School District" and "San Joaquin County Office of Education" as Program Partners since they had a separate contract and budget line item. However, such a distinction was not uniform. For example, according to the most recent narrative reports and cost spreadsheets made available by Program Staff (see **Exhibits E-3** and **E-4** in **Appendix E**), the Fresno Unified School District submitted no cost spreadsheets and 3 quarterly narrative activity reports to the Program administrators, which was a specific requirement for Program Partners. Records provided to the Evaluation Team also reflect no cost spreadsheets or narratives submitted by San Joaquin County Office of Education, although Program Staff indicate that these Partners had a quarterly reporting requirement.

assemblies and events planned at schools within their districts. For a discussion of what school districts actually implemented through the SEE Program, see **Section 4.1.2.2** (Participation Levels) and **Section 4.1.2.3** (District Participation Plans).

Marketing of the Program and the process for participating are detailed in **Section 4.1.2.1**. The goal was to execute an "Agreement of Participation" with the school district and fill out a District Participation Plan (DPP). The DPP was designed to give school districts a record of their SEE Program involvement and goals. Subsequent Partner follow-ups occurred to implement the specific Program activities the school district identified initially in its DPP. See **Section 4.1.2.3** for discussions about the District Participation Plan.

The CREEC Network (California Regional Environmental Education Community) was initially selected by the SCSA to be the core contact between the Program and the school districts, and continued in this role when the Program was transferred to the CIWMB. Notably, Program Staff and Partners had different views on how effective the CREEC coordinators were in explaining the Program and motivating schools to become involved, as discussed in **Section 4.1.4.3**.

2.1.2 Program Objectives

The two overarching objectives of the SEE Program are:

1) to improve public education facilities and educate facility operators and administrators about the benefits of energy efficient equipment and operations practices; and
2) to educate K-12 students about energy, energy efficiency, conservation, and how to apply what they learn at home and in their communities.

To achieve these overarching objectives, the different SEE Program elements were designed around two sub-objectives. The sub-objectives and associated SEE Program elements are as follows:

1. To help participating school districts understand and take advantage of the opportunities to improve the energy performance of their schools.

   Program Elements Designed To Achieve This Sub-objective:

   - *Benchmarking Assistance*
   - *Coordination of Energy Audits*
   - *Advanced Technical Support*
   - *Professional Development Training*

2. To Help plan and coordinate classroom energy education activities to teach students about energy conservation and efficiency and use school site demonstration or retrofit projects as an interactive learning tool for teachers and students.

   Program Elements Designed To Achieve This Sub-objective:

   - *Create and foster healthier learning environments*

- *Encourage behavioral changes*
- *Identify and provide educational activities*
- *Create recognition opportunities*

While no specific metrics were defined in the program implementation plan to assess the achievement of identified program goals, the Team conducted an Evaluability Assessment (See **Appendix C**) to identify and develop appropriate evaluation activities designed to assess and/or document the achievement of these goals and program performance as summarized in the next section.

2.2 Evaluation

2.2.1 Evaluation Activities

Vanward Consulting, in conjunction with Equipoise Consulting Inc., KEMA Inc., Ridge & Associates, and Shel Feldman Management Consulting (the Team) conducted the evaluation of the Program Year (PY) 2002-2003 CIWMB/SCSA SEE Program (Program No. 177-02). Although the official program period was designated as 2002-2003, granted extensions meant that program activities occurred through December 1, 2004. Given the various changes that resulted because of the complexity of the Program Administration Transfer and subsequent delays in getting the evaluation plan approved, the Team had a very short time period to conduct the evaluation study. Ultimately, the entire Phase II Program evaluation had to be conducted between September 2004 and January 2005. As such, the Team felt that by concentrating evaluation efforts on process activities, along with some basic impact activities, we could best focus the evaluation efforts within the available timeframe.

In summary, the evaluation entailed the following tasks:

- Level One Process Evaluation Activities: Designed to provide a complete program description and document marketing and program activities.
- Level Two Process Evaluation Activities: Designed to verify the accuracy of information provided by the Program (e.g., through audits, demonstrations, mobile labs, program materials, etc.).
- Level Three Process Evaluation Activities: Designed to provide a comprehensive process review, including interviews with district/school administrators and staff responsible for developing the district participation plans in conjunction with the SEE Program staff.
- Level One Impact Evaluation Activities: Designed to verify and/or document the achieved Program goals.

More specifically, the Level One process evaluation activities were designed to develop a comprehensive description and review of the core program and with the bulk of this information included in the appendices in the final report. The Level One process evaluation included descriptions, documentation, and/or counts of the following, as appropriate:

- types of marketing and outreach methods and how districts learn about and make contact with the SEE Program;
- key marketing/program materials used;
- key program elements provided by SEE Program Partners including efforts to provide auditing/benchmarking assistance, advanced technical support; and, customized district participation plans[6]; and,
- the coordination and collaboration between CIWMB/SCSA and the Program partners and other market actors.

The purpose of the level-two process evaluation activities was to investigate the quality of the information provided through the Program by assessing whether the information provided was reasonably accurate and useful to participants. The relevance of and participant satisfaction with Program elements/materials, and the benefit or usefulness of the auditing/benchmarking and energy tracking activities was investigated.[7]

Specific analysis activities included:

- review of auditing/benchmarking results (which entailed a review of the energy consumption tracking, savings information, and the algorithms used to derive the savings estimates provided to schools);
- review of a sample of energy education materials;
- review of the energy information provided through community energy education activities; and,
- interviews with program participants (e.g., district administrators/staff, facility operators and/or custodial staff, teachers/educators).

The Level Three process review comprised the bulk of the evaluation and was designed to:

- assess how the Program was implemented as compared to the filed Program Implementation Plan (PIP);
- assess CIWMB's (SCSA's) role as coordinator; and
- explore challenges the Program faced and how these challenges were handled and affected program implementation.

[6] Time did not permit the Team to investigate every facet of the Program. The evaluation did not include a specific review of the professional development training activities or materials, or of the technical data and information provided to participants through demonstration and retrofit/modernization/new construction projects.

[7] While the Team was able to assess Participant satisfaction to some extent and the level of Participant satisfaction with some key Program areas, it was not possible to provide a comprehensive assessment of satisfaction with all Program elements. The extent of this evaluation activity was limited by available data and the inability to conduct a more comprehensive survey of Program Participants due to time constraints.

To conduct this process review we conducted interviews and reviewed program materials and progress reports. We conducted in-depth interviews with Program staff[8]; representatives of programs funded through the SEE program, and representatives of school districts participating in the SEE program. Although the interviews with participating school districts were intended to be in-depth case studies, the limited availability of respondents in this group, specifically of teachers, meant that they did not produce as comprehensive results as the Team would have hoped. Nevertheless, the range of interviews was designed to capture the perspective and experiences of the myriad actors involved in the program, from administration, through implementation and participation. Based on the overall process review, we developed recommendations that can be used to improve future programs, including recommendations to avoid and/or mitigate similar obstacles from arising in the future with other Programs. These activities are discussed in more detail in **Section 3** and the study recommendations are presented in **Section 4**.

Again, because of the very short timeframe for conducting an evaluation of a Program of this size and magnitude, we focused our efforts on key Program elements and activities that would serve to provide the most comprehensive and accurate review of the Program as it was implemented in the field.

2.2.2 Objectives

As detailed in **Section 3,** the process and impact activities are designed to:

1. Describe and document the Program (including marketing activities and program elements);
2. Verify the quality and accuracy of information provided by the Program;
3. Provide a complete process review; and
4. Document and/or verify the achievement of Program goals.

2.2.3 CPUC Stipulated Items

The CPUC Energy Efficiency Policy Manual[9] stipulated eight specific Evaluation, Measurement, & Verification (EM&V) objectives. **Exhibit 2-1** below presents specifically how the evaluation met each of the policy manual objectives.

[8] Program Staff includes employees of the CIWMB as well as consultants hired by the CIWMB to work on the SEE program. In our discussions we make no distinction between employment statuses in order to maintain confidentiality. See also **Footnote 2**.

[9] California Public Utilities Commission. Attachment 1. Energy Efficiency Policy Manual. November 29, 2001.

Exhibit 2-1:
CPUC Policy Manual EM&V Objectives

EM&V OBJECTIVES	HOW THE EVALUATION MET THE OBJECTIVE
1. Measuring level of energy and peak demand savings achieved.	*As this is an information program, no energy or demand impacts were expected and were not estimated in this evaluation.*
2. Measuring cost-effectiveness (except information-only)	*This is an information only program and hence, no such analysis was required.*
3. Providing up-front market assessments and baseline analysis, especially for new programs	*While this specific Program is new, many of its Program elements consisted of existing energy-efficiency Programs and school energy efficiency programs that were not new. In that other baseline analyses have been completed within the last five years of school programs, a baseline analysis was not done as a part of this evaluation. Some of these previous evaluation studies are listed in the Bibliography Section of this report.*
4. Providing ongoing feedback, and corrective and constructive guidance regarding the implementation of programs.	*This was provided via the recommendations section in this report.*
5. Measuring indicators of the effectiveness of specific programs, including testing of the assumptions that underlie the program theory and approach.	*The Vanward Team articulated the program and implementation theories, identified possible indicators of immediate, intermediate, and long-range outcomes, and assessed the desirability and feasibility of obtaining these data in light of the stated Program objectives. Study results were compiled relating to key linkages identified in the program and implementation theories.*
6. Assessing the overall levels of performance and success of programs.	*The Vanward Team documented the extent to which the Program achieved its stated objectives. Data were gathered from program records, participant case studies, and in-depth interviews with Program Staff and Partners, to assess the overall level of performance and success of the Program. The results of that assessment are included in this report.*
7. Informing decisions regarding compensation and final payments.	*Because this is an information-only program, this objective was not required.*
8. Helping to assess whether there is a continuing need for the program.	*In that this Program is not being implemented in future periods, such an assessment was not specifically made. However, the results of this evaluation were designed to inform the decision to fund future Programs in general or Programs of this type.*

In addition to meeting the objectives above, the CPUC required that all evaluation plans should address the components listed in **Exhibit 2-2**. Because the SEE Program is an

information-only program, only the non-shaded components of **Exhibit 2-2** were addressed in this evaluation.

Exhibit 2-2:
Components of an EM&V Plan

Baseline Information *(not covered in this evaluation)*
• Determine whether or not baseline data exist upon which to base energy savings measurement. Existing baseline studies can be found on the California Measurement Advisory Committee website (http://www.calmac.org/) and/or the California Energy Commission website (http://www.energy.ca.gov/). Detailed sources of baseline data should be cited.
• If baseline data do not exist, the implementer will need to conduct a baseline study (gather baseline energy and operating data) on the operation(s) to be affected by the energy efficiency measures proposed.
• If the baseline data do not exist and the implementer can show that a baseline study is too difficult, expensive or otherwise impossible to carry out prior to program implementation, the contractor should then provide evidence that baseline data can be produced or acquired during the program implementation. This process should then be detailed in the EM&V plan.
Energy Efficiency Measure Information *(not fully covered in this evaluation)*[10]
• Full description of energy efficiency measures included in the program, including assumptions about important variables and unknowns, especially those affecting energy savings.
• Full description of the intended results of the measures.
Measurement and Verification Approach *(not covered in this evaluation)*
• Reference to appropriate IPMVP option.
• Description of any deviation from IPMVP approach.
• Schedule for acquiring project-specific data.
Evaluation Approach
• A list of questions to be answered through the program evaluation.
• A list of evaluation tasks/activities to be undertaken during the course of program implementation.
• A description of how evaluation will be used to meet all of the Commission objectives described above.

The evaluation approach was detailed in the final research plan dated May 25, 2004 and is presented in **Section 3** of this report.

In order to better focus the efforts in addressing these three main areas of evaluation, a program logic model was developed detailing how this program is operated and is designed to achieve its stated objectives. The next section discusses the program logic model.

[10] An in-depth review was not conducted; a partial review based on a sample of audits was conducted. In this review the Team covered the validity of some of the energy savings measures but did not look into whether the recommendations were implemented.

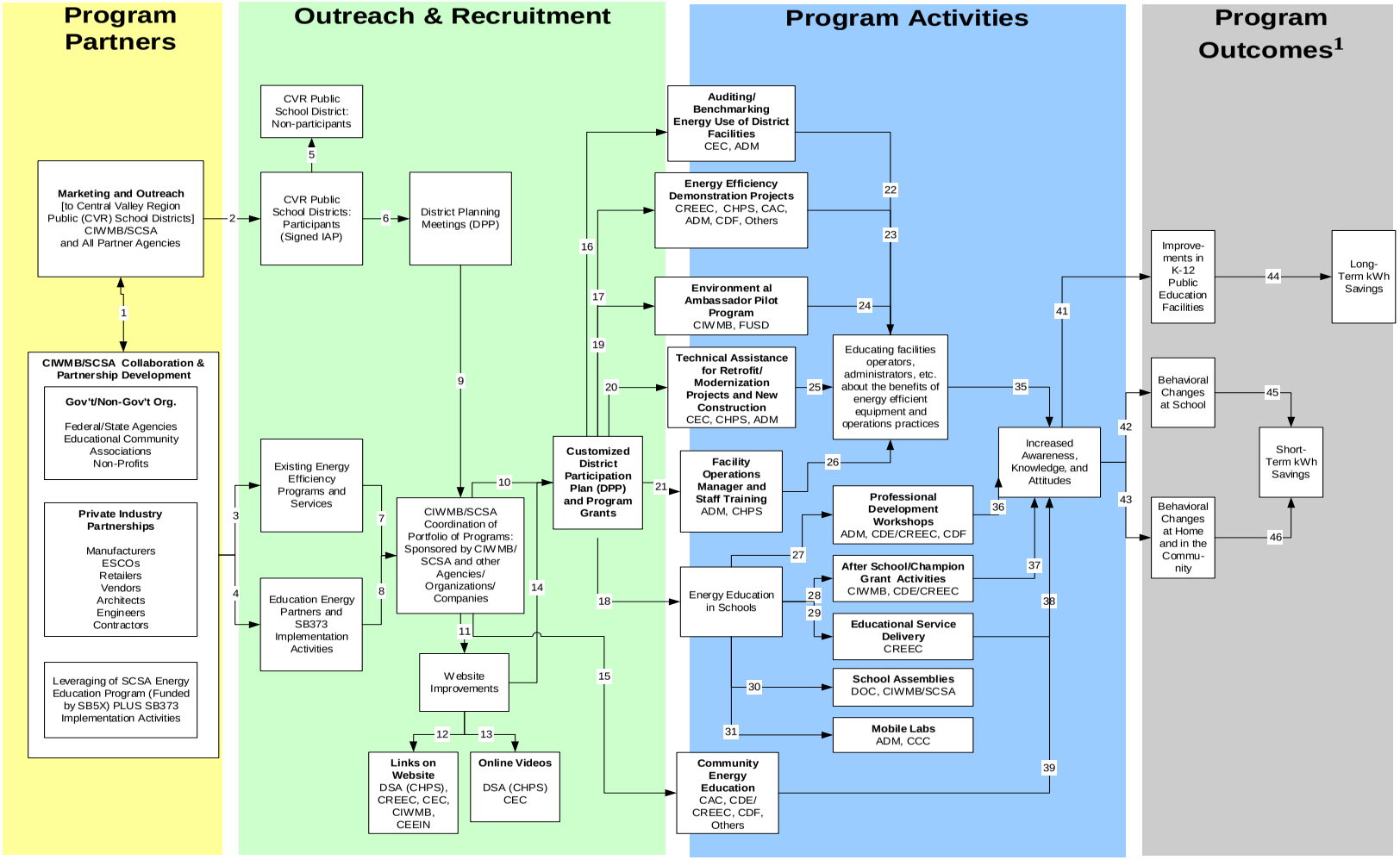
2.2.4 Program Logic Model

Some authors (Rogers et al, 2000) have posited two very basic types of theories that can be used in program evaluation: 1) implementation theory, and 2) program theory. DSM implementation theory depicts the basic flow and mechanics of the program consisting of a sequence of activities that begin with program outreach and end with customers' adoption of recommended measures and/or practices. The *implementation theory* tells the evaluator *how* the program is supposed to operate in the field. In a process evaluation, the evaluator can examine the field implementation of a program to determine if there are any significant deviations from the intended program design. If there are, the evaluator can explore why these deviations occurred and what they imply regarding the achievement of any of the expected outcomes. The *program theory* seeks to explain *why* the program activities (i.e., the underlying mechanisms) are expected to lead to the achievement of immediate, intermediate, and long-term outcomes. Weiss (1997) stresses that understanding the underlying theory of the program is essential to developing the most appropriate evaluation, and that a good evaluation is based on defining and analyzing the assumptions of the program theory.

The program logic model provided in **Exhibit 2-3** depicts both SEE activities and the hypothesized direct and indirect causal linkages between these activities and the desired impacts. As such, the program logic model combines elements of both program theory and implementation theory by illustrating the Program inputs and outputs and the intended outcomes that result. There are many different areas in which programs can go astray but, by focusing on the logic model, evaluators can keep themselves on track and provide a meaningful assessment.

The SEE Program evaluation was completed in two Phases. Phase I involved an Evaluability Assessment of the Program to support the development of a research plan, which was to be implemented in Phase II. Phase I took place from November 2003 to June 2004. The details of the Evaluability Assessment are provided in **Appendix C**. The evaluation tasks developed through this assessment form the basis for the evaluation approach detailed in **Section 3** and conducted in Phase II (from September 2004 to January 2005) and guide the data collection efforts, which are described in the following section.

Exhibit 2-3
SEE Program Logic Model[11]



[11] Elements shaded grey in the "Outcomes" category were not measured or formally tracked or reported. While the kWh savings possible if all audit measures were implemented were noted in audit reports, neither measures implemented nor savings achieved were tracked.

3 METHODS

This section provides the rationale for how the evaluation was conducted.

Based on the Evaluability Assessment (**Appendix C**) the evaluation consisted of three primary activities in order to provide the needed information:

1. Description and documentation of specific program elements and/or methods;
2. An assessment of the SEE Program via basic process evaluation activities focusing on CIWMB's role as coordinator, the accuracy of information provided by the Program, and key, core program components; and,
3. An assessment of the SEE Program via basic impact evaluation activities to document and/or verify Program goal achievements.

Below we describe the data collection efforts and methods for the process and impact evaluation tasks conducted, as well as note specific evaluation challenges encountered.

3.1 Data Sources

We gathered data from both primary and secondary sources. All data collection took place during the last quarter of 2004, and was concluded in January 2005.

3.1.1 Primary Data Collection

Between November 2004 and January 2005, the Evaluation Team conducted 25 in-depth interviews. Respondents included SEE Program Staff (5), SEE Program Partners (13), and SEE Program Participants (7). **Exhibit 3-1** below summarizes this information. All interview responses were compiled confidentially and are reported without specific reference to respondent by either name or affiliation. The three protocols used to conduct these interviews are included in **Appendix B**.

Note that the findings presented in Section **4** are the expressed viewpoints made by the respective Interviewees. While the findings are organized under various sub-headings, the report includes all of the interview results rather than a selective reporting. Only in those cases where multiple respondents voiced the same opinion were the statements generalized and reported as a single finding. Where relevant the total number of respondents making a specific statement is also indicated. Occasionally, only a single respondent or limited number of respondents made certain statements; however, these findings were also included, especially when they supported broader findings presented in the report.

Exhibit 3-1
Completed Interviews by Interview Group

Total Completes by Interview Group	
Interview Group	**Number of Completed Interviews**
SEE Program Staff	5
SEE Program Partners	13
SEE Program Participants (Case Study Interviewees)	7
TOTAL	**25**

3.1.1.1 Program Partner and Staff Interviews

Five interviews were completed with Program Staff and 13 interviews were completed with Program Partners, who represented eight different partner agencies or organizations (and one sub-contractor). **Exhibit 3-2** provides information on the interviews completed by Partner Agency.

In all cases, interviews were conducted with Program Staff and Partners directly involved with Program recruitment, material development and distribution, Program reporting, and/or implementing Program tasks.

Exhibit 3-2:
SEE Program Partner Interview Completes

SEE Program Partner	Number of Completed Interviews
ADM Associates Inc.	3 (includes one interview with an ADM sub-contractor)
CAC (California Arts Council)	1
CEC (California Energy Commission)	1
CDE (California Department of Education)	1
CREEC Network (California Regional Environmental Education Community)	3
CDF (California Department of Forestry and Fire Protection)	1
CHPS (Collaborative for High Performance Schools)	1
CCC (California Conservation Corps)	0 (unable to contact for an interview after more than four attempts made)
DOC (California Department of Conservation)	2
TOTAL	**13**

3.1.1.2 Participant Interviews

The original evaluation plan entailed surveys of a variety of people who participated in the Program, including administrators, teachers, and facilities staff, to assess the use of the materials as well as participant satisfaction and perceptions of the Program. However, time constraints forced us to scale back the number of interviews and restrict the scope of the interviews to only district administrators, not facilities staff or teachers.[12] However, after reviewing the Program DPP data obtained, the Team determined that in order to provide a comprehensive picture of participation, it would be necessary to

[12] As previously noted, there were various challenges that arose because of the need to change the Program Administration to the CIWMB; in addition, the approval of the evaluation was also delayed. The original plan was not initially recommended for approval until August 29, 2004 leaving only 4 months for the Evaluation Team to complete the entire Phase II evaluation (the SEE Program extension ended December 1, 2004, which necessitated that the Program Evaluation Report was due to be submitted by February 1, 2005). Given the complex nature and magnitude of the Program, the Team realized that modifications to the original plan were required in order to best use evaluation resources and to develop a plan that could be completed within the available time. The Team requested revisions to the original plan, and received initial word on September 29th that these revisions would be recommended for approval; formal approval for these final revisions was received on October 4, 2004.

capture the viewpoints of more than just district administrators. Essentially, the Team faced the same problem as initially, in that there was not sufficient time to survey all three participant groups. Therefore, the Team decided to follow a smaller-scaled effort or case study approach, in order to satisfy the requirement to conduct interviews of district administrators. The added benefit would be that this format also would allow us to capture the viewpoints of and obtain feedback from other relevant participant groups besides district administrators. The plan was to conduct six case studies of district participants including administrators, facilities staff, and teachers. Ultimately, we were unable to reach teachers in each district selected for the case studies, and so the case study findings do not fully reflect the viewpoint of all those who participated in the program.

To conduct the case studies, we categorized the participating school districts into three groups based on levels of participation – "high," "medium," and "low." We sampled school districts from each level of participation to assess how level of participation affected program experience and perception, as well as to determine what led to the various levels of participation.

We determined the level of school district participation based upon the District Participation Plans (DPP) developed as part of the process for entering into the program. The DPP identified the program activities that the school district intended to complete, but was not updated to reflect actual activities. The DPP was designed to identify three people within the school district who would be involved – an administrator, an educator and a buildings/facilities person. We attempted interviews with all three contacts, if they were listed, but were unable to interview all three contacts in each case. See **Exhibit 3-3** for a more complete reporting of the participation levels, respondents, and a summary of the sampling strategy for the case study interviews and number of completed interviews.

Exhibit 3-3:
SEE Program Case Study Sample and Completes

Level of Program Involvement*	Definition*	Number of school districts per Category	Number of Completes
"High"	Participated in a Demonstration Project, energy audits, and with at least 3 other SEE Program Partners	8	1 school (2 respondents)
"Medium"	Participated in a facility audit and with at least 2 other SEE Program Partners	21	3 schools (1 respondent per school)
"Low"	Had 2 or fewer Program Partner interactions	18	2 schools (1 respondent per school)
Total		54**	6 schools (7 respondents)

* These strata were developed using the District Participation Plans (DPPs). While these DPPs had shortcomings (discussed elsewhere in this report), they were the only record of school district activities compiled. A stratified random sample was used rather than a simple random sample of schools to identify whether program feedback varied based on the level of program involvement.

** While the total number of school districts participating in SEE was 55, only 53 filed a DPP prior to the Program transferring to the CIWMB. According to the most recent DPPs provided by the CIWMB, 1 school district did not file a DPP.

The timing of the case study interviews coincided with the end of the school semester, making it difficult to reach teachers and administrators. After the first of the year, however, interviewers still found it difficult to reach participants who were willing or able to offer their feedback about the Program. Of the representatives in the six schools who agreed to discuss the program confidentially, five indicated that there was a teacher involved with their implementation of the SEE Program. Despite multiple contact attempts where messages were left, interviewers were unable to reach teachers in order to conduct an interview. As a result, the case study feedback does not fully represent the perspectives of participants, who used the SEE Program curriculum materials, and could respond regarding those materials that were most useful (and conversely, teachers who may have chosen not to use SEE Program materials and why).

3.1.2 Secondary Data Collection

We gathered secondary data from program monthly reports and planning documents to obtain information on program goals, activities, accomplishments, and expenditures. Program Staff provided this information to the Evaluation Team. Secondary information included formal reports submitted to the Program Staff by Partners regarding monthly

and quarterly activities and supporting documents to implement the Program (e.g. workshop attendance, partner lists, and cost reports). Specifically, the following documents were obtained and analyzed to verify program goals:

- List of districts to which the CIWMB/SCSA marketed the program and who agreed to participate.
- District Participation Plans.
- Program educational materials.
- Lists of administrators, teachers, and custodians who participated in the program.
- Monthly and quarterly reports submitted by Program Partners to the CIWMB and compiled by the CIWMB for filing with the CPUC.
- Database of energy audits and the recommended measures.
- Energy audit reports and engineering back-up data.

The types of evaluation questions investigated by data source are indicated in **Exhibit 3-4**. The evaluation methods incorporated both process and impact activities to address the questions posed here.

Exhibit 3-4:
Evaluation Question, by Source of Data

Evaluation Question	Program Logic Model Link	Program Staff Interviews	Program Partner Interviews	Case Studies of Program Participants	Review of Program Information
How do districts learn about and make contact with the SEE Program?	**2**	**X**	**X**	**X**	
To what extent are marketing efforts coordinated?	**1, 2**	**X**	**X**	**X**	
What types of energy education materials are provided by the Program/Partners?	**15, 18, 27-31**	**X**	**X**	**X**	**X**
How accurate/useful is the information provided by the Program and Partners?	**16, 17, 20, 21, 27**	**X**	**X**	**X**	**X**
What types of coordination and collaboration exist between the implementers (to what extent was there	**7, 8, 10**	**X**	**X**		

Evaluation Question	Program Logic Model Link	Program Staff Interviews	Program Partner Interviews	Case Studies of Program Participants	Review of Program Information
"cross-fertilization")?					
How successful was the Program at achieving their overarching objectives?	**22-26, 36-39**	**X**	**X**	**X**	**X**
How effective was the process for implementing the Program?	**1-4, 6-10, 15-21, 27-31**	**X**	**X**	**X**	
How effective was the process for participating in the Program?	**2, 6, 10, 15-21, 27-31**			**X**	
How effective was the process for developing the District Participation Plan?	**6, 10**	**X**	**X**	**X**	
How beneficial/useful are the District Participation Plans?	**6, 10**	**X**	**X**	**X**	
To what extent was it beneficial to districts to have access to a portfolio of energy efficiency Programs?	**10**	**X**	**X**	**X**	
How faithful was the program implemented per the PIP and what were the reasons for deviations, if any?	**1-4, 6-10, 15-21, 27-31**	**X**	**X**	**X**	**X**
How successful was the Program at reaching its stated goals?	**1, 15-21, 27-31**	**X**	**X**	**X**	**X**

3.2 Process Evaluation Activities

The Evaluation Team collected information about the SEE Program processes to identify the role of CIWMB/SCSA as coordinator, the process for implementing different Program elements, the number of Program participants, a basic review of the material and resources available to participants, the types of marketing efforts conducted, and any deviations from the original program plan. This information was gathered from compiling information within the Program's monthly and quarterly Partner reporting

documents, and from in-depth interviews with Program staff, Partners, and a sample of School District Participants (see **Section 3.1** for a discussion of data collection methodology).

Feedback on Program design and processes is presented in **Section 4.1** and segmented under topic headings that include: program involvement (roles, drivers); recruitment, marketing, and outreach; reporting and communication; implementation challenges and successes; and program information assessment. An assessment of the quality of information provided by the Program also is presented in **Section 4.1** (See **Section 4.1.5**) and includes: a review of energy education materials provided through the Program, a review of audits/benchmarking information, and a review of the energy information provided through the community energy education activities.

3.2.1 In-depth Interviews and Program Documentation Review

The Level One and Level Three process evaluation activities involved in-depth interviews as well as a review of program information, including: monthly and quarterly Program reports, cost spreadsheets, and other program documentation. As noted above, **Exhibit 3-4** summarizes the evaluation questions the in-depth interviews sought to address. These interviews with Staff, Partners, and Participants provided different perspectives on the Program depending on the issues and level of involvement each respondent had with the Program.

3.2.2 Quality of Information Review

3.2.2.1 Energy Education Materials

A sample of energy education materials were obtained and reviewed by the Evaluation Team, some of which were also posted on the ADM SEE Program website. The evaluation timeframe did not permit an extensive review of all educational materials provided through the Program; thus, our review is intended, primarily, to document and describe the types of materials provided to Participants. The process interviews also were a source of feedback regarding the quality of information provided in the energy education materials (See **Section 4.1**). The materials reviewed include:

- The Mobile Energy Laboratory Student Activities Handbook and Teacher's Guide
- Power Shift Video and Teacher Guide
- You've Got the Power Video and CD
- The Kid's Flex Your Power Energy Challenge Page and Teaching Guide

The materials reviewed represent a sample of the materials available through the Program and cover a wide variety of media including videos, CDs, handbooks, guides, as well as interactive activities and lessons. The complete review of the energy education materials is presented in **Section 4.1.5.1**.

3.2.2.2 Audit Reports / Benchmarking Information

The Evaluation Team conducted an extensive review of ten different school audit reports. These sites were randomly chosen from the database of 121 schools (the complete database of 128 school audits was not yet available at the time of the analysis). These ten

sites represented 9 percent of the total projected kWh savings at the time and 7 percent of the projected cost savings. There were 8 elementary schools, 1 middle school, and 1 high school reviewed. The audit, which was available online, was downloaded and reviewed. As some questions arose, the program implementers were asked to clarify issues. Description of the recommendations within the audits followed by an assessment of the estimates is presented in **Section 4.1.5.1**.

3.2.2.3 Community Energy Education

Lastly, as part of the Level 2 process evaluation, the Evaluation Team attended one of the community energy education outreach activities. Among these activities were two one-day workshops that took place on November 17, 2004 and November 18, 2004 in Bakersfield and Madera, respectively. The Team reviewed the information presented at the Madera event and also reviewed the results of a brief survey of event participants (from both events) developed by the SEE Program staff. The exit survey was designed to inquire about participant perceptions of the usefulness and benefit of the event as well as determine whether the participants had any questions or suggestions on how the events could be improved. The general findings from this information review are presented in **Section 4.1.5.3**.

3.3 Impact Evaluation Activities

In order to verify that Program goals were achieved, the Evaluation Team requested and reviewed all formal Program documentation, including:

- Monthly and quarterly narrative reports and cost spreadsheets submitted to the CIWMB (**Exhibit E-3** and **Exhibit E-4** in **Appendix E** summarize the reports provided to the Team by SEE Staff);
- Three "Request for Changes" documents finalized (summarized in **Exhibit E-2** in **Appendix E**); and,
- In-depth interview feedback from 13 Program Partners specifically regarding budget levels, deliverables, and activities.

Although there were weekly conference calls among Program Staff and Partners to identify Program challenges and coordinate activities, minutes from these calls were neither collected nor transmitted.

The results of this assessment regarding impact activities are presented in **Section 4.1.5.**

3.4 Evaluation Challenges

The Evaluation Team encountered some challenges to conducting a thorough evaluation. These evaluation challenges were related to both Program design and implementation.

- The Program Logic Model (See **Exhibit 2-3**), which reflects the design of the program, includes a flow of program outcomes, ranging from behavioral changes, to knowledge growth, and kWh savings. This evaluation was designed to focus primarily on CIWMB's role as coordinator rather than on the Program outcomes.

- Both the Program design and Program implementation resulted in inadequate reporting of program activities. The reports submitted by Program Partners to the CIWMB and compiled by the CIWMB for submission to the CPUC were frequently incomplete and inconsistent across reporting periods. Despite substantial efforts by the Evaluation Team to distill all key budgetary and activity information from reports to identify whether Program goals had been met, we were unable to make definitive statements regarding all Program accomplishments due to lack of data availability. (**Section 4.2** specifically addresses Program impacts and goals.)

