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**SPURR Energy Data Online Program**  
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# Section I. Program Overview

## A. Program Concept – Brief Description of Program<sup>1</sup>

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The School Project for Utility Rate Reduction (“SPURR”) is a "joint powers authority"<sup>2</sup> established in 1989, whose membership consists of approximately 200 California public K-12 school districts, county offices of education, and community college districts. Among other services, SPURR aggregates natural gas purchasing for our members and other public agencies at approximately 3,000 facilities in PG&E’s service territory. The proposed SPURR Energy Data Online Program (the “SPURR Program”) will take advantage of the SPURR Team’s existing relationships with school districts, energy consumption and cost data, technology, and expertise to build, maintain, and host a powerful, state-of-the-art Web-based energy accounting database. By expanding an existing and successful pilot project funded in 2002 and 2003 by SPURR itself, the SPURR Program will provide participating districts with powerful tools to increase energy efficiency at their facilities by improving their ability to:

- easily access both their natural gas and electricity use and cost data through the Web;
- generate and share hundreds of powerful reports and graphs with decision-makers and facility managers;
- analyze cost and usage trends in their buildings;
- rank the energy performance of their facilities;
- identify inefficient facilities to target for on-site evaluations and retrofits;
- independently measure and verify savings from energy efficiency programs;
- evaluate the details of utility bills for possible billing errors; and
- document and justify the need for resource conservation management programs.

## B. Program Rationale – Basis and Need for Program

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For almost all California public K-12 school districts and county offices of education (referred to as “Districts” in this proposal), electricity and natural gas costs are the second highest expense in their annual budgets, exceeded only by personnel costs. For most Districts, annual energy expenses are greater than expenses for books, curricula materials, classroom supplies, and field trip expenses combined. Recent increases in energy prices, combined with critical State Budget issues, have only increased the need for Districts to control their energy costs. Every dollar saved by Districts through

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1 This proposal follows the format prescribed in "2004 - 2005 CPUC Energy Efficiency Programs, Instructions for the Submission of Requests for Extension and Submission of New Program Proposals and Plans", published by the CPUC on August 25, 2003.

2 See the Joint Exercise of Powers Act, at California Government Code Sections 6500 et seq.

increased energy efficiency is a dollar that can be used to provide the direct resources needed to educate California's children and young adults.

A number of Districts have established powerful energy accounting databases, often with the help of the SPURR Team proposed for this project. But the vast majority of Districts, perhaps 95%, still do not have such a database or the tools or expertise to establish, maintain, and use one. As there is tremendous value to Districts in having easy access to such a database, the focus of the SPURR Program will be to establish this resource on behalf of participating Districts and train them in making the most of its power.

There are four key reasons this an opportune time for the CPUC to support and fund the SPURR Program:

**1. Energy Accounting is a Key Tool in Managing Energy Usage and Costs**

First, energy accounting is a proven key element in energy management programs. According to the California Energy Commission's publication "Energy Accounting: A Key Tool in Managing Energy Costs"; pub. # 400-00-001B, January 2000, *"Energy accounting is a system to record, analyze and report energy consumption and cost on a regular basis. Just as financial accounting is used for the effective management of an organization, energy accounting is critical to energy management. It can be one of the most cost-effective tools school districts, cities, counties, colleges and other organizations can use to cut energy costs."*

**2. Lack of Access to Energy Accounting Tools**

Second, for the large majority of Districts that lack an energy accounting database, their "tracking system" is typically nothing more than a stack of paper bills or a simple spreadsheet. Districts cannot easily link the information contained in those bills with other information (e.g., facility square footage, facility type, facility usage and local weather data) to help improve the energy efficiency of their facilities. In our experience, creating a powerful energy accounting database and making it available as we propose here will empower Districts to compare the energy performance of their facilities (against other schools in their own District or against benchmarks for comparable schools in Northern California), uncover energy savings opportunities, track the effectiveness of resource conservation plans, distribute resource conservation results effectively to district personnel, negotiate performance contracts more effectively, evaluate the accuracy of their bills, and perform a host of other useful management and conservation functions. Our program will turn mere stacks of paper into powerful, useful tools to accomplish resource conservation management and energy efficiency goals.

**3. Improvements in Web Technologies**

Third, improvements in Web technology have made it possible to broadly deploy the power and effectiveness of an energy accounting database. The SPURR Program will make use of existing, commercially-available Web-enabled energy accounting software to

securely provide hundreds of invoice review and analysis reports to participating Districts. This online data could also be made available to Commission staff and other Commission-funded service providers for benchmarking analyses and evaluation, as appropriate.

#### **4. Successful Pilot Program Completed**

Lastly, in 2002 and 2003, SPURR invested over \$40,000 of its own funds in a successful pilot project under which a Web-based energy accounting database was established for three Bay Area school districts using the same tools, and the same team, as in this proposal. In this “proof-of-concept” pilot project, SPURR worked with medium-sized districts (between 20 and 50 facilities per district) that volunteered to participate. For each pilot project district, we established an energy accounting database for all of their electric and gas accounts (including a two year history), posted the database to provide online reporting capabilities to decision-makers and facility managers, trained representatives of each district in using the online software through a workshop, updated the database for a period of months, and worked with the districts to make the best use of the data now at their fingertips. The successful conclusion of the pilot project made it crystal clear to the SPURR Team that online access to a powerful energy accounting database is tremendously beneficial to Districts and should be expanded to Districts throughout California. Commission support of this expansion under D.03-08-067 would enable us to reach the greatest number of Districts in the shortest amount of time.

