Standard
Performance
Contract

Section 4:
Software Instructions

This section explains how to use the SPC 2009 software, which is available for download or upon request at www.sce.com/spc. The tool contains a custom, software application — designed for Windows-compatible computers — that facilitate completion of the SPC application forms, and energy savings calculations. The tool also contains the *2009 SPC Program Procedures Manual* and forms in pdf format.

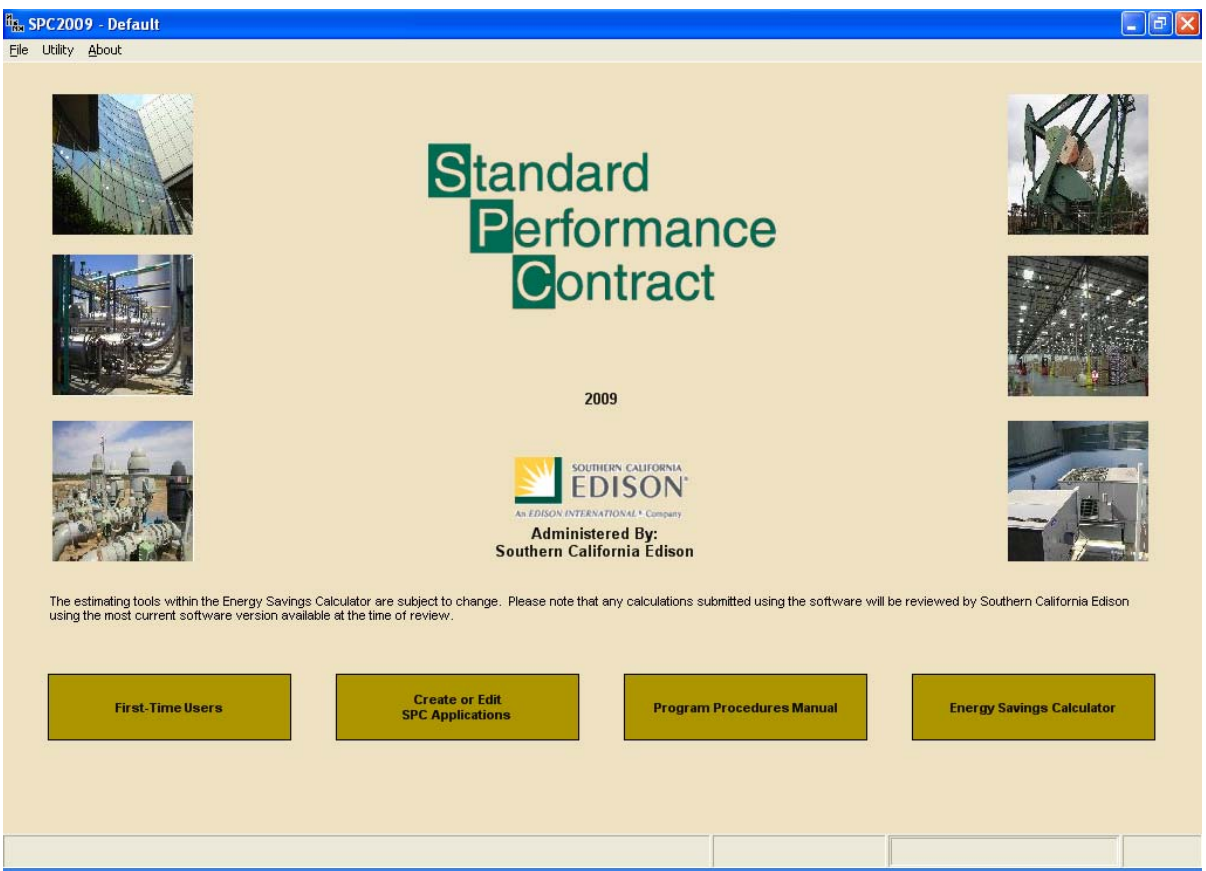
4.1 Software Package Overview

The SPC 2009 Software is a custom, software application package designed to simplify and facilitate completion of the required forms for California's 2009 statewide SPC program. The software employs assumptions or other stipulations that are specific to the program. Use of this software package for any other purpose is not recommended.

The SPC 2009 Software includes a series of data input screens allowing applicants to complete each report electronically. By stepping through the screens you systematically enter the necessary data and generate the desired submittal document(s).

From the main screen click one of the four buttons listed across the bottom of the screen:

- **First-Time Users.** This handy guide features screen samples designed to quickly orient the user to the software.
- **Create or Edit SPC Application.** Click this button to fill out an Application—or an Installation Report or an Operating Report.
- **Program Procedures Manual.** The entire *2009 SPC Procedures Manual* is viewable as PDF files.
- **Energy Savings Calculator.** Click this button to access the estimation software tools for determining the expected energy savings from your project. The output from this tool can be saved as a stand-alone measure or can be imported into a new Application.



4.2 SPC 2009 Software Installation

The SPC 2009 Software is available at www.sce.com/spc.

As updates and upgrades are added to the software they are posted on the website. Once the program is loaded on your computer and if you have an established internet connection, it will automatically check to see if updates are available. If the version is not current, a message will direct the user to install the update as explained in section 4.2.3.