4 RESULTS & RECOMMENDATIONS

This section provides the results of the process and impact assessments followed by recommendations derived from assessment of primary and secondary data sources (See **Section 4.3**).

4.1 Process Evaluation Results

This section provides the results of the process evaluation activities and covers the four main evaluation areas[13]:

1. Findings from the Level One Process Analysis that covers details of specific program activities, including the number of participants, the marketing and recruitment efforts conducted, participation in and satisfaction with core components of the program, a review of the material and resources available to participants, and short summaries of various components of the CIWMB SEE Program;
2. Findings from the Level Two Process Analysis that investigated the quality of the information provided by the Program Assessment of the Program Impacts;
3. Findings from the Level Three Process Analysis that assessed the effectiveness of the program processes; and,
4. Findings from the Level One Impact Analysis that verified the achievement of Program Goals.

The key findings from the Process Evaluation are enumerated below and discussed in more detail in the sections that follow.

Interview consensus points included:

- SEE Program momentum and effectiveness was stifled as a result of the transfer of the program from SCSA to CIWMB. Both Staff and Partners expressed frustration with the contract and budget freeze (lasting approximately eight months beginning in 2003) that occurred during the transfer process, despite the fact that Program Staff worked hard to minimize the impacts of this transfer.
- The vast majority of Staff and Partners involved with the SEE Program were extremely committed to seeing the SEE program through, despite transfer delays and confusion.
- Program reporting requirements were unclear and not well guided. All Program Staff and a majority of Program Partners interviewed noted that the monthly reporting requirements were unclear and inconsistent over the course of the

[13] Insufficient data exists to give a specific accounting of the Program goals such as the total number of students reached by the Program or the total number of school buildings receiving technical assistance. In this report we document the total number of districts served and all known information pertaining to Program goals based on all Program data compiled to date by the SCSA and CIWMB. This data is summarized in **Exhibits E-3** and **Exhibit E-4** in **Appendix E**.

program, causing frustration. While Program Staff took steps to train Program Partners and communicate reporting requirements, three Program Staff (and 5 Program Partners interviewed) still indicated that the reporting requirements were not clear or well guided.

- A majority of Program Partners indicated that the Program's approach to recruitment was appropriate and effective. Six of the seven Program Participants interviewed also indicated that the process to sign-up for the SEE Program was smooth.
- All Program Staff and Partners interviewed indicated there was no updated, single central tracking system of school district Program or Partner activities. Staff did provide the Evaluation Team with a spreadsheet that showed the percentage of each Partner's goal that had been accomplished; however, this spreadsheet, did not report the activities (outputs) that were conducted to determine the percentage of goal accomplished or any other information that could be verified. The Team did not find this to be sufficient to constitute a "tracking system."

  Program Staff note that they were not mandated to keep a program tracking database. They used the monthly and quarterly reporting documents to track activities and accomplishments. Had they attempted to centralize tracking of Partner progress toward goals (clearly stated in Program planning documents) they would have realized (and been able to correct) the inconsistencies in these reports and maintained a more complete picture of program activities and accomplishments.

  The District Participation Plans were designed to track Participant activities. Four of five Program Staff directly involved with Program implementation activities indicated that the DPPs were not updated to reflect changes in participation. A limited verification of District Participation Plans with school district activities indicated that the plans were not current, despite the Program's effort to update them in October 2004. As of this evaluation, there is no complete record of the activities and accomplishments at each participating school district.
- After interviewing seven school participants across six schools, four respondents (one "high" and all three "medium" activity schools) indicated that they were not certain how (or whether) the curriculum materials distributed to their schools were utilized.

Respondent perspectives differed regarding:

- **Coordination of Partner activities**. Respondents had both praise and criticism related to the Program's coordination of Partner activities. Some respondents noted that the frequent conference calls were helpful in terms of knowing what other people involved with the Program were doing. Others found this approach to coordination excessive. Both Program Staff and Partners commented that the Program's approach to managing multiple partner activities often led to double- and triple-calls from Program staff to check on implementation activities. One

Partner interviewed indicated that their initial scope of work was scaled back because another Partner offered similar SEE activities.

- **The scope of Program activities.** A majority of Program Participants thought the wide menu of Program offerings to choose from was a good idea. Four of nine Partner agencies interviewed, however, were concerned that the Program over-saturated some school districts with too much information at once, making it difficult for some schools to clearly identify what materials or programs might be best for them. Since the Program was offered on a voluntary basis, school district officials decided on the scope and level of involvement for their district and could presumably make appropriate decisions. According to Program Staff, when possible and if funds were available, SEE Staff provided more materials when requests were made for more. (However, one Program Partner indicated frustration that there was no tracking system to reflect delivery and receipt of Program curriculum materials.)

  Partners expressed mixed views on the geographic coverage of the program. Two Program Participants noted that the program seemed "spread too thin" and could have had a deeper impact if participation had been limited. (For example, one Program Staff respondent suggested, perhaps only targeting small or medium-sized schools in the same Program footprint). Three Partners were unclear why the SEE Program was limited to the Central Valley (apparently they were unaware that this was the Program mandate.)

4.1.1 Program Involvement

Of the 13 Program Partners interviewed, nine were involved with the SEE Program's kick-off under the SCSA in fall 2002; three Partners interviewed became involved with SEE in early 2003 and one came on board in spring 2004. Of the five Program Staff respondents, four were involved with implementing the SEE program under both the SCSA and the CIWMB after the transfer (either as full-time employees, contract employees, or administrative assistants).

4.1.1.1 Program Roles

Program Partners and Staff interviewed were involved with a range of Program responsibilities:

- Of the 18 Staff and Partners interviewed, six Program Partners interviewed indicated that they were directly involved, along with three Program Staff respondents, in recruiting school districts to participate in the SEE Program.
- Eight Partners interviewed said they were responsible for submitting monthly and quarterly reports to SEE Program Staff.
- Nine Partners indicated they had direct and weekly contact with schools through the SEE Program, and three Partners (and two Staff respondents) did not have direct contact with school districts.
- Five Program Partners collaborated with SEE Staff to approve SEE Program curricula materials.

- Of the 13 Partners interviewed, nine were involved with curriculum materials and training workshops, and four interviewed were involved with facility improvements or audits.

All of the Program Partners interviewed provided services through the SEE program that they offer in other parts of California and in some cases in other states. In other words, the SEE Program provided funding and coordination of services that were already being delivered. The SEE program represented additional funding sources and gave the Partners the ability to expand their service delivery into what was frequently characterized by Partners as the underserved school districts in the Central Valley. This facilitated program delivery since most of the Partners were experienced at delivering the services. The SEE Program utilized the CREEC network for delivery of materials (which might not have been utilized by many Partners without the SEE Program) and utilized a recruitment process that most Partners did not directly participate in. (For a description and discussion of outreach and marketing activities used by the Program, see **Section 4.1.2**.)

Of the seven Program Participants interviewed, two were school district superintendents, one was a school principal, two were energy managers, and two were facility managers. Among the schools represented in the case studies, there was not a set pattern to how schools with differing levels of Program involvement chose to internally delegate program responsibilities.

4.1.1.2 Program Partner Participation Drivers

Among the eight Program Partners interviewed (yielding thirteen interviews across eight Partners), one said they were not aware of what the deciding factors were that led to their agency or organization participating in the SEE Program. The remaining Partners indicated that the main reasons their agency or organization chose to participate in the SEE Program was:

- The SEE Program was an extension of what they were already doing and allowed some of their projects to continue with SEE funding;
- The Program targeted a deserving and underserved area in CA (the Central Valley);
- SEE offered an opportunity to collaborate with other partners on initiatives; and
- The SEE Program was part of the Partner's existing mission to provide teachers high quality information, environmental justice, inter-agency collaboration, and other core missions.

Of the thirteen interviewees across the 8 Partner agencies, eleven of those interviewed reflected positively about their organization's decision to participate in the SEE Program. Positive reflections on the Program included aspects of marketing and recruitment activities, the decision to target the Program on underserved school districts in California's Central Valley, the information and efficient conduct of the facilities audits, and the opportunities to collaborate with other Program Partners on events and activities. One respondent noted, however, "We were not all that excited about participating. There was a concern that [the Program] would not be in-depth enough and that funding and

resources would be spread too thin." This respondent concluded that their expectations about the Program's resources were met because of the small quantity of materials distributed per school district.

4.1.1.3 School Participation Drivers

Of the respondents from six schools interviewed, three schools received information about SEE through an initial in-person meeting with SEE representatives, while two school respondents noted that their main contact for initial and ongoing Program involvement was through their County Office of Education. One school respondent (in the "low" Program activity category) noted that he received information about the Program at a conference. Though this school was actively seeking energy efficiency advice (the district was in the process of building new facilities), it did not ultimately pursue a free facilities audit. The respondent noted that his time was divided and the program was not a focus.

Among the seven Program participants interviewed, two indicated "saving money" was the primary driver to get involved with the Program. Three respondents thought the science concepts in the Program were important to teach.

Two other participant respondents, a principal and a superintendent, liked the Program, noting its potential benefits to students and staff in the area of science.

One respondent in the "low activity" category indicated his school was "not really involved much," indicating that his school district is large, inflexible, and can be difficult to work with because it cannot move quickly with decisions. Therefore, this respondent lost contact with the SEE Program after one initial meeting. The respondent in the "high" activity" category noted, "unless you have the backing of your school board or administration, the merit of the projects [in the SEE Program] won't matter. But some districts just didn't want to fool with it – seen as one more thing to do."

4.1.2 Recruitment, Marketing, and Outreach

4.1.2.1 Recruitment Strategy

The SEE Program utilized formal and informal approaches to recruit the target number of 55 school districts in the 11 counties of the Central Valley to voluntarily participate in one or more of the SEE Program offerings. Initially, the SEE Program Staff sent a mailing to all COE superintendents, then to school district superintendents in the 11 Central Valley counties introducing the Program and inviting any districts interested in participating to follow-up. Simultaneously, several multi-district workshops were held to offer school administrators an overview of the SEE Program, and sign-up lists were used as an additional tool for follow-up. Outreach to school districts was made by Program Staff, who set up in-person meetings with district administrators to identify particular areas of Program interest. In-person meetings also included one or more Program Partners who were involved with the Program's recruitment; however, arrangements were informal as to who traveled to what school and when to conduct in-person meetings with schools. In-person meetings were geared toward identifying school district's Program interests, with a goal of executing an "Agreement of Participation" with the school district. Schools, in collaboration with Staff and Partners involved in recruitment, would also fill out a "District Participation Plan."

In general, there were four steps employed to recruit schools to participate in the SEE Program:

1. The SCSA Program Staff developed and mailed a brochure and fact sheet to all County Offices of Education and school districts in the 11 counties of the Central Valley.
2. SCSA hosted several workshops for schools. The SEE Program was introduced at these seminars, and the menu of program offerings broadly discussed. After the workshops, attendees were asked to sign up for more information if they wished to pursue Program opportunities.
3. Follow-up recruitment activities by Partners were both reactive, and in many cases, proactive:
    a. As a result of responses to initial mailings and sign up sheets, Program Staff would transmit lists of any school contacts that had indicated an interest in a Program Partner's initiatives. It was incumbent on the Partner to use those lists to then contact school representatives to set up an in-person meeting to identify school district needs and how their offering could be implemented to meet those needs.
    b. Many Program Partners also did a letter/e-mail outreach to all school districts in the Program's target areas, following up by phone. This recruitment activity occurred even if the school either did not attend a Program seminar or did not sign up for more information about a particular program.
4. When follow-up with school districts occurred to identify what aspects of the Program school districts were interested in pursuing, schools signed an "Agreement of Participation" and additional Partner follow-ups occurred to implement activities identified. Schools, in collaboration with Staff and Partners involved in recruitment, would also fill out a "District Participation Plan." The DPP was designed to allow school districts to have a record of their SEE Program involvement and goals.

Of the 13 Program Partners interviewed (representing eight SEE Program Partner organizations) six respondents were directly involved in recruiting. Two Partners interviewed specifically indicated they did a letter of outreach to all school districts in 11 Central Valley counties, following up by phone with ongoing planning and scheduling efforts.

Program Staff remained flexible regarding parallel and decentralized recruitment efforts by Partners described above in 3 (b). SEE Program Staff did not maintain strict oversight of Partner mailings to school districts for the purposes of Program recruitment, nor did they require review and approval of recruitment efforts by individual Program Partners.

There was not a pre-established approach to the logistics of follow-up with schools. Interviews revealed that in some cases, Staff followed up with a sit-down meeting and passed the information along to Partners. Other times, only the CREEC coordinator followed up with schools. In most instances, it was multiple Partner and Staff contacts

that were involved in initial outreach and recruitment of schools. The level of interest and breadth of Program activities each school district decided to pursue dictated the level of school involvement (and therefore, the level of follow-up).

The majority of Staff and Partners interviewed did not offer critique of the Program's approach to school district recruitment strategies, indicating that the broad outreach and individualized follow-up allowed school districts to customize their portfolio of Program participation.

However, two Partners interviewed noted that the recruitment process was inefficient. The approach was to make initial contact with the school district superintendent to confirm interest, with subsequent meetings among Partners, Staff and school facility representatives and/or teachers depending on the SEE initiatives being pursued. Two Partners interviewed said that having multiple meetings was less preferable than consolidating multiple staff contacts into one initial meeting.

4.1.2.2 Participation Levels

Under the SCSA's administration of the SEE Program, 53 of the 55 (total target) school districts were recruited at some level of participation. After the Program was transferred to the CIWMB, the remaining two school districts were recruited.

Six of the eight Partners represented in interviews said that the recruitment process worked well, attributing success to:

- The approach of leveraging school needs/demand and making sure to tie SEE information to increased test scores; and,
- The fact that the Program utilized already established networks and Partners.

However, one Partner noted that it was often hard to get schools motivated, even if they had signed up to be involved with the Program, because administrators and teachers were difficult to reach and their time to devote to the Program was limited.

Of the seven case study respondents interviewed (representing six schools) who participated in the SEE Program, five indicated that there were no recruitment problems that presented any participation barriers. One respondent in the "medium activity" category noted that the "Program materials were great" and added that one teacher was new and embraced the materials because of her particular interest in science.

While one respondent in the "low activity" category cited lack of contact and follow up by SEE Staff (and lack of school district initiative to get involved) as a main reason for not becoming more involved with the Program, one respondent in the "medium activity" category cited their County Office of Education, not SEE or CREEC representatives, as the contact who recruited their school district.

Three of the seven Case Study respondents noted that their time to devote to this Program was limited, and this was the primary factor (rather than Program merit or specific issues) that shaped their participation levels and ongoing activity.

Several Program Partners and Staff interviewed offered theories as to the overall level of school district participation activities:

- The majority of 18 Staff and Partners interviewed underscore the pressure that school administrators and teachers were under to increase test scores and fulfill the "no child left behind" mandate. Several respondents noted that the budget and time constraints that these pressures represent caused some school districts to not participate in SEE, perceiving it as "one more thing to do."
- Several Program Partners emphasized that the SEE Program was very valuable, given budgetary and performance pressures facing schools, as a tool to help school districts meet specific standards. These respondents were very explicit about the importance of making the connection between standards and specific SEE Program materials and initiatives being offered. The Evaluation Team was unable to inquire with teachers to gain confirmation of this observation.
- One Staff respondent indicated that some Offices of Education were initially suspicious of the Program—thought they were "trying to sell them something." The Program approached these situations by addressing suspicions and customizing program opportunities to meet specific school district needs.
- In general, the level of school district participation in SEE varied based on school staff time and interest, even if needs and opportunities were identified.
- One Staff respondent noted that "Superintendent buy-in to the Program was the key to school participation. If they were on board, they could support the vision of an individual teacher."

4.1.2.3 District Participation Plans

Individual school district Program participation was initially documented in school District Participation Plans (DPPs), which were

- Part of the planning process to when schools were identifying which Program activities they wanted to participate in; and
- Designed to document participation.

None of the six Case Study schools reported keeping separate records (formal or informal) of their Program activities. None referenced filling out the DPP without being prompted, and two respondents (each listed as contacts on the DPP itself) did not recall filling out or seeing the DPP.

All 18 Staff and Partners interviewed indicated the DPPs were not useful tools to track Program activities:

- Program Partners and Participants indicated that the DPPs were not updated to maintain a current record of school activities under the SEE Program;
- DPPs that were submitted were not dated nor were they complete – "did not fulfill their potential" according to one Staff respondent.
- DPPs were Word documents, not part of a reference document or aggregated in a database or in spreadsheet format, and were not "user friendly" according to one Staff member.

Exhibit 4-1 below presents a summary of the basic case study findings, including interviewees' reporting of SEE Program activities and recollection of activities noted in the DPP. Additional findings from these interviews are discussed throughout **Section 4.1**.

Exhibit 4-1:
Case Study Interview Summary

Case Study Category	Respondent(s)	# Buildings	# Students	SEE Program Activities (according to respondents)	Recalled SEE activities noted in DPP[14]?
High	Energy Conservation Specialist	19	1,000	ADM audits; mobile energy lab; lighting demonstration project; classroom educational materials	No (CHPS activities not recalled by interview respondent).
Medium	Superintendent and Director of Maintenance	1	300	Recycle Rex Assemblies (2); teacher training workshops; facility audits (ADM); classroom educational materials	No (Neither respondent noted Champion Grant or After School grant activities noted in DPP).
Medium	Principal	3	400	Mobile energy lab; classroom educational materials	No (CAC, After School Grant activities, Recycle Rex assemblies, and CHPS materials not noted by respondent).
Medium	Director of Maintenance & Operations	7	3,100	ADM facilities audit and teacher workshops (no other educational activities)	Yes
Low	Superintendent	9	2,700	"Curriculum activities" (respondent not specific	Unclear
Low	Energy Management Contractor	50	34,500	Curriculum materials delivered	No (DPP indicates Champion Grant and After school grant applications submitted, as well as CHPS materials transmitted to school district)

[14] In some cases the respondent was not aware of all district SEE activities. In other cases the respondent was aware, but indicated that the planned activity was not implemented.

Exhibit D-1 (Appendix D) summarizes the SEE Program activities reported by school district. Note that even though these DPPs were not updated as participation in activities expanded or was modified, they nevertheless represent the only Program documentation of school activity at the school level.[15]

4.1.2.4 Marketing Curriculum Materials

The SEE Program had two distinct components – curriculum and facilities. Demonstration Projects and Mobile Labs had both curriculum and facilities improvement components. In order to offer school districts materials to support curricula that emphasized conservation and energy messages, one Partner sub-contracted a group to identify and compile curriculum materials.

The process for identifying and distributing materials to schools included:

- Creating a list of materials by soliciting recommendations from school district science offices and other organizations that work with science education;
- Forming a Curriculum Working Group, which included representatives from SEE Staff and Program Partners. A curriculum review meeting was held, where all proposed materials were reviewed and discussed;
- Input was solicited on proposed materials. The California Department of Education conducted content review on all materials and helped to finalize the list of materials;
- When the materials were approved, ADM was then able to purchase the materials. CREEC coordinators distributed materials when they visited schools in targeted school districts.

The CREEC Network (California Regional Environmental Education Community) was initially selected by the SCSA to be the core contact between the Program and the school districts, and continued in this role when the Program was transferred to the CIWMB. CREEC coordinators were responsible for ongoing contact with school districts to physically deliver Program curriculum materials and serve as a single point of contact for school districts, to work through the details of implementing Program activities.

Coordinators were assigned to schools based on the pre-existing territory the coordinators have outside the SEE Program for other initiatives. When the Program transferred from the SCSA to the CIWMB, so did the Program's delivery system, the CREEC Network. Notably, Program Staff and Partners had different views on how effective the CREEC coordinators were in explaining the Program and motivating schools to become involved, as discussed in **Section 4.1.4.3**. For additional details about the CREEC Network, see **Section 2.1.1**, as well as **Exhibit E-1** in **Appendix E**.

[15] While Program Partners' monthly report narratives did contain information about activities in some schools, some Partners' narratives were more specific and consistent with reporting information by school. Monthly partner reports typically presented program information with Partner deliverables as the unit of analysis.

The following is an overview of curriculum materials distributed[16]:

- Annenberg Science Tapes. Series of tapes specifically developed to help elementary school teachers who lack a science background understand energy;
- Series of non-fiction energy books over a range of grade/reading levels. Focused on two areas – non-fiction reading and hands-on science;
- Hands-on science materials (basic electricity kits) produced by a University of Missouri professor and approved by the National Science Foundation;
- Full Option Science System (FOSS) solar energy kits;
- Tool kits to high schools, involving green building information;
- Flex Your Power curriculum;
- Dinosaur Books on energy efficiency (K-3rd grade). Two of the 4 proposed did not pass CDE review, however, and as a result were pulled from the list and not offered to school districts; and
- Project Learning Tree Materials.

Program Participants interviewed noted concerns with the curriculum materials distributed as part of the SEE Program:

- **No distribution inventory.** There was not a centralized inventory of what materials were given to schools and when. One respondent noted that several schools actually did not receive the materials they were supposed to receive. Because there was not an inventory maintained by the Program, this was discovered during an in-person visit. [17]
- **No follow-up to determine if curriculum materials were ever used.** For several Partners, this lack of Program follow-up on whether or how materials were utilized meant that it was impossible to know whether the materials distributed had any educational impact.[18]
- **Wrong edition ordered.** Two respondents noted that the FOSS kit ordered was not the California edition, and therefore lacked some additional solar materials.

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[16] Supplemental materials were added over the course of the Program, for example, a hydrogen kit and other materials that became available and were reviewed by CDE.

[17] Program Staff indicated that they believed CREEC coordinators tracked distribution of curriculum materials. However, the Evaluation Team's requests for tracking and reporting information did not result in this material being submitted. It is not clear that curriculum tracking and distribution was aggregated or maintained by Program administrators in a centralized manner, prefacing this Partner's observation that they were not aware what material had been given to school districts.

[18] While ADM did survey schools on these materials, only a few responses were returned, and those responses were never compiled or reported formally. Further, budget and time limitations made it impossible to include an analysis of the energy education materials within the scope of this evaluation. This report only provides a description of a sample of the educational materials provided through the Program as noted here and those materials reviewed by the evaluation team (See **Section 4.1.5.1**).

When this oversight was identified, the solution was to supplement the version ordered.

- **Limited quantities of materials available.** SEE Program funding allowed one classroom set per school district. This required that schools within that district (and classrooms within a single school) share those resources. Two Case Study respondents noted that not all schools in their district were able to benefit from curriculum materials distributed through the SEE Program, since distribution of the materials was limited to a small quantity per School District to allocate among multiple classrooms.[19]

All curriculum materials were to have been presented and explained to school representatives by CREEC coordinators. CREEC coordinators were tasked with connecting materials to educational standards and showing teachers how to use specific materials. While several Partner respondents indicated that they received good feedback about that process, there was no way of knowing whether or not the materials were used and they resulted in greater understanding of energy issues. Nonetheless, eight of the 13 Partners interviewed did not suggest an alternative approach to providing curriculum materials.

However, one Partner noted: "I think SEE was a bit overwhelming. It is confusing to teachers/staff to offer them too much information at once." This respondent instead suggested that the considerable volume of materials be distributed incrementally and customized to the particular curriculum applications at each school.

After interviewing seven School District participants across six schools, four respondents (one "high" and all three "medium" activity schools) indicated that they were not certain how (or whether) the curriculum materials distributed to their schools were utilized.

One superintendent from a district with "medium" Program activity noted that SEE Staff trained the superintendent on the application of each curriculum material. Ultimately, that same respondent sat down with a teacher to pass along this training (the teacher was not directly trained by CREEC or SEE representatives).

One district in a "low" Program activity category was most pleased with the hands-on devices (measurement and energy monitoring materials) for the classroom – they thought these materials represented the best way to learn. This respondent was less enthusiastic about the workbooks and other books provided by the SEE Program, because "students already have several workbooks and books, those materials were less enticing."

One "medium" and one "low" activity school interviewed cited limited distribution of materials as hampering the school district's ability to incorporate curriculum materials into classrooms.

[19] The Program Staff noted that many schools had a centralize system from which teachers can borrow educational materials. Based on this knowledge, they provided one set of materials per school district. The Evaluation Team did not verify this fact in our interviews or assess the effectiveness of this distribution system.

Finally, one "low" activity respondent did not think the material was ever distributed to teachers (admin received via the mail) or incorporated into lesson plans. No in-person training was provided on SEE Program materials, according to this respondent.

4.1.3 Reporting and Communication

The California Public Utilities Commission required formal reports on SEE Program budget expenditures and activities be submitted on a monthly and quarterly basis, beginning in Q4 2002, with the last set of reports to be submitted in Q4 2004.[20]

This reporting requirement included narrative reports from each Program Partner and the Program Administrator (SCSA then CIWMB), as well as a cost spreadsheet to document tasks completed to date and percentage of total budget spent by Partner and budget category.

In order to identify whether the Program's stated goals had been met, the Evaluation Team reviewed all SEE Program reports submitted to the CPUC. Summary tables of the documents available for review are included in **Exhibit E-1** and **Exhibit E-2**, which are contained in **Appendix E**. (**Section 4.1.5** of this report addresses the program goals and impacts.)

Overall there was mixed feedback on formal and informal reporting requirements. A minority of the Partners interviewed offered no negative feedback or suggestions about reporting, recognizing these reports as a necessary component to track budget and activity. However, seven of 13 Partner respondents concluded that the Program's reporting requirements were onerous[21]:

- Several respondents noted that the spreadsheet template was confusing and seemed like "a moving target."
- Respondents indicated that they were never offered a clear or consistent guide or instruction to help them populate the spreadsheet. One Partner noted, "There was a lot of doubling back and wasting time."
- There were redundant monthly/quarterly reports four times per each year; there were many opportunities to streamline the reporting requirements that were never pursued.
- Reporting requirements took time away from Program tasks since most Partners did not have administrative support and found reporting to be an overwhelming amount of paperwork.

[20] As of this report's development, Q4 2004 reports were not available.

[21] Note that that the Program was required to follow CPUC and utility protocols for reporting, in terms of using pre-designed templates for monthly narrative and cost reporting and in terms of the requirements for the frequency of reporting. A discussion of Reporting and Communications is included in **Section 4.1.3.** Also, Program Staff note that they provided upfront training on program reporting requirements and ongoing assistance as requested.

In addition to written monthly reports there were routine conference calls (at first weekly, then moved to bi-monthly) among Staff and Partners to discuss Program activities and challenges. Reaction to this approach was predominantly positive:

- **Program necessitated flexible communication and planning**. Because the Program's implementation involved multiple Partners collaborating for overlapping events and activities, a good deal of communication and coordination was ongoing and informal, involving ongoing calls among partners and staff seeking to collaborate on an event, for example, as well as e-mail exchanges. While this decentralized approach was time consuming, several Staff and Partners noted that it was necessary to be flexible to meet specific school and Program needs. Only one of 18 Staff and Partner respondents reported a minor planning crossed-wire at an event where 4 Partners participated, which was resolved the day of the event.

However, informal phone calls and e-mails with Partners yielded two additional findings:

- Several Partners noted that **weekly calls were redundant** with reports they had submitted to document activities and often not concise – needed to streamline.
- Three Partners interviewed said they **felt** "**micro-managed**" by Program Staff, with several Staff members contacting them to find out the same information. In addition, two Program Staff members observed that CIWMB was quite bureaucratic, making it difficult to have direct access to legal staff to answer questions and necessitating they go through intermediary CIWMB contacts to address concerns, rather to the direct staff source.

Importantly, though no Staff or Partners noted any confusion or questions surrounding double-counting of tasks or activities in monthly reports to the CIWMB, the Evaluation Team noted double-counting when reviewing Program documentation (see "double counting" discussion in **Section 4.2.1.2**).

4.1.4 Implementation – Key Elements and Barriers

Of the 25 interviews completed with Program Staff, Partners, and School District Participants, all offered feedback that the range of Program elements and Processes worked. The following three sections report this interview feedback on design and process in three broad categories: elements that contributed to the Program's success, elements that posed Program challenges (those rooted in internal Program implementation processes – or more readily controlled by Program Staff – and those rooted in external implementation processes – or not readily controlled by Program staff), and elements for which there were mixed reactions from the different respondents. The summary points under each section are not intended to convey respondent consensus, but rather, observations among the respondents, quantified within each topic.

4.1.4.1 Program Successes

Study interviews revealed that there were a range of Program design and process considerations that Interviewees felt contributed to Program successes, including:

- The Program did a great job of **reaching under-served/disadvantaged communities**. Low income/rural schools were targeted that might not have otherwise been reached as effectively.
- **Program transfer complexities minimized**. One Partner noted that the impact of the Program's transfer was mitigated since staff was predominantly consistent from SCSA to CIWMB—felt less affected as a result.
- **Program Partners felt that the Program collaboration was positive** and several Partners appreciated the flexibility of problem solving.
- **Facility audits went very well** – interest and excitement around information schools received as reported by Program Partners. There was anecdotal information about dedicated facility staff, who saw significant savings on their monthly utility bills. Two Case Study respondents noted that the audit report information was used in presentations to school districts about best practices to save energy and money, and that audit no-cost recommendations were implemented, respectively.
- **Excellent communication with CIWMB staff on review of Program curriculum materials** to make sure it was all good quality. Technical/science review of materials – screened for legal/social compliance and to make sure content was accurate.
- **Collaboration/cross-fertilization**. Only three of 13 Partners interviewed indicated they did not have an opportunity to collaborate with another SEE Partner. Among the remaining Partners interviewed and among three of the five Staff interviewed, each had positive anecdotes about collaboration/resource sharing on events held. Two respondents were extremely positive about their interactions with other Partners, noting that they were "inspired" by the collaboration and creative ideas.

4.1.4.2 Program Challenges

4.1.4.2.1 Sources Internal to Program Implementation and Process

- **Application of Curriculum Materials**. According to one respondent, "You can't just come in with materials and expect them to be incorporated by teachers – [this] ignores the reality that curricula must typically be set 6 months in advance to meet prescribed standards." This program does not work for everyone's teaching styles. Some teachers are more rote; others flourish with interesting or innovative approaches.
- **Tracking activity**. It was not always clear to Partners what school districts were involved or had an ongoing interest due to a lag in their internal feedback loop and a lack of centralized user-friendly tracking of activities.
- **The overall vision was not clearly communicated.** Several Program Participants indicated an overall Program vision was not clearly communicated to them upfront to guide all the activities. One Partner indicated that the SCSA website was the source of information used to identify the Program's goals in

order to see what they should do. Five Program Partners interviewed indicated they were not certain what the SEE Program's goals were.

- **Partner overlap frustrated schools.** One Participant respondent noted that the program requirements of exclusivity between PG&E and SEE excluded 3rd party funded programs. One school (within a participating district) seeking to replace HVAC equipment was approached by a utility as well as two SEE Program Partners to discuss HVAC retrofits or replacements. The school was confused and frustrated by the contract requirements that limited other Partner involvement and chose to pursue an option that did not require them to sign a contract of exclusivity.
- **Lack of Staff communication on Program developments**. One Partner said they felt "…left in the dark, wondering what was going to happen – [this] made it difficult to plan our budget for next year, since we didn't know if the Program was going to continue." Another Partner noted that a particular project they were interested in did not transfer, but was not informed until after the fact." However, Program Staff indicated that these difficulties occurred during the transfer and they worked to provide updates as well as transfer all Program elements that were legally feasible.
- **No centralized tracking or inventory of when or whether curriculum materials were delivered by CREEC to schools**. One Partner noted that some school districts did not receive educational materials.
- **Program Impact Measurement**. There was no formal approach to measure whether materials were used in classrooms. Similarly, there was no formal follow-up with schools to see if the recommendations from the audits were implemented or if they experienced any savings on their electric bills.
- **Coordination overlap.** One Partner reported that they had a single contact to serve as a liaison between that Partner and the SEE Staff, but SEE staff would go to others in their agency – this "made things messy." Additionally, two Staff interviewed indicated that there was coordination overlap in monthly reporting, with one Staff respondent indicating, "too many people dealing with one thing [the monthly reports] became confusing." One Partner interviewed said that the Program's administration "changed their minds so many times" [regarding this Partner's initial scope of work for the proposal] that their involvement with the SEE Program has "tarnished our reputation."
- **Implementation difficulties.** Three Program Partners expressed frustration with the way mobile labs and demonstration projects were implemented. One Partner said, "everything looked good on paper, but some practical things were not well thought through," offering the examples that the mobile labs were bulky and required two people to transport, and ownership and location of lab details was not worked out.[22] Another Partner said that the "impact on students [from the demonstration projects] was minimal, citing that curriculum for demonstration

[22] Program Staff maintained a list of locations for the different mobile lab demonstrations.

projects was "patched with activities from mobile labs. Timing was so tight for demonstration projects, and they were not really a meaningful experience." Two other Partners, however, indicated that they felt the demonstration projects had been successful and informative, without offering specific examples of impacts.