The SPURR Program should be evaluated as an information program, rather than a hardware/incentive program.

### **C. Program Objectives – Projected Accomplishments of the Program**

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The SPURR Program focuses on providing services to SPURR member and non-member Districts in the PG&E service territory. The overall objectives of the SPURR Program, which provide the foundation from which more specific Program goals (discussed later) are based, include the following:

- To provide specific energy usage and cost information to a large number of Districts through a large energy accounting database;
- To make this information easily accessible to participating Districts by providing it through secure Internet connections viewable in any standard browser;
- To provide this information using software tools that are already commercially available and with which the Program team has extensive expertise, thus avoiding “re-inventing the wheel” and its considerable associated costs and pitfalls;
- To train participating Districts in using the online software application’s robust set of flexible reporting capabilities to address the needs of key decision makers (Board members and Superintendents in particular) as well as facility managers, maintenance personnel, principals, teachers, and students (as applicable);

- To advise the Districts in regularly using the reports to help develop energy efficiency plans, target under-performing facilities for retrofit improvements, measure usage and cost savings from completed retrofits, provide feedback to incentive programs and energy patrols, and raise awareness of the energy efficiency needs and successes of the Districts; and
- To make District energy use and cost data available to the Commission for use in furthering its energy efficiency goals.

## Section II. Program Process

### A. Program Implementation - Description of Program Elements

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This section describes how the SPURR Team will accomplish the proposed objectives. The following key tasks are described below in detail:

- Construct Energy Accounting Database;
- Maintain Database on a Monthly Basis;
- Complete Database Analyses and District Reporting; and
- Conduct Training Workshops.

At the end of this section we discuss how the SPURR Program will coordinate with other energy programs as well as how the SPURR Program differs from those programs.

#### **Construct Energy Accounting Database**

The primary task of the SPURR Program is to construct and maintain a large energy accounting database (the "Database") for Districts within the PG&E service area that will be available for use on the Web. The Database will contain all the relevant energy billing and facility information from which informative and powerful reports and graphs can be produced for energy management purposes.

For all participating Districts, we will collect basic facility information including facility names, addresses, square footage, and student attendance data. Utility account and meter information will be matched to the facilities served<sup>3</sup>. A two to three year billing history will be obtained for each account from SPURR, PG&E, and other electric and natural gas vendors, if any, and imported into the Database.

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- 3 In this proposal, the term "facility" refers to a single District location or campus, such as a high school or an administrative building. An "account" is an identifier assigned by a utility company to a District facility for a given energy delivery service, either electricity or natural gas. Typically, each account represents one meter, but there is frequently more than one account (or meter) at a given facility. For example, a typical high school facility may have two gas accounts (e.g., main building and swimming pool), and three electric accounts (e.g., main building, swimming pool, and athletic field lights). Our energy accounting database will track energy billings by account number, and that information can be analyzed in the Database either on an account-by-account, facility-by-facility, district-wide, or sub-group basis. Sub-groups can be created in the Database as directed by each District. For example, a District may wish to have data analyzed for "All Elementary Schools", or "All Schools North of Main Street", or on some other sub-group basis.

Billing information will include all usage components of kWh, demand, and therms normally available within the bill data, as well as detailed cost data. We will also enter into the Database historical weather information (in heating degree-day and cooling degree-day format) corresponding to each facility's geographic location. We will verify the internal integrity of the data and have it hosted on a web server.

Through a highly intuitive and powerful Web interface, users of the Database can generate a broad variety of reports and graphs through common browser applications, such as Internet Explorer or Netscape. In other words, participating Districts, RCM program managers, the CPUC, and other authorized energy program practitioners will not need any special software or hardware to access and use the robust features of the Database.

Access to the Database will be on a password-protected basis, with individual District users able to access only the data for their school facilities.

#### **Maintain Database on a Monthly Basis**

After we construct the Database and upload it to the Web server, the SPURR Team will update it monthly with subsequent electricity and natural gas invoice data for the remainder of the SPURR Program period. We will complete updates through both electronic importing and manual data entry, depending on the form in which monthly invoice data is provided by the Districts and/or their utility vendors.

#### **Complete Database Analyses and District Reporting**

After adding each District's information to the Database, an initial set of data analysis reports will be printed and sent to the District. This initial report package will contain a broad sampling of the types of reports and graphs that are available to them over the Web.

The report package will also highlight significant energy use and cost trends pertaining to both the whole District and particular schools. The initial package will also include an assigned user name and password for the District, a printed online software users manual, and a "quick start" instruction sheet for quickly accessing selected key reports online.

Subsequent to each monthly update of billing data into the Database, a billing validation will be run to compare each new utility bill against its billing history. This 15-point check will effectively flag anomalies in usage, demand, and cost that could indicate significant changes in energy consumption at the facility.

The SPURR Team will make Districts aware of any significant changes in energy use at a facility by sending an "energy alert" email along with



an attached graph or report documenting the change. Districts will be encouraged to respond to these “energy alerts”, further investigate the cause of the issue, and resolve conditions that may have caused the problem.