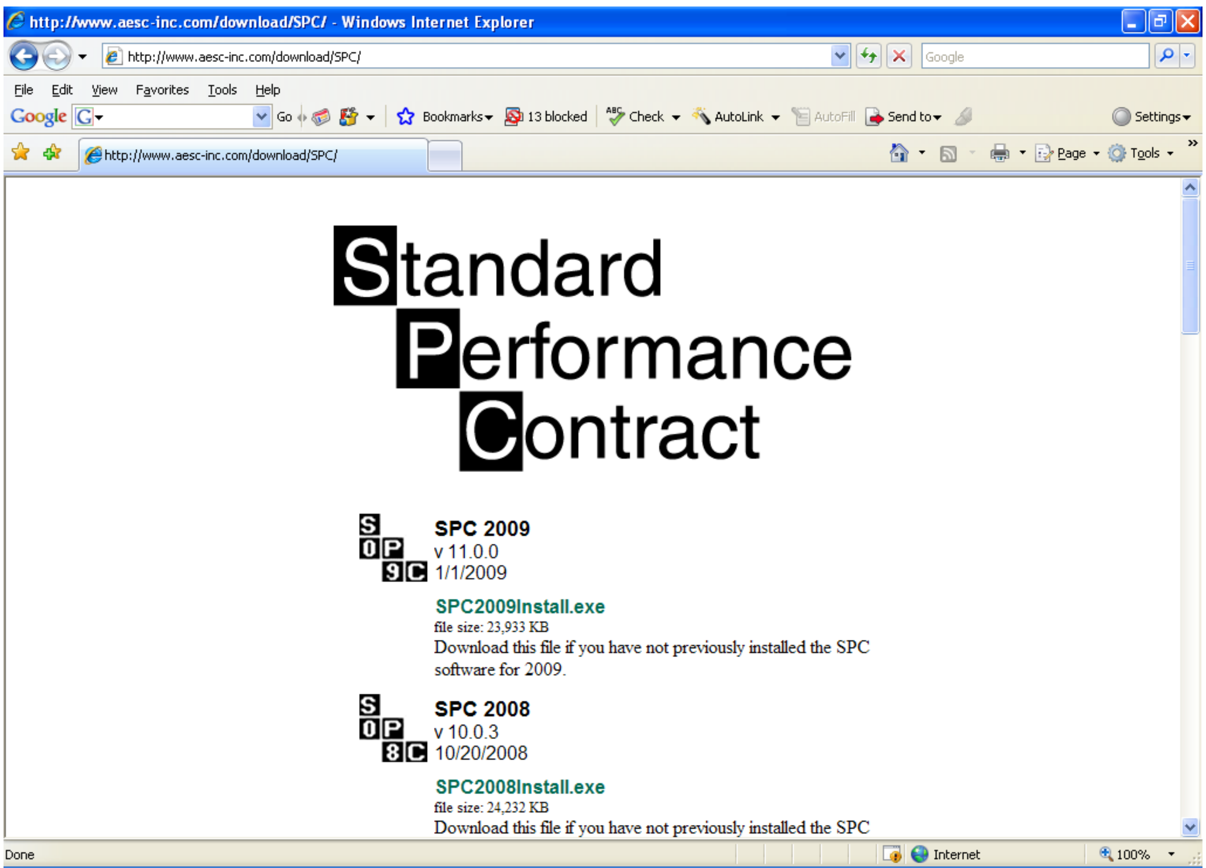
4.2.1 SPC 2009 Update Self-Extracting Zip File Installation

Updates to the SPC 2009 Software are provided in a self-extracting zip file named *SPC 2009 Update.exe* at www.sce.com/spc .

Step 1. Go to www.sce.com/spc and click on "manuals and forms." Locate and click on the SPC CD icon.

Step 2. Double-click the *SPC 2009 Update.exe* link and a window will display the message as indicated in the screen shot below. Select "open" and the installation update will begin.

Step 3. Follow the directions provided by the set-up software to complete the installation.



4.2.2 Transferring SPC 2009 Software to a New Computer

In the current release, the SPC 2009 Software maintains one database file per program year to store all inputs necessary for submittal. To preserve any previous work when transferring information to a new computer, follow the steps below:

Step 1. After installing the SPC 2009 Software on the new computer copy the SPC 2009 database file to the directory of the new machine that contains the SPC 2009 Software. This database file, *SPC 2009.mdb*, is located in the same directory as the SPC 2009 Software. (For a default, installation, this directory will be *C:\Program Files\SPC 2009.*)

Step 2. Follow the instructions for installing the SPC 2009 Software from CD (see Section 4.2.1), ensuring that you define the location of the SPC 2009 Software to coincide with the location of the *SPC 2009.mdb* file that you just transferred in Step 1.

It is important to remember that a single database is used to store all information for each program year. *Therefore it is recommended that a single computer be used for entering and maintaining information for the SPC 2009 Software.*

4.3 Basic SPC 2009 Software Concepts

This section describes how to start and exit the software Application, and provides information on saving and printing your work.

4.3.1 Starting the Software

Double-click on the short-cut to start the software Application. If you did not install a shortcut, then do the following:

1. Click the *Start* button, located on the lower left corner of your screen, to bring up the Windows start menu.
2. Move the cursor to the *Programs* selection to bring up the list of installed program groups.
3. Move the cursor to the program group where the SPC 2009 Software Application was installed. (If you used the default settings during installation this will be *SPC 2009*.)
4. The SPC 2009 program icon should appear to the right of the program group. Click on this icon to start the software Application.

4.3.2 Saving Your Work

The SPC 2009 Software Application uses two embedded databases during normal operation. A working database is used to temporarily record Project inputs during a data entry session. Temporary storage allows you to make many changes without affecting the data that will be ultimately submitted. When you click the *Save* button located at the bottom of an input screen, you save the inputs to a “permanent” database, i.e., the permanent database is updated using the current values from the temporary database.

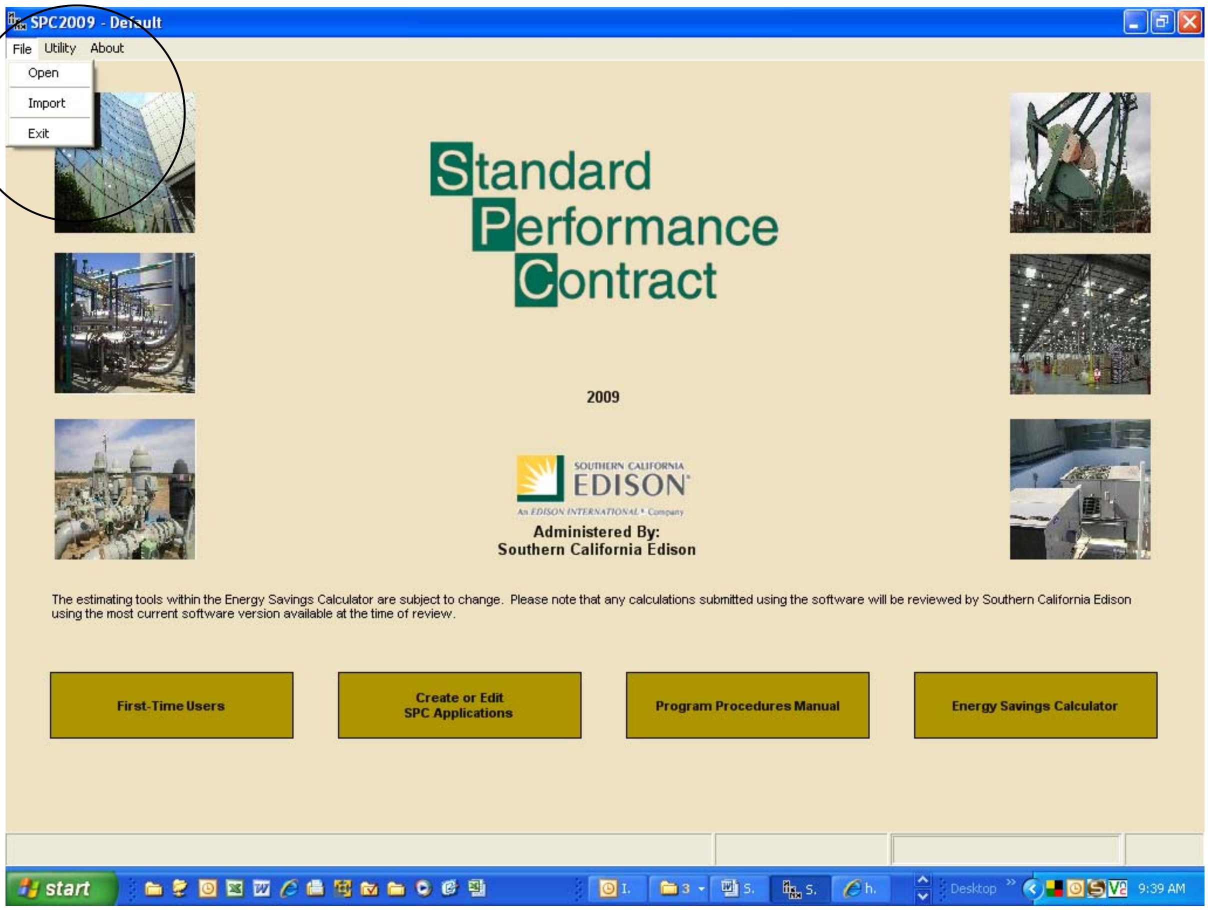
The SPC 2009 Software does not automatically store data to the permanent database. ***Exiting the SPC 2009 Software, or returning to the "Main Page" without first saving your work, will result in loss of your inputs.*** The SPC 2009 Software will prompt you to save your work if you are exiting or returning to the Main Page without first saving your work.