- **Territorial overlap issues**. One Partner indicated that they experienced Program involvement that was scaled back by Staff because another Partner was similarly offering the SEE activities they offered.

4.1.4.2.2 Sources External to Program Implementation and Process

- **Grants frozen during the transfer** meant lost Program momentum. Respondents felt it is important to keep promises to schools, but some grants (Champion Grants and After School Program Grants) were in limbo during the transfer.
- **Training and audits were under funded**. The Program budgets drove the scope of training and recommendations.
- **Program temporary.** According to one Partner, "The biggest problem with state-funded programs like SEE is that they come and go. Everyone participating gets excited, then the program is gone."

4.1.4.3 Mixed Program Reactions

4.1.4.3.1 Portfolio Program approach.

Eleven of the 13 Partners interviewed thought that the "portfolio" approach to offering school district a menu of options under the SEE Program auspices had unique advantages in terms of program diversity and school district access in underserved areas. One Partner noted that there was too much contact with schools that was inefficient and that they could have accomplished their goals better outside of the SEE program." Yet several respondents noted that the Program's success "boils down to an individual person's ability to sell the programs and talk "educationese" effectively." Another Partner noted, "The scope was too wide and budget too low, but the Program created a community among participating schools at workshops and a 'if they can do it, so can we' momentum and excitement about projects." However, none of the seven School District Participants interviewed indicated that the menu of options should have been narrowed in the Program's offerings.

4.1.4.3.2 Coordination of program – role of CIWMB/SCSA

Micromanaging feedback was prevalent among Partners and noted by two Program Staff respondents. Yet, several respondents emphasized the commitment of Staff to seeing this program through, even if their coordination efforts overlapped at times. Another issue having to do with Program coordination related to implementation approach. For example, one Partner indicated that, though there was a clear Staff commitment to serving communities through migrant education centers, planning events around migrant family center targets was "inefficient," citing the fact that there were "three staff people asking the same question instead of going through a single contact."

4.1.4.3.3 Existing Education Network

Using the existing CREEC network to bridge the gap between the Program and schools was wise, according to several Partners who acknowledged that schools are often inundated with programs and pitches. However, two Staff respondents and one Partner respondent did not think that CREEC was the best fit for the SEE Program. One Partner thought the K-12 Alliance Program in California might have been better suited. Three Staff and two Partners interviewed noted that CREEC coordinators varied in terms of their "buy-in" and therefore responsiveness to advocating the SEE Program when they were speaking with target schools.

4.1.4.3.4 Demonstration Projects and Mobile Labs

Among all 25 respondents, there were very different views on whether the demonstration projects and mobile labs were useful and met their goals. Program Staff note that teacher trainings were provided for the mobile labs. Two Partners indicated that schools "loved the demo projects – were very excited and loved the technologies (integrating day lighting sensors into ballasts). [They] exceeded our expectations." The one Case Study respondent who participated in a demonstration project had favorable feedback about the project itself, but noted that teachers and students were not really involved in the facility application. However feedback from interviewees also included the perceptions that the teacher training for the demonstration projects was not meaningful or beneficial, and the impact of the demonstration projects on students was minimal because the curriculum was not well put together. One teacher that had a demonstration project was not clear on what the components were (e.g., light meters), according to another Program Partner.

4.1.5 Quality of the Information Provided by the Program

The overall quality of the information provided by the Program was considered good based on the information reviewed as part of this evaluation. As indicated in **Section 2.2.1**, several sources of information were reviewed to assess the quality of information provided by the Program. The findings from each separate review are provided below.

4.1.5.1 Review of Energy Education Materials

A sample of energy education materials were obtained and reviewed by the Evaluation Team, some of which were also posted on the ADM SEE Program website. The evaluation time frame did not permit an extensive review of all educational materials provided through the Program; thus, our review is intended, primarily, to document and describe the types of materials provided to Participants. The process interviews also were a source of feedback regarding the quality of information provided in the energy education materials (See **Section 4.1**). The materials reviewed include:

- The Mobile Energy Laboratory Student Activities Handbook and Teacher's Guide
- Power Shift Video and Teacher Guide
- You've Got the Power Video and CD
- The Kid's Flex Your Power Energy Challenge Page and Teaching Guide

The materials reviewed represent a sample of the materials available through the Program and cover a wide variety of mediums including videos, CDs, handbooks, guides, as well as interactive activities and lessons. The handbooks and lessons reviewed were correlated to the California Curriculum standards and cover a wide range of subject areas including: Science, History/Social Science, English Language Arts, and Math. The materials also are designed to target a wide range of grade levels and provide extensive energy resources such as web links, energy information sources, and energy conservation tips. The Evaluation Team considered the quality of information reviewed to be good. Additional details about each sample material are given below.

The Mobile Energy Laboratory Handbook and Guide were developed by ADM to supplement the Mobile Energy Laboratory (MEL) Demonstrations. The materials were targeted to 6^{th} – 9^{th} grades, and the lessons covered topics such as learning about energy and energy efficiency, controlling heat transfer, managing energy use with control devices, energy and economics, and assessing the quality and usefulness of different types of illumination. The Student Handbook highlighted key vocabulary words and lesson objectives and included activities to support the lesson topics, many of which were hands-on activities to be use with the MEL. The associated Teacher's Guide provides a lesson planning guide and lesson overviews to aid teachers in making best use of the materials. The guides also give ideas for pre- and post-activities that include materials lists for suggested projects and tips to carry out and coordinate the activities with the MEL activities.

The Power Shift Video and Interdisciplinary Teacher Guide were designed to explore the ways energy touches people's lives. The information presented looks at where electricity comes from and sustainability and gives tips for conserving energy. The guide provides activities applicable for Science, History/Social Science, and English Language Arts that are designed to complement the information presented in the Power Shift Video. Activity topics include: Energy Literacy, Green Buildings, Energy Independence, Energy Polls, and Green Power, and provides web links to the Power Shift website[23] and other Internet information sources. The guides note key concepts, materials, and time requirements, identify learning outcomes, and give an overview of the specific lesson activities.

The You've Got the Power Video (and CD) looks at the various means of producing energy and delivering it to the customer. The video presents information on alternative ways to conserve energy and the CD includes a link to Energy Quest, the California Energy Commission's energy education website. This website contains numerous interactive activities geared toward energy and energy conservation.

The Kid's Flex Your Power Energy Challenge Page and Teaching Guide are energy awareness activity guides targeted to kids in grades 4 – 6 and educators. The guides are designed to increase the understanding of energy conservation strategies and contain lessons and materials for teachers in Math, Language Arts, Science, and Social Studies. The guides also provide resources, energy information, activities, and tips. What is

[23] Power Shift Website: www.powershiftnow.org.

notable is that the family page is printed in 10 different languages including: Armenian, Cambodian, Chinese, Hmong, Korean, Russian, Spanish, Tagalog, Vietnamese, and English.

4.1.5.2 Review of Audits / Benchmarking Information

The SEE program started with a database of schools with 1,128 records. The 128 completed audits covered 11 percent of the schools within the original database. As shown in **Exhibit 4-2**, the audits were relatively evenly performed across the different school types. Special school types included district offices, special education schools, and community education school settings.

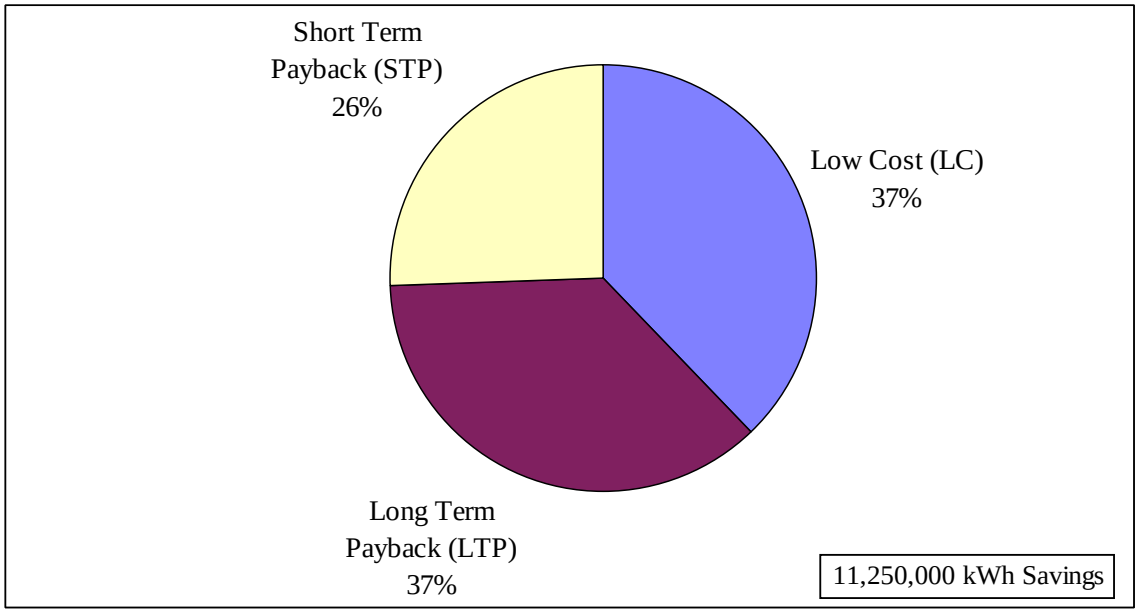
Exhibit 4-2
School Types Audited

School Type	Number in population	Audited Sites	
		Number	% of Population
Elementary	716	80	11%
Middle	136	16	12%
High	178	15	8%
Special	98	17	17%
Total	1,128	128	11%

An updated database of audits was provided to the Evaluation Team in December and analyzed. There were 128 audits performed during the course of the SEE Program with slightly over 1,000 measures recommended. The total energy savings of these recommended items was estimated to be around 11,250,000 kWh. Review of the measures recommended leads the Evaluation Team to believe that the actual estimated savings is lower than this value. Description of the recommendations within the audits followed by an assessment of the estimates is next.

There were 63 different items recommended, broken out by whether the item was considered to be a no/cost low cost item, have a short term payback (first cost with three or less year payback), or a long term payback (first costs with greater than three year payback). As shown in **Exhibit 4-3**, when comparing the kWh savings among the different payback types, there was a relatively even mix of measures recommended.

Exhibit 4-3
Breakdown of kWh Savings from Recommended Measures by Payback Status



Ninety percent of the estimated savings came from 16 measures, as shown in **Exhibit 4-4**. The average number of measures recommended was 7.9 per school, with a maximum of 17 recommended measures.

Exhibit 4-4
Top Recommended Measures

End Use	Measure	% of Total Estimated kWh Savings	% of Schools
Lighting	Install Daylighting Systems and/or Controls (LTP)	23.4%	24.0%
	Replace T-12 Fluorescent Fixtures with T-8 Fluorescent Fixtures (LTP)	11.0%	45.7%
	Replace existing exit signs with LED exit signs (STP)	5.1%	25.6%
	Install T-5 Fluorescent Lighting (LTP)	3.0%	10.1%
	Install Occupancy Sensors (STP)	2.7%	20.9%
	Install Compact Fluorescents (STP)	2.6%	43.4%
	Turn off Lights (LC)	1.9%	29.5%
Lighting Subtotal		***49.7%***	**-**

End Use	Measure	% of Total Estimated kWh Savings	% of Schools
HVAC	Encourage Energy Conservation Through Lowering or Increasing Room Temperature Inside Classrooms (LC)	6.6%	57.4%
	Perform Maintenance and Repair of All HVAC Equipment (LC)	6.2%	62.8%
	Institute a Proper Program for Programmable Thermostats (LC)	2.5%	14.7%
	Install Programmable Thermostats (STP)	2.4%	17.1%
	Change HVAC Schedule (LC)	1.7%	13.2%
HVAC Subtotal		***19.4%***	**-**
Plug Load	Set all Computers to Sleep Mode when Unused (LC)	8.8%	76.7%
	Install control system on vending machines (STP)	4.5%	63.6%
	Remove personal appliances from Classrooms (LC)	4.5%	51.2%
Plug Load Subtotal		***17.9%***	**-**
VFD	Install Variable Speed Drive on Swimming Pool Pump (STP)	3.3%	7.8%
Total		**90.2%**	**-**

The review of ten audited sites looked closely at many of the measures shown in **Exhibit 4-4** (See **Appendix F** for a complete review of each site). The evaluation of these sites showed that the audited reports generally highlighted where the estimated savings came from and the majority of savings estimated were technically sound in how they were calculated.

If implemented, savings from the lighting measures will vary based on the hours of operation. Based on the review of 10 randomly selected sites, the analyses performed by the program on the lighting measures appeared to be straight-forward and acceptable although there were a few instances in which the Evaluation Team could not assess some of the assumptions used in the program's calculations. However, it is noted that none of these sites had the measure that provided the most savings – the daylighting/controls measure. As such, this measure was not reviewed for accuracy. For the lighting measures that were covered in the site review, if implemented, they would most likely provide close to the savings estimated as the operating hours in the calculations appeared reasonable. As shown in **Exhibit 4-4**, the recommended lighting measures either had short term or long term, simple paybacks. The school district would need to have a more thorough audit and estimate of costs to move forward with installation of these measures.

There was a tendency of the HVAC measures to estimate savings that were too high, compared to the overall energy use of that end use. This affects about 20 percent of the overall savings across the program. The top HVAC measures were often low cost/ no cost measures, with the top two being recommended at about 60 percent of the schools. It was these two measures that were reviewed the most and found high in many cases. It is likely that, if a school were to implement these conservation measures, that the resultant savings would be lower than expected.

Plug load measures were recommended in half to three-quarters of the schools and were around 18 percent of the total estimated savings. Both the low cost measures have a likelihood of the implemented savings being substantially different than estimated (either higher or lower), as the savings are a function of operating hours, yet the recommended measures used averages.

Within the audit reports was a benchmarking of where the school's energy use was compared to other schools within the state. The kWh/student values were provided by PG&E for elementary (378 records of data), middle (68 records of data), and high schools (60 records of data). Each audited school was compared to these data depending on the level of school (i.e., elementary, middle, or high school). It was beyond the scope of this evaluation to determine the validity of the PG&E information that created the benchmarking records. It is noteworthy, though the eight elementary schools reviewed were not evenly spread out as far as their benchmark value (e.g., the eight reviewed schools had higher usage than 49%, 50%, 55%, 72%, 79%, 83%, 84%, and 88% of all other elementary schools). The energy use of the one middle school and one high school reviewed compared to others in the benchmarking database were both in the middle of their groups (at 47% and 53% respectively). It is possible that the elementary schools that choose to participate were ones with high use and therefore showed to be high-energy users when benchmarked against other elementary schools.

As a benchmark and an energy audit of the schools, the reviewed reports provided a broad, high-level view of information to the school administrators. It gave an overview of where possible energy savings may be within the school and whether capital investment was required. While some of the data may give higher than expected estimates of savings, the report would probably have met its purpose if it were to indicate that a more thorough audit and cost analysis of a retrofit should occur. The Evaluation Team considered the quality of information provided in this portion of the program to be good.

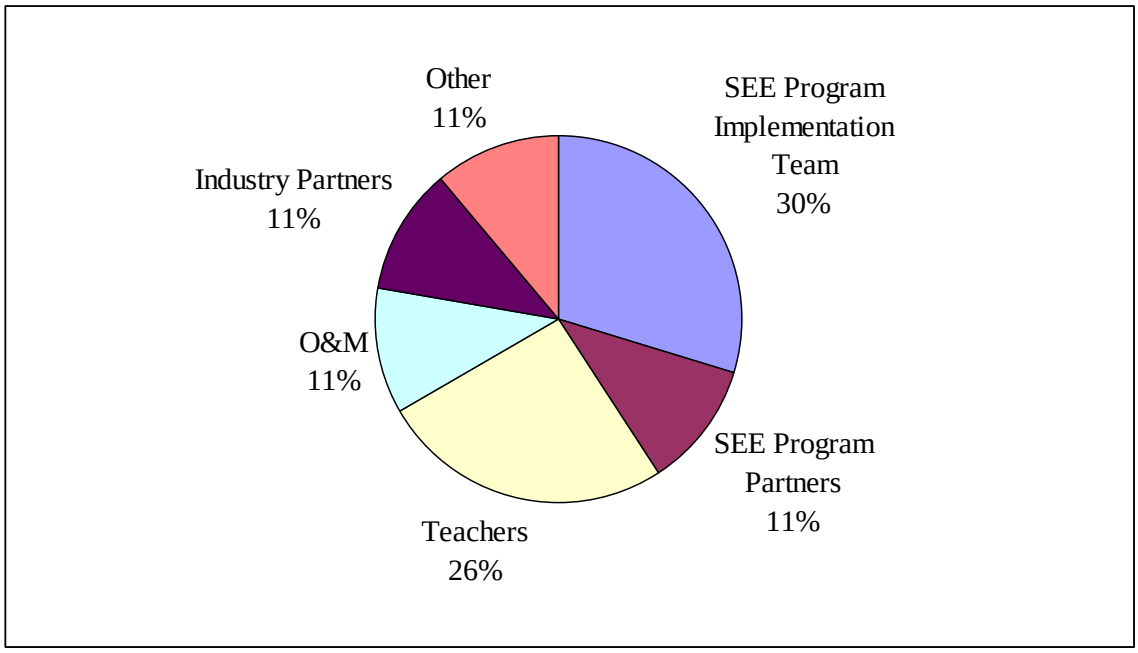
4.1.5.3 Review of the Energy Information Provided through Community Energy Education Activities

As part of the Level 2 process evaluation, the Evaluation Team attended one of the community energy education outreach activities. Among these activities were two one-day workshops that took place on November 17, 2004 and November 18, 2004 in Bakersfield and Madera, respectively. The Evaluation Team attended the Madera workshop. The workshops were marketed through email and faxes to the current participants of the SEE program, and other schools, school districts, and school related agencies. The CREEC network marketed the workshops on the CREEC website and web calendar as well as emails to about 200 educators and faxing all 36 Stanislaus County

School Administrators. Workshop flyers were sent out about a month in advance, with at least 300 faxes and from 100-200 emails going out.

The workshops included multiple handouts, information dissemination about the results of the current program, presentations from program participants, and a walk-through of one of the demonstration sites. The Madera workshop had members present from multiple areas within the overarching SEE program. The three main CIWMB project managers were present, as were three representatives from ADM. CREEC, California Department of Conservation, Strategic Energy Innovations, Alliance to Save Energy, and the Department of Forestry had representatives present as did three of the industry partners. A PG&E customer representative attended the workshop as well. There were at least seven teachers, one person in charge of Business Operations, and three Operation & Maintenance personnel present. The breakdown is shown in **Exhibit 4-5**.

Exhibit 4-5
Participant Types at Madera Workshop



The available handouts were:

- California Regional Environmental Education Community (CREEC) Network, Fall 2004 Connections publication
- "Leaf-It-To-Us" pamphlet on a tree planting grant opportunity from the California Department of Forestry
- Marketing information of "Solatube", a technology discussed during the workshop and installed in a demonstration site
- Marketing information from Axis Technologies covering daylight harvesting and dimming, a technology discussed during the workshop and installed in a demonstration site

- Hand-out marketing an upcoming symposium for teachers called "Teach the River" – a workshop related to watershed education
- Packet of information for 5th grade teachers on the Arbor Day National Poster Contest
- Three page handouts discussing the California High Performance Schools (CHPS) – what it is and how to contact CHPS
- *School Operations and Maintenance: Best Practices for Controlling Energy Costs* a Guidebook for K-12 School System Business Officers and Facilities Managers
- Handout marketing an upcoming Maintenance & Operations Seminar being put on by the SEE Program, Investor Owned Utilities, and Sacramento Municipal Utility District
- Sylvania Ballast Technology and Specification Guide as well as a handout highlighting the Octron XP Supersaver lamp
- Marketing page stating that the California Energy Commission (CEC) can provide technical assistance along with an application for the CEC Bright Schools Program
- Energy Initiative Assistance Matrix – a handout showing the various types of assistance available to schools to help reduce energy use
- Instructional materials and activities developed for the Demonstration Classrooms

The flyer for the workshop indicated that the highlights of the workshop would be to:

- Hear from school facility and educational staff on how they promoted energy efficiency in their schools;
- Learn strategies to reduce your energy costs;
- How to get your students involved in hands-on learning;
- Free resources and instructional materials;
- Tour the host school which implemented an energy efficiency retrofit project;
- And much more.

The workshop carried out these activities through a well-structured agenda that pulled from many areas of the program. Flexibility was seen during the day as participant interest in certain topics caused some sessions to extend. The workshop team adjusted the remaining time well and managed to include all planned topics, with a few using less time than originally planned. The participants showed a high level of interest and interaction throughout the day. The teachers and O&M personnel came with specific areas in which they were interested and asked questions often. There was an informal exchange of information between them and the various members of the SEE program and industry representatives as questions were asked. The demonstration took place at the end of the workshop. Participants drove a short distance to the school in which the demonstrations were installed. As with many daylong workshops, people left at various times. By the time of the demonstration, there were fewer teachers and O&M personnel present.

The SEE program provided a four-question exit survey asking each participant in the workshop to "Sum Up the Day". They were asked to answer:

1. What was the most useful/meaningful thing you learned during this workshop?
2. What question(s) remain uppermost in your mind as we end this session?
3. How do you plan to use what you learned today in your work with schools?
4. How can we be of further assistance?

The Evaluation Team obtained these surveys from both the Bakersfield and Madera workshops. Analysis of the responses indicated that the information on the various technologies (i.e., T5, Solatube, VFD on pumps) was very useful to many of the participants, followed by the possible energy and dollar savings indicated in the various discussions. The presentation of how kids learn and ideas for the classroom were also mentioned as meaningful. Many of the questions that remained were around how they could cause a change either in their school district, other teachers, or themselves to begin to incorporate the information learned during the workshop. Some wanted to know more about funding for certain items or where to purchase technologies. Several indicated that they would begin educating their students, fellow teachers, or district using the information learned in the workshop. A few stated they would implement a technology discussed during the workshop. The workshop seemed to have met the expectations of the participants as more than half left blank the question of how the program could be of further assistance to them. Among those who did answer this question, there appeared to be an enthusiasm for the topic as just about everyone wanted the program to continue or have the information from workshop presented to other groups.

In summary, this community outreach activity was well thought out, professionally presented, and generated interest in the participants. It provided information that appeared to be useful to the participants and may have the potential to engender future changes.

4.2 Impact Results

In an effort to verify that Program goals were achieved, the Team conducted an extensive review of all available Program reports. The process utilized to identify Program Impacts is detailed in **Section 3.3**. A summary of the reported materials was compiled and is presented in **Exhibit E-3** and **Exhibit E-4 (See Appendix E)**. The follow sections detail the results of this assessment.

4.2.1 Program Goals and Achievements

This section reports the feedback from respondents regarding the scope of the Program's goals and whether they were achieved. In addition, this section reports on the verification of Program goals utilizing the monthly and quarterly cost spreadsheets and Partner narratives submitted.

4.2.1.1 Respondent Feedback about Program Goals

When asked whether they believed the SEE Program had accomplished its goals, the 13 Partner respondents were spilt evenly among those who said yes, no, and those who had a mixed response.

- Among those who felt that the SEE program reached its stated goals, one respondent noted that it is hard to measure behavioral change, even though that is the Program's goal.
- Respondents who thought that the SEE Program had not met its goals observed, "The program missed the mark. School districts were just handed materials and not taught how to use them." Another respondent noted that the program timeline was out of sync with the reality of the school calendar (plus on hold for 8 months) – [the Program] "could have had a deeper impact."
- Two Partners conveyed mixed perspectives about whether SEE met its goals. One respondent noted, "Since this was an info-only program, it's hard to say. There was not a lot of follow through to see if the information provided through audits or materials was used or had an impact." Several respondents noted that while the Program tried to connect facilities operations and school curriculum, the transfer of the Program from SCSA to CIWMB led to fire drills and unreasonable demands.
- Other respondents noted: the goals were too ambitious; goals were never clear; there was little accountability for schools to follow-through.
- Three of the 13 Partners interviews admitted that they were not sure what the Program's goals were, and another indicated that the SCSA website was the source of information used to "to identify goals and learn what they were supposed to be doing."

When asked whether there were Program outcomes that they had not expected, half of the Partners interviewed said yes. Examples offered by these respondents included:

- Mobile labs did not materialize until the last few months, and lacked strong teacher training so they could really be used; there were many lost opportunities because of the Program's transfer.
- Four of the six respondents noted that the transfer resulted in grants to schools being held in limbo, or were promised and were never delivered.
- One respondent indicated that he had expected more school districts to embrace the educational arm of the SEE Program. Boils down to individual teachers; did not use this resource as another opportunity to meet standards.

4.2.1.2 Verifying Program Goals

As described in **Section 3.3**, The Evaluation Team aimed to collect and review all cost spreadsheets and tracking materials the Program Partners and Staff submitted quarterly to the CPUC. The Team encountered four specific challenges when attempting to use the information provided (See summaries in **Exhibit E-3** and **Exhibit E-4** in **Appendix E**):

- **The majority of Program reports required on a monthly and quarterly basis were missing.** Based on the documentation provided to the Evaluation Team by the Program Staff, as both **Exhibit E-3** and **Exhibit E-4** (See **Appendix E**) indicate, Program Partners did not submit over 50% of the reports necessary to

satisfy Program reporting requirements. As a result, it was difficult to assess or verify the true extent of Program activities.

- **No centralized system or database to track or compile Program activities.** Since reports were maintained in separate Word or Excel formats, it was necessary to review and compile compartmentalized information to sort out what was done by each Program Partner to meet specific Program goals within specific budgets. A summary of this review is presented in **Exhibit E-5** in **Appendix E**.
- **Information contained in Program reports was inconsistent across reporting periods and across partners, making it difficult to verify goals.**
- **Double-counting.** In activities or events where multiple Partners were involved, it is clear from both quarterly report narratives and cost spreadsheets that tasks and deliverables were double-counted in some instances. In addition, District Participation Plans report and attribute Program activities to County Offices of Education (COEs) as well as school districts within the same COEs. While this may have resulted because multiple Partners provided similar services and each had to report their activities, there is a need to delineate individual accomplishments on some level for the overall Program in order to avoid double counting.
- **"Program Partners" were not a consistent category.** One Program Staff respondent interviewed confirmed that Program documents differ with respect to who is characterized as a "Program Partner." While one approach was that any entity who had a direct contract with CIWMB was a "Partner," reporting documents and budget spreadsheets did not consistently reference the same group of Program Partners.[24]
- **Program reports were not comprehensive.** After a thorough review of the data provided, there are still a number of significant gaps in information, making it impossible to determine, for example:
  - How many Champion Grants and After School Grants were ultimately awarded and in what amounts.
  - The informal changes to two Partners' target markets and scope of work (discussed in in-depth interviews), which did not appear in either of the three "Request for Changes" budget/scope documents (See **Exhibit E-2** in **Appendix E**).
  - The type and extent of private partnerships developed. Although developing private partnerships" was a Program goal, documentation consisted of a list of over 30 private partners contacted. No additional information was available to identify whether the private companies listed became involved with the SEE Program, and if so, what the "partnership" entailed.

[24] See **Footnote 5** for more information on this issue.

4.2.1.3 Achievement of Goals

Despite the significant barriers to identifying Program activities and verifying goals and deliverables (as outlined in **Section 4.2.1.2** above), **Exhibit E-5** (**Appendix E**) was created using quarterly reports submitted by Program Partners to CIWMB (incorporating details from both cost spreadsheets and Partner narratives as an accuracy check). As **Exhibit E-3** and **Exhibit E-4** in **Appendix E** summarize, more than 50% of Program Partner reports were not submitted to the CIWMB. While no 2004 Q4 cost spreadsheets or narratives were submitted by the time of development of this evaluation report, only one Partner's reports were submitted in 2004 Q3, with spotty submission among Partners for both 2004 Q1 and Q2.

The extent to which the Evaluation Team could document Program budget spent to date and deliverables completed by Program Partner was ultimately constrained by data availability. However, given these constraints, the Evaluation Team compiled a summary of Program budget spent by Partner and tasks completed as reported to date (detailed by Partner and task in **Exhibit E-5** in **Appendix E**). **Exhibit 4-6** below presents a summary of the information presented in more detail in the tables contained in **Appendix E**.

It is important to note that, while data availability constraints affect the accuracy of the information reported here, this information was exceedingly difficult for the Evaluation Team to compile. Because no Program database exists to track Program data, there was no aggregate information source available prior to this evaluation detailing what the Program spent or did at any point in the Program's implementation period. (See **Section 4.3**)

Exhibit 4-6:
Summary of Partner Program Achievements

Program Partner	Total Budget[25]	% Budget Spent	% Tasks Complete[26]
CCC	$240,000	4%	Ranges from 0% to75% complete
State Partnership Development and Coordination[27]	$300,000	47%	Ranges from 97% to100% complete

[25] The Total Budget for each Partner was adjusted over the duration of the Program. This figure represents the most recent adjustment, detailed in the "Request for Changes III," finalized in September 2004. A summary of the three Program's Request for Budget Changes" by Partner is presented in **Exhibit E-2** in **Appendix E**.

[26] See **Exhibit E-5** in **Appendix E** for a breakdown of deliverables complete by Partner task.

[27] This category is included in CIWMB's reporting documents to denote a category of Program activities that include training workshops, manual development, and technical assistance.

Program Partner	Total Budget[25]	% Budget Spent	% Tasks Complete[26]
CEC	$71,423	115%	Ranges from 0% to 30% complete
CDE	$260,000	71%	Ranges from 0% to 75% complete
Fresno Unified School District[28]	$50,000	74%	Ranges from 0% to 100% complete
CAC	$160,000	82%	Ranges from 50% to 100% complete
DOC	$160,000	68%	Ranges from 71% to 113% complete
CDF[29]	$73,000	7%	50% complete
ADM[30]	$315,000	37%	Ranges from 10% to 100% complete
TOTAL PARTNER BUDGETS	**$1,629,423**		

The entire budget for the program was $4,452,827.00. The table above reflects the budget for the state agency partners plus $315,000 for demonstration projects. This represents less than half of the total program budget. **Exhibit 4-7** shows the budget for the entire program as provided by CIWMB staff on December 27, 2004. There are some discrepancies between the two budgets. The way the budget is provided makes it difficult to tie specific budgets to activities. For example, Partner and CIWMB administrative costs are recorded as separate line items from the activities for which they are responsible.

[28] Fresno Unified School District is treated as a Program Partner in some Program documents (budget break-outs) and not others (Program narrative report submissions).

[29] The Program's Request for Budget Changes reflects a budget of $73,000 for CDF, while the compiled budget information provided by the program on December 27, 2004 indicates a budget of $63,000. This compilation apparently did not include an additional $10,000 included and approved in "Request for Changes III."

[30] We are uncertain whether this represents the entire budget for ADM as they do not appear as a line item in the information provided to the evaluation team by the program.

Exhibit 4-7:
Program Budget

Item	Final Budget
Administrative Costs	
Labor for Planning/Design/Program Management	$ 358,738.00
Benefits	$ 81,107.00
Travel/Conference/Training	$10,000
Materials & Handling	$55,982
Administrative Costs	$119,550.00
Total Administrative Costs	**$625,377.00**
Total Marketing/Advertising/Outreach Costs	**$ 58,612.00**
Direct Implementation Costs	
· School Energy Efficiency Program grants (110 @ $1,500 ea.)	$165,000
· After School Grants	$24,000
Financial Incentives	**$ 189,000.00**
Itemized activity costs	
· Service 45 school districts under the SEE program	$1,429,601
. Industry and association partnership development and coordination	$59,658
. Benchmarking	$21,048
. State agency partnership development and coordination	
-U.S. Environmental Protection Agency	$0
-California Arts Council	$150,000
-Department of Conservation	$150,000
-CIWMB SB 373	$90,000
-CDE/Foothill Indian Education Alliance	$150,000
-CDE/CASP	$0
-CDE/CREEC	$210,000
-CEC	$310,000
-CHPS	$300,000
-CCC	$145,000
-CDF	$63,000
. Demonstration Projects	$315,000
. Reporting	$11,531
Activity costs	**$ 3,404,838.00**
Evaluation, Measurement and Verification Costs	**$175,000**
Budget Grand Total	**$ 4,452,827.00**

4.3 Conclusions and Recommendations

Evaluation results are mixed regarding the efficacy of this type of collaborative approach to energy-efficiency information dissemination. Some partners felt that they would have done better operating outside the Program while others felt that the collaborative process was beneficial. While some evidence suggested that participants were overwhelmed with too much information and the Program lacked a cohesive vision, a final determination regarding the efficacy of this approach cannot be made without the opportunity to examine evidence regarding Program outcomes and impacts.