### **Conduct Training Workshops**

We will complete a series of six to eight hands-on training workshops for participating Districts in operating the online software application and getting the most out of the Database. Each workshop will be up to four hours long and will cover critical aspects of the Database reports and graphs that are accessible through the Web.

Workshops will be geographically dispersed in locations convenient to the participating Districts and held in available computer training facilities at district offices or high school computer labs. In order to ensure that all participating Districts have access to some level of training, a two hour live Web conference training will be offered to Districts unable to travel to a workshop due to budget or time constraints.

### **Coordination of Efforts**

The SPURR Program will coordinate efforts with all other CPUC-funded programs targeting public school districts within the PG&E service area. In particular, we will coordinate our efforts with both the School Energy Efficiency Program (SEEP) operated by the California State Consumer Services Agency, and the School Resources Program (SRP) as operated by Pacific Gas & Electric and their collaborative partners.

The SPURR Team recently discussed the SPURR Program with PG&E San Francisco General Office staff. Due to the short amount of time available to prepare SPURR’s proposal and due to PG&E’s internal deadlines and workload in preparing their own proposals, the SPURR Team was not able to make a formal presentation to PG&E regarding coordination of our respective programs. However, PG&E staff did indicate that an energy accounting database of the sort proposed in the SPURR Program would, if executed properly, complement and enhance PG&E’s own energy efficiency programs targeted at schools.

Both the SEEP and SRP programs and the Districts within the PG&E service area that are participating in these programs will be provided marketing materials on the SPURR Program. The Districts will be invited to participate and provide the SPURR Team access to their energy use and cost data. Participating Districts will have a means of determining the success of their conservation efforts as well as access to powerful energy reports and graphs that can be used by personnel throughout the District.

**Difference from Existing Programs**

While both the SEEP and SRP programs currently offer Resource Conservation Manager (RCM) services to schools, there does not appear to be a strong energy accounting component in either program. For example, both programs plan on some level of benchmarking facility energy usage in order to target energy saving efforts, but these efforts do not appear to provide the Districts themselves with a comprehensive tool for tracking and reporting their own progress in saving energy.

Moreover, there is no component to provide easy Web-based access to this energy information broadly across the school community – including interested principals, teachers, maintenance staff, and students. The easy and broad access to energy information cannot only help districts target inefficient facilities for retrofit efforts, it is particularly crucial to the success of behavioral-based RCM efforts such as school incentive programs and student energy patrols that depend on regular positive feedback and enthusiasm to achieve results.

## **B. Marketing Plan – Description of Planned Marketing Materials**

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Marketing will be completed through direct mail, e-mail, print advertisements, personal visits, and telephone calls, as well as through online demonstrations of the energy accounting database.

**Direct Mail, E-Mail, Print Ads, Personal Visits, and Telephone Calls**

A SPURR Program brochure will be designed and produced. We plan on printing 2,000 copies of the brochure. The brochure will be mailed at least twice to approximately 500 contacts at 250 targeted Districts, together with a cover letter and response card. The targeted Districts will consist of SPURR member and non-member Districts.<sup>4</sup>

The first program mailing will be followed by telephone calls to all targeted Districts by the SPURR Team and by a second brochure mailing about six weeks after the first round of mailings.

Additional brochures will be distributed by the SPURR Team in meetings with Districts. Some Districts may require that SPURR staff attend District governing board meetings in order to approve their participation in the SPURR Program.

Electronic versions of the brochure and cover letter will also be distributed by e-mail to our existing distribution lists.

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4 Membership in the SPURR JPA *is not* a requirement for participation in the SPURR Program.

Information on the SPURR Program will also be included in regular SPURR member communications and in communications to Districts through other school district organizations or membership groups.

Print ads will be placed in school publications, such as the CASBO Journal.

**Online Demonstrations**

Interested Districts will be able to sample the powerful features of the Database software through guided online demonstrations conducted by the SPURR Team. Also, via a special page on the SPURR Web site, interested Districts will have the ability to complete a self-guided tour of the software and the SPURR Program.

The projected cost of the SPURR Program marketing effort, including all aspects of managing, designing, and delivering direct mail, e-mail contacts, print ads, personal visits (as required), telephone calls, and online demonstrations is \$113,475.

## **C. Customer Enrollment – Process for Customer Enrollment**

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Customer enrollment will consist primarily of District execution of two documents:

**Letter of Participation**

First, each participating District will sign a letter that expresses the District's desire to participate in the SPURR Program and consents to the use of the District's electricity and natural gas account information by SPURR, the Commission, and other Commission-funded providers, all subject to appropriate confidentiality constraints.

**Letter of Authorization**

Second, each participating District will execute a standard California utility company "Authorization to Receive Customer Information" to authorize PG&E to provide historical and ongoing electricity and natural gas account information through the duration of the SPURR Program to the SPURR Team. The authorization document will be delivered to appropriate PG&E personnel.

Also, participating Districts will assist SPURR in obtaining current facility-related information (facility names, addresses, square footage, and ADA data) for all of their facilities.