4.3.3 Viewing Previous Submittal Information

When creating the electronic submittal data file, the SPC 2009 Software extracts information from the main database that is specific to the Project covered by the submittal. (Remember that the main database may contain information about multiple Projects.) The submittal data may be viewed at any time using the SPC 2009 Software via the *File* menu located on the Main Page.

Step 1: Select *File* and then *Open* to bring up a file browse box that allows you to direct the software to the location of the submittal file.

Step 2: Highlight and select the submittal filename. The information is now loaded into the working data file for subsequent viewing. Go to Open existing file to access the file.



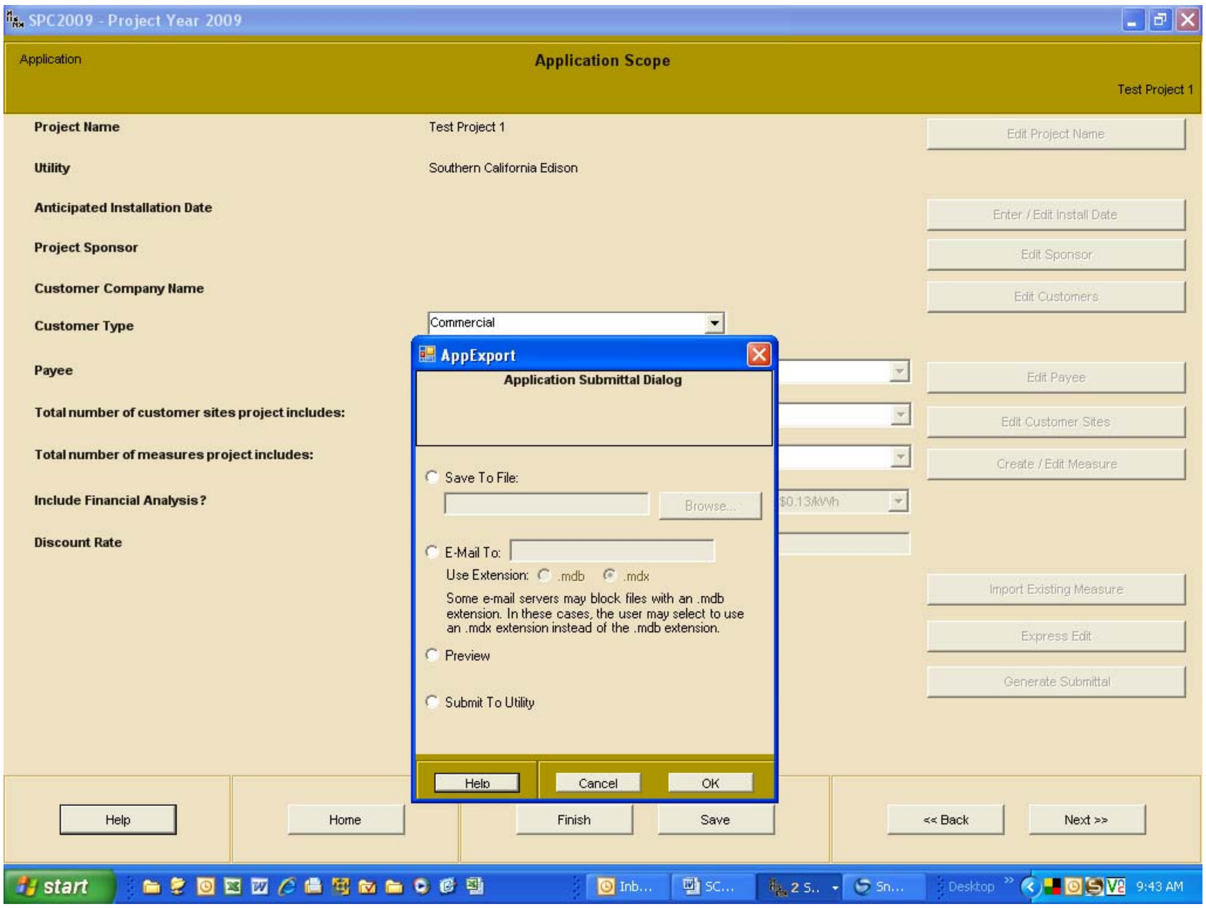
4.3.4 Exporting and Importing Application Databases

Project applications can be exported to a file or email address using the *Generate Submittal – Save to File:* or *Email To*: functions. Select the *Generate Submittal* button and choose one of the following options:

- The *Save to File* option will create a Microsoft Access database file using the name of the application in a user specified location on your computer.
- The *Email To:* option will email this file to a user specified email address.