With regard to other issues that were a focus of this evaluation and based upon feedback from 25 in-depth interviews and a thorough review of program reports (summarized in **Exhibit E-3** and **Exhibit E-4** in **Appendix E**), the Team makes the recommendations noted below. Note that the recommendations are constructed to inform other similar programs given this particular Program is not being conducted in the 2004-2005 program year.[31] Specifically, the Evaluation Team makes the following recommendations covering all areas assessed:

- **Centralize tracking of program information**. The Evaluation Team recommends that a centralized database of program accomplishments and activities (both in terms of tasks and deliverables met to date, and budget shifted or allocated) be created and maintained for any program, but especially for a program of this size and scope. For a program such as this – with many implementing partners, overlapping initiatives, and shared budgets that are adjusted over time, the data tracking approach implemented was inadequate. Records were kept in the form of individual memos or spreadsheets that were not compiled or rectified. As a result, it was extremely difficult for Program Staff, Partners, or other third parties to readily identify whether fundamental fiscal or qualitative Program outcomes were achieved as well as made it difficult for an outside evaluator to verify outcomes and goal achievements. While individual reporting documents (monthly and quarterly narrative and cost reports) may be effective for providing program updates and progress reports, they are both inefficient and ineffective tools for tracking program accomplishments.
- **Reporting requirements**. The Evaluation Team recognizes that the reporting templates used by the Program were required by the CPUC and that the Program took steps to provide training on the reports. However, there was a great deal of confusion surrounding how to report Program information across most Partners interviewed. Programs should ensure that users make appropriate use of the templates and that users submit reporting documents with consistent information across reporting periods in order to reduce reporting inefficiencies.
- **Measure outcomes**. The Evaluation Team strongly recommends that Programs of this type either survey participants or take steps to collect information about the Program outcomes, in an attempt to document Program successes. Several Program Partners noted that providing good information through the Program was not enough – unless curriculum materials and/or facilities reports were utilized in some respect, there could be no assurance that the Program was having any impact. Though there was limited anecdotal evidence that some teachers incorporated educational materials into curricula or some schools implemented some measures recommended by facility audits, that information was not formally or uniformly collected or reported on a Program-wide basis.
- **Incremental and customized distribution of curriculum materials.** In cases where there are numerous amounts of Program materials to disburse to school

[31] D&R Associates is conducting a similar schools program during the 2004 - 2005 program year.

participants, the Evaluation Team recommends phasing in materials as they fit into the course curriculum to increase the likelihood of utilization. While the Program identified, compiled, and distributed a broad range of well-respected materials (as reported by anecdotal evidence and interview responses), many respondents were concerned that distributing all materials in one lump sum was overwhelming to many educators.

- **Wider material distribution.** The Evaluation Team recommends that sufficient quantities of curriculum materials be made available per district to have a real impact in the classrooms.
- **Better-planned and sustained Program Participant follow-up**. The Evaluation Team recommends that Programs sustain follow-up with schools throughout the Program's timeline to ensure Program success.

Throughout the process of compiling respondent feedback, there were a number of specific Program design and process concerns that arose for some respondents and not others. The relevance of this feedback to guide future Program implementation may depend on the scope and targets in future Program replications, however, a range of these recommendations are summarized in **Section 4.1.4**.

This completes the report on the PY2002-2003 SEE Program. The information in the following appendices covers details from the program assessment.

APPENDIX A

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APPENDIX B

DATA COLLECTION INSTRUMENTS

There were three interview guides developed for this evaluation. In order they are:

1. Program Staff Interview Guide
2. Partner Interview Guide
3. Case Study Interview Guide

A copy of each of these interview guides is included in this appendix.

INTERVIEW GUIDE: PROCESS INTERVIEW

SEE CIWMB Staff

Contact Name:

Contact Title:

Date Complete:

Interviewer:

Interview Length:

INTRODUCTION

Hello. My name is _____, and I am calling on behalf of the School Energy Efficiency Program administered by the California Integrated Waste Management Board. We are in the process of talking with people involved in the program to better understand how well the programs is working. Do you have about between 30 and 45 minutes to discuss the SEE Programs with me?

- Confirm respondent's role in the SEE Program and that this is the correct contact to speak with.

- Clarify that respondent's comments will not be associated with their company when compiled with other responses

Respondent Background and Involvement

R1. What is your job title?

R2. How long have you personally been involved with the SEE Program?

R3. What is your role (what are your responsibilities) regarding SEE?

R4. Approximately what percentage of your time is spent on the SEE program versus your other job responsibilities? (probe for what aspects of the program the respondent focuses on).

R5. How often do you interact with program partners? For what reasons?

R6. How often do you interact with program participants (school districts)? For what reasons?

SEE Background and Structure

S1. Can you take a minute to explain how the SEE program first came about? (Probe for who was the driving force behind its creation and how it came about).

S2. How did the CA Integrated Waste Management Board become the SEE administrator?

S3. How many CIWMB staff are directly involved in implementing SEE? (Probe for details about roles and tasks).

S4. What percentage of CIWMB budget/staff is devoted to carrying out SEE program tasks? Has that focus changed since the SEE program started? (probe for specific budget adjustments or staff adjustments and reasons).

S5. Please describe the activities that the CIWMB does to administer the SEE program (Probe for details regarding reporting requirements, meeting facilitation, budgeting tasks, or other specific activities. Identify whether these tasks are formal contracted activities or informal activities that have evolved).

S6. What role do program partners take in carrying out SEE programs? (probe for any shared responsibilities, reporting requirements and administrative tasks).

S7. Can you take a minute to describe how programs/partner agencies were chosen to be included to comprise the SEE program? (probe for details regarding the process, including who was involved in making the decisions, how they weighed options, and how partners came to know about SEE and get involved).

S8. What were the main factors you considered when determining which program partners to include in the SEE program?

S9. Overall, how did this process work? (probe for what worked well, and what the respondent would have changed).

S10. Can you describe how program participants became involved in the SEE program? (probe for details regarding marketing efforts and level of interest by CIWMB and partners).

S11. How do you think the outreach/recruitment effort has worked? What aspects have worked well? What aspects would you change if you could?

S12. What are the goals of SEE?

S13. How were the goals of SEE developed?

S14. Please describe the process for determining whether program goals are being met (probe for how participation is measured, compiled and tracked).

I'd like to confirm with you the program partners/agencies currently participating under the SEE program. Read list of partners/agencies below – confirm with respondent.

Program	**Partner**	**Confirm Inclusion**
Champion Grants	school districts partner with CIWMB	
After-School Grants	CIWMB administers an after school grant program to award after school grants to SEE participating school districts.	
Recycle Rex Program School Assembly Program	Department of Conservation	
Energy Education Through the Arts Grant Program	California Arts Council	
California Department of Forestry and Fire Protection (CDF) - variety of SEE Program services	California Department of Forestry and Fire Protection	
SB 373 (Chapter 926, Statutes of 2001), the School Diversion and Environmental Education Law (School DEEL)	School DEEL	
California Regional Environmental Education Community (CREEC) Network	CA Department of Education	
Bright Schools Program	California Energy Commission (CEC)	

SEE Program Mobile Energy Laboratories (Mobile Labs)	California Conservation Corps (CCC)	
COLLABORATIVE FOR HIGH PERFORMANCE SCHOOLS (CHPS).	Pacific Gas and Electric, the California Energy Commission, the California Department of Education, Sacramento Municipal Utilities District, State and Consumer Services Agency, the California Integrated Waste Management Board, the Division of the State Architect, and the Office of Public School Construction.	
Demonstration Projects/School Audits	ADM	

S15. Are there other partners involved in SEE that I did not list? (probe for details)

S16. Have the program partners participating under SEE changed since SEE began? Have the goals/tasks changed? (If yes, probe for details about what partners participated before, when, and why they do not currently participate; probe for budget adjustments).

S17. Does CIWMB have a process to track details about school district activities in various SEE programs? If yes, please describe the process and walk me through the steps CIWMB takes and a school district in that process.

S18. Are you involved with the development of school District Participation Plans?

If yes, what is the typical process for developing and implementing a school "District Participation Plan?"

SEE School District Participation

SDP1. Why do you think some school districts decided to participate? Have you noticed a change in participation levels or activity since SEE started?

SDP2. What programs have been the most active/utilized? Why?

SDP3. Do you feel that these efforts were successful? Why or why not?

SDP4. Do you have any ideas for how these efforts could have been improved?

SDP5. What have been the advantages/disadvantages to offering energy efficiency programs to schools using this type of SEE Program structure?

SDP6. Who is responsible for ensuring that the plans were implemented in a given school district? How does that process work?

SDP7. What parts of the SEE Program went well (and why)? What aspects of the SEE program did not go as well as you had hoped and why? (Probe for recommendations – process vs. program design)

Thank you for taking the time to complete this interview. If I have follow-up clarifying questions, would it be o.k. if I contact you again in the next couple weeks?

INTERVIEW GUIDE: PROCESS INTERVIEW

SEE CIWMB Program Partners

SEE Program Partner Agency:

Contact Name:

Contact Title:

Date Complete:

Interviewer:

Interview Length:

Introduction

Hello. My name is _____, and I am calling on behalf of the School Energy Efficiency Program administered by the California Integrated Waste Management Board. We are in the process of talking with people involved in the program to better understand how well the programs is working. Do you have about: 30 minutes to discuss the SEE Programs with me?

- Confirm company's role in the SEE Program and that this is the correct contact to talk about the [PROGRAM NAME].

- Clarify that respondent's comments will not be associated with you or your company when compiled with other responses.

Respondent Background and Involvement

R1. What is your job title?

R2. How long have you personally been involved with the [Program NAME]?

R3. What is your role (what are your responsibilities) regarding this program?

R3. Approximately what percentage of your time is spent on the SEE program versus your other job responsibilities?

R4. How often do you interact with SEE/CIWMB staff? For what reasons?

Program Details

PP1. How long has your organization been offering [PROGRAM NAME] – (If program existed prior to joining SEE, probe for details regarding participation levels, targets, marketing, and goals prior to SEE participation)

PP2. What are the goals of [PROGRAM NAME]?

Item	Pre SEE	Under SEE
Goal		
Target Market		
Participation		
Budget		

PP3. What is [PROGRAM NAME]'s current budget through SEE?

PP4. Can you describe what the program offers (number and description of program offerings)? Are all of these activities done under the SEE program (If no, probe for details).

PP5. Do you offer this program outside of the SEE program? (If yes, probe for details regarding program targets, offerings and other details outside of SEE).

I'd like to ask you some questions about how your program is offered under the SEE program.

SEE Program Involvement

PS1. How long has the [PROGRAM NAME] been part of the SEE program?

PS2. How did your organization find out about the SEE program? (Probe: what were they told about the program? from whom and how)?

PS3. Why did your organization decide to participate in the SEE program? (Probe what did you expect to get out of participating)?

PS4. What were the most important factors in deciding to participate?

PS5. What changes, if any, are there in your program since participating in SEE? (Probe for budget changes, changes in program offerings or participants). If yes, are these a result of participating in the SEE program? Are they positive or negative changes? Why?

PS6. How many schools implement [PROGRAM NAME] via the SEE program?

PS7. Do you feel there are any advantages or disadvantages to offering [PROGRAM NAME] to schools through the SEE program? (if yes – what are they and why?)

PS8. What do you see as the goals of the SEE program?

PS9. How well do you think the goals of the SEE program fit the goals of your program? Why do you feel that way?

PS10. Do you feel that your program goals are helped by participating in the SEE program? Why or why not?

PS11. Do you have a process for determining whether your program goals are being met? (If yes, please describe.)

PS12. What goals are and are not being achieved? Why do you think these goals are not being met? Is there anything that the SEE program could do to help you meet these goals?

Implementation Process

IP1. Are you involved with promoting your program through SEE? If yes, how does SEE promote your program? (if the program was offered prior to SEE involvement, probe for if marketed differently now, and how?

IP2. How do you think this marketing approach has worked? (Probe for specific examples of successes or challenges).

IP3. Do you have any suggestions for how these efforts could be improved?

I'd like to ask you about how the program works and the relationship between staff at your program and SEE.

IP4. How does your program get to the participating schools? What are the steps? (Probe for chronology, who contacts who, level of interactions, problems or delays, positives and challenges with each step).

IP5. Overall, how well does this process work?

IP6. What is good about this process? What problems, if any, are there with this process?

IP7. What if any reporting requirements are there for participating in SEE programs? Do you file reports? (If yes, probe for details regarding content and frequency)

IP8. If you could change aspects of this process, what changes would you make? Why? (probe if this level of SEE interaction is appropriate in their view).

Finally, I'd like to ask you a few final questions to get your overall perspectives and any recommendations to strengthen the program that you might have.

FB1. Are there any program outcomes you had expected, but that that have not been achieved so far? (probe for details, reasons)

FB2. What aspects of the SEE program are working well?

FB3. What parts of the SEE Program do you think need improvement? (Probe for recommendations – process vs. program design)

Thank you for taking the time to complete this interview. If I have follow-up clarifying questions, would it be o.k. if I contact you again in the next couple weeks?

INTERVIEW GUIDE: PROCESS INTERVIEW

SEE Program: Case Study

County/School District/School:

Contact Name:

Contact Title:

Date Complete:

Interviewer:

Interview Length:

Introduction

Hello. My name is _____, and I am a consultant with a firm called KEMA. We were hired by the Schools Energy Efficiency Program as an independent group to talk with people involved in the to better understand how well the SEE Program is working. There are some issues about the program to discuss with you that should take about 20 minutes. Is now a good time or should we schedule another time to discuss them.

- Clarify that respondent's comments will be kept confidential and will not be associated with his or her school when compiled with other responses.

Respondent Background and Involvement

R1. What is your job title?

R2. How long have you personally been involved with the Schools Efficiency (SEE) Program?

R3. What is your role / what are your responsibilities regarding the SEE Program?

R3. Approximately what percentage of your time has been spent on the SEE program compared with your other school responsibilities?

R4. How often do you interact with people related to the SEE Program? Who and for what reasons?

School Characteristics

[Interviewer note: If respondent cannot offer the following information, obtain the appropriate administrative contact to follow-up with].

Number of buildings: _____

Number of students: _____

Description of population served (urban/rural, ethnicity, other?): _____

Square miles covered by school district: _____

I'd like to ask you some questions about how you became involved in the SEE Program.

SEE Program Awareness/Involvement

PS1. How long has your school been part of the SEE Program?

PS2. How did your school find out about the SEE Program? (Probe: what were they told about the program? from whom and how)?

PS3. Why did your school decide to participate in the SEE program? (Probe: who was involved in the decision – just the principal or superintendent, a committee, the school board? what did you expect to get out of participating)?

PS4. What were the most important factors in deciding to participate?

PS5. What was good about the way you were approached to participate in the SEE Program? What problems, if any, are there with this process? (Probe: were your questions answered by SEE staff? How did you know who the appropriate contacts were? Any recommendations to improve the outreach to schools?)

I'd like to ask you some questions about the activities your school did under the SEE program.

Program Details

PP1. Please describe what parts of the SEE Program your school chose to be involved with? (*Interviewer note*: Cross-reference the District Participation Plan for this respondent as a starting point; list program partners and program activities.)

PP2. Did you add any SEE Program activities (or drop any activities) while you were in the SEE Program? (Probe for details, circumstances)

PP3. Do you keep records of student involvement or faculty participation in the SEE Program offerings?

IF PP3 yes, probe: can you offer any information about the number of SEE-related assemblies or training session's faculty or staff from your staff has attended? Do you have information about the number of students who were involved in the SEE Program activities?

I'd like to ask you some questions about the information and materials you received under the SEE program.

[IF RESPONDENT IS A TEACHER/SUPERINTENDENT]:

MM1. What curriculum materials did you receive after you bean participating in the SEE Program? (*Interviewer note*: probe for as much detail as respondent can recall – if a book or video series, if they can remember the title or publisher, record).

MM2. When / how were these materials given to you? (Probe: did respondent receive training on how to use these materials to teach to existing standards?)

MM3. What did you like about these materials? Was there anything that you disliked about the materials? (Probe: level of information too general, too technical, or appropriate? What, if anything, did you find the most useful?)

MM4. Have you been able to incorporate any of the SEE Program curriculum materials into your lesson plans? Please describe how the SEE materials have been utilized or not utilized.

IF MM4 YES, THEN ASK

MM4a. In your view, did the students learn from these materials? (probe for any anecdotes or feedback about why or why not).

MM5. Do you have any recommendations about what materials should be included that were not (or materials that should not be included in the future)?

[IF RESPONDENT IS A FACILITY MANAGER]:

AUD1: Why did you decide to have a building audit?

If not, why did you choose not to have a building audit?

[THEN SKIP TO FB1]

AUD2: What steps did you have to go through to get the audit scheduled and complete? Anything you would have changed about that process?

AUD3. What areas of your building did the audit focus on? What kinds of training did you receive during the audit? After the audit?

AUD4. What did you think was the most valuable aspects of the audit process? Anything about the audit you found not as helpful? Do you have any recommendations about what should be changed about the audits?

AUD5. Did you receive a report with recommendations after the audit? What aspects of that report were helpful? What parts of the report were not as helpful and why?

AUD6. Have you carried out any of the suggestions for energy savings you received during the audit? If yes, probe for details. If no, why not?

Finally, I'd like to ask you a few final questions to get your overall perspectives and any recommendations you have to strengthen the SEE Program.

Satisfaction and Perspectives

FB1. Are there any program outcomes you had expected, but that that have not been achieved so far? (Probe for details, reasons)

FB2. What aspects of the SEE program are working well?

FB3. What parts of the SEE Program do you think need improvement? (Probe for recommendations – process vs. program design)

FB4. Do you feel that your school has been helped by participating in the SEE program? Why or why not?

Thank you for taking the time to complete this interview.

APPENDIX C

EVALUABILITY ASSESSMENT RESULTS

Evaluability Assessment Results

The purpose of this memo is to present the results of the Evaluability Assessment (EA) developed to guide the evaluation of the State and Consumer Services Agency (SCSA) Schools Energy Efficiency (SEE) Program. The program logic model, developed as part of this assessment, is the basis for the EA and delineates the various program linkages to illustrate the inputs and outputs that result in the intended outcomes for the SEE Program. The assessment also details possible evaluation activities and denotes our prioritization of these research activities in accordance with the evaluation requirements stipulated in the California Public Utilities Commission (CPUC) Energy Efficiency Policy Manual.

Some authors (Rogers et al, 2000) have posited two very basic types of theories that can be used in program evaluation: 1) implementation theory, and 2) program theory. DSM implementation theory depicts the basic flow and mechanics of the program consisting of a sequence of activities that begin with program outreach and end with customers' adoption of recommended measures and/or practices. The *implementation theory* tells the evaluator *how* the program is supposed to operate in the field. In a process evaluation, the evaluator can examine the field implementation of a program to determine if there are any significant deviations from the intended program design. If there are, the evaluator can explore why these deviations occurred and what they imply regarding the achievement of any of the expected outcomes. The *program theory* seeks to explain *why* the program activities (i.e., the underlying mechanisms) are expected to lead to the achievement of immediate, intermediate, and long-term outcomes. Weiss (1997) stresses that understanding the underlying theory of the program is essential to developing the most appropriate evaluation, and that a good evaluation is based on defining and analyzing the assumptions of the program theory.

The program logic model provided here depicts both SEE activities and the hypothesized direct and indirect causal linkages between these activities and the desired impacts. As such, the program logic model combines elements of both program theory and implementation theory by illustrating the program inputs and outputs and the intended outcomes that result. There are many different areas in which programs can go astray but, by focusing on the logic model, evaluators can keep themselves on track and provide a meaningful assessment. Accordingly, the EA, which outlines potential evaluation tasks and objectives to be addressed in Phase II, is derived based on the causal linkages illustrated in the program logic model.

SEE Program Goals and Objectives

The main overarching objective of the SEE Program is two-fold:

1. to improve public education facilities and educate facility operators and administrators about the benefits of energy efficient equipment and operations practices; and
2. to educate K-12 students about energy, energy efficiency, and how to apply what they learn at home and in their communities.

Coordination is viewed to be the primary role of SCSA; however, SCSA is also responsible for directly administering some grants (i.e. Champion Grants and After School Grants) as well as the direct implementation activities carried out by ADM, a SEE

Program subcontractor, on behalf of SCSA. In this role as coordinator, the SCSA capitalizes on its established network of partner agencies to create a portfolio of energy efficiency resources and services from a set of new and existing energy efficiency programs and services that can be accessed by SEE Program participants. The SCSA SEE Program primarily targets schools in California's Central Valley Region (CVR); however schools outside of the CVR can access a few resources, such as the online tools. The goals of the Program are to: serve 55 school districts (in 11 counties); reach 5000 student participants and provide 100,000 students with energy efficiency information; provide technical assistance in the form of benchmarking, audits, retrofit projects, etc., to 220 school buildings; provide a maximum of 55 Champion Grants to school districts participating in the SEE Program[32]; provide professional development training in all 55 school districts; establish 30 industry and private partners; reduce, measure, and track school district energy consumption, as well as potential energy savings opportunities in all 55 school districts; and, develop various demonstration projects to highlight energy efficient technologies, practices, and education opportunities. However, changes in the State of California's Administration necessitated changes in the program administration for the SEE Program. While the basic program elements will remain the same, SCSA will request that, beginning in early 2004, the program be administered through the California Integrated Waste Management Board (CIWMB). Given the complexity of this transfer, the Program will request a 4-6 month extension of the program period beyond the end date that was previously extended to June 1, 2004. Thus, the final goal and program achievements will be contingent upon the length of the program period, a determination to be made by the CPUC within the next few weeks.

The SEE Program also has two main sub-objectives. The different SEE Program elements are designed around these sub-objectives to accomplish the main overarching objectives and overall goals of the Program. Specifically, the sub-objectives and associated SEE Program elements are to:

A) Help participating school districts understand and take advantage of the opportunities to improve the energy performance of their schools.

Program Elements:

- Benchmarking Assistance
- Coordination of Energy Audits
- Advanced Technical Support
- Professional Development Training

B) Help plan and coordinate classroom energy education activities to teach students about energy conservation and efficiency and use school site demonstration or retrofit projects as an interactive learning tool for teachers and students.

Program Elements:

[32] The maximum grant award is $3000 per district; and, each district is allowed to fund 2 district staff members as SEE Program Champions for $1,500 each.

- Create and foster healthier learning environments
- Encourage behavioral changes
- Identify and provide educational activities
- Create recognition opportunities

While no specific metrics were defined in the program implementation plan to assess the achievement of identified program goals, the EA below proposes evaluation activities designed to assess the achievement of these goals.

CPUC Mandated Evaluation Objectives

The CPUC has ordered independent evaluation, measurement, and verification (EM&V) studies for all local programs according to the guidelines laid forth in the November 2001 Energy Efficiency Policy Manual. Accordingly, a basic measurement and evaluation study to examine the effectiveness of the 2002-03 SCSA SEE Program must accomplish the Commission's EM&V objectives for information-only programs. Therefore, the Evaluability Assessment that follows addresses the following evaluation objectives:

- Provide on-going feedback, and corrective and constructive guidance regarding the implementation of the programs.
- Measure indicators of program effectiveness, including the testing of assumptions that underlie the program theory and approach, and changes in individual awareness and behavior due to the programs.
- Assess the overall levels of performance and success of the programs.
- Help to assess whether there is a continuing need for the programs and make recommendations for possible modifications or improvements.

Evaluability Assessment

While the EA identifies a comprehensive set of evaluation activities, the primary focus of the EA (and the Phase II evaluation) is on identifying evaluation tasks that assess SCSA's primary role as coordinator and the achievement of the two sub-objectives. In our view, these are the key elements that reflect the overall SEE Program; further, the two sub-objectives are associated with specific activities and outcomes that relate to program effectiveness and performance.

SEE Program Logic Model

The program logic model, presented in Figure 1, attempts to distill from the program documentation and discussions with program staff the essential elements of how the program operates in the field and the resultant impacts that occur if these elements are properly implemented. Additionally, the model attempts to uncover the underlying implicit causal relationships between the SEE Program activities, intervening variables, program outputs, and the desired impacts or outcomes. In Table 1, we identify, for each linkage, the type of analysis proposed and outline the corresponding evaluation activities that could be used to complete the indicated analysis. For each type of analysis identified, we indicate our assessment of the evaluation priority for this analysis.

The next step is for the SCSA to review the program logic model in Figure 1 to confirm that the model adequately and accurately represents the SEE Program and determine which linkages are the most critical to address in the Phase II evaluation. Similarly, in reviewing the EA results in Table 1, the idea is to prioritize the evaluation tasks based on the evaluation objectives and available budgets. This is necessary because evaluation budgets are limited, which forces one to decide which linkages are the most important to study. Those linkages that are *most critical* in the theoretical model are obvious candidates, and, of these, those linkages about which there is the *greatest uncertainty* deserve the greatest attention. Once final agreement on the evaluation focus and prioritization of analysis activities is complete, the Phase II research tasks can be finalized and incorporated into a formal evaluation plan (and budget) to be delivered as the final deliverable of Phase I.

Figure C.1: SEE Program Logic Model

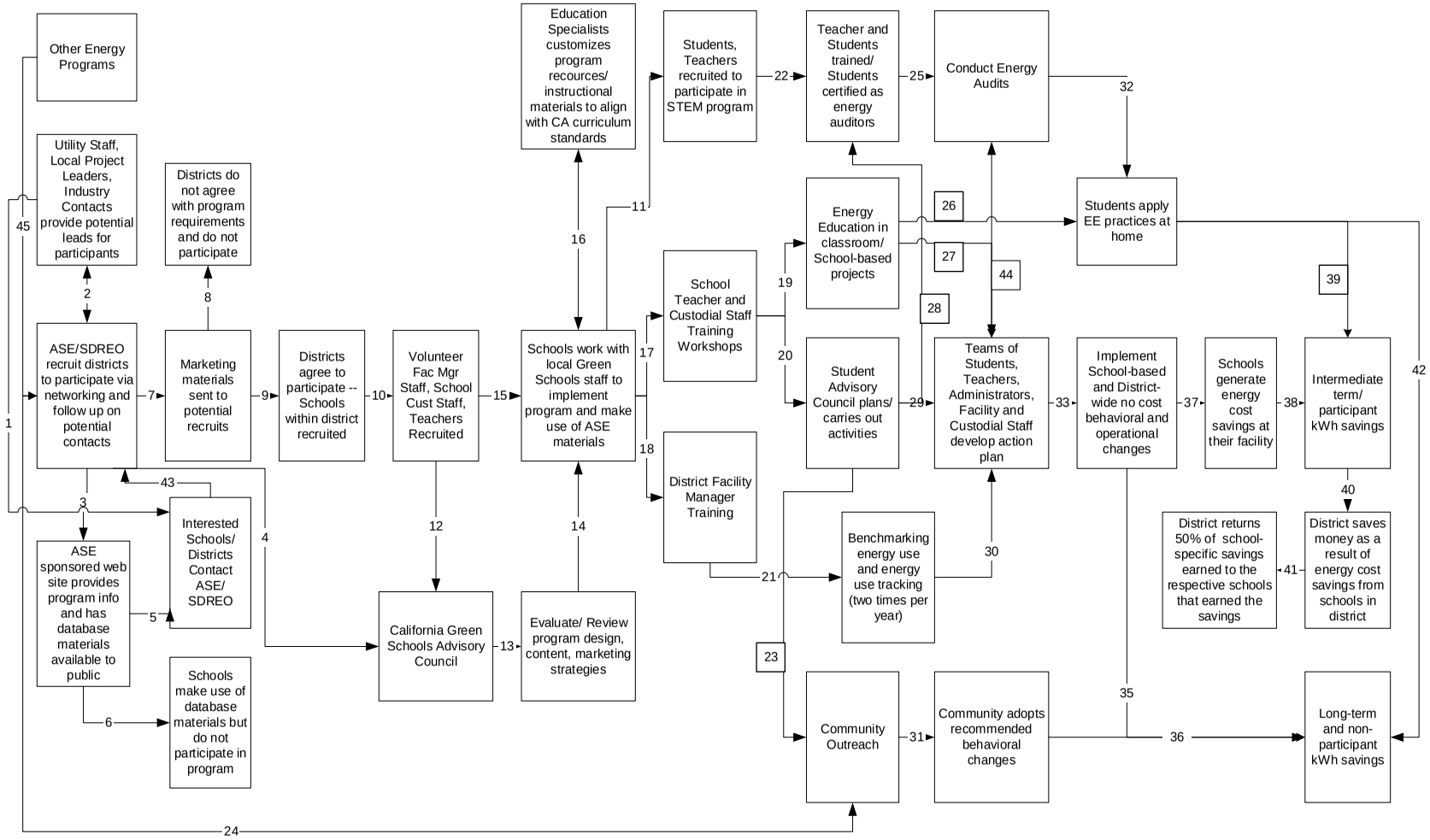

Table C.1: Evaluability Assessment

PRIORITY	LINKAGE	TYPE OF ANALYSIS PLANNED	SPECIFIC TOPIC OF RESEARCH
High	1-21, 27-34	Descriptive and Documentation	Relevant counts along with descriptions and any documentation of specific activities will occur at these linkages. This information will be used to construct a comprehensive program description and review and is expected to provide the bulk of its information through appendices in the final report. Specifically, the Phase II analysis tasks could include descriptions, documentation, and/or counts of the following, as appropriate: types of marketing and outreach methods and how districts learn about and make contact with the SEE program; website improvements/tools and counts of the number of website hits and click patterns, if available; the impact/role of the SCSA Energy Education Program funded by SB373 in the SEE Program; key marketing/program materials used; key program elements provided by SEE Program partners including efforts to provide benchmarking assistance, energy audits, advanced technical support, professional development training, and energy education activities in schools and the community; customized district participation plans; and the coordination and collaboration between SCSA and Program partners as well as other market actors.
High	1, 2, 10, 16-21, 27-32	Documentation/Verification	This task will entail documenting and giving specific counts of relevant activities to confirm that program goals were met. Analysis activities could include documentation and verification of the following: the number of student participants/students reached; the number of districts served; the number of school buildings receiving technical assistance; the number of champion grants provided; the number of professional development workshops conducted; the number of private partnerships developed; and the number of demonstration projects completed. Specifically, the documentation activities would entail reporting final goal achievements given a review of Program tracking or reporting information; and, the verification activities would entail verifying a subset of the cases within each of the different categories listed above, as appropriate, using relevant criteria established for each case. For example, to verify the number of student participants, it may only be feasible to obtain self-reports from teachers through the teacher surveys regarding the level of participation of certain groups of students. However, the verification of the number of school buildings treated might entail limited onsite verifications OR if schools indicate changes in operations procedures. The verification might entail a review of revised operations manuals that document the new operations

PRIORITY	LINKAGE	TYPE OF ANALYSIS PLANNED	SPECIFIC TOPIC OF RESEARCH
			procedures that were put in place as a result of participating in the program.
Low to Medium	10, 15, 16, 20, 32-34	Documentation/Verification	As a means of verifying the accuracy of information provided through the program, and in order to assess overall program performance, the Phase II evaluation could include tasks to document and describe the activities and outcomes associated with these linkages. Analysis activities could include: a review and/or verification of benchmarking and audit results provided; a review and/or verification of the energy consumption tracking and savings information and a review of the algorithms used to derive the savings estimates provided to schools; documentation of the number of district participation plans; and, documentation and counts of community energy education activities.
High	2, 5, 6, 9, 10, 12-14, 16-21, 22-32	Process	The aim of the process evaluation is to assess the effectiveness of program processes and provide ongoing feedback and corrective and constructive guidance that can be used to improve future program design. This aspect of the evaluation is designed to meet the CPUC mandated evaluation objectives. Also, the intent of this part of the evaluation is to assess the achievement of the Program sub-objectives: a) to help participating school districts understand and take advantage of the opportunities to improve the energy performance of their schools; and, b) to help plan and coordinate classroom energy education activities to teach students about energy conservation and efficiency and use school site demonstration or retrofit projects as an interactive learning tool for teachers and students. Activities could entail interviews with Program staff and partners, district administrators, and facility operations and custodial staff to investigate the effectiveness of the program coordination and various program processes such as: the types of marketing methods used; how districts learned about or were contacted by the SEE program; the process for participating in the program; relevance of and satisfaction with training workshops, project demonstrations, and school-based activities; the process for developing the district participation plan, and the benefit or usefulness of the benchmarking and energy tracking activities. In addition, this aspect of the evaluation would include interviews with teachers to investigate satisfaction with energy education

PRIORITY	LINKAGE	TYPE OF ANALYSIS PLANNED	SPECIFIC TOPIC OF RESEARCH
			materials and school-based activities. Program staff members would be interviewed to document the rationale for the program and inform whether the program, as implemented, was consistent with the program design. Interviews with program partners would investigate the degree to which the program partners were coordinated and would look at the extent to which program partners shared resources and ideas or whether there is evidence of "cross-fertilization". To further assess the effectiveness of the coordination effort and program processes, survey questions for administrators and staff would focus on the degree to which having access to a portfolio of resources was a benefit. This could be assessed by inquiring whether the Program created benefits in that districts could access multiple programs that were complementary whereas otherwise they would have only found and participated in one or significantly fewer programs or made use of significantly fewer resources. In this case district administrators would give a self-reported level of how much the SEE program benefited them. Additionally, districts' current participation in EE programs could be compared to past participation as a possible proxy measure for whether having access to a portfolio of programs provides specific benefits to districts that may not have otherwise been possible in the absence of the program.
Medium to High	35-40, 41, 42	Impact	The aim of the impact analysis is to assess the degree to which program activities increased awareness, knowledge, and attitudes toward energy efficiency and, in turn, lead to improvements in K-12 public education facilities and behavioral changes at school. Evaluation activities could entail adding questions to the planned surveys indicated above with district administrators, teachers and custodial/facility operations staff to assess these impacts. District administrators would be asked about the impact of the customized district participant plan on the actions implemented by the district to assess whether the customized participation plan caused them to have more or different activities/programs in their school district. Questions of the custodial/facility operations staff would focus on the types of changes implemented and how facilities and operations practices were changed as a result of the program and the customized district participation plan, while the questions directed at teachers teacher could be used to obtain teacher-reported changes in student attitudes, knowledge, and awareness.