## **D. Materials**

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The Database will be built and housed using The Utility Manager software published by Save More Resources (SMR) of Grand Junction, Colorado. Web-based access to the Database and powerful reports and graphs will be delivered through Utility Manager Online, a Web-based reporting add-on to Utility Manager. These software tools were selected for a number of important reasons:

- Using a commercially-available application rather than building one from scratch allows the SPURR Team to roll out services to Districts very quickly and avoid "re-inventing the wheel" and its considerable associated costs and pitfalls;

- Based on a review of the recent CPUC-funded report ("*Utility Management Software: Survey and Evaluation for Regional Energy Authorities*") that evaluated various software tools for energy and utility accounting, the Utility Manager is both cost-effective and best-suited to the demands of the SPURR Program;
- SPURR already owns a license for the software application, because SPURR used both Utility Manager and Utility Manager Online for its three district pilot project; and
- Only Utility Manager provides SPURR the ability to own the software, maintain and update the database on our computers, and give access to the database's reporting capabilities through the Web to participating Districts.

As part of the SPURR Program, SPURR's current license to use the Utility Manager software (on an MS Access platform) will be upgraded to the Utility Manager Server version that uses a SQL database platform. The Server version will provide the additional capacity and multi-user capabilities necessary to maintain a database of this size and scale.

The Utility Manager is currently used by a number of California school districts, cities, counties, and other public agencies. The software's intuitive interface, bill validation features, and well designed invoice review and analysis reports have made it the preferred energy and utility accounting software package among many public agencies throughout the United States.

Utility Manager Online reports are generally grouped into three areas:

- Setup Reports;
- Invoice Review Reports; and
- Analysis Reports

Setup reports provide a quick reference of included facilities, their associated utility account and meter numbers, and how facilities are assigned into reporting groups.

Invoice Review Reports allow users to view or print a complete bill history on any account, detect existing gaps in the billing history, spot missing bills, and run an extensive billing audit on accounts to locate usage and cost anomalies.

The Analysis Reports offer dozens of different ranking and historical reports and graphs, all of which may be viewed on multiple levels for any user-selected time period. For example, a two-year line graph comparing this year's kWh usage to last year's usage could be viewed for a single high school, all high schools within a District, all high schools within a geographic region, or all high schools in the Program Database. Pie graphs can be viewed that compare electric and gas energy consumption versus their relative costs. Facility comparison reports and graphs are also available that rank facilities based on the common parameters of energy cost per square foot, energy use per square foot, energy use per square foot per heating degree-day, energy use per student, etc. Other reports provide avoided cost savings per facility as compared to a specified comparison year, corrected for weather and square footage changes.

For illustrative purposes, a sample of typical UM Online reports are presented in Appendix A (only in printed copy of the proposal; not in email submission).

## **E. Payment of Incentives – Process for Payment of Incentives**

Not applicable.

## **F. Staff and Subcontractor Responsibilities – Proposed Staffing Structure**

The Prime Contractor will be SPURR and its current staff, supplemented by hiring as necessary to implement the SPURR Program. General information about SPURR is available at <http://www.spurr.org>.

SPURR's key subcontractor will be Utility Management Services ("UMS").

SPURR and UMS will share responsibility for many aspects of the SPURR Program. SPURR will be primarily responsible for the following elements of the SPURR Program:

- Marketing;
- Enrollment and District welcome packets;
- Planning of District training workshops;
- Manual data entry after initial enrollment;
- Customer service (Level One) and complaint resolution;
- Distribution of reports and analyses;
- Follow up on analytical recommendations;
- Annual and Quarterly Reports to the Commission; and
- Subcontractor oversight.

UMS will be primarily responsible for the following elements of the SPURR Program:

- Database construction and maintenance;
- Data entry and data importing upon initial enrollment;
- Conducting District training workshops;
- Interaction with PG&E (to obtain District electricity account data);
- Customer Service (Level Two);
- Enabling user access to the Database via the Web and providing password protection;
- Development of reports and analyses;
- Production of reports and analyses; and
- Coordination with other Commission-funded programs.

## G. Work Plan and Timeline for Program Implementation

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The “Implementation Date” will be the date on which all Commission prerequisites for SPURR Program implementation, such as contract execution, have been completed. Our timeline starts on that date, in accordance with Commission practice.

The work plan and timeline for Program implementation are provided below:

<b>Milestone Description</b>	<b>Months After Implementation Date</b>
Execute Contract with Commission	0
Select Evaluation Subcontractor	0 to 2
Develop and Produce Marketing Materials	0 to 2
Distribute Marketing Materials	3 to 4
Conduct Target District Outreach	3 to 12
Enroll Districts, collect site info, square footage and ADA data	3 to 12
Construct Database (ongoing for new enrolled accounts)	3 to 12
Enable District Access to Database through Web	4 and ongoing
Conduct Training Workshops and Online Tutorials	4 and ongoing
Produce and Distribute Reports and Analyses	4 and ongoing
Follow Up on Reports and Analyses	4 and ongoing
Provide Progress Reports to the Commission (quarterly and annual reports)	4 and ongoing
Produce Program Evaluation Reports (by EM&V Subcontractor)	End of Program

## Section III. Customer Description

### A. Customer Description – Customers Targeted By Program

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This section provides an overview of the customers targeted by the SPURR Program, reviews the estimated size of the target market, focuses particularly on hard-to-reach customers, and identifies the advantages of SPURR in reaching the proposed target market.