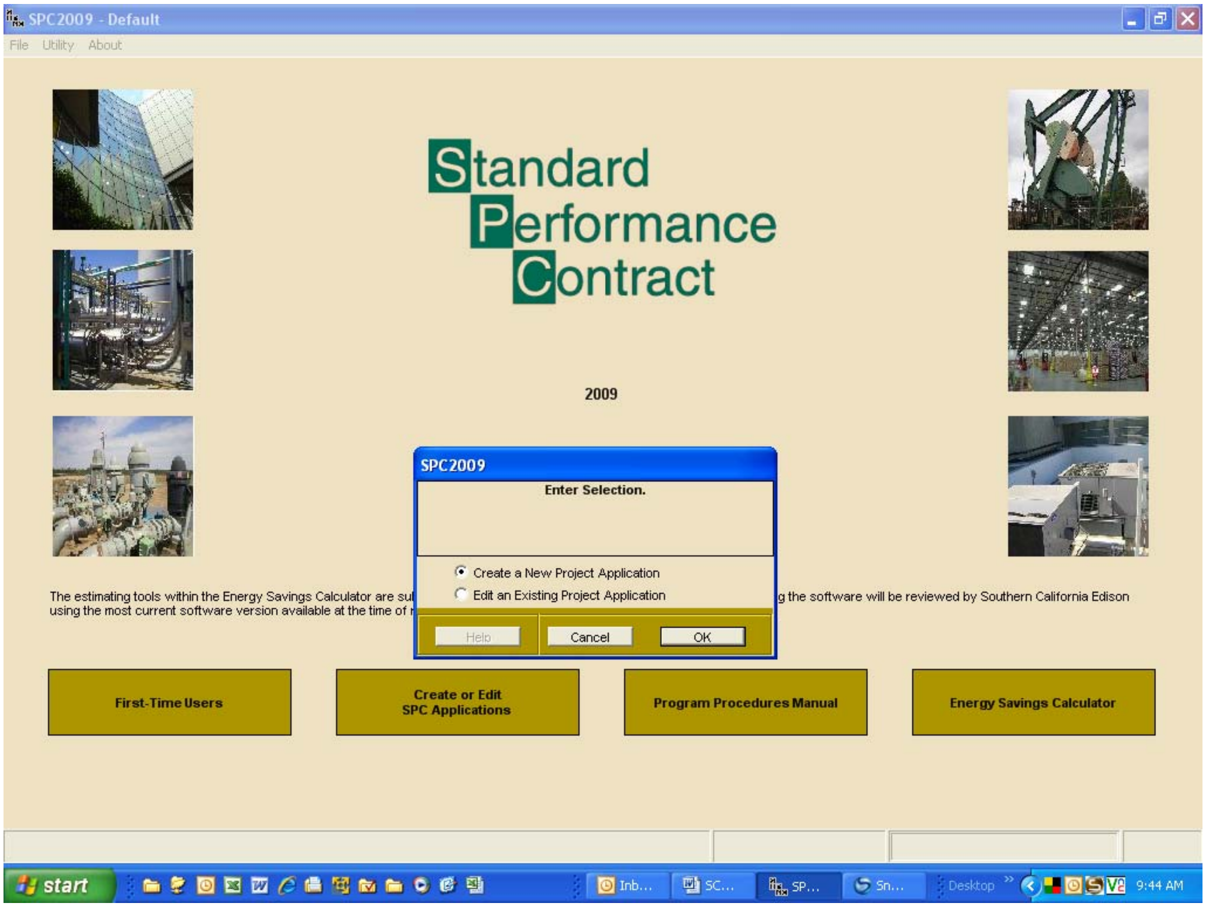
Some servers may block Microsoft Access database files with an *.mdb* extension. In these cases, select an *.mdx* extension instead of the *.mdb* extension.

External application databases, such as the ones created by the *Generate Submittal – Save to File:* or *Email To:* functions, can be imported into your main database (*SPC 2009.mdb)* by selecting the *Import* option via the *File* menu located on the Main Page. Once a database has been imported, it is integrated with the main database and all the associated Projects will be available from the *Select Project* screen.



4.3.5 Exporting and Importing Measure Information

Measure data created with the Energy Savings Calculator can be emailed to another user utilizing the *Email an Existing Measure* function from the Energy Savings Calculator and then specify an email address.



Some servers may block Microsoft Access database files with an *.mdb* extension. In these cases, select the *mdx* extension instead of the *.mdb* extension.

Externally created measure data can by imported into your main database (*SPC2009.mdb*) by selecting the *Import* option via the *File* menu located on the Main Page. Once the data is loaded into your main database it can be imported into (attached to) an individual application. To perform this function create a new application or open an existing application. Proceed to the *Project Application - Application Scope* page. Select the *Import Existing Measure* button and follow the instructions to import

The measure export and import features are useful in situations where one party completes the technical measure information and another party completes the application information. The measure import feature can also be utilized to insert multiple copies of identical measures into one or more applications.

4.3.6 Exiting the Software

Exiting the software can be accomplished by:

- Clicking on the X button located at the top right corner of any SPC 2009 input screen;
- Selecting the *Exit* button located at the bottom right portion of the Main Page; or
- Selecting *Exit* under the *File* menu located at the top left corner of the Main Page.

If you are viewing a submittal document, you must first exit the browser software used for report viewing (select X in top right corner) in order to return to an SPC 2009 input screen.

4.3.7 Data Entry Considerations

This section discusses basic data entry input screens.

4.3.7.1 Pull-Down Menu Use

The SPC 2009 Software Application requires data entry either using the keyboard or selecting items from a pull-down menu. Site name, customer name, etc., is initially entered directly (via the keyboard), but once entered will appear as either a pull-down menu item or will be automatically filled on subsequent screens.

4.3.7.2 Locked Input Values

Any item displayed with a gray background is “locked” and may not be edited directly. In some cases, an edit button is provided to the right of the value in question.

4.3.7.3 Invalid Input Values

The SPC 2009 Software checks for invalid data entries (invalid type or excessive length) and will fail to accept invalid entries. An error message will appear if the entry is invalid.

4.3.7.4 Incomplete Data Entry

The SPC 2009 Software will issue a reminder if you attempt to leave a screen before completing all of the necessary fields. A warning window appears that itemizes the incomplete fields. You may choose to continue by selecting the *Yes* button on the warning window, or return to the input form to complete the necessary fields by selecting the *No* button. Prior to calculating savings and incentive values, the software will again check for incomplete data entry and direct you to the measures with incomplete data.

4.3.7.6 Warning Messages

Throughout the process, warning messages alert you to potential problems. If a required field is left blank, a warning message will appear upon exit of a particular screen. In most cases you will be allowed to continue to the next screen by checking the *NEXT* button on the warning message.