PRIORITY	LINKAGE	TYPE OF ANALYSIS PLANNED	SPECIFIC TOPIC OF RESEARCH
Low	43, 44, 45, 46	None	These linkages represent outcomes that are: difficult to measure; long-term program effects that cannot be assessed within the current program and evaluation period; or, relate to the substantiation or measurement of achieved kWh savings due to the program, which is not an evaluation requirement for information-only programs.

APPENDIX D

PROGRAM ACTIVITY DETAILS

Exhibit D-1: Summary of School District Participation Plan Activities

County	School District	Program	Start Date	Program Education Services	Program Facility Improvement Services	Task Type
El Dorado	Black Oak Mine Unified	CCC	Fall 2004	Mobile Lab visits to two schools.	None noted	Event
El Dorado	Black Oak Mine Unified	CEC	Summer/Fall 2004	District will receive a copy of the EnergyQuest Video.	None noted	Distribution
El Dorado	Black Oak Mine Unified	CG	Not noted	Don Smith submitted Champion Grant proposal	None noted	Application
El Dorado	Black Oak Mine Unified	CG	Not noted	Susan Whittington submitted Champion Grant proposal	None noted	Application
El Dorado	Black Oak Mine Unified	CHPS	Fall 2004	District facilities personnel will be given access to the new Maintenance and Operations manual.	None noted	Distribution
El Dorado	Black Oak Mine Unified	CHPS	Fall 2004	District will be provided access to the CHPS online video series.	None noted	Distribution
El Dorado	Black Oak Mine Unified	CREEC	April 24th	Arts and Nature Fest (Earth Day), demonstrated mobile labs and SEE program information at school/community event	None noted	Event
El Dorado	Black Oak Mine Unified	CREEC	Jun-04	Meet to discuss possible Fall 2004 events including teacher training and/or energy festival	None noted	Planning

County	School District	Program	Start Date	Program Education Services	Program Facility Improvement Services	Task Type
El Dorado	Black Oak Mine Unified	CREEC	30-Oct-03	DPP signed by Susan Whittington (education) and Don Smith (facilities). Further discussions of SEE program and presentation of education materials.	None noted	Planning
El Dorado	Black Oak Mine Unified	CREEC	Spring 2004	Weekly contact with champion to plan and coordinate education activities	None noted	Planning
El Dorado	Black Oak Mine Unified	CREEC	28-Feb-04	Scheduled teacher workshop at Placer Nature Center. Cancelled due to low enrollment.	None noted	Workshop
El Dorado	Black Oak Mine Unified	DOC	Fall 2003	Recycle Rex Assembly (Georgetown School)	None noted	Assembly
El Dorado	Black Oak Mine Unified	DOC	Fall 2003	Recycle Rex Assembly (Creekside School)	None noted	Assembly
El Dorado	El Dorado Co. Office of Education	CAC	Spring 2004	Theater production at El Dorado High School.	None noted	Event
El Dorado	El Dorado Co. Office of Education	CEC	Fall 2004	District will be given a copy of the EnergyQuest educational video.	None noted	Distribution
El Dorado	El Dorado Co. Office of Education	CG	Spring 2004	El Dorado COE will identify a champion and apply for a Champion Grant.	None noted	Application
El Dorado	El Dorado Co. Office of Education	CHPS	Fall 2004	District facilities personnel will be given access to the new Maintenance and Operations manual.	None noted	Distribution

County	School District	Program	Start Date	Program Education Services	Program Facility Improvement Services	Task Type
El Dorado	El Dorado Co. Office of Education	CREEC	Apr-04	Met with curriculum director and principal of charter home study program to present educational materials and discuss possible strategies for implementing	None noted	Planning
El Dorado	El Dorado Co. Office of Education	CREEC	Jun-04	Follow-up meeting to discuss Fall 2004. Send info on BP energy grant opportunity	None noted	Planning
El Dorado	El Dorado Co. Office of Education	DOC	Fall 2003	Assemblies conducted at five schools in El Dorado County.	None noted	Assembly
El Dorado	Indian Diggings Elementary	CEC	Fall 2004	District will be given a copy of the EnergyQuest educational video.	None noted	Distribution
El Dorado	Indian Diggings Elementary	CG	Fall 2003	Submitted champion grant proposal	None noted	Application
El Dorado	Indian Diggings Elementary	CG	Nov-03	Facilities and educational champions both attended SEE Program training in Stockton.	None noted	Workshop
El Dorado	Indian Diggings Elementary	CHPS	Fall 2004	District facilities personnel will be given access to the new Maintenance and Operations manual.	None noted	Distribution
El Dorado	Indian Diggings Elementary	CHPS	Fall 2004	District will be provided access to the CHPS online video series.	None noted	Distribution
El Dorado	Indian Diggings Elementary	CREEC	Nov-03	Delivered educational materials and reviewed them with champions	None noted	Distribution

County	School District	Program	Start Date	Program Education Services	Program Facility Improvement Services	Task Type
El Dorado	Indian Diggings Elementary	CREEC	April 28th	Attended Energy Efficiency Science Fair and Family night. Delivered additional educational materials and student premiums/prizes from Dept. of Conservation.	None noted	Event/Distribution
El Dorado	Indian Diggings Elementary	CREEC	9/17/2003	Met with Superintendent Vardy to discuss SEE Program –IAP meeting	None noted	Planning
El Dorado	Indian Diggings Elementary	CREEC	10/7/2003	DPP meeting with R. Vardy	None noted	Planning
El Dorado	Indian Diggings Elementary	DOC	Spring 2004	Recycle Rex Assembly	None noted	Assembly
El Dorado	Rescue Union Elementary	CEC	Fall 2004	District will be given a copy of the EnergyQuest educational video.	None noted	Distribution
El Dorado	Rescue Union Elementary	CHPS	Fall 2004	District facilities personnel will be given access to the new Maintenance and Operations manual.	None noted	Distribution
El Dorado	Rescue Union Elementary	CHPS	Fall 2004	District will be provided access to the CHPS online video series.	None noted	Distribution
El Dorado	Rescue Union Elementary	CREEC	30-Oct	Delivered educational materials. Reviewed and discussed strategies for presenting to teachers.	None noted	Distribution/Planning
El Dorado	Rescue Union Elementary	CREEC	Feb-04	Contacted curriculum director several times to follow-up. Not able to implement educational program at this time.	None noted	Planning
El Dorado	Rescue Union Elementary	CREEC	Jun-04	Contact to discuss Fall 2004 plans including possible teacher trainings and/or energy festivals.	None noted	Planning

County	School District	Program	Start Date	Program Education Services	Program Facility Improvement Services	Task Type
El Dorado	Rescue Union Elementary	DOC	Spring 2004	Recycle Rex Assembly (Jackson Elementary)	None noted	Assembly
Fresno	Burrel Union Elementary	ADM	24-Jun-03		Audit of facilities	Audit
Fresno	Burrel Union Elementary	After School Grants	Sep-04	Grant approved		Application
Fresno	Burrel Union Elementary	CEC	Fall 2004	District will be given a copy of the EnergyQuest educational video.		Planning
Fresno	Burrel Union Elementary	CG	Sep-04	Provide 2 grants; Note Owl project		Demo
Fresno	Burrel Union Elementary	CHPS	Fall 2004	District facilities personnel will be given access to the new Maintenance and Operations manual.		Distribution
Fresno	Burrel Union Elementary	CHPS	Fall 2004	District will be provided access to the CHPS online video series.		Distribution
Fresno	Burrel Union Elementary	CREEC	May-04	Energy Festival by after school Energy Club		Event
Fresno	Burrel Union Elementary	CREEC	September 2003-June 2004	Meetings with CREEC coordinator; training on materials		Planning
Fresno	Burrel Union Elementary	DEMO	Not noted	Develop demonstration project if appropriate; interested in solar and wind		Demo
Fresno	Burrel Union Elementary	DOC	TBA	assembly if possible; also assistance on improving school recycling		Planning
Fresno	Clovis Unified	ADM	Not noted	Energy Audits completed at four		Audits

County	School District	Program	Start Date	Program Education Services	Program Facility Improvement Services	Task Type
				schools		
Fresno	Clovis Unified	CG	Sep-04	Grant application completed		Application
Fresno	Clovis Unified	CHPS	Fall 2004	District facilities personnel will be given access to the new Maintenance and Operations manual.		Distribution
Fresno	Clovis Unified	CHPS	Fall 2004	District will be provided access to the CHPS online video series.		Distribution
Fresno	Clovis Unified	CREEC	Sep-03	CREEC presentation of materials to CUSD staff		Distribution
Fresno	Clovis Unified	CREEC	Nov-03	CUSD Staff attends Fall Technical Workshop (Julie Lehman, Mike Mirigian		Workshop
Fresno	Fresno Unified	ADM	Nov-03	Staff attends Fall Tech. Workshop (Frank DiLiddo)		Training
Fresno	Fresno Unified	ADM	Jun-04	Staff attends Facilities Workshop (Lyn Peters)		Training
Fresno	Fresno Unified	CCC	Fall 2004	Mobile lab visits		Event
Fresno	Fresno Unified	CEC	Summer/Fall 2004	District will receive a copy of the EnergyQuest Video.		Distribution
Fresno	Fresno Unified	CHPS	Fall 2004	District facilities personnel will be given access to the new Maintenance and Operations manual.		Distribution
Fresno	Fresno Unified	CHPS	Fall 2004	District will be provided access to the CHPS online video series.		Distribution
Fresno	Fresno Unified	CHPS	Not noted	CHPS workshop in Fresno (April 2003)		Training

County	School District	Program	Start Date	Program Education Services	Program Facility Improvement Services	Task Type
Fresno	Fresno Unified	CREEC	Ongoing	Virginia Kammer is on-site, and continuously working with teachers on incoupurating SEE Program Materials		Planning
Fresno	Fresno Unified	CREEC	Not noted	Numerous meetings with districts across the district.		Planning
Fresno	Fresno Unified	DEMO	Not noted	Demonstration Project implemented at Wawona Middle School.		Demo
Fresno	Kingsburg Elementary Charter	ADM	8/20/03-8/21/03		Energy Audit	Audit
Fresno	Kingsburg Elementary Charter	After School	Sep-03	provide grant information; run after school programs through City of Kingsburg		Application
Fresno	Kingsburg Elementary Charter	CCC	Fall 2004	Mobile lab visits		Event
Fresno	Kingsburg Elementary Charter	CEC	Summer/Fall 2004	District will receive a copy of the EnergyQuest Video.		Distribution
Fresno	Kingsburg Elementary Charter	CHPS	Fall 2004	District facilities personnel will be given access to the new Maintenance and Operations manual.		Distribution
Fresno	Kingsburg Elementary Charter	CHPS	Fall 2004	District will be provided access to the CHPS online video series.		Distribution
Fresno	Kingsburg Elementary Charter	CREEC	Sep-03	Present ed educational materials		Distribution
Fresno	Kingsburg Elementary Charter	CREEC	Ongoing	Virginia Kammer has worked continuously with teachers to incorporate SEE Program		Planning

County	School District	Program	Start Date	Program Education Services	Program Facility Improvement Services	Task Type
				Educational Materials		
Fresno	Kingsburg Elementary Charter	DEMO	Oct-04	Lighting project at Lincoln Elementary		Demo
Kern	Bakersfield City Elementary	ADM	November	BSCD Staff attends Fall Technical Workshop (Brian McBroom) + BSCD hosts facilities workshop	None noted	Training
Kern	Bakersfield City Elementary	CCC	Fall 2004	Mobile lab visits	None noted	Event
Kern	Bakersfield City Elementary	CHPS	Fall 2004	District facilities personnel will be given access to the new Maintenance and Operations manual.	None noted	Distribution
Kern	Bakersfield City Elementary	CHPS	Fall 2004	District will be provided access to the CHPS online video series.	None noted	Distribution
Kern	Bakersfield City Elementary	CHPS	Jun-04	CHPS presentation at June Facilities Workshop	None noted	Workshop
Kern	Bakersfield City Elementary	CREEC	Fall 2003	CREEC presents materials to BCSD Science Coordinator	None noted	Distribution
Kern	Bakersfield City Elementary	CREEC	February	SEE Staff meeting with BCSD Science Coordinator regarding demonstration project and education project (SEI and Mildred Dandridge)	None noted	Planning
Kern	Bakersfield City Elementary	CREEC	Fall 2003	Staff attends Fall Technical workshop	None noted	Workshop
Kern	Bakersfield City Elementary	DEMO	Fall 2004	Completion of portable classroom retrofit	None noted	Demo

County	School District	Program	Start Date	Program Education Services	Program Facility Improvement Services	Task Type
Kern	Bakersfield City Elementary	DEMO	Jan-February 2004	Identify school for demonstration project at BCSD	None noted	Planning
Kern	Bakersfield City Elementary	DOC	Oct-03	Assembly conducted at Harris Elementary	None noted	Assembly
Kern	Bakersfield City Elementary	DOC	Oct-03	Assembly conducted at Wayside Elementary	None noted	Assembly
Kern	Central USD	ADM	Not noted		Audit conducted at school site	Audit
Kern	Central USD	ADM	Jun-04	Attend Facilities Workshop in Bakersfield		Workshop
Kern	Central USD	CEC	Summer/Fall 2004	District will receive a copy of the EnergyQuest Video.		Distribution
Kern	Central USD	CG	Jan. 2004	Two grant applications		Application
Kern	Central USD	CHPS	Fall 2004	District facilities personnel will be given access to the new Maintenance and Operations manual.		Distribution
Kern	Central USD	CHPS	Fall 2004	District will be provided access to the CHPS online video series.		Distribution
Kern	Central USD	CREEC	Oct-03	CREEC presentation of materials to Principal's meeting		Distribution
Kern	Central USD	CREEC	Nov-03	Attending Fall Technical Workshop; Julliane Fees, Nicole Symers, Carla Orosco		Workshop
Kern	Kern Co. Office of Education	ADM	Jun-04	Facilities staff, Nick Hernandez, attends Facilities workshop in Bakersfield	None noted	Workshop

County	School District	Program	Start Date	Program Education Services	Program Facility Improvement Services	Task Type
Kern	Kern Co. Office of Education	CCC	Fall 2004	Mobile Lab visits	None noted	Event
Kern	Kern Co. Office of Education	CHPS	Fall 2004	District facilities personnel will be given access to the new Maintenance and Operations manual.	None noted	Distribution
Kern	Kern Co. Office of Education	CHPS	Fall 2004	District will be provided access to the CHPS online video series.	None noted	Distribution
Kern	Kern Co. Office of Education	CREEC	Not noted	CREEC presentation of materials to Ann Santer	None noted	Distribution
Kern	Kern Co. Office of Education	CREEC	Jun-04	CREEC/SEE staff meet with Ann Santer and other Kern County schools to plan additional teacher training program	None noted	Planning
Kern	Kern Co. Office of Education	CREEC	Fall 2004	Teacher Training on Annenburg Energy program offered through BCSD and CREEC	None noted	Workshop
Kern	Kern Co. Office of Education	DOC	2003-2004	Assemblies were conducted at eleven school sites in Kern County.	None noted	Assembly
Kern	Kern Union High	ADM	Jun-04	Chris Hall, Energy Manager, attends Facilities Workshop in Bakersfield	None noted	Workshop
Kern	Kern Union High	CCC	Fall 2004	Mobile Lab Visits	None noted	Event
Kern	Kern Union High	CEC	Summer/Fall 2004	District will receive a copy of the EnergyQuest Video.	None noted	Distribution
Kern	Kern Union High	CG	Feb-04	Laura Stockton to be Champion Teacher	None noted	Application

County	School District	Program	Start Date	Program Education Services	Program Facility Improvement Services	Task Type
Kern	Kern Union High	CHPS	Fall 2004	District facilities personnel will be given access to the new Maintenance and Operations manual.	None noted	Distribution
Kern	Kern Union High	CHPS	Fall 2004	District will be provided access to the CHPS online video series.	None noted	Distribution
Kern	Kern Union High	CREEC	Aug-04	District to receive mobile labs; Laura Stockton attends Sacramento Mobile Lab training	None noted	Planning
Kern	Kern Union High	CREEC	Feb-04	SEE staff meet with Teri Stanton to review program	None noted	Planning
Kern	Kern Union High	CREEC	Nov-03	Lead teacher, Laura Stockton, attends Fall Technical workshop	None noted	Workshop
Kern	Kern Union High	DEMO	Feb-December 2004	KHSD students to participate in educational project with demonstration project at BCSD	None noted	DEMO
Kern	Lakeside Union School	ADM	11/18/2003		Energy audit conducted at 2 schools (Lakeside Elementary and Suburu Elementary)	Audit
Kern	Lakeside Union School	ADM	11/18/2003	Hands-on HVAC training conducted		Training
Kern	Lakeside Union School	CEC	Summer/Fall 2004	District will receive a copy of the EnergyQuest Video.		Distribution
Kern	Lakeside Union School	CHPS	Fall 2004	District facilities personnel will be given access to the new Maintenance and Operations manual.		Distribution

County	School District	Program	Start Date	Program Education Services	Program Facility Improvement Services	Task Type
Kern	Lakeside Union School	CHPS	Fall 2004	District will be provided access to the CHPS online video series.		Distribution
Kern	Lakeside Union School	CREEC	Sep-03	CREEC coordinator Meeting (ongoing)		Planning
Kern	Lakeside Union School	DOC	October 29, 30 2003	Two assemblies: one at Subaru and one at Lakeside		Assembly
Kern	Lamont Elementary	ADM	2/24/2003		Energy audits conducted at 4 schools	Audit
Kern	Lamont Elementary	CEC	Summer/Fall 2004	District will receive a copy of the EnergyQuest Video.		Distribution
Kern	Lamont Elementary	CG	Sep-03	grants applied for		Application
Kern	Lamont Elementary	CG	Sep-04	Grants processed		Application
Kern	Lamont Elementary	CHPS	Fall 2004	District facilities personnel will be given access to the new Maintenance and Operations manual.		Distribution
Kern	Lamont Elementary	CHPS	Fall 2004	District will be provided access to the CHPS online video series.		Distribution
Kern	Lamont Elementary	CREEC	Sep-03	Presented education program		Workshop
Kern	Lamont Elementary	CREEC	Nov-03	Staff attends workshop in Tulare		Workshop
Kern	Lamont Elementary	DOC	Fall 2003	Rex Assembly at Lamont Elementary School		Assembly
Kern	Mojave Unified	CEC	Summer/Fall 2004	District will receive a copy of the EnergyQuest Video.	None noted	Distribution
Kern	Mojave Unified	CG	Sept. 2003	Angela Guy, Cliff Jones applied for grant	None noted	Application

County	School District	Program	Start Date	Program Education Services	Program Facility Improvement Services	Task Type
Kern	Mojave Unified	CREEC	Nov-03	CREEC presentation of materials (Jana)	None noted	Workshop
Kern	Mojave Unified	CREEC	Nov-03	Fall Technical Workshop (Angela Guy)	None noted	Workshop
Kern	Wasco Union Elementary	ADM	Fall 2004		"Audits will be conducted"	Audit
Kern	Wasco Union Elementary	ADM	Jun-04	Facilities Workshop		Workshop
Kern	Wasco Union Elementary	CEC	Summer/Fall 2004	District will receive a copy of the EnergyQuest Video.		Workshop
Kern	Wasco Union Elementary	CG	Fall 2004	"Make two grants available."		UNCLEAR
Kern	Wasco Union Elementary	CHPS	Fall 2004	District facilities personnel will be given access to the new Maintenance and Operations manual.		Distribution
Kern	Wasco Union Elementary	CHPS	Fall 2004	District will be provided access to the CHPS online video series.		Distribution
Kern	Wasco Union Elementary	CREEC	Fall 2003	Presentation of materials (Jana Reid)		Distribution
Kern	Wasco Union Elementary	CREEC	Nov-03	Attend Fall Technical Workshop (Terry Mozingo)		Workshop
Kern	Wasco Union High	CEC	Summer/Fall 2004	District will receive a copy of the EnergyQuest Video.	None noted	Distribution
Kings	Central Union Elementary	ADM	Not noted		Audit conducted at school site	Audit

County	School District	Program	Start Date	Program Education Services	Program Facility Improvement Services	Task Type
Kings	Central Union Elementary	ADM	Jun-04	Attend Facilities Workshop in Bakersfield		Workshop
Kings	Central Union Elementary	CEC	Summer/Fall 2004	District will receive a copy of the EnergyQuest Video.		Distribution
Kings	Central Union Elementary	CG	Jan. 2004	Two grant applications		Application
Kings	Central Union Elementary	CHPS	Fall 2004	District facilities personnel will be given access to the new Maintenance and Operations manual.		Distribution
Kings	Central Union Elementary	CHPS	Fall 2004	District will be provided access to the CHPS online video series.		Distribution
Kings	Central Union Elementary	CREEC	Oct-03	CREEC presentation of materials to Principal's meeting		Distribution
Kings	Central Union Elementary	CREEC	Nov-03	Attending Fall Technical Workshop; Julliane Fees, Nicole Symers, Carla Orosco		Workshop
Kings	Delta View Elementary	ADM	6/25/2003		Audit completed	Audit
Kings	Delta View Elementary	ADM	6/25/2003	Training of maintenance staff on coil cleaning, filter replacement and condenser coils repair		Training
Kings	Delta View Elementary	CEC	Summer/Fall 2004	District will receive a copy of the EnergyQuest Video.		Distribution
Kings	Delta View Elementary	CG	Sep-03	"Make grant application available; may have both for teachers"		UNCLEAR

County	School District	Program	Start Date	Program Education Services	Program Facility Improvement Services	Task Type
Kings	Delta View Elementary	CHPS	Fall 2004	CHPS will provide access to the new Maintenance and Operations Manual for use by facilities personnel.		Distribution
Kings	Delta View Elementary	CREEC	September/October	Initial meeting with CREEC Coordinator		Planning
Kings	Delta View Elementary	CREEC	Ongoing	Virginia has held several meetings with teachers to incorporate SEE Program education materials		Planning
Kings	Kit Carson Union Elementary	ADM	24-Jun-03		Conducted audit of school facilities	Audit
Kings	Kit Carson Union Elementary	ADM	21-Oct-03		Energy audit report issued	Audit
Kings	Kit Carson Union Elementary	ADM	24-Jun-03	Staff training on coils cleaning, filter replacement and repair of condenser coils		Training
Kings	Kit Carson Union Elementary	After School Grants	Sep-03	provide grant information		Application
Kings	Kit Carson Union Elementary	CG	Sep-04	Applied for teacher grants		Application
Kings	Kit Carson Union Elementary	CHPS	Fall 2004	District facilities personnel will be given access to the new Maintenance and Operations manual.		Distribution
Kings	Kit Carson Union Elementary	CHPS	Fall 2004	District will be provided access to the CHPS online video series.		Distribution
Kings	Kit Carson Union Elementary	CREEC	May-03	Brief presentation of sample education materials to faculty		Distribution

County	School District	Program	Start Date	Program Education Services	Program Facility Improvement Services	Task Type
Kings	Kit Carson Union Elementary	CREEC	Sep-03	CREEC coordinator to meet with staff		Planning
Kings	Kit Carson Union Elementary	DOC	Spring 2003	Rex assemblies conducted at a number of schools.		Assembly
Madera	Chawanakee Unified	ADM	11/12/2003		Energy audit conducted at 3 schools (North Fork School, Spring Valley School, Sierra View School)	Audit
Madera	Chawanakee Unified	After School Grants	10/16/2003	Sent grant application via email		Application
Madera	Chawanakee Unified	CCC	Pending	These services will be available once the SEE Program partnership with CCC is finalized.		Planning
Madera	Chawanakee Unified	CEC	Summer/Fall 2004	District will be provided with a copy of the EnergyQuest Video.		Distribution
Madera	Chawanakee Unified	CG	Aug-04	District will have opportunity to receive champion grant		Application
Madera	Chawanakee Unified	CHPS	Fall 2004	CHPS will provide access to the new Maintenance and Operations Manual for use by facilities personnel.		Distribution
Madera	Chawanakee Unified	CREEC	Fall 2003	District received educational materials.		Distribution
Madera	Chawanakee Unified	CREEC	Ongoing	Virginia has several meetings with teachers to incorporate SEE Program education materials		Planning
Madera	Madera Co. Office of Education	ADM	N/A		Declined all facility services due to construction timing.	Audit

County	School District	Program	Start Date	Program Education Services	Program Facility Improvement Services	Task Type
Madera	Madera Co. Office of Education	After School Grants	11/23/2003	Extension with revised app sent via email.		Application
Madera	Madera Co. Office of Education	CEC	Summer/Fall 2004	District will be provided with a copy of the EnergyQuest Video.		Distribution
Madera	Madera Co. Office of Education	CG	Aug-04	District will have opportunity to receive champion grant.		Application
Madera	Madera Co. Office of Education	CHPS	Fall 2004	CHPS will provide access to the new Maintenance and Operations Manual for use by facilities personnel.		Distribution
Madera	Madera Co. Office of Education	CREEC	Fall 2003	SEE Program educational materials were provided to district.		Distribution
Madera	Madera Co. Office of Education	CREEC	Ongoing	Virginia has coordinated several meetings with teachers to incorporate SEE Program educational materials.		Planning
Madera	Madera Unified	ADM	1/12/2004		Energy audit conducted at 4 schools (Madera High, Madera High – South Campus, Martin Luther King Middle, Jefferson Middle)	Audit
Madera	Madera Unified	CEC	Summer/Fall 2004	District will be provided with a copy of the EnergyQuest Video.		Distribution
Madera	Madera Unified	CHPS	Fall 2004	CHPS will provide access to the new Maintenance and Operations Manual for use by facilities personnel.		Distribution
Madera	Madera Unified	CHPS	Fall 2004	District will be provided access to the CHPS online video series.		Distribution
Madera	Madera Unified	CREEC	Fall 2003	Educational materials provided to		Distribution

County	School District	Program	Start Date	Program Education Services	Program Facility Improvement Services	Task Type
				district		
Madera	Madera Unified	CREEC	Ongoing	Virginia is working to incorporate SEE Program educational materials.		Planning
Madera	Madera Unified	DEMO	Spring 2004	Madera Unified was designated as a demo project recipient.		Demo
Mariposa	Mariposa Co. Office of Education	**No DPP filed**				
Merced	Dos Palos Oro Loma Jt. Unified	CHPS	Fall 2004	District facilities personnel will be given access to the new Maintenance and Operations manual.		Distribution
Merced	Dos Palos Oro Loma Jt. Unified	CHPS	Fall 2004	Facilities personnel will be presented with the CHPS online video series.		Distribution
Merced	Livingston Union Elementary	ADM	7/14-7/16/03		Energy audit conducted at 4 schools (Campus Park Elementary, Livingston Middle School, Yamato Colony Elementary, Selma Herndon Elementary)	Audit
Merced	Livingston Union Elementary	ADM	7/14/2003	Training on HVAC operations conducted		Training
Merced	Livingston Union Elementary	After School Grants	11/23/2003	Extension with revised grant application sent via email.		Application
Merced	Livingston Union Elementary	CEC	Summer/Fall 2004	District will be provided with a copy of the EnergyQuest Video.		Distribution
Merced	Livingston Union Elementary	CG	Aug-04	District will be given opportunity to receive champion grant		Application

County	School District	Program	Start Date	Program Education Services	Program Facility Improvement Services	Task Type
Merced	Livingston Union Elementary	CHPS	Fall 2004	CHPS will provide access to the new Maintenance and Operations Manual for use by facilities personnel.		Distribution
Merced	Livingston Union Elementary	CREEC	Fall 2003	District received educational materials.		Distribution
Merced	Livingston Union Elementary	CREEC	11/13/2003	Three teachers attended the technical workshop in Stockton and received an elementary kit and a high school tool kit.		Workshop
Merced	Merced City Elementary	ADM	7/16/2003		Energy audit conducted at 4 schools (Tenaya Middle, Hoover Middle, Sheehy Elementary, Chenoweth Elementary)	Audit
Merced	Merced City Elementary	ADM	7/16/2003	Training on HVAC maintenance conducted		Training
Merced	Merced City Elementary	After School Grants	11/23/2003	Extension and revised grant app sent via email		Application
Merced	Merced City Elementary	CEC	Summer/Fall 2004	District will be provided with a copy of the EnergyQuest Video.		Distribution
Merced	Merced City Elementary	CG	10/1/2003	Sent Grant Application via US Mail with DPP cover page		Application
Merced	Merced City Elementary	CHPS	Fall 2004	District facilities personnel will be given access to the new Maintenance and Operations manual.		Distribution
Merced	Merced City Elementary	CHPS	Fall 2004	Facilities personnel will be presented with the CHPS online video series.		Distribution

County	School District	Program	Start Date	Program Education Services	Program Facility Improvement Services	Task Type
Merced	Merced City Elementary	CREEC	Fall 2003	District provided with education materials		Distribution
Merced	Merced City Elementary	CREEC	Ongoing	Virginia is working with teachers to incorporate SEE Program educational materials		Planning
Merced	Merced Co. Office of Education	ADM	8/12/2003		Energy audit conducted at 4 facilities (Merced COE Office, Wolfe Educational Center, Valley Community School and Schelby School)	Audit
Merced	Merced Co. Office of Education	ADM	8/25/2003	Training class for energy efficiency conducted for maintenance and custodial staff		Training
Merced	Merced Co. Office of Education	After School Grants	11/23/2003	Extension with updated grant sent via email		Application
Merced	Merced Co. Office of Education	CEC	Summer/Fall 2004	District will be provided with a copy of the EnergyQuest Video.		Distribution
Merced	Merced Co. Office of Education	CG	10/1/2003	Sent Grant Application via US Mail with DPP cover page		Application
Merced	Merced Co. Office of Education	CHPS	Fall 2004	District facilities personnel will be given access to the new Maintenance and Operations manual.		Distribution
Merced	Merced Co. Office of Education	CHPS	Fall 2004	Facilities personnel will be presented with the CHPS online video series.		Distribution
Merced	Merced Co. Office of Education	CREEC	Fall 2003	District received educational materials		Distribution