#### Overview

The SPURR Program will target California public K-12 school districts and county offices of education (called "Districts" in this proposal) located in PG&E's natural gas or electricity service territory. Of the approximately 1,000 Districts in California, we estimate that at least 300 Districts are in this targeted area. SPURR has existing relationships with approximately 150 of these Districts in PG&E territory through participation in our gas aggregation program<sup>5</sup>.

Our target is to obtain the affirmative support and participation of between 50 and 125 Districts in our Program. The Districts are expected to vary in size and encompass up to 3,300 electricity and 1,700 natural gas accounts (a total of 5,000 accounts).

#### Size of Target Market

Precisely assessing the size of the target market in terms of energy consumed is difficult because, as in the case of all nonresidential accounts, it is impossible to predict per-account-consumption until we have the historical data in hand. However, the SPURR Team does have extensive historical data on the SPURR gas aggregation as a whole and has significant experience with school electric consumption data in general.

On that basis, a reasonable projection of average natural gas consumption per District account is approximately 10,000 therms per year. If the SPURR Program reaches our budgeted enrollment of 1,700 natural gas accounts, then total SPURR Program natural gas consumption should be in the range of 17 million therms per year. A reasonable projection of average electricity consumption per District account is approximately 125,000 kWh per year. If the Program reaches our target enrollment of 3,300 electric accounts, then total SPURR Program electricity consumption should be in the range of 412 million kWh per year.

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<sup>5</sup> Although SPURR serves a number of other public agencies, such as community college districts, University of California and California State University campuses, and local governments in our natural gas aggregation program, this proposal is targeted specifically at K-12 school districts and county offices of education.

Projected combined expenditures for energy for these accounts would be about \$180 million for the two year program period at today's rates.

**Hard-to-Reach Customers**

Portions of the target market are hard-to-reach due to "Business Size" and "Geography" (according to Commission definitions) and will be targeted in the SPURR Program.

We will target Districts throughout the entire PG&E service territory, including Districts located outside of the San Francisco Bay Area or Sacramento, which consequently are classified as hard-to-reach. (There are about 85 Districts currently in SPURR's gas aggregation program that are hard-to-reach on a "Geographic" basis.)

We will target districts of all sizes, including those whose annual natural gas consumption is less than 10,000 therms per year, which are classified as "very small nonresidential" hard-to-reach customers. (There are 15 Districts currently in SPURR's gas aggregation program that are hard-to-reach on a "Business Size" basis.)

**SPURR's Advantages in Serving the Target Market**

Aside from specific hard-to-reach characteristics as defined by the Commission, there are other reasons why the SPURR Program is particularly well-suited to the needs of our target market. Districts in PG&E's service territory (and around the entire State) are under considerable budgetary pressure today. In many cases, particularly with respect to the smaller Districts, they cannot afford to have an on-staff energy manager. In other cases, they have had to eliminate energy manager positions.

In our experience, Districts generally have less energy management expertise on staff than they would like. As a consequence, they are more likely to accept and work with a familiar and trusted agency such as SPURR.

The advantages of SPURR in serving this market segment, compared to other service providers are as follows:

- Many of the targeted Districts already have an existing contractual relationship with SPURR to provide gas aggregation services;
- We already have crucial historical billing information (therm usage and charges) for all natural gas accounts in our SPURR aggregation system;
- We have an extensive database of District energy management personnel, including name, title and mailing addresses, for both SPURR member and non-member Districts;
- We are a well-known and trusted energy adviser, due to our track record since 1989;



- We are a co-operative made up of, and governed by, our member Districts; and
- We completed a successful pilot project using the same tools, and the same Team, for three Districts in 2002 and 2003.

## **B. Customer Eligibility – Customers Entitled to Participate**

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Public K - 12 school districts and county offices of education located in the PG&E service territory are eligible to participate in the SPURR Program. (As stated above, membership in the SPURR JPA is not a requirement for participation in the SPURR Program. However, if they choose, all Districts are welcome to join SPURR through a resolution of their governing boards and membership is free.)

## **C. Customer Complaint Resolution – Procedures for Customers**

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SPURR currently operates a toll-free customer service telephone line for its natural gas program (888-400-2455). The line is staffed during normal business hours, 8:00 am through 5:00 pm Pacific Time, Monday through Friday.

Staff for SPURR's existing customer service line will be trained to handle "Level One" (basic issues) customer service calls or complaints related to the SPURR Program. SPURR staff already are trained and experienced in handling customer service and complaint calls related to natural gas procurement, invoicing, and other utility issues.

Customer service or complaint calls that rise to "Level Two" (complex issues) will be referred immediately either to UMS (regarding Database issues) or to the SPURR Managing Director (for all other issues).

Both SPURR and UMS have e-mail information addresses that will be published in SPURR Program materials: [info@spurr.org](mailto:info@spurr.org) and [info@utilityaccounting.com](mailto:info@utilityaccounting.com). Both organizations are very experienced in resolving customer service and complaint issues by e-mail as well as by telephone.

## **D. Geographic Area – Description of Targeted Geographic Area**

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The targeted geographic area is the entire PG&E service territory.