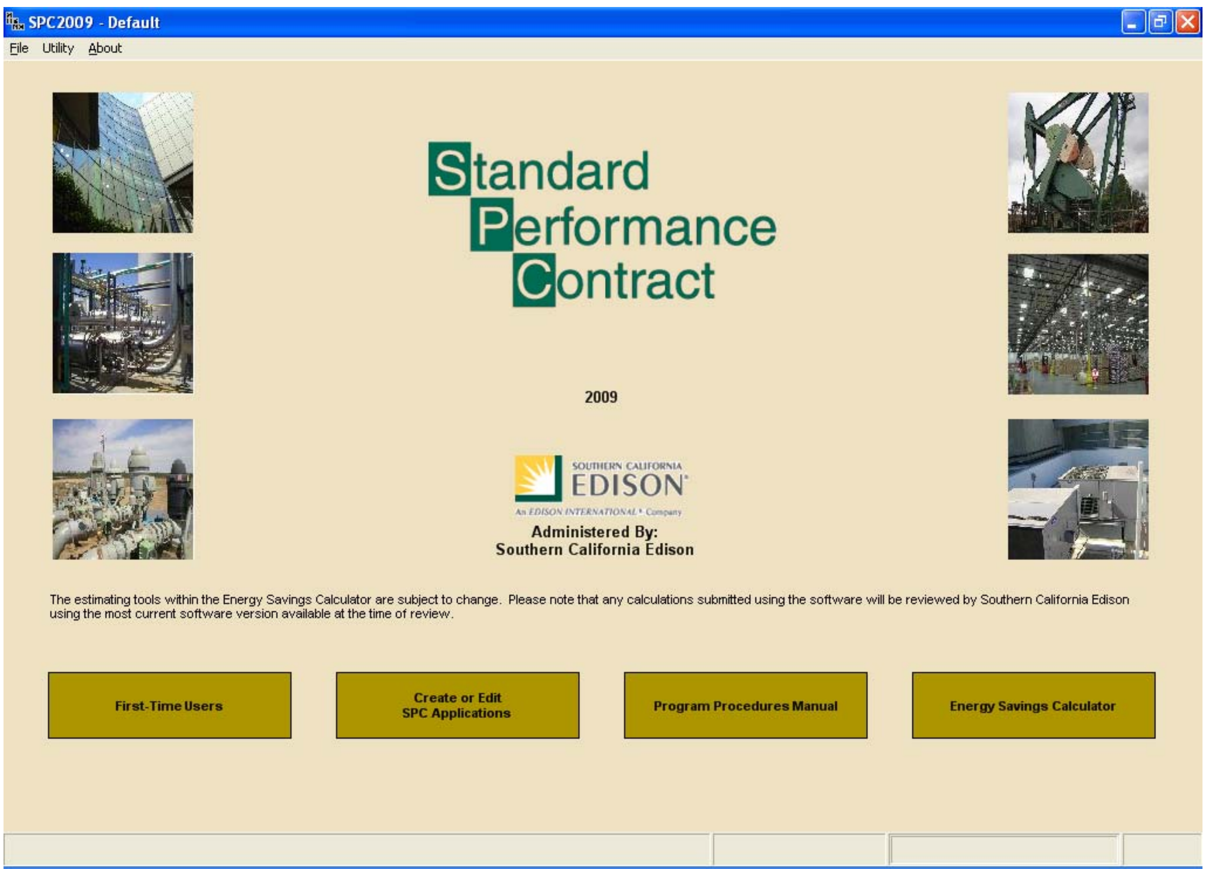
Various SPC rules have been programmed into the software. If your entry does not comply with one of these rules, a warning message will appear. Utility-specific rules have been programmed into the software. If a measure is not supported by the particular Utility Administrator, a warning message will appear.

4.4 Using the SPC 2009 Software

Immediately after software launch a message dialog will appear asking the user to "select the Utility". Once you select Southern California Edison, the Main Page of the software appears with four buttons:

- First-Time Users
- Create/Edit Applications
- Program Procedures Manual
- Energy Savings Calculator

Each of these functions is discussed below. The availability of certain functions and the application of various rules may differ slightly between Utilities.



4.4.1 First-Time Users

The First-Time Users feature is intended as a quick guide for first-time SPC 2009 users for the purpose of explaining the basic aspects of the SPC 2009 Software.

4.4.2 Create/Edit Applications

The *Create/Edit Application* button allows you to create a new SPC submittal or edit an existing submittal—either the initial SPC Application, the Installation Report, or the Operating Report.

4.4.2.1 Establishing a Project

When you elect to create a new Application, successive screens ask you to:

- Enter a name for the Project
- Select an existing Project Sponsor or type in a new Project Sponsor

When you elect to edit an existing Project, you will be presented with a *Select Project* menu from which to choose the Project you want to work on.

Once the preliminary information is obtained from either of these two options, the *Select Submittal Level* screen will ask you to select the appropriate submittal level and the desired data entry method.

4.4.2.2 Submittal Level

Software input requirements are tied to the progressive Application and reporting processes described in Section 1 of the *SPC Procedures Manual.* There are three levels of submittals required for the SPC program:

1. **1st submittal: Application,** contains the initial information for a specific project and enables SCE to determine whether or not the prospective Project is eligible for program incentives.
2. **2nd submittal: Installation Report*,** which describes the installed project and the projected energy savings. This is the final submittal for non-M&V projects.
3. **3rd submittal: Operating Report*,** which documents the actual energy savings and any unforeseen changes in the Project. This report also includes the M&V results. This submittal is only required for Measured Savings Projects.

The Installation and Operating Reports can be created for a Project only if that Project already has an Application in the database. This is because subsequent reports are generated largely from information in the original Project Application. If you filled out your initial Application by hand, it is recommend that you also complete the installation report by hand, otherwise you will need to first complete an electronic software version of the Project Application.