County	School District	Program	Start Date	Program Education Services	Program Facility Improvement Services	Task Type
Merced	Merced Co. Office of Education	CREEC	Ongoing	Virginia is working with teachers to incorporate educational materials		Planning
Merced	Merced Union High	ADM	1/29/2004		Energy audit conducted at 3 schools (Merced High, East Campus and Atwater High)	Audit
Merced	Merced Union High	After School Grants	11/23/2003	Extension with revised app sent via email		Application
Merced	Merced Union High	CEC	Summer/Fall 2004	District will be provided with a copy of the EnergyQuest Video.		Distribution
Merced	Merced Union High	CG	Summer/Fall 2004	District will have opportunity to receive a champion grant.		Application
Merced	Merced Union High	CHPS	Fall 2004	CHPS will provide access to the new Maintenance and Operations Manual for use by facilities personnel.		Distribution
Merced	Merced Union High	CREEC	Fall 2003	SEE Program educational materials were provided to district.		Distribution
Merced	Merced Union High	CREEC	11/13/2003	Two teachers attended the technical workshop in Stockton and received an elementary kit and a high school tool kit.		Workshop
San Joaquin	Banta Elementary	ADM	8/19/2003		Audit was performed at school site	Audit
San Joaquin	Banta Elementary	ADM	6/30/2004	Participated in facilities workshop in Tracy		Training
San Joaquin	Banta Elementary	After School Grants	11/23/2003	Extension and revised grant application sent via email.		Application

County	School District	Program	Start Date	Program Education Services	Program Facility Improvement Services	Task Type
San Joaquin	Banta Elementary	CEC	Summer/Fall 2004	District will be provided with a copy of the EnergyQuest Video.		Distribution
San Joaquin	Banta Elementary	CG	10/29/2003	Champion Grant Application sent via US Mail		Application
San Joaquin	Banta Elementary	CG	Spring 2004	Stockton COGEN – Power plant field trip.		Event
San Joaquin	Banta Elementary	CG	8/28/2003	District wants grants, needs further information.		Planning
San Joaquin	Banta Elementary	CG	3-Oct	The District is participating in the small school district consortium with the San Joaquin County Office who will apply for this grant and administer the funds.		Planning
San Joaquin	Banta Elementary	CG	Feb-04	Received training in February – Renewable Energy/GEMS Curriculum Training.		Training
San Joaquin	Banta Elementary	CG	Feb-04	Attending CREEC workshops – two days of content training		Workshop
San Joaquin	Banta Elementary	CG	Spring 2004	NEED Presentation		Workshop
San Joaquin	Banta Elementary	CHPS	Fall 2004	Facilities personnel will be given access to the Maintenance an Operations Manual being developed by CHPS		Distribution

County	School District	Program	Start Date	Program Education Services	Program Facility Improvement Services	Task Type
San Joaquin	Banta Elementary	CHPS	9/2/2003	[Sara Greenwood] spoke with Bill Draa and introduced him to CHPS. He will mention CHPS at their board meeting on Sept. 12th and hand out the 6 School Planning Kits she sent him. She also notified him of upcoming Design Trainings. They may do a seminar for		Planning
San Joaquin	Banta Elementary	CREEC	9/25,26/03	At the conclusion of the workshop, teacher was given SEE program materials.		Distribution
San Joaquin	Banta Elementary	CREEC	8/28/2003	Referred district contact to CREEC Coordinator for scheduling of meeting.		Planning
San Joaquin	Banta Elementary	CREEC	9/25,26/03	Teacher attended two-day Energy Workshop at PGE Center in Stockton hosted by San Joaquin County Office of Education and CREEC Network.		Workshop
San Joaquin	Banta Elementary	CREEC	11/13/2003	Teacher attended technical workshop training in Stockton and received the elementary kit of materials.		Workshop
San Joaquin	Banta Elementary	DEMO	11/3/2003	District is being considered for a CHPS demonstration project		Application
San Joaquin	Banta Elementary	DOC	8/12/2003	District submitted application for Recycle Rex School Assembly Program that will take place during the week of October 20, 2003		Application
San Joaquin	Banta Elementary	DOC	10/22/2003	Recycle Rex Assembly was conducted at school site.		Event
San Joaquin	Holt Union	ADM	7/9/2003		Energy audit conducted at Holt Elementary	Audit

County	School District	Program	Start Date	Program Education Services	Program Facility Improvement Services	Task Type
	Elementary					
San Joaquin	Holt Union Elementary	After School Grants	10/16/2003	Grant Application and attachments were sent via US Mail		Application
San Joaquin	Holt Union Elementary	CEC	Summer/Fall 2004	District will be provided with a copy of the EnergyQuest Video.		Distribution
San Joaquin	Holt Union Elementary	CG	10/29/2003	Champion Grant Application sent via US Mail		Application
San Joaquin	Holt Union Elementary	CG	Spring 2004	Family Science Night/School-wide assembly		Event
San Joaquin	Holt Union Elementary	CG	3-Oct	The District is participating in the small school district consortium with the San Joaquin County Office who will apply for this grant and administer the funds.		
San Joaquin	Holt Union Elementary	CHPS	Fall 2004	Facilities personnel will be given access to the Maintenance an Operations Manual being developed by CHPS		Distribution
San Joaquin	Holt Union Elementary	CREEC	9/25,26/03	At the conclusion of the workshop, teacher was given SEE program materials.		Distribution
San Joaquin	Holt Union Elementary	CREEC	8/28/2003	Referred district contact to CREEC Coordinator for scheduling of meeting.		Planning

County	School District	Program	Start Date	Program Education Services	Program Facility Improvement Services	Task Type
San Joaquin	Holt Union Elementary	CREEC	9/25,26/03	Teacher attended two-day Energy Workshop at PGE Center in Stockton hosted by San Joaquin County Office of Education and CREEC Network.		Workshop
San Joaquin	Holt Union Elementary	CREEC	11/13/2003	Teacher attended technical workshop training in Stockton and received the elementary kit of materials.		Workshop
San Joaquin	Lammersville Elementary	ADM	7/10/2003		Audit was performed at school site	Audit
San Joaquin	Lammersville Elementary	After School Grants	11/23/2003	Extension and revised grant application sent via email.		Application
San Joaquin	Lammersville Elementary	CEC	Summer/Fall 2004	District will be provided with a copy of the EnergyQuest Video.		Distribution
San Joaquin	Lammersville Elementary	CG	10/1/2003	Champion Grant Application sent via US Mail		Application
San Joaquin	Lammersville Elementary	CG	Spring 2004	Family Science Night -- Explorit Science Center attended		Event
San Joaquin	Lammersville Elementary	CG	3-Oct	The District is participating in the small school district consortium with the San Joaquin County Office who will apply for this grant and administer the funds.		
San Joaquin	Lammersville Elementary	CHPS	Fall 2004	Facilities personnel will be given access to the Maintenance an Operations Manual being developed by CHPS		Distribution
San Joaquin	Lammersville Elementary	CREEC	11/19/2003	CREEC Coordinator had onsite meeting to present available		Planning

County	School District	Program	Start Date	Program Education Services	Program Facility Improvement Services	Task Type
				educational materials.		
San Joaquin	Lammersville Elementary	CREEC	Dec-03	CREEC Coordinator has established contact teacher who will attend 2-day workshop in February 2004.		Workshop
San Joaquin	Lammersville Elementary	CREEC	Feb-04	Renewable Energy Workshop/COGEN/NEED Project		Workshop
San Joaquin	Lammersville Elementary	DOC	3-Aug	District submitted application for Recycle Rex School Assembly Program.		Application
San Joaquin	Lammersville Elementary	DOC	10/22/2003	Recycle Rex Assembly was conducted at school site on October 23, 2003		Event
San Joaquin	New Hope Elementary	ADM	2/11/2004		Energy audit conducted at New Hope School	Audit
San Joaquin	New Hope Elementary	ADM	2/11/2004	Proper energy training conducted		Training
San Joaquin	New Hope Elementary	After School Grants	11/23/2003	Extension and revised grant application sent via email.		Application
San Joaquin	New Hope Elementary	CEC	Summer/Fall 2004	District will be provided with a copy of the EnergyQuest Video.		Distribution
San Joaquin	New Hope Elementary	CG	10/1/2003	Champion Grant Application sent via US Mail		Application
San Joaquin	New Hope Elementary	CG	Spring 2004	School-wide assembly- PLT Energy and Society Activities		Assembly
San Joaquin	New Hope	CG	4/1/2004	Family Science Night		Event

County	School District	Program	Start Date	Program Education Services	Program Facility Improvement Services	Task Type
	Elementary					
San Joaquin	New Hope Elementary	CG	3-Oct	The District is participating in the small school district consortium with the San Joaquin County Office who will apply for this grant and administer the funds.		
San Joaquin	New Hope Elementary	CG	Spring 2004	All champion grant activities are complete.		
San Joaquin	New Hope Elementary	CHPS	Fall 2004	Facilities personnel will be given access to the Maintenance an Operations Manual being developed by CHPS		Distribution
San Joaquin	New Hope Elementary	CREEC	9/25,26/03	At the conclusion of the workshop, teacher was given SEE program materials. (Ana Garcia)		Distribution
San Joaquin	New Hope Elementary	CREEC	9/25,26/03	Teacher attended two-day Energy Workshop at PGE Center in Stockton hosted by San Joaquin County Office of Education and CREEC Network.		Workshop
San Joaquin	New Hope Elementary	CREEC	11/13/2003	Teacher attended technical workshop training in Stockton and received the elementary kit of materials.		Workshop
San Joaquin	Oak View Union Elementary	ADM	7/8/2003		Energy audit conducted at Oak View Elementary	Audit
San Joaquin	Oak View Union Elementary	ADM	7/8/2003	Verbal training on HVAC maintenance		Training
San Joaquin	Oak View Union Elementary	ADM	3/1/2004	HVAC & energy efficiency training conducted for all maintenance and		Training

County	School District	Program	Start Date	Program Education Services	Program Facility Improvement Services	Task Type
				custodial staff		
San Joaquin	Oak View Union Elementary	After School Grants	11/23/2003	Extension and revised grant application sent via email.		
San Joaquin	Oak View Union Elementary	CEC	Summer/Fall 2004	District will be provided with a copy of the EnergyQuest Video.		Distribution
San Joaquin	Oak View Union Elementary	CG	Spring 2004	All champion grant activities complete.		Application
San Joaquin	Oak View Union Elementary	CG	10/1/2003	Champion Grant Application sent via US Mail		Application
San Joaquin	Oak View Union Elementary	CG	Spring 2004	School-wide presentation		Assembly
San Joaquin	Oak View Union Elementary	CG	Spring 2004	Staff in-service workshop/Annenberg Tapes		Workshop
San Joaquin	Oak View Union Elementary	CG	3-Oct	The District is participating in the small school district consortium with the San Joaquin County Office who will apply for this grant and administer the funds.		
San Joaquin	Oak View Union Elementary	CHPS	Fall 2004	Facilities personnel will be given access to the Maintenance an Operations Manual being developed by CHPS		Distribution
San Joaquin	Oak View Union Elementary	CHPS	Summer/Fall 2004	CHPS will assist in Demo Project.		Planning
San Joaquin	Oak View Union Elementary	CREEC	9/25,26/03	At the conclusion of the workshop, teacher was given SEE program		Distribution

County	School District	Program	Start Date	Program Education Services	Program Facility Improvement Services	Task Type
				materials.		
San Joaquin	Oak View Union Elementary	CREEC	8/28/2003	Referred district contact to CREEC Coordinator for scheduling of meeting.		Planning
San Joaquin	Oak View Union Elementary	CREEC	9/25,26/03	Teacher attended two-day Energy Workshop at PGE Center in Stockton hosted by San Joaquin County Office of Education and CREEC Network.		Workshop
San Joaquin	Oak View Union Elementary	CREEC	11/13/2003	Teacher attended technical workshop training in Stockton and received the elementary kit of materials.		Workshop
San Joaquin	Oak View Union Elementary	DEMO	11/3/2003	District has been recommended for a demonstration project		Demo
San Joaquin	Oak View Union Elementary	DEMO	Summer/Fall 2004	District will implement day-lighting demonstration project.		Demo
San Joaquin	Oak View Union Elementary	DOC	8/12/2003	District submitted application for Recycle Rex School Assembly Program that will take place during the week of October 20, 2003		Application
San Joaquin	Oak View Union Elementary	DOC	3-Oct	Recycle Rex Assembly was conducted at school site.		Assembly
San Joaquin	Ripon Unified	ADM	12/8,9/03		Energy Audit performed at 4 sites	Audit
San Joaquin	Ripon Unified	ADM	12/8/2003		Energy audit conducted at 5 schools (Ripon Elementary, Weston Elementary, Ripona Elementary, Ripon High, Colony Oak Elementary)	Audit

County	School District	Program	Start Date	Program Education Services	Program Facility Improvement Services	Task Type
San Joaquin	Ripon Unified	ADM	11/13/2003	Director of District Operations attended technical workshop in Stockton and received high school tool kit.		Workshop
San Joaquin	Ripon Unified	After School Grants	11/23/2003	Extension and revised Grant Application sent via email		Application
San Joaquin	Ripon Unified	CEC	Summer/Fall 2004	District will be provided with a copy of the EnergyQuest Video.		Distribution
San Joaquin	Ripon Unified	CG	10/1/2003	Champion Grant Application sent via US Mail		Application
San Joaquin	Ripon Unified	CG	Spring 2004	Family Science Night, School-wide assembly		Assembly
San Joaquin	Ripon Unified	CG	11/13/2003	Reviewed application with Facilities Representative at workshop.		Planning
San Joaquin	Ripon Unified	CG	3-Oct	The District is participating in the small school district consortium with the San Joaquin County Office who will apply for this grant and administer the funds – for the Education Champion Only		
San Joaquin	Ripon Unified	CHPS	Fall 2004	Facilities personnel will be given access to the Maintenance an Operations Manual being developed by CHPS		Distribution
San Joaquin	Ripon Unified	CREEC	11/3/2003	Materials were given to teachers at school site meeting		Distribution
San Joaquin	Ripon Unified	CREEC	10/15/2003	Meeting at district office to review education services available		Planning

County	School District	Program	Start Date	Program Education Services	Program Facility Improvement Services	Task Type
San Joaquin	Ripon Unified	CREEC	11/13/2003	Two teachers attended SEE Technical workshop in Stockton and were given elementary kit of materials		Workshop
San Joaquin	Ripon Unified	CREEC	Fall 2004	Renewable Energy Workshop – All districts invited		Workshop
San Joaquin	Ripon Unified	DOC	10/21/2003	Recycle Rex Assembly at Elementary School		Assembly
San Joaquin	Ripon Unified	DOC	10/23/2003	Recycle Rex Assembly at Elementary School		Assembly
San Joaquin	Roberts Ferry ESD	ADM	2/20/2004		Energy audit conducted at Roberts Ferry School	Audit
San Joaquin	Roberts Ferry ESD	After School Grants	10/16/2003	Sent grant information via US mail		Application
San Joaquin	Roberts Ferry ESD	CCC	Pending	These services will be available once the SEE Program partnership with CCC is finalized.		Application
San Joaquin	Roberts Ferry ESD	CEC	Summer/Fall 2004	District will be provided with a copy of the EnergyQuest Video.		Distribution
San Joaquin	Roberts Ferry ESD	CHPS	Fall 2004	CHPS will provide access to the new Maintenance and Operations Manual for use by facilities personnel.		Distribution
San Joaquin	Roberts Ferry ESD	CHPS	Fall 2004	District will be provided access to the CHPS online video series.		Distribution
San Joaquin	Roberts Ferry ESD	CREEC	Not noted	Meeting scheduled for November 5 – need details from CREEC		Planning
San Joaquin	San Joaquin Co. Off.	After School	11/23/2003	Extension with revised application sent via email.		Application

County	School District	Program	Start Date	Program Education Services	Program Facility Improvement Services	Task Type
	of Education	Grants				
San Joaquin	San Joaquin Co. Off. of Education	CEC	Summer/Fall 2004	District will be provided with a copy of the EnergyQuest Video.		Distribution
San Joaquin	San Joaquin Co. Off. of Education	CG	10/1/2003	Champion Grant sent via US Mail		Application
San Joaquin	San Joaquin Co. Off. of Education	CG	Spring 2004	School-wide presentation		Assembly
San Joaquin	San Joaquin Co. Off. of Education	CG	Spring 2004	Barry Scott attended all CREEC workshops.		Workshop
San Joaquin	San Joaquin Co. Off. of Education	CG	3-Oct	The Alternative Program is participating in the small school district consortium with the San Joaquin County Office who will apply for this grant and administer the funds.		
San Joaquin	San Joaquin Co. Off. of Education	CHPS	Fall 2004	Facilities personnel will be given access to the Maintenance an Operations Manual being developed by CHPS		Distribution
San Joaquin	San Joaquin Co. Off. of Education	CHPS	Fall 2004	District will be provided access to the CHPS online video series.		Distribution
San Joaquin	San Joaquin Co. Off. of Education	CREEC	3-Dec	CREEC Coordinator has recruited Outdoor Education Schools to participate.		Planning
San Joaquin	San Joaquin Co. Off. of Education	CREEC	Spring 2004	Working with outdoor educational programs; providing curriculum		Planning

County	School District	Program	Start Date	Program Education Services	Program Facility Improvement Services	Task Type
San Joaquin	San Joaquin Co. Off. of Education	CREEC	9/25,26/03	Alternative Programs Coordinator (Barry) Teacher attended two-day Energy Workshop at PGE Center in Stockton hosted by San Joaquin County Office of Education and CREEC Network. At the conclusion of the workshop, coordinator was given SEE program materials.		Workshop
San Joaquin	San Joaquin Co. Off. of Education	CREEC	11/3/2003	Barry attended technical workshop in Stockton and received elementary kit of materials and high school tool kit.		Workshop
San Joaquin	Stockton City Unified	ADM	6/30/2004	Attended facilities workshop in Tracy		Workshop
San Joaquin	Stockton City Unified	ADM	8/25/2003	District is contracted with an outside Energy Management firm and is only interested in the Energy Star Benchmarking tracking program.		
San Joaquin	Stockton City Unified	After School Grants	11/23/2003	Extension with revised application sent via email.		Application
San Joaquin	Stockton City Unified	CEC	Summer/Fall 2004	District will be provided with a copy of the EnergyQuest Video.		Distribution
San Joaquin	Stockton City Unified	CG	10/1/2003	Champion Grant sent to CREEC coordinator for forwarding.		Application
San Joaquin	Stockton City Unified	CHPS	Fall 2004	CHPS will provide access to the new Maintenance and Operations Manual for use by facilities personnel.		Distribution
San Joaquin	Stockton City Unified	CHPS	Fall 2004	District will be provided access to the CHPS online video series.		Distribution

County	School District	Program	Start Date	Program Education Services	Program Facility Improvement Services	Task Type
San Joaquin	Stockton City Unified	CREEC	11/13/2003	Science Coordinator hosted Technical Workshop		Workshop
San Joaquin	Tracy Joint Unified	ADM	6/16-6/24/2003		Energy audits were performed on Tracy Unified office, West High School, Tracy High School, Earl Williams Middle School, Jacobson Elementary School, Freiler Elementary, Central Elementary, Delta Island Elementary	Audit
San Joaquin	Tracy Joint Unified	ADM	5/31/2004		Energy audits performed on 5 more schools: Monte Vista Middle School, Duncan-Russell School, South/West Park School, McKinley School and Bohn School	Audit
San Joaquin	Tracy Joint Unified	ADM	11/1/2/03	Reports reissued		Distribution
San Joaquin	Tracy Joint Unified	ADM	1/26/2004	ADM made a short presentation on energy efficiency during principals meeting		Training
San Joaquin	Tracy Joint Unified	ADM	11/13/2003	Facilities Manager (Bob Corsaro) attended technical workshop in Stockton.		Workshop
San Joaquin	Tracy Joint Unified	ADM	6/30/2004	School district hosted and participated in the facilities workshop		Workshop
San Joaquin	Tracy Joint Unified	CEC	Summer/Fall 2004	District will be provided with a copy of the EnergyQuest Video.		Distribution

County	School District	Program	Start Date	Program Education Services	Program Facility Improvement Services	Task Type
San Joaquin	Tracy Joint Unified	CG	11/19/2003	District signed Champion Grant and submitted application.		Application
San Joaquin	Tracy Joint Unified	CHPS	Fall 2004	CHPS will provide access to the new Maintenance and Operations Manual for use by facilities personnel.		Distribution
San Joaquin	Tracy Joint Unified	CHPS	Fall 2004	District will be provided access to the CHPS online video series.		Distribution
San Joaquin	Tracy Joint Unified	CREEC	3-Dec	CREEC Coordinator presented the materials at the science coordinators meeting. Seven teachers were in attendance were very interested in the materials, they will establish a checkout system. (Kathy Green)		Planning
San Joaquin	Tracy Joint Unified	CREEC	11/13/2003	Donna (Education Champion) and teacher attended technical workshop in Stockton and received elementary kit and high school tool kit.		Workshop
San Joaquin	Tracy Joint Unified	DEMO	3-Dec	District has been recommended for project.		Demo
Stanislaus	Ceres Unified	ADM	11/12/2003		Energy audit was performed at 4 sites (Walter White Elementary, Ceres High School, Caswell Elementary, Sam Vaughn Elementary).	Audit
Stanislaus	Ceres Unified	ADM	9/3/2003	Lon participated in initial meeting – district has ordered audit services and provided a list of schools and mechanical equipment at each.		Planning
Stanislaus	Ceres Unified	After School	10/16/2003	Grant Application and attachments sent via email		Application

County	School District	Program	Start Date	Program Education Services	Program Facility Improvement Services	Task Type
		Grants				
Stanislaus	Ceres Unified	CEC	Summer/Fall 2004	District will be provided with a copy of the EnergyQuest Video.		Distribution
Stanislaus	Ceres Unified	CG	10/1/2003	Champion Grant Application sent via US Mail		Application
Stanislaus	Ceres Unified	CHPS	Fall 2004	CHPS will provide access to the new Maintenance and Operations Manual for use by facilities personnel.		Distribution
Stanislaus	Ceres Unified	CHPS	Fall 2004	District will be provided access to the CHPS online video series.		Distribution
Stanislaus	Ceres Unified	CREEC	9/3/2003	Tricia Dunlap attended the first meeting with the district to introduce the educational component.		Planning
Stanislaus	Ceres Unified	CREEC	11/20/2003	Education meeting scheduled on November 20, 2003 (tentative)		Planning
Stanislaus	Ceres Unified	CREEC	11/13/2003	Teacher attended technical workshop training in Stockton and received the elementary kit of materials and high school tool kit.		Workshop
Stanislaus	Ceres Unified	DOC	Spring 2004	Recycle Rex Program		Assembly
Stanislaus	Foothill Horizons Outdoor School	ADM	9/24/2003		Energy audit conducted at Foothill Horizons School	Audit
Stanislaus	Foothill Horizons Outdoor School	ADM	9/24/2003	Hands-on training of regular HVAC maintenance		Training
Stanislaus	Foothill Horizons Outdoor School	CEC	Summer/Fall 2004	District will be provided with a copy of the EnergyQuest Video.		Distribution

County	School District	Program	Start Date	Program Education Services	Program Facility Improvement Services	Task Type
Stanislaus	Foothill Horizons Outdoor School	CG	10/1/2003	Champion Grant Application sent via US Mail		Application
Stanislaus	Foothill Horizons Outdoor School	CG	11/12/2003	County Office signed Application		Application
Stanislaus	Foothill Horizons Outdoor School	CHPS	Fall 2004	CHPS will provide access to the new Maintenance and Operations Manual for use by facilities personnel.		Distribution
Stanislaus	Foothill Horizons Outdoor School	CHPS	Fall 2004	District will be provided access to the CHPS online video series.		Distribution
Stanislaus	Foothill Horizons Outdoor School	CREEC	Fall 2004	Foothill Horizons Outdoor school will house a Mobile Energy Lab		Event
Stanislaus	Foothill Horizons Outdoor School	CREEC	10/28/2003	Tricia met with Liza Earle at the site to review the educational materials		Planning
Stanislaus	Foothill Horizons Outdoor School	CREEC	11/13/2003	Liza Earle attended the Technical Workshop and received both the elementary kit and high tool kit.		Workshop
Stanislaus	Foothill Horizons Outdoor School	DEMO	Fall 2004	Sky-lighting retrofit to be completed Fall 2004		Demo
Stanislaus	Hart-Ransom Union Elementary	ADM	9/22/2003		Energy audit conducted at Hart Ransom Elementary	Audit
Stanislaus	Hart-Ransom Union Elementary	CHPS	Fall 2004	CHPS will provide access to the new Maintenance and Operations Manual for use by facilities personnel.		Distribution
Stanislaus	Hart-Ransom Union Elementary	CHPS	Fall 2004	District will be provided access to the CHPS online video series.		Distribution
Stanislaus	Hickman Elementary	ADM	8/11/2003		Energy audit conducted	Audit

County	School District	Program	Start Date	Program Education Services	Program Facility Improvement Services	Task Type
Stanislaus	Hickman Elementary	ADM	8/11/2003	Verbal training on coil cleaning conducted		Training
Stanislaus	Hickman Elementary	CEC	Summer/Fall 2004	District will be provided with a copy of the EnergyQuest Video.		Distribution
Stanislaus	Hickman Elementary	CHPS	Fall 2004	CHPS will provide access to the new Maintenance and Operations Manual for use by facilities personnel.		Distribution
Stanislaus	Hickman Elementary	CHPS	Fall 2004	District will be provided access to the CHPS online video series.		Distribution
Stanislaus	Hickman Elementary	CREEC	Mar-04	Follow-up meeting with six teachers; plan on using materials for outdoor education program next spring.		Planning
Stanislaus	Hickman Elementary	CREEC	9/24/2003	CREEC coordinator conducted onsite curriculum (SEE program materials) overview meeting with Superintendent/Principal and two teachers.		Workshop
Stanislaus	Hickman Elementary	CREEC	11/13/2003	Teacher attended technical training workshop in Stockton and received Elementary Science Kits.		Workshop
Stanislaus	Keyes Union Elementary	CHPS	Fall 2004	CHPS will provide access to the new Maintenance and Operations Manual for use by facilities personnel.	None noted	Distribution
Stanislaus	Keyes Union Elementary	CHPS	Fall 2004	District will be provided access to the CHPS online video series.	None noted	Distribution
Stanislaus	Keyes Union Elementary	CREEC	10/7/2003	Tricia Dunlap had a curriculum overview meeting with Superintendent Changnon.	None noted	Planning

County	School District	Program	Start Date	Program Education Services	Program Facility Improvement Services	Task Type
Stanislaus	Keyes Union Elementary	CREEC	10/29/2003	School site meeting with teachers	None noted	Planning
Stanislaus	Keyes Union Elementary	CREEC	11/13/2003	Two teachers attended technical workshop training in Stockton and received the Elementary Science kits	None noted	Workshop
Stanislaus	Oakdale Joint Unified	CEC	Summer/Fall 2004	District will be provided with a copy of the EnergyQuest Video.	None noted	Distribution
Stanislaus	Oakdale Joint Unified	CG	Aug-04	District will have opportunity to receive a champion grant.	None noted	Application
Stanislaus	Oakdale Joint Unified	CHPS	Fall 2004	District will be provided access to the CHPS Maintenance and Operations manual.	None noted	Distribution
Stanislaus	Oakdale Joint Unified	CREEC	Fall 2003	Districts received educational materials.	None noted	Distribution
Stanislaus	Oakdale Joint Unified	CREEC	11/13/2003	Two teachers attended technical workshop training in Stockton and received the Elementary Science kits and High School tool kits.	None noted	Workshop
Stanislaus	Sylvan Union Elementary	ADM	9/29/2003		Energy audit conducted at 4 schools (Somerset Middle, CF Brown Elementary, Sylvan Elementary, Orchard Elementary)	Audit
Stanislaus	Sylvan Union Elementary	After School Grants	11/23/2003	Extension and revised grant application sent via email.		Application
Stanislaus	Sylvan Union Elementary	CEC	Summer/Fall 2004	District will be provided with a copy of the EnergyQuest Video.		Distribution

County	School District	Program	Start Date	Program Education Services	Program Facility Improvement Services	Task Type
Stanislaus	Sylvan Union Elementary	CHPS	Fall 2004	CHPS will provide access to the new Maintenance and Operations Manual for use by facilities personnel.		Distribution
Stanislaus	Sylvan Union Elementary	CHPS	Fall 2004	District will be provided access to the CHPS online video series.		Distribution
Stanislaus	Sylvan Union Elementary	CREEC	10/1/2003	CREEC Coordinator (Tricia) had a curriculum overview meeting with Assistant Superintendent of Curriculum & Instruction (Martha G)		Planning
Tulare	Community Services and Employment Training, Inc.	CEC	Summer/Fall 2004	District will be provided with a copy of the EnergyQuest Video.	None noted	Distribution
Tulare	Community Services and Employment Training, Inc.	CHPS	Fall 2004	District facilities personnel will be given access to the new Maintenance and Operations manual.	None noted	Distribution
Tulare	Community Services and Employment Training, Inc.	CREEC	Aug-03	Facilitate field trip to solar facilities in Sacramento	None noted	Event
Tulare	Community Services and Employment Training, Inc.	CREEC	Sep-03	CREEC coordinator meeting	None noted	Planning
Tulare	Earlimart Elementary	CEC	Summer/Fall 2004	District will be provided with a copy of the EnergyQuest Video.	None noted	Distribution
Tulare	Earlimart Elementary	CHPS	Fall 2004	District facilities personnel will be given access to the new Maintenance and Operations manual.	None noted	Distribution
Tulare	Earlimart Elementary	CREEC	Sep-04	CREEC will provide educational	None noted	Distribution

County	School District	Program	Start Date	Program Education Services	Program Facility Improvement Services	Task Type
				materials		
Tulare	Earlimart Elementary	DEMO	Feb-04	Selected for demonstration project—variable speed pool pump	None noted	Demo
Tulare	Lindsay Unified	ADM	Not noted	Identify schools for audit	None noted	Audit
Tulare	Lindsay Unified	ADM	Not noted	Conduct audit Training for maintenance staff	None noted	Training
Tulare	Lindsay Unified	After School Grants	Sep-03	Make grant application available to District	None noted	Application
Tulare	Lindsay Unified	CEC	Summer/Fall 2004	District will be provided with a copy of the EnergyQuest Video.	None noted	Distribution
Tulare	Lindsay Unified	CG	Sep-04	Apply for Champion Grant for use in after school activities	None noted	Application
Tulare	Lindsay Unified	CHPS	Fall 2004	District facilities personnel will be given access to the new Maintenance and Operations manual.	None noted	Distribution
Tulare	Lindsay Unified	CHPS	Fall 2004	District will be provided access to the CHPS online video series.	None noted	Distribution
Tulare	Lindsay Unified	CREEC	May/June 2003	Presentation of sample educational materials to school principals; Review sample educational materials for possible use in after school programs	None noted	Planning
Tulare	Lindsay Unified	CREEC	August 20, 2003November, 2003	Presentation of educational materials by CREEC coordinator Superintendent and after school staff attends training workshop to receive tool kits and other materials.	None noted	Planning

County	School District	Program	Start Date	Program Education Services	Program Facility Improvement Services	Task Type
Tulare	Lindsay Unified	CREEC	Fall, 2004	Continued work with CREEC coordinator	None noted	Planning
Tulare	Lindsay Unified	DEMO	TBA	Identify possible demonstration project	None noted	Demo
Tulare	Lindsay Unified	DOC	TBA	Arrange Recycle Rex assembly if possible in Spring	None noted	Planning
Tulare	Sunnyside Union Elementary	ADM	Not noted		Audit Conducted at school site	Audit
Tulare	Sunnyside Union Elementary	CEC	Summer/Fall 2004	District will be provided with a copy of the EnergyQuest Video.		Distribution
Tulare	Sunnyside Union Elementary	CHPS	Fall 2004	District facilities personnel will be given access to the new Maintenance and Operations manual.		Distribution
Tulare	Sunnyside Union Elementary	CHPS	Fall 2004	District will be provided access to the CHPS online video series.		Distribution
Tulare	Sunnyside Union Elementary	CREEC	Aug-03	CREEC presents materials to Sup. Byars		Distribution
Tulare	Sunnyside Union Elementary	CREEC	Sept/Oct	Presentation to school teachers by CREEC		Distribution
Tulare	Sunnyside Union Elementary	DOC	Spring 2004	Recycle Rex assembly at Sunnyside Elementary School		Assembly
Tulare	Three Rivers Union Elementary	CEC	Summer/Fall 2004	District will be provided with a copy of the EnergyQuest Video.	None noted	Distribution
Tulare	Three Rivers Union Elementary	CG	Sep-03	Provide two grants	None noted	Application