## Section IV. Measure & Activity Descriptions

### A. Energy Savings Assumptions

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For the informational program being proposed, it is impossible to accurately project energy savings. Indeed, it is not the energy accounting database and access to the reports and graphs themselves that saves energy, but rather the energy management efforts that are empowered and encouraged as a result of the information. Easy access to energy usage and cost information and reports will contribute to energy savings in the following manner:

#### **Better Targeting of Retrofits**

Accurate ranking reports based on such indicators as kBTU per square foot, kWh per square foot, therms per square foot, kBTU per square foot per Heating Degree Day, and kBTU per student within school districts will help target audit and retrofit efforts in schools that can produce the greatest energy savings. When equipment retrofits are undertaken, there will be a powerful independent tool already in place to measure weather corrected avoided cost savings.

#### **Support for Behavioral Programs**

Behavioral based programs such as school incentives, energy patrols, and energy curricula are far more robust and successful when direct feedback is provided to the school staff, teachers, and students who are participating in these efforts. For example, a school environmental club may wish to directly monitor their school's progress at reducing energy use. If approved by their District, they would be able to print and distribute high quality color graphs of their school's energy performance using only their school's Internet connection. With the direct feedback that access to energy information provides, a new "energy saving attitude" is possible within the schools that would otherwise be difficult to achieve.

#### **Energy Cost Savings**

SPURR's experience with operating an energy accounting service is that significant energy cost savings can be achieved during the routine process of monthly database updating and validation of new billing data. For example, during SPURR's operation of the three-district pilot project, two distinct billing errors were found from different school districts that totaled approximately \$36,000. In both cases, these bills had already been processed and paid by the districts. While finding such errors doesn't save energy per se, in the current fiscal environment such cost savings alone represent a huge benefit to the affected districts. While it is not possible to predict the level at which the SPURR Program will identify significant billing errors, our experience has been that they do occasionally occur and that bills need to be closely monitored as a result. Participating Districts will reap 100% of the benefit of potential refunds from such billing errors.

## **B. Deviations in Standard Cost-effectiveness Values**

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As an informational program, the cost-effectiveness variables described in the Energy Efficiency Policy Manual are not applicable.

## **C. Rebate Amounts**

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The Program contains no proposed rebate amounts.

## **D. Activities Descriptions**

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As stated above, the SPURR Program is an information program and the Program activities described above (Construct Energy Accounting Database, Maintain Database on a Monthly Basis, Complete Database Analyses and Reporting, and Conduct Training Workshops) will not, in and of themselves, produce measurable energy savings. However, participation in the Program is, in fact, expected to lead to energy savings by providing a springboard from which Districts can better target inefficient facilities and launch retrofit and other energy management efforts.

## Section V. Goals

The overriding objectives of the SPURR Energy Data Online Program are discussed in Section I. However, the more specifically defined performance goals of the SPURR Program are as follows:

- Obtain the participation of between 50 and 125 Districts, as confirmed by written authorization from each participating District. Based on this target participation, we have budgeted resources to handle up to 1,700 natural gas and 3,300 electricity service accounts (a total of 5,000 accounts).
- Build an energy accounting database (the “Database”) for all participating District energy accounts, including detailed facility and vendor information, a two-year history of billings, square footage information, average daily attendance (“ADA”) information, and weather station data.
- Establish secure, password-protected Database reporting capabilities on the Web.
- Conduct six to eight regional workshops to provide training to participating Districts in effectively generating and using the plethora of reports available to them through the online Database.
- Maintain the Database on behalf of participating Districts through the end of the Program period.
- Produce and distribute analytical reports and provide support to participating Districts to improve their ability to manage the energy performance of their facilities.
- Complement the efforts of existing Commission-funded energy efficiency programs targeted at participating Districts.

As an information program, the SPURR Energy Data Online Program does not contain energy and peak demand savings goals itself. However, such savings are expected because the use of energy accounting data by school districts typically does, in fact, help them better target the facilities on which to spend their limited resources for retrofit efforts.

## Section VI. Program Evaluation, Measurement and Verification

The SPURR Program should be evaluated as an information program, rather than a hardware/incentive program.

As an information program, the SPURR Program includes an evaluation plan but, according to the Commission's Energy Efficiency Policy Manual (Version 2), does not require the measurement and verification components. The evaluation plan seeks to:

- provide ongoing feedback, and corrective and constructive guidance regarding the implementation of the program;
- assess the overall levels of performance and success of the program; and
- help assess whether there is a continuing need for the program after its conclusion.

We have included \$50,000 in our proposed budget to complete the Program evaluation through an approved CPUC evaluation subcontractor. At this time we have not chosen a specific evaluation subcontractor, but will do so as one of our first tasks should our Program be selected for funding.

The methodology proposed for evaluation consists of information surveys of participating Districts, as well as the collection of relevant statistics concerning the Program.

Two types of information surveys will be completed:

### **Written Surveys**

At the conclusion of each training workshop, participants will be required to complete a written survey which will assess their overall opinion of the value of the workshop, specific parts of the workshop they enjoyed most, anticipated uses of the information and skills gained in the workshop, and suggestions for improvements for future workshops. The SPURR Team will respond to comments from the written surveys by incorporating constructive suggestions into the next planned workshop. The cumulative results of these surveys will be included in our quarterly reports.