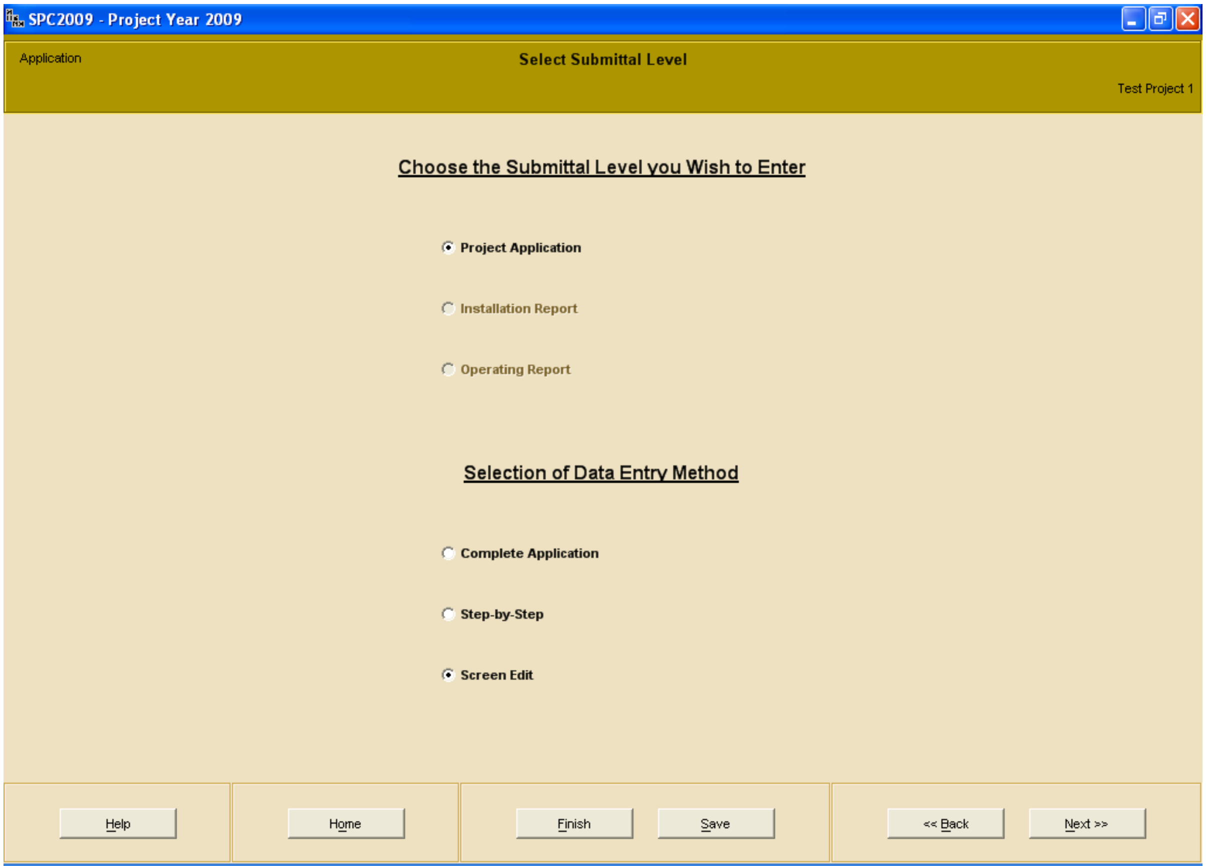
4.4.2.3 Data Entry Method

Three different data entry methods may be used to complete a project:

1. **Screen Edit.** In *Screen Edit* mode, all possible input fields (and buttons) on an input screen are displayed and no input-specific prompting is provided. You are permitted to edit any unlocked field on the page and may proceed to any input screen in any sequence.
2. **Step-by-Step.** In *Step-by-Step* mode, small data entry windows will sequence through the required inputs for a given screen and provide input-specific prompting that describes the necessary input. Note that canceling a *Step-by-Step* data input window (i.e., selecting back or the X button) will cause data entry on this specific screen to revert to the *Screen Edit* mode. Exiting the input screen and then returning will resume *Step-by-Step* data entry. You may elect to use *Express Edit* data entry whenever the *Step-by-Step* data entry method has been selected on the *Select Submittal Level* screen.[1] This method prompts you with data input windows for each successive input screen.
3. **Complete Application.** In *Complete Application* mode, the *Step-by-Step* input boxes described above will automatically sequence through successive input screens until all of the necessary inputs have been addressed. This process eliminates the need for the Project

[1] The *Express Edit* button, located on the right side of the screen above the *View Application* button, will not be selectable unless *Step-by-Step* data entry has been specified on the *Select Submittal Level* screen and will be selected automatically if the *Complete Application* data entry approach is selected. The Express Edit feature forces you to enter each piece of information required for submittal.

Sponsor to track which data types (i.e., Project Sponsor, Customer, etc.) have been entered and assists in systematic data entry. This is the same process as using the combined *Step-by-Step* method and *Express Edit* feature.

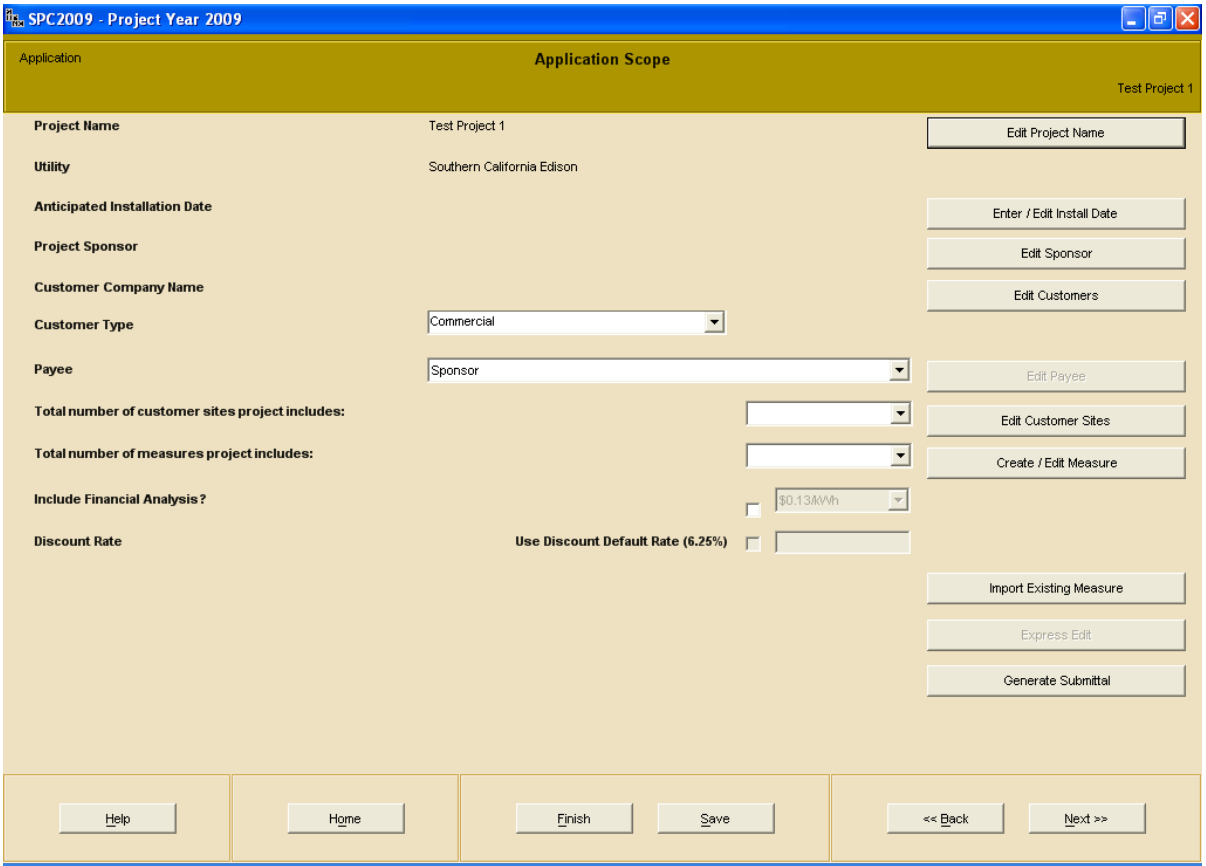


4.4.2.4 Completing the Project Application

The *Application Scope* screen features nine categories of information, represented by nine buttons on the right-hand side of the screen, which are necessary to complete the Application:

1. Edit Project Name: entered and stored in the database when the *Create Application* button initiates the Project. You may edit the information as necessary.
2. Enter / Edit Install Date: enter estimated install date using a monthly calendar.
3. Edit Sponsor: enter multiple pieces of information (Sponsor's Company Name, Sponsor's Federal Tax ID, Sponsor's Street Address, etc.).
4. Edit Customer
5. Edit Payee: select the existing Sponsor, Customer, or a third party to receive the payment. If a third party is selected the user must enter information regarding this business. Customers may also choose Credit Customer Account under the Payee category to request the incentive as a credit on the customer's SCE bill.
6. Edit Customer Sites
7. Create / Edit Measure
8. Import Existing Measure

9. Express Edit
10. Generate Submittal



A Project can only have one customer. Customer sites and measures may have multiple occurrences. The following conditions can exist:

- A Project can have one Customer
- A Customer can have multiple customer sites
- A customer site can have multiple measures

Before the customer site and measure screen can be accessed, a total number for each category must be determined and selected from *Total Number* lists. Each screen has a list of names as the first field to identify which particular Customer, customer site, or measure is currently being displayed/edited. Initially the names are set to “1-unnamed”, “2-unnamed,” and so on (up to the total number entered for that category). After you enter a name for a particular customer site or measure, that name becomes the identifying parameter for that particular customer site or measure.