County	School District	Program	Start Date	Program Education Services	Program Facility Improvement Services	Task Type
Tulare	Three Rivers Union Elementary	CHPS	Fall 2004	District facilities personnel will be given access to the new Maintenance and Operations manual.	None noted	Distribution
Tulare	Three Rivers Union Elementary	CHPS	Fall 2004	District will be provided access to the CHPS online video series.	None noted	Distribution
Tulare	Three Rivers Union Elementary	CREEC	Sep-03	Presented educational materials	None noted	Distribution
Tulare	Three Rivers Union Elementary	CREEC	Ongoing	Virginia has been working with teachers to incorporate SEE Program educational materials.	None noted	Planning
Tulare	Tulare Co. Office of Education	ADM	7/17/2003		Energy Audit on Maple Learning Center	Audit
Tulare	Tulare Co. Office of Education	ADM	7/19/2003		Energy audit on Occupational Training Center	Audit
Tulare	Tulare Co. Office of Education	ADM	7/17/2003		Energy audit on LB Hill Center	Audit
Tulare	Tulare Co. Office of Education	ADM	7/19/2003		Energy audit on Yettem Learning Center	Audit
Tulare	Tulare Co. Office of Education	ADM	7/19/2003	Declined staff training as all HVAC maintenance was outsourced		Training
Tulare	Tulare Co. Office of Education	CEC	Summer/Fall 2004	District will be provided with a copy of the EnergyQuest Video.		Distribution
Tulare	Tulare Co. Office of Education	CG	Sep-04	TCOE applies for Champion Grant		Application

County	School District	Program	Start Date	Program Education Services	Program Facility Improvement Services	Task Type
Tulare	Tulare Co. Office of Education	CHPS	Fall 2004	District facilities personnel will be given access to the new Maintenance and Operations manual.		Distribution
Tulare	Tulare Co. Office of Education	CHPS	Fall 2004	District will be provided access to the CHPS online video series.		Distribution
Tulare	Tulare Co. Office of Education	CREEC	Sep-03	CREEC presentation of educational materials		Distribution
Tulare	Tulare Co. Office of Education	CREEC	Apr-04	CREEC staff follow-up		Planning
Tulare	Tulare Co. Office of Education	CREEC	Nov-03	Attend Fall Technical workshop (Kaye van Giulliwe/Johnathan Janzen)		Workshop
Tulare	Tulare Joint Union High	ADM	Nov-03	Jerry Barker, Andy Gomez attend Fall Technical Workshop		Workshop
Tulare	Tulare Joint Union High	CEC	Summer/Fall 2004	District will be provided with a copy of the EnergyQuest Video.		Distribution
Tulare	Tulare Joint Union High	CREEC	Oct-03	Presentation of materials by Jana Reid		Distribution
Tulare	Tulare Joint Union High	CREEC	Nov-03	Susan Silva Treadwell, AP teacher, attends Fall Technical workshop		Workshop
Tulare	Visalia Unified	CEC	Summer/Fall 2004	District will be provided with a copy of the EnergyQuest Video.	None noted	Distribution
Tulare	Visalia Unified	CHPS	Fall 2004	District facilities personnel will be given access to the new Maintenance and Operations manual.	None noted	Distribution

County	School District	Program	Start Date	Program Education Services	Program Facility Improvement Services	Task Type
Tulare	Visalia Unified	CHPS	Fall 2004	District will be provided access to the CHPS online video series.	None noted	Distribution
Tulare	Visalia Unified	CHPS	Mar-04	CHPS workshop at VUSD; district adopts CHPS resolution	None noted	Workshop
Tulare	Visalia Unified	CREEC	Oct-03	CREEC presentation of materials	None noted	Distribution
Tulare	Visalia Unified	CREEC	Nov-03	Attend Fall Technical workshop (Samantha Tate, Joe Haley & students)	None noted	Workshop
Tulare	Visalia Unified	CREEC	Apr-04	CREEC workshops for K-3 teachers	None noted	Workshop
Yolo	Davis Joint Unified	After School Grants	10/28/2003	DPP meeting. No appropriate after school programs.	None noted	Application
Yolo	Davis Joint Unified	CEC	Summer/Fall 2004	District will be provided with a copy of the EnergyQuest Video.	None noted	Distribution
Yolo	Davis Joint Unified	CG	3-Oct	DPP meeting. Bev is not interested in this – not enough money. (Asked if CREEC coordinator could be champion!)	None noted	Application
Yolo	Davis Joint Unified	CHPS	Fall 2004	District facilities personnel will be given access to the new Maintenance and Operations manual.	None noted	Distribution
Yolo	Davis Joint Unified	CHPS	Fall 2004	District will be provided access to the CHPS online video series.	None noted	Distribution
Yolo	Davis Joint Unified	CHPS	10-Nov	Discussed with Aaron Shonk.	None noted	Planning

County	School District	Program	Start Date	Program Education Services	Program Facility Improvement Services	Task Type
Yolo	Davis Joint Unified	CREEC	10/28/2003	DPP meeting with Kay Antunez, Bev Maul and Deb Bruns. Bev is interested in getting materials for all the schools (all or none, basically). Possible meeting of elementary science teachers in December (didn't happen).	None noted	Planning
Yolo	Davis Joint Unified	CREEC	May/June 2004	Memo to Carol Bly, Asst Superintendent, to schedule workshop for the fall 2004 based on March 2004 workshop. Info to science teachers on BP grant. Planning for a meeting with elementary science teachers in the fall.	None noted	Planning
Yolo	Davis Joint Unified	CREEC	3/4/2004	Workshop for Davis elementary teachers "Standards and Stewardship" included introduction to some of the SEE Program materials and demonstration lessons using those materials.	None noted	Workshop
Yolo	Davis Joint Unified	DEMO	11/10/2003	Discussed possibilities with Aaron Shonk, interim M&O director	None noted	Planning
Yolo	Davis Joint Unified	DOC	4-Feb	Recycle Rex assemblies in 4 schools.	None noted	Assembly
Yolo	Davis Joint Unified	DOC	3-Oct	DPP meeting. Dorothy Peterson, coordinator for school recycling programs would be the ideal contact	None noted	Planning
Yolo	Davis Joint Unified	DOC	3-Nov	Schools contacted to determine interest but it was subsequently determined that Recycle Rex is not available to Yolo County	None noted	Planning

County	School District	Program	Start Date	Program Education Services	Program Facility Improvement Services	Task Type
Yolo	Davis Joint Unified	DOC	3-Dec	Recycle Rex will be available for a few dates in February. Schools contacted (again) to determine interest.	None noted	Planning
Yolo	Esparto Unified	ADM	11/17/2003	Met with superintendent. Unclear whether there is an appropriate project. Claudia Orlando suggested that they may be able to identify a project through the Bright Schools program and energy audit.	None noted	Planning
Yolo	Esparto Unified	After School Grants	3-Nov	Meetings with RISE staff to develop proposal which was submitted	None noted	Application
Yolo	Esparto Unified	After School Grants	Spring 2004	Awaiting notification of grant award.	None noted	Application
Yolo	Esparto Unified	After School Grants	3-Oct	Greta referred us to RISE, local non-profit that runs after-school program	None noted	Planning
Yolo	Esparto Unified	CAC	3-Nov	Yolo Arts Council is submitting proposal for Woodland schools so nothing available for Esparto	None noted	Application
Yolo	Esparto Unified	CAC	3-Oct	DPP meeting, Greta is interested in working with a local artist	None noted	Planning
Yolo	Esparto Unified	CEC	Summer/Fall 2004	District will be provided with a copy of the EnergyQuest Video.	None noted	Distribution
Yolo	Esparto Unified	CG	2/13/2004	Champion Grant finalized with all signatures and submitted!	None noted	Application

County	School District	Program	Start Date	Program Education Services	Program Facility Improvement Services	Task Type
Yolo	Esparto Unified	CG	23-Jan	Identified champions (Suzanne Pitner, teacher and Mike Sanford, Operations and Maintenance) and sent paperwork to district office to complete	None noted	Application
Yolo	Esparto Unified	CG	Spring 2004	On hold pending new contract with CIWMB	None noted	Application
Yolo	Esparto Unified	CG	3-Oct	DPP meeting, Greta will identify teacher champion	None noted	Planning
Yolo	Esparto Unified	CHPS	Fall 2004	District facilities personnel will be given access to the new Maintenance and Operations manual.	None noted	Distribution
Yolo	Esparto Unified	CHPS	Fall 2004	District will be provided access to the CHPS online video series.	None noted	Distribution
Yolo	Esparto Unified	CREEC	1/23/2004	Deliver educational materials, review with Champion (Suzanne Pitner, 4th grade teacher)	None noted	Distribution
Yolo	Esparto Unified	CREEC	2/5/2004	Assisted Explorit Science Center educator with classroom presentations in all three fourth grade classes	None noted	Event
Yolo	Esparto Unified	CREEC	3-Oct	DPP meeting with Greta Taber, Claudie Kiti, Deb Bruns, Kay Antunez	None noted	Planning
Yolo	Esparto Unified	CREEC	2/18/2004	Presentation on educational materials to full staff meeting	None noted	Planning
Yolo	Esparto Unified	CREEC	June 2004	Schedule planning meeting for Fall 2004. Sent information on BP grant and will work with teachers to submit.	None noted	Planning

County	School District	Program	Start Date	Program Education Services	Program Facility Improvement Services	Task Type
Yolo	Esparto Unified	CREEC	March or April	Attend grade level meetings to assist in integrating educational materials into existing curricula. (These meetings were postponed because champion grant money not available)	None noted	Workshop
Yolo	Esparto Unified	DOC	3-Dec	Recycle Rex will not be available in Yolo County. (This was subsequently revised and a few dates in February were made available.)	None noted	Application
Yolo	Esparto Unified	DOC	2/26/2004	Recycle Rex assembly at Esparto Elementary School	None noted	Assembly
Yolo	Esparto Unified	DOC	3-Oct	DPP meeting, Greta is interested in scheduling Recycle Rex	None noted	Planning
Yolo	Yolo Co. Office of Education	CAC	3-Dec	CREEC Coordinator (based at YCOE) will work with elementary schools in Yolo County (Beamer and Dingle, both in Woodland) that have received arts council grants	None noted	Planning
Yolo	Yolo Co. Office of Education	CEC	Summer/Fall 2004	District will be provided with a copy of the EnergyQuest Video.	None noted	Distribution
Yolo	Yolo Co. Office of Education	CHPS	Fall 2004	District facilities personnel will be given access to the new Maintenance and Operations manual.	None noted	Distribution
Yolo	Yolo Co. Office of Education	CHPS	Fall 2004	District will be provided access to the CHPS online video series.	None noted	Distribution

County	School District	Program	Start Date	Program Education Services	Program Facility Improvement Services	Task Type
Yolo	Yolo Co. Office of Education	CREEC	3-Dec	Met with administrators to discuss presenting educational materials to teachers in special education and alternative education programs. Will schedule presentations after January.	None noted	Planning
Yolo	Yolo Co. Office of Education	CREEC	4-Apr	Met with administrators to discuss presenting educational materials. Decided to postpone until August and new school year.	None noted	Planning

APPENDIX E

PROGRAM IMPACT DETAILS

Exhibit E-1: Program Description, Goals, and Tasks by Partner[33]

Partner	Program	Program Description	Program Goals	Deliverables
school districts partner with CIWMB (direct grant from program administrator)	**Champion Grants**	SEE Champion grants are to be awarded to school districts for nominating up to 2 school district education and/or facility staff (i.e. teachers, principals, district staff, facility and maintenance personnel.) These selected "Champions" will coordinate and facilitate SEE Program activities in each district, thereby ensuring the ultimate success of the program at the district level.	School district personnel (i.e., teachers, principals, district staff, facility operators) are a vital component of the SEE Program delivery system. Their efforts may involve managing energy efficiency projects; attending SEE Program professional development trainings; marketing program resources to district personnel and other potential partners; and developing community energy education events. Through the SEE Program, two school district representatives will be identified as points of contact. These individuals are eligible for up to $1,500 each to assist them in their energy efficiency outreach, partnership development, training, and technical assistance efforts. Overall, the SEE program will award 2 SEE Program Champion Grants per district. The funding will be allocated to each school district.	• Provide energy education and facility improvement services to 55 school districts in the eleven Central Valley counties of Stanislaus, Merced, Kern, Tulare, Kings, San Joaquin, Madera, Fresno, Yolo, El Dorado, and Mariposa. • Achieve participation levels of at least 5,000 students through direct SEE Program energy education activities (e.g. school assemblies and art grants). • Reach at least 100,000 students through various energy education materials, programs, information, and educational media (e.g. websites, curricula, videos, service learning projects) to teach students about energy efficiency. • Initiate facility improvement activities at 220 school buildings (e.g. benchmarking efforts, energy audits, technical assistance, training workshops, and demonstration projects). • Award Champion grants to 55

[33] Source: Most updated (September 2004) SEE Program Implementation Plan (PIP).

Partner	Program	Program Description	Program Goals	Deliverables
				participating school districts (each school district is entitled to a maximum of $3,000, $1,500 per champion.) • Award 3 After School grants. • Conduct various types of professional development training (e.g. teacher trainings on energy education lessons through the use of educational media) that will reach school district facility, administrative, and education staff in all 55 school districts. • Establish 30 industry and private partners. • Reduce, measure, and track school district energy consumption, as well as potential energy savings opportunities in all 55 school districts, when possible. • Develop various demonstration projects to highlight energy efficient technologies, practices, and education opportunities.
CIWMB administers an after school grant program to award after school grants to SEE	**After-School Grants**	Link the after school activity with other SEE Program activities in the district, wherever feasible and appropriate, including but not limited to: a) classroom energy-related educational activities, b) facility improvement projects (e.g. demonstration projects,	Districts participating in the SEE Program can apply for funding for existing after school programs aimed at providing expanded academic enrichment opportunities for children through project-based learning activities.	After School Program not included in 9.09.04 State Partnership Table attachments

Partner	Program	Program Description	Program Goals	Deliverables
participating school districts.		benchmarking of district buildings to track energy use, energy audits etc.), and c) district-wide energy related events.	Funding will be available for: ▪ The purchase of energy education instructional materials; ▪ Professional development for after school staff in the areas of energy conservation education. • Creating after school activities related to energy efficiency/environmental education activities. • Reporting on the implementation progress of after school program activities.	
Department of Conservation	**Recycle Rex Program School Assembly Program**	The school assembly is conducted in a game show format, features the other purple dinosaur "Recycle Rex", and engages K-3 students in an active learning experience. Provide energy education premiums and curriculum support materials to participating schools. Attend 7 additional special events (e.g. demonstration project dedications, museum and science center exhibits, county fairs) in SEE Program areas.	The "Recycle Rex School Assembly Program" travels throughout the State to educate students about recycling, energy use, conservation, and efficiency. The school assembly is conducted in a game show format, features the other purple dinosaur "Recycle Rex," and engages K-3 students in an active learning experience. Through the SEE Program, the Recycle Rex partnership will: • Conduct school assemblies in 2 schools and provide energy education curriculum	• Provide copy of the interagency agreement to the CPUC and PGE. • Visit all 11 SEE Program counties at least once. For Fall '02, Recycle Rex has already visited 4 SEE Program counties – Fresno, Madera, Kern, and Merced – reaching approximately 6,000 students and 300 teachers. • Visit Kings, San Joaquin, and Stanislaus counties in Spring '03. • Conduct school assemblies in roughly 70 schools (an average of 6 per county)

Partner	Program	Program Description	Program Goals	Deliverables
			materials and collateral to participating schools. • When possible, attend special events. (e.g. demonstration project workshops, museum, county fairs and science center exhibits)	• Reach approximately 21,500 K-3 students and 1,100 educational staff. • Provide energy education premiums and curriculum support materials to participating schools. • Attend 7 additional special events (e.g. demonstration project dedications, museum and science center exhibits, county fairs) in SEE Program areas.
California Arts Council	**Energy Education Through the Arts Grant Program**	This partnership will also establish energy efficiency community art projects, exhibitions, and/or public events in up to 4 participating counties for K-12 students and their families. Additionally, CIWMB and its state and local art partners will collaborate, to the extent possible, to highlight and publicize facility improvement and demonstration projects through complementary art elements (e.g. murals, posters, websites, kiosks, and other media).	The program presents an opportunity for artists in various disciplines (i.e., visual arts, theatre, dance, music, literature, media arts etc.) to develop creative approaches to teach students about energy efficiency. Projects could involve the production of murals, posters, theatrical pieces, songs, and various other artistic forms, as a means of expressing what students are learning about energy use and efficiency. Through the California Arts Council, the SEE Program will: ▪ Conduct an "Energy Education Through The Arts" grant ▪ Organize a community energy education art project	▪ Provide copy of the interagency agreement to the CPUC and PG&E. ▪ Implement the Energy Education Through The Arts Grant Program in all eleven SEE Program counties. ▪ Award up to $10,000 in grant funding per county, an average of between 2 and 3 grants per county. ▪ Establish up to four community energy education art projects, roughly $6,000 per project. ▪ Collaborate with schools implementing demonstration projects on complementary art elements. ▪ Report on demonstration projects and grants including information on: list of grant recipients, types of projects, and number of students, teachers, and local jurisdictions

Partner	Program	Program Description	Program Goals	Deliverables
			involving students, teachers, and members of the community.	participating.
California Department of Forestry and Fire Protection	**California Department of Forestry and Fire Protection (CDF)** - variety of SEE Program services	Mainly outreach, teacher workshop facilitation and technical assistance as needed. In addition, it is well recognized that planting trees around facilities promotes energy efficiency, as trees provide needed shading during hot summers, which helps reduce the amount of energy used to cool down these buildings.		▪ Assist with overall coordination and project management efforts related to various SEE Program activities (e.g. program outreach, technical assistance) ▪ Assist with the design, planning, scheduling, and facilitation of professional development trainings for CREEC coordinators, school district staff, and other cooperators ▪ Assist with district recruitment efforts and program implementation in Yolo and El Dorado counties ▪ Oversee the design, planning, scheduling, and implementation of energy education activities associated with tree planting demonstration projects at up to 6 migrant centers.
School DEEL	SB 373 (Chapter 926, Statutes of 2001), the School Diversion and Environmental Education Law (**School**	Through SEE funding, CIWMB implements an Environmental Ambassador Pilot Program (EAPP) in Fresno Unified School District (FUSD). This program provides FUSD with professional development and ongoing technical support for teachers, administrators and school district business officials to allow them to effectively integrate environmental		▪ SCSA to provide a copy of interagency agreement to CPUC and PG&E. ▪ Fund 1 EAPP grant school district – Fresno Unified -- in the Central Valley ($90,000). ▪ SCSA will provide information on specific EAPP school district agreement activities.

Partner	Program	Program Description	Program Goals	Deliverables
	DEEL)	management with California's educational standards and adopted textbooks. The outcome of this pilot program will be used throughout the State as a model for the development of K-12 environmental education programs.		
CA Department of Education	California Regional Environmental Education Community **(CREEC) Network**	There are 5 CREEC regions that overlap with SEE Program counties. The CREEC network plays an integral role in the SEE Program delivery system. The purpose of the CREEC Network is to liaison between educators and providers of high quality environmental education materials and resources to enhance the environmental literacy of California students. To accomplish this mission, the CREEC Network works collaboratively with regional education community, local government, and environmental agency representatives. Using established education community relationships and their knowledge of local educational programs, the regional CREEC coordinators assist the SEE Program with marketing and outreach, educational and professional development activities, as well as demonstration project	The CREEC Network works collaboratively with the regional education community, local governments, and environmental agency representatives to identify and provide environmental education resources to teachers and students. Through the CREEC Network partnership with the SEE Program, CREEC Regional Coordinators will facilitate: ▪ Individualized planning meetings with district representatives to review and make selections from the approved list of educational materials. In addition to facilitating meetings, CREEC Coordinators will assist in the dissemination of the following educational resources to districts: ▪ Hands-On Tools: Energy Education Tool Kits, containing devices commonly	▪ SCSA to provide copy of interagency agreement to CPUC and PG&E. ▪ Assist in coordination and project management efforts related to various SEE Program activities in all eleven counties, (e.g. working with after school programs, Indian Education sites, Offices of Migrant Education, Energy Education through the Arts grant recipients, County Offices of Education, and other public and private partners). ▪ Identify and assist with SEE program marketing, outreach, and promotional activities, including regional publications, events, and conferences. ▪ Coordinate, arrange, and/or attend regional energy education meetings, trainings, and events. ▪ Establish new public and private partnerships that will further the mission of the SEE Program.

Partner	Program	Program Description	Program Goals	Deliverables
		management.	used by energy professionals, allow students to collect data, analyze results and prepare recommendations for improving the efficiency of their school buildings. ▪ Project-Based Learning Resources: Teacher guides and student activities centered on implementing environmental education projects. ▪ Films and Slide Shows: A collection of free communication media on energy and sustainability issues. ▪ Read, Read, Read: Colorful dinosaur-themed "Big Books" for younger students and a non-fiction energy library for older students. ▪ Professional Development: Districts will receive an 8-part course professionally designed for elementary teachers on the science of energy.	▪ Assist in the development of demonstration projects. ▪ Create an "Energy Education" link on the CREEC's home page and the Office of Environmental Education's web site. This link will enable educators and the public to access: energy education materials, grouped by elementary/secondary levels; the dates and times of energy education workshops and other events; and the status of various SEE program activities. ▪ Track and report to the California Department of Education (CDE) the number of schools, meetings, teachers, and students' visited/served and major accomplishments. ▪ Facilitate teachers' access to energy education materials, such as the Kid's Flex Your Power Activity Kit and other SCSA sponsored energy education materials (i.e. SB 373 environmental education modules and teacher training guides) to promote energy conservation and efficiency.
California Energy Commission (CEC)	**Bright Schools Program**	In spite of SCSA and CIWMB's joint efforts to transfer this interagency agreement from SCSA to CIWMB, the California Energy	The CEC has developed an interactive energy education website, http://www.energyquest.ca.gov	▪ SCSA to provide copy of interagency agreement to CPUC and PG&E. ▪ Market and deliver an expanded

Partner	Program	Program Description	Program Goals	Deliverables
		Commission did not sign the proposed amendments, assigning its contract to CIWMB, as well as extending the term of the agreement until December 2004 to complete all contract tasks. Thus, this interagency agreement expired on June 30, 2004 with $238,577 out of a $310,000 budget in unspent funds for tasks related to Bright School audits and a case study. The CEC spent $71,423 to market an expanded Bright Schools Program to SEE counties and develop a new version of an energy education video –called "You've Got the Power"- for its Energy Quest website. Therefore, CPUC and PG&E approved CIWMB's proposal (in the Request for Changes III) to reallocate the remaining $238,577 to serve other components of the program which can further the goals of providing energy education and facility improvement services to all SEE school districts	which serves as a fun yet informative way for students to learn energy efficiency and conservation concepts, and how to incorporate those concepts into their daily lives. Through the CEC partnership with the SEE Program, CEC will Develop a 15-20 minute energy education video available online to teachers and students. q Deliver a copy of the video (DVD or VHS) to each district to be used as a teaching aid in the classroom.	Bright Schools Program to all eleven SEE Program counties. ▪ Upgraded Energy Quest website featuring a new version of an energy education video, new lessons, additional professional development elements, and linkages to SEE Program participating counties and programs.
California Conservation Corps (CCC)	SEE Program **Mobile Energy Laboratories** (Mobile Labs)	Offers migrant centers and American Indian Centers in the program area. These Mobile Labs offer a hands-on approach for students to learn about energy efficiency and conservation. To ensure that teachers/students of	The CCC will assist CIWMB through the use of the Mobile Energy Laboratories. CCC will travel to locations throughout the Valley teaching students and teachers about energy efficient technologies through the	▪ Provide copy of the interagency agreement to CPUC, PG&E and Edison ▪ Visit approximately 190 classrooms in all 11 SEE Program counties to provide

Partner	Program	Program Description	Program Goals	Deliverables
		SEE participating school districts and selected migrant centers and American Indian Centers benefit from these labs, CCC and its local conservation corps organizations will travel throughout the program area to reach this diverse and widespread audience. When visiting a school, migrant center or Indian center, CCC corps members will use these labs and their associated curriculum to teach the audience about energy efficiency.	demonstrations presented in the Mobile Labs. Through the CCC Partnership, the SEE Program will: ▪ Visit approximately 190 schools in SEE participating school districts to provide energy efficiency educational activities based on the mobile energy labs. ▪ Visit 4 migrant centers in the program area to provide energy efficiency educational activities based on mobile energy labs. ▪ Visit 2 American Indian Centers in the program area to provide energy efficiency educational activities based on mobile energy labs. ▪ Implement tree planting demonstration projects at 4 migrant centers in the program area.	energy efficiency educational activities based on the mobile energy labs. ▪ Visit 4 migrant centers in the program area to provide energy efficiency educational activities based on mobile energy labs. ▪ Visit 2 American Indian Centers in the program area to provide energy efficiency educational activities based on mobile energy labs. ▪ Assist in the implementation of tree planting demonstration projects at 4 migrant centers in the program area. ▪ Purchase and distribute energy educational resources to all schools, migrant centers and Indian Education Centers that are visited. ▪ Assist ADM Associates in the implementation of demonstration projects.
Pacific Gas and Electric, the California Energy	COLLABOR ATIVE FOR HIGH PERFORMA	Given the tremendous school construction activity that will take place as a result of the passage of Proposition 47, this SEE Program	The Collaborative for High Performance Schools (CHPS) is a partnership of federal, state, and local government agencies,	▪ Provide copy of interagency agreement to the CPUC and PG&E.

Partner	Program	Program Description	Program Goals	Deliverables
Commission, the California Department of Education, Sacramento Municipal Utilities District, State and Consumer Services Agency, the California Integrated Waste Management Board, the Division of the State Architect, and the Office of Public School Construction.	NCE SCHOOLS **(CHPS)**	partnership seeks to build on the overarching CHPS' goal of increasing the academic performance of California students through better designed and healthier school facilities. Additionally, the partnership will result in a specific energy education demonstration project. The Center for Advanced Research and Technology (CART) is a joint high school operated by the Fresno and Clovis Unified school districts. CART provides a myriad of intensive educational opportunities for its students using a public/private partnership model. CART offers an architectural program and, through the CHPS' partnership, the SEE Program will assist in the creation and implementation of a demonstration design project, which uses the CHPS' Best Practices Manual to introduce energy efficiency lessons into the architectural program. This design project will teach students about energy efficient design choices and generate standards-based lessons that can be used by other high school architecture classes statewide.	investor owned and municipal utilities, and nonprofit organizations formed under the unifying goal of improving the quality of educational facilities in California. CHPS developed a Best Practices Manual which consists of four volumes – Planning; Design; Criteria for Evaluation; and Operations and Maintenance. School districts throughout the state and the nation have adopted the CHPS criteria and use the manual as a reference guide. Through CHPS, the SEE Program will: ▪ Conduct CHPS training sessions for educators, the design community, facility operators, and students. ▪ Provide CHPS' technical expertise on new construction, modernization, and SEE program demonstration projects. ▪ Use the contents of the new Operations and Maintenance section of the Best Practices Manual to train and assist district facility operators.	▪ Complete Operations and Maintenance Manual with accompanying energy lessons. ▪ Conduct up to 6 training sessions for educators, the design community, facility operators, and students in SEE Program counties. ▪ Assist, along with the SCSA and the United States Green Building Council, in the development and implementation of the CART demonstration design project. ▪ Provide CHPS' technical expertise on new construction, modernization, and SEE program demonstration projects. ▪ Produce 12 on-line videos for DSA's website

Partner	Program	Program Description	Program Goals	Deliverables
ADM	**Facility Audits/Demonstration Programs**		Facility improvement services are designed to provide comprehensive energy assessments of school district building as well as operations and maintenance training opportunities. Examples of such services include. ▪ Detailed energy audit: Low cost/no cost energy efficient solutions will be recommended through extensive on-site energy audits. Participating schools will also receive assistance to identify rebate and other financial incentive programs and to implement the recommended solutions. ▪ Training school facility staff: Facility staff will receive training in re-commissioning and maintenance of existing equipment (e.g., how to check the refrigerant of HVAC units for proper charge, maintaining clean filters and coils). ▪ Benchmarking: The energy consumption of school district facilities will be analyzed and evaluated against other similar facilities. As a result, each school will be able to compare its energy usage against other schools in the	

Partner	Program	Program Description	Program Goals	Deliverables
			district, county, or Central Valley. ▪ Project-based learning activities: Participating schools will be encouraged to promote the concept of "the school site as a teaching tool." For example, activities that foster collaborations between student and maintenance staff on lighting retrofits and HVAC system upgrades could be incorporated into classroom instruction. ▪ Demonstration Technology: Through partnerships with manufacturers, trade associations, state and federal agencies, some schools will be provided demonstration technology to showcase the installation, operations, and maintenance of energy-efficient equipment.	

Exhibit E-2: Program Scope and Budget Changes, 2002-2004

Program	Original SCSA Budget	Request for Changes 1 (March 2003)	RC 1 Expanation	Request for Changes 2 (3.29.04)	RC2 Explanation	Request for Changes 3 (9.09.04)	RC3 Explanation	Final Budget
COLLABORATIVE FOR HIGH PERFORMANCE SCHOOLS (CHPS)	$170,000	Add $130,000	Assist in the development of a Green Building curriculum project; Produce up to 12 on-line videos for DSA's website; Assist in the development of the DSA website to include the on-line videos	0	n/a	$0	n/a	$300,000
SEE Program Mobile Energy Laboratories (Mobile Labs)	$150,000	0	n/a	0	n/a	Add $95,000	CIWMB proposes to augment CCC's budget with an added $95,000 to 1) fund their purchase and distribution of additional energy education materials to all schools, migrant centers and Indian centers that are visited by CCC,[1] 2) work with ADM Associates to implement demonstration projects, specifically to install energy-efficient-based retrofit and/or modernization projects in consultation with ADM Associates, 3) assist the California Department of Forestry and Fire Protection (CDF) to plant additional trees at migrant centers, and 4) Various miscellaneous expenses (e.g. mobile lab maintenance/repairs.)	$240,000
Bright Schools Program	$310,000	0	n/a	0	n/a	Reduce by $238,577	this interagency agreement expired June 30, 2004 with $238,577 out of a $310,000 budget in unspent funds for tasks related to Bright School audits and a case study. The CEC spent $71,423 to market an expanded Bright Schools Program to SEE counties and develop a new version of an energy education video for its Energy Quest website. Therefore, CIWMB proposes to reallocate the remaining $238,577 to serve other components of the program	$71,423

Program	Original SCSA Budget	Request for Changes 1 (March 2003)	RC 1 Expanation	Request for Changes 2 (3.29.04)	RC2 Explanation	Request for Changes 3 (9.09.04)	RC3 Explanation	Final Budget
California Regional Environmental Education Community (CREEC) Network	$200,000	0	n/a	Add 10,000	Although SCSA's partnership with CREEC remains unchanged, SCSA proposes to augment CREEC's budget by $10,000 to account for added CREEC staff time during the Fall 2004 if the SEE Program is extended another 6 months.	Add $50,000	Augment CREEC's budget by $50,000 to enable CREEC coordinators to 1) coordinate with the California Conservation Corps (CCC) to schedule schools for mobile lab visits; 2) attend mobile lab visits to provide feedback and coaching to the CCC presenters; 3) make follow-up contact with teachers who have participated in the CCC training to ensure they have the proper resources to implement the energy curriculum and further utilize the Mobile Energy Lab; and 4) develop additional teacher workshops to further promote the use of SEE Program educational materials.	$260,000
SB 373 (Chapter 926, Statutes of 2001), the School Diversion and Environmental Education Law (School DEEL)	$220,000	Reduce by $3,000	Environmental Ambassador Pilot Program ($90,000) and Unified Education Strategy Grant ($27,000)	0	n/a	Add $90,000 To EAPP	This allocated amount will enable CCC to purchase additional copies of the Power Shift video and associated curriculum produced by the Worldlink Foundation; this energy education video was developed for high school classroom settings to promote discussions about energy efficiency and conservation.	$90,000
Energy Education Through the Arts Grant Program	$150,000	0	n/a	0	n/a	$0	n/a	$150,000

Program	Original SCSA Budget	Request for Changes 1 (March 2003)	RC 1 Expanation	Request for Changes 2 (3.29.04)	RC2 Explanation	Request for Changes 3 (9.09.04)	RC3 Explanation	Final Budget
Recycle Rex Program School Assembly Program	$150,000	0	n/a	0	n/a	$0	n/a	$150,000
California Department of Forestry and Fire Protection (CDF) - variety of SEE Program services	$35,000	0	n/a	Add $28,000	Increase line item from $35,000 to $63,000 to account for a 6-month time extension and additional work in Migrant centers.	Add $10,000	Proposes increase to account for added time to implement up to 2 more workshops between the months of September and December 2004. This would require added work hours, travel time, and the purchase of materials.	$73,000
Foothill Indian Education Alliance, Inc.	$150,000	0	n/a	0	n/a	Eliminate line item	due to technical/legal issues, the contract between SCSA and Foothill Indian Education Alliance (Alliance) did not transfer over to the CIWMB. No SEE funding was expended in this category.	$0
After School Grant Initiative	$88,000 (i.e. 11 grants @ $8,000 per grant)	due to staff and budget constraints, SCSA will not contract with the California After School Partnership (CASP), but will be dealing directly with school districts and their after school programs.	n/a	0	n/a	0	Unclear what final After School Grants budget vs. awards were.	
Demonstration Projects	315,000	0	n/a	0	n/a	Reduce by $90,000	Although the budget line item for this category is significantly reduced from $315,000 to $125,000, the SEE Program is still planning to implement additional demonstration projects in various SEE school districts. However, the delivery mechanism will be different. Instead of having the bulk of the funding directed to one single entity, due to strict state contracting rules, CIWMB proposes to allocate the funding to two entities –ADM and CCC.	125,000

Exhibit E-3: SEE Quarterly Spreadsheet Reports Submitted by Reporting Period[34]

	Cost Report Spreadsheets													
	Program Administrator		Program Partners											
	SCSA	CIWMB	CAC	DOC	CEC	CHPS	CCC	CDE (CREEC)	CDF	ADM	Fresno USD	Mariposa	Unclear	"All" files
Q3 2002		CIWMB not SEE Administrator during this period.												
Q4 2002		CIWMB not SEE Administrator during this period.												
Q1 2003		CIWMB not SEE Administrator during this period.											Q1 Jan-Mar 03.xls	
Q2 2003		CIWMB not SEE Administrator during this period.						Q2 Apr-June 03.xls						
Q3 2003		CIWMB not SEE Administrator during this period.		DOC.xls	CEC.xls			corrected Q3 July-Sept 03.xls 09-07-04.xls and CREEC.xls and Q3 July-Sept 03.xls		ADM.xls		Mariposa USD.xls		
Q4 2003		CIWMB not SEE Administrator during this period.		DOC Q4.xls		CHPS Q4.xls		CREEC Q4.xls		ADM Q4.xls				ALL Q4.xls
Q1 2004	SCSA not SEE Administrator during this period.			DOC Q1 04.xls	CEC Q1 04.xls	CHPS Q1 04.xls		CREEC Q1 04.xls		ADM Q1 04.xls				ALL Q1 04.xls
Q2 2004	SCSA not SEE Administrator during this period.				CEC Q2 04.xls	CHPS Q2 04.doc		CREEC Q2 04.xls		ADM Q2 04.xls				
Q3 2004	SCSA not SEE Administrator during this period.				CEC Program contract ended in July 04 and was not renewed.					ADM Q3 04 (2)				
Q4 2004	SCSA not SEE Administrator during this period.				CEC Program contract ended in July 04 and was not renewed.									