### **Telephone Surveys**

At the end of each of the two program years, Districts will be asked to participate in a telephone survey to assess their sense of the value of the Program as a whole and their participation in the Program in particular. The Districts will be queried as to the extent of their use of the online application, and whether reports and graphs enhance their abilities to improve their facility energy efficiency by helping them target facilities for retrofit efforts or behavioral modifications. Furthermore, the Districts will be asked how the Program can make mid-stream improvements to better address their needs for solidifying their energy management efforts.

In addition, other statistics will be gathered about District participation in the Program such as the number of logins, number of phone inquiries, number of District attendees at workshops, number of modifications made to user settings, and so on. These statistics, along with the survey data, may help point to Districts that are actively engaged in using the online application as a key tool in their continuing efforts to improve facility efficiency. The telephone surveys can also help to point to the “best practices” of such Districts that can be shared with other participants.

As mentioned previously in this proposal, measurable and sustainable energy savings and peak load reductions are not expected as a direct result of Districts participating in the SPURR Program per se - the software, the workshops, and the reports do not, in and of themselves, save energy. However, the use of energy accounting data by school districts typically does, in fact, provide a springboard to such savings by helping them better target the facilities on which to spend their limited resources for retrofit efforts.

Moreover, having an energy accounting system allows school districts and others to independently verify the savings estimates provided by installation contractors and equipment vendors. Key data for calculating savings (e.g., cost and usage data, weather data, square footage data, rate information, etc.) are stored in the energy accounting database and standard regression methodology for calculating savings is part of the software functionality. As a result, the Database **can** measure the savings after a District has started participating in the Program as compared to before their participation began.

While measuring savings in this manner is not currently part of the proposed evaluation plan because the Program is an Information-Only Program, it could be added to the Program scope of work if the Commission desires. Alternatively, such data can be made available to both the Commission and its EM&V consultants, if desired, for such calculations to be made.

## Section VII. Qualifications

### **A. Primary Implementer – Experience Managing Similar Programs**

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The School Project for Utility Rate Reduction (SPURR) is the primary implementer of the proposed program.

Founded in 1989, SPURR is a California “joint powers authority” with over 200 member public K - 12 school districts, community college districts, and county offices of education. SPURR operates innovative group purchasing, risk management, and financing programs serving its member districts and other public agencies, including universities, cities, counties, and departments of California State government.

SPURR is governed by a nine-member board of directors, all of whom are full-time employees of California public K - 12 school districts, community college districts, or county offices of education.

SPURR’s largest program is a natural gas “core aggregation” program on the Pacific Gas & Electric Company distribution system. The SPURR aggregation is the largest such program (by gas volume) on the PG&E system. The aggregation program consumes approximately 30 million therms of gas per year. SPURR is responsible for all facets of natural gas acquisition, scheduling, billing, and collections, as well as all related customer service, utility interaction, finance, and accounting functions.

SPURR has also offered other programs for utilities services, including electric power, advanced metering and billing services, noncore natural gas acquisition, water conservation services, telecommunications services, propane, diesel, and engineering services.

In 2002 and 2003, SPURR invested \$40,000 in the SPURR pilot project described above with three of its member school districts, Berkeley Unified School District, Milpitas Unified School District, and Pajaro Valley Unified School District. It is this successful pilot which we hope to expand as a result of this proposal.

### **B. Subcontractors - Experience Managing Similar Programs**

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Utility Management Services (UMS) will be the key subcontractor on the SPURR team. UMS has extensive experience in California both in terms of building, maintaining, and supporting energy accounting databases as well as in working with school districts on utility accounting and other utility management issues. Since 1982, UMS has managed 19 contracts with the State of California (17 with the California Energy Extension Service and 2 with the California Energy Commission). Nearly all of these contracts have incorporated utility accounting and the majority of the contracts focused on providing services to school districts.

In 1984, UMS was hired by the State of California to do the first review of competing energy accounting software packages. As part of this project, UMS wrote “Tracking Utility Costs by Microcomputer: A Guide to Software for Local Governments and Schools”. Since that time, UMS has unmatched experience in working with public agencies and businesses to use utility accounting software tools to better target and measure the success of their energy efficiency improvements.

UMS worked with SPURR previously in building the energy accounting database used in the three-district pilot project discussed earlier, as well as in maintaining the online database monthly during the project.

UMS has built literally hundreds of utility accounting systems for school districts, local governments, and businesses both in California and throughout the U.S. For example, a small sampling of the customers for whom we built utility accounting systems includes:

<b>School Districts</b>	<b>Local Governments</b>	<b>Businesses</b>
Pleasanton USD	County of Fresno	Wal-mart
Livermore Valley JUSD	County of Contra Costa	Kmart
Riverside USD	County of Alameda	Sears
Baltimore City Schools	County of Sonoma	Fred Meyer

Additional information about UMS’s experience in building utility accounting systems can be found at <http://www.utilityaccounting.com>.