The customer site screen contains an additional link to the meter information, which is accessed through the *Edit Meter Data* button. A particular site can have one to four meters. Each measure will ask for an associated meter, and all such meters for a particular site must be entered.

The *Create / Edit* Measure button allows access to new or previously created measures within this application. Upon entering the Measure Summary Information screen the user identifies the measure name and associates the measure to a customer site and meter. The user then enters the appropriate measure category (AC&R, Lighting, or Other), the appropriate calculation method [Itemized (Express Efficiency), Estimation Software (SPC), or Engineering Calculations

(SPC)], and the installation type (Retrofit – Same Load, Retrofit – Increased Load, or New Install). Based on the combination of these three selections the user is presented with various applicable measure types.

The measure category selection establishes the incentive level for the Calculated (SPC) Measures and pre-classifies the Itemized (Express Efficiency) measures (see Section 1.0 Table 1-2). The incentives offered in the Itemized (Express Efficiency) Measures are pre-defined and based on itemized incentive rates ($/unit). The Estimation Software (SPC) tools utilize software models and equations to assist the user in the simple determination of energy savings. The Engineering Calculations (SPC) allows the user to enter the resulting energy savings from their independent calculations.

The installation type covers measures involving equipment retrofits with the same or increased load or production. It also covers new construction projects where there is no existing equipment. Detailed information associated with the measure type and energy savings approach is entered on additional screens accessed through the *Edit Measure Detail*s button. Each individual measure screen contains the general information about that particular measure. Instructions regarding the entry of this information are included in Section 2 of this manual.

Financial Analysis Features

The Financial Analysis feature allows the user the option to show simple financial calculations on the reports. Mark the appropriate checkbox and select the estimated discount rate. The calculation is an estimate based on inputs provided by the applicant. The Utility Administrator does not endorse or guarantee the indicated savings. The applicant is solely responsible for the economic feasibility of the project and measures.

The ***Import Existing*** Measure button allows the user to import (“attach”) measures that were created in other applications, in the energy savings calculator, or by another user into this application. The detailed information for these measures can be edited in the same manner as measures create within the application (i.e. with the Create / Edit Measure feature).

Initially, all measures do not require measurement and verification (M&V). During the review of the Application, the Utility Administrator may impose an M&V requirement. If a measure is required to use the M&V process, the Project Sponsor will be required to resubmit the Application and include an M&V plan. If an Application contains measures that require M&V and measures that don’t, the Project Sponsor will be required to separate the measures and submit separate Applications. More information about estimating energy savings and incentives is covered in Section 2 of this Manual.

The *Generate Submittal* button is available in the Application, Installation Report, and Operating Report. The functions for this feature are described in section 4.4.2.7.

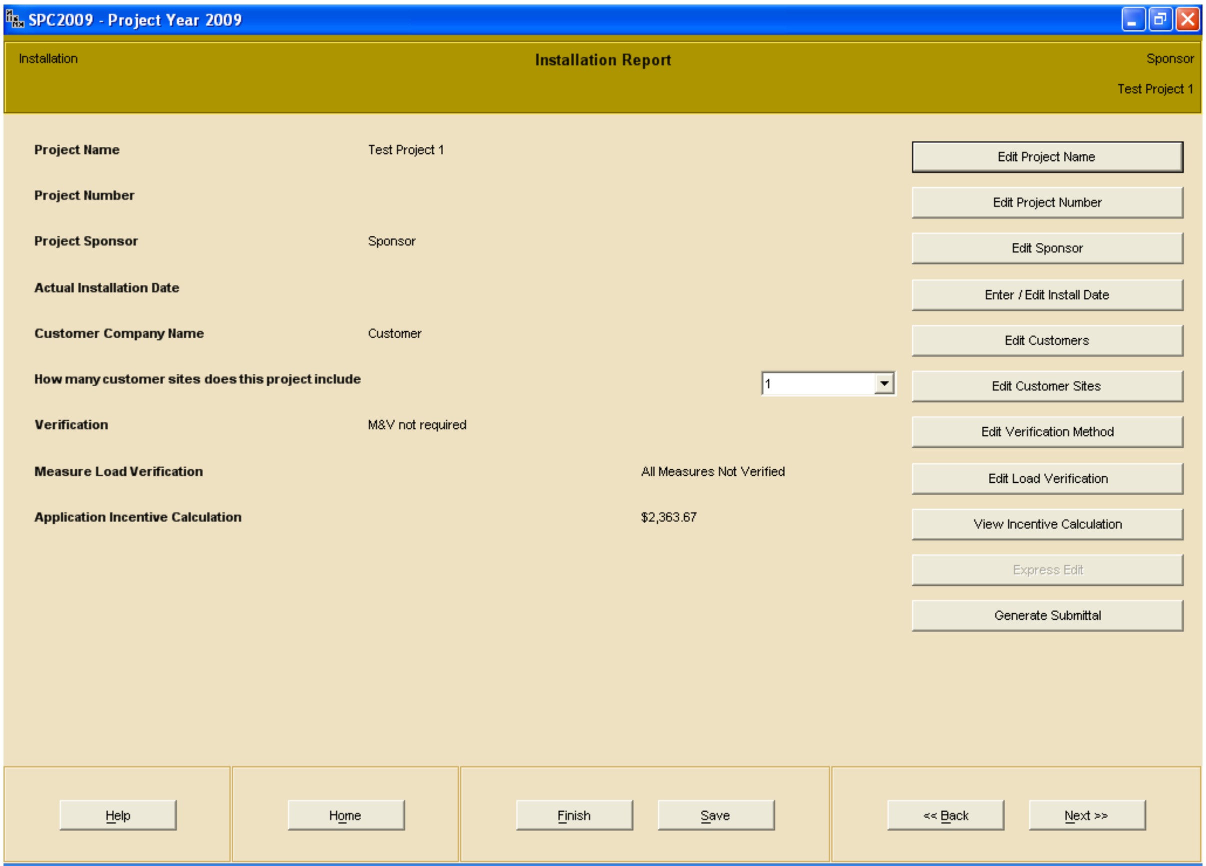
4.4.2.5 Completing the Installation Report

The Installation Report is submitted after the new equipment has been installed and is operational; any discrepancies from the Project Application are presented in this report.