[34] Note: Each cell represents a required quarterly reporting period for each partner. All cells shaded yellow represent quarterly reports not submitted, according to SEE Staff. All files transmitted to the evaluation team are labeled by reporting period with file name SEE Staff maintained.

Exhibit E-4: SEE Quarterly Narrative Reports Submitted by Reporting Period[35]

	Narrative Reports													
	Program Administrator		Program Partners											
	SCSA	CIWMB	CAC	DOC	CEC	CHPS	CCC	CDE (CREEC)	CDF	ADM	Fresno USD	Mariposa	Unclear	"All" files
Q3 2002		CIWMB not SEE Administrator during this period.												
Q4 2002		CIWMB not SEE Administrator during this period.												
Q1 2003		CIWMB not SEE Administrator during this period.							Kay - CDF.doc	ADM Q1 03.doc				
Q2 2003		CIWMB not SEE Administrator during this period.						CREEC.pdf						
Q3 2003	SCSA.doc and SCSA Q3 03 EDIT.doc and SCSA Q3 03 Final EDIT.doc	CIWMB not SEE Administrator during this period.	CAC.doc	DOC.doc	CEC.DOC			CREEC.doc		ADM Q3 03 .doc	Fresno USD Q3.doc	Mariposa USD.doc		
Q4 2003	SCSA Q4.doc	CIWMB not SEE Administrator during this period.	CAC Q4.doc	DOC Q4.doc and DOC1 Q4 03.doc	CEC Q4.DOC	CHPS Q4.doc		CREEC Q4.doc		ADM Q4.doc and ADM Q4 FINAL EDIT.doc	FUSD Q4.doc			
Q1 2004	SCSA Q1 04.doc		CAC Q1 04.doc	DOC Q1 04.doc	CEC Q1 04.DOC	CHPS Q1 04.doc		CREEC Q1 04.doc		ADM Q1 04.doc	FUSD Q1 04.doc			
Q2 2004	SCSA not SEE Administrator during this period.			DOC Q2 04.doc	CEC Q2 04.DOC	CHPS Q2 04.xls		CREEC Q2 04.doc	CDF Q2 04.doc	ADM Q2 04.doc				
Q3 2004	SCSA not SEE Administrator during this period.		CAC Q3 04.doc	DOC Q3 04.doc	CEC Program contract ended in July 04 and was not renewed.	CHPS Q3 04	CCC Q3 04.doc	CREEC Q3 04.doc	CDF Q3 04.doc	ADM Q3 04 and ADM Q3 04 (2)				
Q4 2004	SCSA not SEE Administrator during this period.				CEC Program contract ended in July 04 and was not renewed.									

[35] Note: Each cell represents a required quarterly reporting period for each partner. All cells shaded yellow represent quarterly reports not submitted, according to SEE Staff. All files transmitted to the evaluation team are labeled by reporting period with file name SEE Staff maintained.

Exhibit E-5: Partner Deliverables and Budget Spent[36]

Partner	Program	Budget	Deliverables	Staff Reached	Students Reached	Events Done	Date of Most Recent Report	Dollars Spent	Progress on Deliverables	Percent Budget Spent	Percent Deliverables
California Conservation Corps (CCC)	Energy Education Activities in Schools	$ 124,335	Visit 190 classrooms in 11 SEE Program Counties	not reported	320	10	Q3 2004		180 classrooms, 10 counties remaining		5%
California Conservation Corps (CCC)	Mobile Labs-migrant centers	$ 2,892	Visit 4 migrant centers	not reported	135	3	Q3 2004		1 migrant center remaining		75%
California Conservation Corps (CCC)	Mobile Labs - American Indian Centers	$ 1,446	Visit 2 American Indian Centers	0	0	0	Q3 2004		2 centers remaining		0%
California Conservation Corps (CCC)	Purchase and Distribution of Energy Educational Resources	$ 5,000	Provide materials to all schools, migrant and American Indian Centers and Indian Education Centers visited	not reported	not reported	not reported	Q3 2004		not reported Ongoing		N/A
California Conservation Corps (CCC)	Demonstration Projects	$ 77,000	Assist ADM in implementation of demonstration projects	not reported	not reported	not reported	Q3 2004		not reported Ongoing		N/A
California Conservation Corps (CCC)	Tree Planting Activities	$ 4,892	Assist in tree planing at 4 migrant centers	not reported	not reported	6 trees per site at 3 sites	Q3 2004		~35 trees at 3 centers, ~40 at 1 center		~15%
California Conservation Corps (CCC)	Administrative Activities	$ 22,436									
California Conservation Corps (CCC)	Misc. expenses (mobile lab maintenance/repairs)	$ 2,000									
CCC	**TOTAL BUDGET**	**$ 240,000**						$8,777.84		**4%**	

[36] Summarized from most current SEE Program Cost Spreadsheets and Partner Narrative reports made available to the evaluation team to date.

Partner	Program	Budget	Deliverables	Staff Reached	Students Reached	Events Done	Date of Most Recent Report	Dollars Spent	Progress on Deliverables	Percent Budget Spent	Percent Deliverables
State Partnership Development & Coordination	Operations & Maintenance Manual w/student lessons	$ 120,000	Complete Operation and Maintenance Manual w/accompanying energy lessons.	not reported	not reported	Ongoing	Q3 2004		Final draft completed, some formatting in progress prior to printing		97%
State Partnership Development & Coordination	Trainings	$ 25,000	Conduct up to 6 training sessions.	37		6	Q3 2004		Done		100%
State Partnership Development & Coordination	CART Demonstration Project	$ 10,000	Assist in the development and implementation of the CART demonstration design project.	1	33	Ongoing	Q3 2004		N/A		N/A
State Partnership Development & Coordination	Technical Assistance	$ 25,000	Provide technical expertise on new construction, modernization, and SEE program demonstration projects.	not reported	not reported	2	Q3 2004		N/A		N/A
State Partnership Development & Coordination	Online Video Series Development	$ 120,000	Produce 12 online videos for DSA's website.	N/A	N/A	12	Q3 2004		Done		100%
State Partnership Development & Coordination	**TOTAL BUDGET**	**$ 300,000**						##########		**47%**	

Partner	Program	Budget	Deliverables	Staff Reached	Students Reached	Events Done	Date of Most Recent Report	Dollars Spent	Progress on Deliverables	Percent Budget Spent	Percent Deliverables
California Energy Commission (CEC)	Bright Schools Program (overall)	$ 71,423						$71,423.00		100%	
California Energy Commission (CEC)	Energy Quest website	$ 67,991	Upgraded Energy Quest website featuring a new version of an energy education video, new lessons, additional professional development elements, and linkages to SEE Program participating counties and programs.	not reported	not reported	not reported	Q2 2004	$67,991.30	finished video	100%	20%
California Energy Commission (CEC)	Marketing & Travel	$ 3,431	Market & deliver an expanded Bright Schools Program.	not reported	not reported	not reported	Q2 2004	$3,431.28	did some marketing	100%	20%
California Energy Commission (CEC)	Energy Audits		Service to 10 school districts and develop a case study for the website	not reported	not reported	not reported	Q2 2004	$0.00	3 audits complete, no case study		30%
California Energy Commission (CEC)	Administrative		Provide CPUC and PG&E a list of Bright Schools Program activities and website upgrades as part of reporting requirements	not reported	not reported	not reported	Q2 2004	$0.00	Not reported		0%
California Energy Commission (CEC)	**TOTAL BUDGET**	**$ 71,423**						$82,312.69		115%	

Partner	Program	Budget	Deliverables	Staff Reached	Students Reached	Events Done	Date of Most Recent Report	Dollars Spent	Progress on Deliverables	Percent Budget Spent	Percent Deliverables
State Partnership Development & Coordination	School Diversion and Environmental Education Law (School DEEL) (overall)	$ 90,000									
State Partnership Development & Coordination	Environmental Ambassador Pilot Project	$ 90,000	Fund 1 EAPP grant school district, Fresno Unified.	not reported	not reported	not reported	no reports	$66,465.16	according to Fresno USD Q3.doc, grant was made	**74%**	100%
Fresno United School District	Recipients of DEEL Environmental Ambassador Pilot Project	$ 90,000	Integrate environment-based, standards-based instructional practices using the EIC model	not reported	not reported	not reported	Q1 2004		Ongoing		50%
Fresno United School District			Incorporate teacher facilitated, student driven on-site conservation efforts in the areas of energy, waste water, and air quality.	not reported	not reported	1	Q1 2004		Ongoing		50%
Fresno United School District			Develop service-learning projects that connect to real-world experiences in areas of resource conservation.	not reported	not reported	1	Q1 2004		Ongoing		50%
Fresno United School District			Collect qualitative and quantitative data to assess the impact of the EAPP on participating students and schools and on student achievement and actual resources conserved.	not reported	not reported	not reported	Q1 2004		no progress reported		0%
Fresno United School District	**TOTAL BUDGET**	**$ 90,000**						$66,465.16		74%	

Partner	Program	Budget	Deliverables	Staff Reached	Students Reached	Events Done	Date of Most Recent Report	Dollars Spent	Progress on Deliverables	Percent Budget Spent	Percent Deliverables
California Department of Education (CDE)	CA Regional Environmental Education Community (CREEC) Network	$ 260,000									
California Department of Education (CDE)	Time for 5 regional CREEC Coordinators	$ 195,350	Assist in coordination and project management efforts related to SEE Program activities in all 11 counties.	see note	see note	see note	Q3 2004		Ongoing		40%
California Department of Education (CDE)			Identify and assist with SEE program marketing, outreach, and promotion efforts including regional publications, events, and conferences.	see note	see note	see note	Q3 2004		Ongoing		50%
California Department of Education (CDE)			Coordinate, arrange, and/or attend regional energy education meetings…	see note	see note	see note	Q3 2004		Ongoing		75%
California Department of Education (CDE)			Establish new public and private partnerships that will further the mission of the SEE Program.	see note	see note	see note	Q3 2004		Public Patnership		15%
California Department of Education (CDE)			Create "[illegible] Energy Education" link on the CREEC's home page and the Office of Environmental Education's web site.	see note	see note	see note	Q3 2004		not reported		0%
California Department of Education (CDE)			Facilitate teachers' access to energy education materials.	see note	see note	see note	Q3 2004		Ongoing		40%
California Department of Education (CDE)			Assist in the development of demonstration projects.	see note	see note	see note	Q3 2004		not reported		0%
California Department of Education (CDE)			Track and report to CDE the …	see note	see note	see note	Q3 2004		see note		10%
California Department of Education (CDE)	administrative and program costs	$ 64,650									
California Department of Education (CDE)	**TOTAL BUDGET**	**$ 260,000**						#########		71%	

Partner	Program	Budget	Deliverables	Staff Reached	Students Reached	Events Done	Date of Most Recent Report	Dollars Spent	Progress on Deliverables	Percent Budget Spent	Percent Deliverables
California Arts Council (CAC)	Energy Education through the Arts Grants	$ 90,000	Award up to $10,000 in grant funding per county, averaging 2-3 grants per county.	see below	see below	18	Q3 2004		done		95%
California Arts Council (CAC)	Community Art Projects	$ 13,000	Establish up to 4 community energy education art projects	see below	see below	2	Q3 2004		done		50%
California Arts Council (CAC)	Demonstration projects	$ 32,000	Report on demonstration projects and grants including information on: list of grant recipients, types of projects, and number of students, teachers, and local jurisdictions participating.	see below	see below	15	Q3 2004		done		68%
California Arts Council (CAC)			Collaborate with schools implementing demonstration projects on complementary art elements.	see below	see below	4	Q3 2004	$20,000.00	migrant centers same as schools?		100%
California Arts Council (CAC)	Program Administration	$ 15,000		74	2190						
California Arts Council (CAC)	**TOTAL BUDGET**	**$ 150,000**						#########		82%	

Department of Conservation (DOC)	Recycle Rex Program School Assembly Program (OVERALL)	$ 150,000	Visit all 11 SEE program counties				Q2 2004		Done - all 11 counties visited		100%
Department of Conservation (DOC)	School Assembly - props, stage, salaries, travel, equipment	$ 98,552	Conduct school assemblies in roughly 70 schools, reaching 21,500 students and 1,100 staff	1,024	21,980	79	Q2 2004		Done		113%
Department of Conservation (DOC)	Premiums	$ 23,607	Provide energy education curriculum materials and premiums to participating schools.				Q2 2004		Ongoing		N/A
Department of Conservation (DOC)	Curriculum Support Materials	$ 12,841					Q2 2004		Ongoing		N/A
Department of Conservation (DOC)	Program Administration/overhead	$ 15,000	Attend 7 additional special events	40	2300	5	Q2 2004		2 events remaining		71%
Department of Conservation (DOC)	**TOTAL BUDGET**	**$ 150,000**						$88,590.99		**59%**	

Partner	Program	Budget	Deliverables	Staff Reached	Students Reached	Events Done	Date of Most Recent Report	Dollars Spent	Progress on Deliverables	Percent Budget Spent	Percent Deliverables
CA Department of Forestry and Fire Protection	Overall Project Management & Coordination	$ 28,490	Assist w/professional development trainings for CREEC coordinators, school district staff, and other cooperators.	51	525	6	Q3 2004		Ongoing		N/A
CA Department of Forestry and Fire Protection	Recruitment/Outreach activities in Yolo & El Dorado	$ 22,255	Assist w/district recruitment efforts & program implementation.	not reported	not reported	not reported	Q3 2004		Ongoing		N/A
CA Department of Forestry and Fire Protection	Energy education activities at migrant centers	$ 14,130	Tree planting demonstration projects at up to 6 migrant centers.	not reported	not reported	3	Q3 2004		3 centers remaining		50%
CA Department of Forestry and Fire Protection	Administrative costs	$ 8,125									
CA Department of Forestry and Fire Protection	**TOTAL BUDGET**	**$ 73,000**						$5,447.92		**7%**	

Partner	Program	Budget	Deliverables	Staff Reached	Students Reached	Events Done	Date of Most Recent Report	Dollars Spent	Progress on Deliverables	Percent Budget Spent	Percent Deliverables
ADM	Detailed energy audit		Perform an audit for 4 schools in each of the 55 districts			118	Q3 2004		2 buildings remaining		98%
ADM	Training school facility staff		Training school facility staff	42		36	Q3 2005				90%
ADM	Benchmarking		Benchmarking			102	Q3 2006		Ongoing		10%
ADM	Project-based learning activities					?	Q3 2007				
ADM	Demonstration technology		Production of the Mobile Energy Lab			1	Q3 2008		Done		100%
ADM	Assist with marketing		Develop and coordinate partnerships with industry and associations			34	Q3 2009				
			Get 45 school districts to participate in the SEE program.		277,094	45			Done		100%
"Demonstration Projects"		$ 315,000						#########		**37%**	

APPENDIX F
REVIEW OF ENERGY AUDIT REPORTS

This appendix has the review of the ten chosen audit reports. Each school was reviewed separately. However, three measures had similar estimated savings, regardless of the site. These are described first, followed by each audited site.

Overall review of three measures:

Measure One. One of the most frequently recommended measures for the schools was to set all computers to sleep mode when unused (77% of all schools received this recommendation). The estimated savings for each computer was indicated to be 500 or 550 kWh (it varied among the audits). The write up within the audit reports highlight the assumptions made for the projected savings. Independent review of the possible wattage savings for this measure backs up what is shown in the report. The difficulty that is brought out in the report and reiterated here is the unknown amount of hours that the computer is currently in use. The possible range of savings could be as shown in Table F-1. The estimated savings within the report has the possibility of being substantially lower than expected, depending on how the computers are already used.

Table F-1.

Connected Load per Computer (watts)	Connected Load per Computer in Sleep Mode (watts)	Demand savings (watts)	kWh savings if on 24/7 [A]	kWh savings if on for half of 24/7 [B]	kWh savings if on during school day [C]
150	22.5	127.5	814	407	184

Hours On with potential for Sleep Mode Savings

[A]	*Assuming left on from beginning of school to end of school, 24/7*				
	August - June	9.5	months	6,384	Hours/year
[B]	*Assuming left on from beginning of school to end of school for half of the time*				
	August - June	9.5	months	3,192	Hours/year
[C]	*Assuming turned off every night and only on during school hours*				
	August - June	180	days in school year	1,440	Hours/year

Measure Two Another measure that was highly recommended, yet not site specific was the recommendation to install a control system on vending machines (64% of all schools received this suggestion). This measure is based on a technology in which the lights in the machine turn on or off based on a motion sensor. When a person comes in range of the sensor, the lights are turned on. The other part of the technology cycles down the cooling compressor such that, while the product remains cool, the refrigeration energy use is reduced. Based on a review of the systems potential energy savings for a Vending Miser (a similar, if not identical product to what was recommended), the energy savings for each vending machine was accurately described in the audits.

Measure Three Slightly over half of the schools were recommended to remove personal appliances from the classrooms. The estimated wattages of the appliances appeared reasonable. As with other plug loads, the actual savings will vary depending on the use of

the appliance. This was implied in the report as it was pointed out that the wattages were averages of appliances and that savings could be found with "minimal operating hours".

Site 01

This site, if they implemented all the recommended measures, was projected to save 19% of their annual kWh use. As over half of those savings were from HVAC measures, the Evaluation Team reviewed those measures more closely.

Based on the energy by end use pie chart in the audit report (which showed HVAC use as 11% of the total annual kWh use), the HVAC savings were 106% of the estimated HVAC use at this site. This was investigated to determine where the possible difficulty lay. The eQuest file was reviewed for the two energy efficiency measures (EEMs) of programming the thermostat and adjusting the temperature (the two highest HVAC estimated savings measures). Only part of the office and classrooms were modeled and the resulting energy savings for the various runs were increased based on the ratio of the modeled square footage to total square footage. Of the two EEMs, one was implemented and then the second; there was no double counting of possible savings. The models, as reviewed, are considered appropriate. Review of the baseline model for the office space indicated that HVAC was considered 27% of the use, rather than the 11% indicated in the pie chart in the report. Using HVAC end use as 27% of total annual kWh use, the HVAC savings would then be 32% of the HVAC end use, a value that is more reasonable than 106% of the HVAC energy use. It was outside the scope of the evaluation to re-calculate energy savings potential. However, it is possible that the savings at this site, if the school implemented all the measures, may be less than indicated in the report.

Site 02

This site was projected to save 23% of their annual energy use if the recommended measures were implemented and the projected savings were accurate. At this site, the HVAC and outdoor lighting had the highest estimated kWh savings. These two types of measures were assessed further.

The HVAC savings have the same difficulty as Site 01. The energy end use pie chart indicates that HVAC is 22% of the total use at the site. The recommended measures lead to potential energy savings equaling 59% of the HVAC kWh use, which is somewhat high. A similar review of the HVAC modeled savings was performed for this site as for Site 01. The largest measures showed savings of ~23,000 kWh for instituting a programmable thermostat schedule in the portables. The model reduced the number of run hours of the HVAC through changing the possible hours it could run. This appeared appropriate for the measure. However, it is possible that this model used setpoints that were somewhat different from what was actually used by the teachers in the portables and may have overestimated the savings.

The other high savings measure reviewed was the outdoor lighting measure where metal halide fixtures were replaced with CFL fixtures. The outdoor lighting calculations produce the savings as shown in the report, and , if installed, should generate the estimated savings.

Site 03 This site was projected to save 15% of their annual energy use if the recommended measures were implemented and the projected savings were accurate. At this site, the HVAC the highest estimated kWh savings. The HVAC measures were assessed further.

The HVAC savings have the same difficulty as Site 01 and Site 02. The energy end use pie chart indicates that HVAC is 17% of the total use at the site. The recommended measures lead to potential energy savings equaling 64% of the HVAC kWh use, which is high. A similar review of the HVAC modeled savings was attempted for this site as for Site 01 and Site 02, but the model of the larger school space did not have the detailed data on the setpoints and, therefore, could not be fully analyzed. The model of the portable space showed a thermostat setpoint of 72 cooling and 71 heating. It is assumed that the larger space had a similar setpoint. These setpoints may have been different than what was used at the school and may have modeled more savings than what may have been seen if the thermostats were programmed. However, a spreadsheet error was found in the distribution of energy by end use that most likely supersedes the thermostat set point issue. With a correction in the distribution by end use, the HVAC becomes 28% of total use at the site and the HVAC savings then equal 39% of the HVAC use, while still high, it is considered more reasonable.

Site 04

This site was projected to save 21% of their annual energy use if the recommended measures were implemented and the projected savings were accurate. At this site, the HVAC the highest estimated kWh savings, with over 60% of the estimated savings coming from the three HVAC measures. If all the HVAC measures were installed as modeled, the savings would equal 50% of the HVAC use. As such, the HVAC measures were assessed further.

The largest estimated savings was from installing programmable thermostats in the 26 portables. For each portable, it was assumed that the thermostat setpoints were 75 for cooling and 72 for heating. The HVAC unit was assumed to keep the portable at this temperature as written in the report (i.e., two nights a week the thermostat is not turned off). The write up of the HVAC measures in the report match the reviewed simulation runs. If the setpoint was different across the 26 portables, it is possible that the savings may be less or more than indicated. The second measure reviewed was the change in room temperatures in the portables. The estimated savings for this measure assumed a manual thermostat. If the school were to install programmable thermostats in the portables, the school would see a combination of the savings from the two measures that would most likely be less than the summation of the two measures. Similarly, the final HVAC measure reviewed was the maintenance on the HVAC units. This measure is assumed to save approximately 10% of the use of the HVAC units. This appears reasonable. There was a small spreadsheet error, but this made negligible effect on the savings for the maintenance (e.g., the pumping energy use were counted twice). It is possible that the savings at this site, if the school implemented all the HVAC measures as shown, may be less than indicated in the report.

Site 05

This site was projected to save 38% of their annual energy use if the recommended measures were implemented and the projected savings were accurate. At this site, the HVAC the highest estimated kWh savings, with 68% of the estimated savings coming from the HVAC measures. If all the HVAC measures were installed as modeled, the savings would equal about 71% of the HVAC use. Because these values appeared high, the HVAC measures were assessed further.

The largest savings were from the permanent classroom installation of a programmable thermostat. The computer simulation was modeled as stated in the report. The setpoints were 75 for cooling and 73 for heating. If the school uses different setpoints, there may be high or lower savings than indicated for this measure. The possible savings from changing temperatures was explored next. The computer simulation was reviewed and found to be implemented as indicated in the report. Similar to Site 04, since the model was run with a manual thermostat, if the school incorporates both a programmable thermostat and the change in temperature, there would most likely be less savings seen than the summation of these two measures. It is possible that the savings at this site, if the school implemented all the HVAC measures as shown, may be less than indicated in the report.

The lighting measures were reviewed and found to be straightforward and complete. There are no comments on these measures. If the school installed the T8 fixtures as outlined in the report and the fixtures ran the assumed hours, they will see the estimated savings.

Site 06

This site was projected to save 8% of their annual energy use if the recommended measures were implemented and the projected savings were accurate. At this site, the HVAC the highest estimated kWh savings, with 81% of the estimated savings coming from the HVAC measures. The HVAC measures were assessed further as they constituted the majority of potential savings at the site.

The building simulation was calibrated with monthly utility bills with a total annual consumption different of less than 3%. The monthly simulation and bills were relatively close as well.

There were two buildings modeled, a 2-story main building with packaged HVAC units and a portable with a heat pump HVAC unit. The savings from two simulations that were reviewed matched the value in the audit report. The setpoints moved two degrees warmer for cooling (from 75 to 77 degrees) and two degrees cooler for heating (from 70 to 68 degrees in the portables, but the main building was modeled at three degrees warmer for cooling (from 74 to 77 degrees). If the setpoints originally used in the school were similar to these simulated setpoints, it is likely that the actual savings would be similar to the estimated savings.

Site 07

This site was projected to save 7% of their annual energy use if the recommended measures were implemented and the projected savings were accurate. At this site, the HVAC end use had the highest estimated kWh savings, with 49% of the estimated savings coming from the HVAC measures. Using the energy saving mode for the copy machine added 28% to the estimated savings. These two measures were assessed further as they constituted the majority (77%) of potential savings at the site.

As with Site 06, the building simulation was calibrated with monthly utility bills. This calibration brought the simulation to within 21% of the actual annual consumption. Looking at the monthly kWh use showed the simulation higher than actual in 10 of the 12 months, with the summer months showing as much as 10,000 kWh per month more than actual. This may be an indication of thermostat setpoints being different the in the model than in actuality. As modeled, the cooling setpoint was 70 degrees in the baseline and 73 degrees in the energy efficient measure. However, according to the audit report, there were many portables with setpoints between 68 and 72 degrees. With 31 portables, perhaps the average setpoint may have been higher than modeled.

The second measure reviewed was the savings from using the energy-saving mode for the two copiers in the school. The audit indicated savings of 9,056 kWh if the energy-savings mode was turned on (it was found off in both machines during the audit). The assumption indicated in the audit is that the measure could save about 25% of the use. This would put the annual use of the two copiers at 36,224 kWh or about 8% of the total use in the school. This seemed high and was investigated further. Two articles were found on the internet. BC Hydro showed the average annual consumption of a medium copier at 600 kWh and a large copier at 1,400 kWh. A Lawrence Berkley Lab paper titled “It’s Midnight...Is Your Copier On?” monitored a number of different copiers over time. The annual energy use ranged from 128 kWh to 1,620 kWh. Based on the data from these two articles, the estimate of 9,056 kWh savings from using the energy-savings mode on two copiers is too high by a substantial amount. Again, using the sane two sources, the savings are more likely on the order of 300 kWh to 600 kWh per year.

This school would see less savings than estimated if they implemented these two measures.

Site 08

This site was projected to save 10% of their annual energy use if the recommended measures were implemented and the projected savings were accurate. At this site, the HVAC end use had the highest estimated kWh savings, with 62% of the estimated savings coming from the HVAC measures, which were assessed further.

The building simulation was calibrated with monthly utility bills with a total annual consumption different of less than 6%. The monthly simulation and bills were close as well.

There were eight buildings modeled with packaged single zone units. The savings from two simulations that were reviewed matched the value in the audit report. The setpoints moved two degrees warmer for cooling (from 76 to 78 degrees) and two degrees cooler

for heating (from 72 to 70 degrees in the portables. If the setpoints originally used in the school were similar to these original setpoints, it is likely that the actual savings would be similar to the estimated savings as the calibration for these models was relatively close.

The audit benchmark index appears to be slightly low in the report. According to the data in the report, there are 555 students with an annual energy use of 310,600 kWh. This would put the benchmark value at 560 kWh per student, but the graph appears to show an electricity use index of around 450 kWh per student.

Of note was an indication by the auditor that, retrospectively, the repair of the refrigerated walk-in box was probably too high. The original estimate was based on two doors needing repair, while only one actually needed repair.

Site 09

This site was projected to save 10% of their annual energy use if the recommended measures were implemented and the projected savings were accurate. The total of all the measures was incorrect in Table 1 of the audit report. The total showed 90,247 annual energy savings, but the summation of the measures was actually 65,047 kWh.

At this site, lighting had the highest estimated kWh savings, with 63% of the estimated savings coming from the retrofit of T12 to T8 fixtures. Maintenance on HVAC units added another 25% of the estimates savings. These two measures were studied further.

Calculating the estimated energy use for the lighting end use by the breakdown shown in the report, the lighting retrofit indicates that there would be a savings of approximately 22% of the lighting end use. This seems reasonable with other lighting retrofits. While all the calculation values were not available to the Evaluation Team, there appeared to be around 600 fixtures that would need to be retrofit to obtain the estimated savings. The calculations for this measure appear to be properly performed, although the audit report does not provide enough information to judge whether the number of fixtures to be retrofit is correct.

The savings from cleaning of the HVAC condenser and filter changes were estimated to be 15% of the cooling and heating use based on the calibrated simulation. The calibrated energy use was stated to be within 7% of the billed energy use, with the monthly comparisons being fairly close. By simply looking at the monthly comparison, the model may be slightly lower than actual use, which would mean that savings could be somewhat higher than stated. The actual savings from the implementation of this measure may be lower than estimated only because it was noted that the possible range of savings was 5%-15%, yet the analysis estimated savings at the high end for all units.

Site 10

This site was projected to save 12% of their annual energy use if the recommended measures were implemented and the projected savings were accurate. At this site, lighting had the highest estimated kWh savings, with 42% of the estimated savings coming from the retrofit of T12 to T8 fixtures. Installing a variable speed drive (VSD) on

the pool pump added another 25% of the estimates savings. These two measures were studied further.

Calculating the estimated energy use for the lighting end use by the breakdown shown in the report, the lighting retrofit indicates that there would be a savings of approximately 13% of the lighting end use. This seems reasonable and the calculations for this measure appear to be properly performed.

The VSD pump savings were calculated based on a linear equation provided to the Evaluation Team. The algorithm was stated to be based on two pumps at two sites that had been retrofit and monitored to obtain savings. The CEC report indicating the savings was obtained by the Evaluation Team and reviewed. However, only one site was shown to have had a VSD installed. It is unknown where the data points for the regression were obtained. The one retrofit in the CEC report saved approximately 30 percent of the base energy use when the frequency of the pump was reduced by about half for 8 hours a day. For the pool at this site, the audit report used the same hours of reduction as in the CEC report. However, if the regression is not used, the base use at this site (assuming the 25 hp pump runs 24/7) is 165,554 kWh (25 hp * 0.756 kW/hp * 8760) and 30% of that value would be 49,669 kWh (less than the 61,667 kWh estimated). This site may find that the VFD could be used at different setting for different hours and the savings would be larger or smaller than either value estimated.