UMS also has extensive experience working directly with California school districts to improve their utility management efforts. Under contract with the State of California, UMS established and operated the East Bay Schools Energy Fitness Center for 5 years. Under a similar contract, UMS also established and ran the Sacramento Valley Schools Energy Fitness Center for 3 years. Under both Energy Fitness programs, UMS worked with 55 Northern California school districts. In addition to setting up utility accounting systems with participating districts, UMS also:

- developed District-wide energy management plans;
- performed facility energy audits;
- completed lighting surveys and inventories;
- installed energy efficient lighting technology for demonstration purposes;
- conducted operations & maintenance surveys;
- provided oversight for boiler efficiency surveys,
- reviewed vendor bids and proposals;
- coordinated retrofit installations;
- conducted training workshops for teachers;
- provided training workshops for facilities and maintenance personnel;
- established student energy patrols; and
- established energy incentive programs.

The in-depth experience gained by UMS in both these long term programs will prove invaluable for the SPURR Program. This is the case in terms of UMS’s experience in directly working with school districts to improve energy efficiency in school facilities as well as in understanding the different motivations, responsibilities, and capabilities of School District Boards, Superintendents, Directors of



Maintenance, Principals, and Teachers. People in ALL these roles can have an impact on energy use and savings.

## **C. Resumes or Description of Experience – Management Positions**

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### **Michael Rochman, SPURR Managing Director**

Mr. Rochman is responsible for the operation and development of SPURR programs as well as for representation of SPURR in utility restructuring negotiations with the major California utilities, in proceedings before the California Public Utilities Commission, and in hearings before the California Legislature.

Prior to joining SPURR in 1998, Mr. Rochman practiced business transactions law for ten years in San Francisco. Mr. Rochman holds an AB with High Distinction from the University of Michigan, Ann Arbor, and a JD from the University of California, Berkeley (Boalt Hall).

### **Ken Egel, Partner, Utility Management Services**

Mr. Egel has a 26-year professional background in energy program design, management, and evaluation. He has been the owner of Utility Management Services for 21 years. He has been the manager of over 50 contracts for state and local governments, utility companies, school districts, and private organizations.

Mr. Egel has a Master of Science degree from the University of Pennsylvania in Energy Management and Policy. He also has a Bachelor of Science degree from the University of California at Berkeley in Conservation of Natural Resources.

In addition to managing the School Energy Fitness Center projects mentioned above, Mr. Egel managed more than a dozen other projects for the State of California that variously focused on improving energy efficiency for local governments, small businesses, nonprofit multifamily senior housing organizations, and others. Every project was completed on schedule and on budget, with high quality deliverables.

Mr. Egel was the manager of a \$40 million energy conservation project for a consortium of public utility companies in Washington State. He also managed energy projects for the City of Santa Monica and the City of Philadelphia. For the former of these City projects, Mr. Egel received a National Award for Energy Innovation from the US Department of Energy as well as a State Award for Energy Innovation from the California Energy Commission.

Mr. Egel has extensive experience in building, maintaining, and providing training and technical support for energy accounting databases. He also has expertise in Electronic Data Interchange (EDI) utility billings and their use with energy accounting databases.

**John Cook, Partner, Utility Management Services**

Mr Cook has 24 years of experience in energy policy, program design, and implementation. He has been the co-owner of Utility Management Services with Ken Egel since 1996. Mr. Cook has a BA degree in Environmental Studies from San Jose State University and a BA degree in Mathematics from the University of Illinois.

Prior to joining Utility Management Services in 1984, Mr. Cook was an energy policy specialist for the State SolarCal Local Government Commission as part of the Governor's SolarCal Council. In this capacity Mr. Cook directly participated in the drafting and implementation of groundbreaking energy policy and local ordinance initiatives throughout California.

Mr. Cook has also served on the staff of the San Francisco PUC's Bureau of Energy Conservation and in that capacity conducted energy audits and design review for San Francisco's existing public buildings and renovations.

Mr. Cook has been an integral part of all Utility Management Services accomplishments over the last 19 years and has extensive experience in building, maintaining, and providing technical support for energy accounting databases.

## Section VIII. Budget

The entire budget of the SPURR Program is an “information program element (as described in D.03-08-067)”.

A summary budget table for the SPURR Program is as follows<sup>6</sup>:

Category	Amount
Administration/Program Management/Overhead	\$306,952
Marketing/Advertising/Outreach	\$113,475
Direct Implementation	\$683,523
Evaluation, Measurement and Verification	\$78,920
<b>Total Budget</b>	<b>\$1,182,870</b>

To place the proposed Budget in context, please note that the target market segment of Districts probably consumes approximately 17 million therms per year and 412 million kWh per year. At current rates (assuming 90 cents per therm and 18 cents per kWh on a delivered basis), that level of energy consumption will cost the Districts about \$179 million over two years.

In other words, the total proposed SPURR Program Budget represents less than 0.7% of total District energy expenditures over the period. Given the complete, robust energy accounting database that will be constructed, the broad way in which it will be deployed over the Web, and the length of time the Program will provide services to Districts, this is a very modest cost relative to potential savings and other benefits.

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6 A major element of our proposed Program, the direct labor involved in constructing and maintaining an energy accounting database, did not closely match any of the existing Budget Item categories in the budget workbook. Consequently, the existing Direct Implementation budget categories of “Labor - Customer Education and Training” and “Subcontractor - Customer Education and Training” were used for all direct labor costs associated with construction and monthly maintenance of the energy accounting database, customer technical support, and all proposed customer training. In addition, the Web hosting fees, also a significant cost due to the length of the Program and the size of the Database, were allocated to the Administrative/Program Management/Overhead category.