The Installation Report screen contains ten information buttons:

1. Edit Project Name
2. Edit Project Number
3. Edit Sponsor
4. Enter / Edit Install Date
5. Edit Customer
6. Edit Customer Sites

7. Edit Verification Method
8. Edit Load Verification
9. View Incentive Calculation
10. Generate Submittal



The *Edit Project Name, Edit Sponsor, Enter / Edit Install Date, Edit Customer,* and *Edit Customer Site* buttons allow you to edit any of the information previously entered in the Project Application. If a Customer, customer site, or measure is deleted, a pop-up box will appear asking you to select the element you wish to remove. All data associated with that element (Customer, measure, etc.) will be automatically removed from the database.

The *Edit Project Number* button allows you to enter the assigned project number (the project number begins with the program year the application was originally submitted – 06-123 or 07-123).

Select the *Edit Verification Method* and choose M&V if your project is required to submit measured data for a defined period of time. If not, you can bypass this button.

The *Edit Load Verification* button is used to verify the energy savings estimated in the Project Application. If the energy savings estimate has changed, you will need to edit the measure through the *Edit Measure Parameters* button located on the *Measure Summary Information* screen. After the loads have been verified and any necessary changes to the energy savings estimates have been entered, check the *Measure Energy Savings Verification* box for each measure.

The *View Incentive Calculation* screen allows you to view the current incentive calculations. The top half of the screen shows energy savings by measure. These parameters include kWh savings, rate, and usage incentive. The bottom half of the screen shows the Energy Savings Incentive, the Adjusted Energy Savings Incentive and the Total Incentive for the entire Project.

The *Generate Submittal* button is available in the Application, Installation Report, and Operating Report. The functions for this feature are described in section 4.4.2.7.

4.4.2.6 Completing the Operating Report

This third and final submittal, required only for Projects using the M&V process, is due one year after the Installation Report is submitted. Any discrepancies from the Installation Report estimates are presented in this report. The Operating Report screen contains eight edit buttons:

1. Edit Project Name
2. Edit Project Number
3. Edit Sponsor
4. Edit Customer
5. Edit Customer Sites
6. Edit Load Verification
7. View Incentive Summary
8. Generate Submittal

The *Edit Project Name, Edit Project Number, Edit Sponsor, Edit Customer,* and *Edit Customer Site* buttons allow you to edit any of the information previously entered on the Application or Installation Report.

The *Edit Load Verification* button is used to enter the actual energy savings as realized by the Project. This amount is entered into the *Actual Energy Savings (kWh)* field. If the energy savings estimate has changed based on operational changes, you will need to edit the measure through the *Edit Measure Parameters* button located on the *Measure Summary Information* page.

The *View Incentive Summary* screen allows you to view the final incentive calculations. The top half of the screen shows energy savings by measure. These parameters include incentive rate, revised kWh savings, and incentive earned. The bottom half of the screen shows the Energy Savings Incentive, the Adjusted Energy Savings Incentive, and the Total Incentive for the entire Project.

The *Generate Submittal* button is available in the Application, Installation Report, and Operating Report. The functions for this feature are described in section 4.4.2.7.

4.4.2.7 Generate Submittal

The *Generate Submittal* process guides you through the necessary steps to create the submittal document for the Utility Administrator, to preview the submittal, to email the submittal to another party or, to save the submittal as a file. This feature is initiated only after all the necessary data fields for the SPC Application, Installation Report, or Operating Report have been completed. Selecting this button presents the user with four options:

1. Save To File
2. Email To
3. Preview
4. Submit To Utility

The *Save To File* option allows the user to save the application/report submittal to a Microsoft Access file in a user selected area on the computer. The user defines the file name and then uses the browse button to determine where the file is stored (i.e. hard drive, floppy disk, cd, etc.).

The *Email To* option allows the user to send the application/report submittal to another user via email. In this option the Microsoft Access file (project name.mdb) is sent to a user specified email address.

Some servers may block Microsoft Access database files with an *.mdb* extension. In these cases, the user may select to append the database file with an *.mdx* extension instead of the *.mdb* extension.

The *Preview* option displays the current submittal. The submittal can be printed or saved in HTML format from this software.

The *Submit To Utility* option sends an electronic copy of the application/report to the appropriate Utility Administrator. **This version is used for pre-processing only. A signed hard copy original must be delivered to the Utility Administrator prior to application acceptance.**

When submitting documentation to the Utility Administrator, the Project Sponsor must:

- Print, sign, and mail the submittal document
- Attach any supporting documentation (i.e., manufacturer's data, M&V plan, etc.)

The application must be signed by the project sponsor and the customer. If the customer is self-sponsoring, they should also sign as the sponsor.

4.4.3 SPC Program Procedures Manual

This button on the Main Page allows electronic access to California's *2009 SPC Program Procedures Manual.* The manual is divided into the following sections:

- Section 1: Program Overview and Policies
- Section 2: Estimating Energy Savings
- Section 3: Forms and Instructions
- Section 4: Software Instructions (this document)
- Appendices
- Index
- First Time User's Guide

Each of these PDF files can be downloaded and printed.

4.4.4 Energy Savings Calculator

The Energy Savings Calculator provides easy access to the energy savings estimating tools contained within the SPC 2009 Software. This feature serves two purposes:

- It allows applicants who prefer the manual forms to use the software tools to estimate energy savings. A simple report for each measure can be viewed, printed, and attached to the manual forms for submittal to the Utility Administrator.
- It allows the user to perform "what-if" analyses to estimate energy savings and incentives for a prospective measure. The completed estimations may be saved as either a measure for later use or as the initiation of a new Project.

When you click the Energy Savings Calculator button on the Main Page, successive text boxes are displayed requesting the following information:

- Create a New Measure, Edit an Existing Measure, or Email an Existing Measure
- Select Measure Category, Calculation Method, Installation Type, and Measure Type

After these parameters have been determined the software presents the appropriate *Measure Information* screen. Details on entering data for particular measures are located in Section 2, *Estimating Energy Savings.*

When you have finished entering the measure information, a dialog box asks if you would like to view the report. Select “Yes” to display the report in Adobe Acrobat, which will allow you to print out the Energy Savings Sheet.

A subsequent dialog box asks whether or not the user would like to continue working on the measure. Select “Yes” to adjust the inputs or “No” to exit the estimator.

A final dialog box asks if the user would like to save the measure. If the user selects “Yes” then the user must choose whether the measure is saved as a calculator or as a new Project. If the user saves the measure as a calculator then it can be recalled at a later time for more analysis using the Energy Savings Calculator. If the user saves the measure as a new Project then the user can choose Edit Project – Existing Projects to complete the Application. If the user does not elect to save the measure then it will not be committed to the database.

If the user selects “Edit an Existing Measure” the measure may be converted into a Project by selecting Make New Project button.

For assistance please contact: Matthew Evans at - (626) 633-3275 or matthew.evans@sce.com