SOUTHERN CALIFORNIA EDISON

An EDISON INTERNATIONAL® Company

SCE EnergyManager

Energy Manager Basic User Manual

Version 1.0

Last Updated: December 1, 2007

COURSE INTRODUCTION

About this Course

This course will help you use Energy Manager Basic to manage energy usage effectively. Energy Manager Basic provides tools for viewing and analyzing data on energy usage.

Target Audience

The intended audience for this course is current and prospective SCE EnergyManager Energy Manager Basic users.

TABLE OF CONTENTS

1. INTRODUCTION TO SCE ENERGYMANAGER

Objectives

At the end of this lesson, you will be able to:

- Explain the basic concepts of SCE EnergyManager
- Describe the features of SCE EnergyManager
- Describe the benefits of SCE EnergyManager

1.1. Basic Concepts

SCE EnergyManager is a suite of products developed by SCE to provide valuable energy-saving solutions to its customers. SCE EnergyManager helps customers to save energy and reduce energy costs.

As SCE EnergyManager deals with efficient usage of energy, it is important to understand a few basic concepts regarding energy costs.

How is your usage and consumption measured?

Energy usage is measured in terms of demand or kilowatts (kW). Demand for energy may be defined as the rate at which you use energy. The SCE meter reads data every 15 minutes and demand is calculated as the highest average peak demand for a billing cycle.

Energy consumption is measured in terms of energy used per hour or kilowatts per hour (kWh). The SCE meter reads data electronically every day. This data is then posted on the SCE website.

How are you charged for the energy you use?

You are charged for the demand (kW) used by the electrical equipment within your facility and the period for which energy is consumed.

For example, consider a large electric machine in a company, which uses 30kW of power in 5 hours. The total consumption of the machine would be 150kWh. On the other hand, the consumption for small equipment that uses 15kW in 10 hours would also be 150kWh. The charge for the larger equipment will be more as it places greater demand on the electrical system than the smaller equipment.

How can you reduce your cost?

In view of increasing energy demands and related increase in energy costs, SCE has developed a suite of products that allow you to analyze your energy usage and consumption, determine costs, and view bills online. You can use the set of tools provided by SCE to analyze the reasons for changes in your bill. Accordingly, you can develop strategies to bring down your energy costs.

1.2. SCE EnergyManager: Products

SCE EnergyManager provides a suite of products to better manage your electricity costs and save money. The features of each product are compared in the table below.

	SCE Energy Manager Basic	SCE Cost Manager	SCE Bill Manager
Available Data			
Current and Historical Monthly Bill Data			Up to 48 months
15-minute Intervals of Energy Demand and Usage (kW/kWh)	Refreshed daily	Refreshed monthly, daily, hourly or quarter-hourly based on customer choice	
15-minute Intervals of Excess kW / kWh Generation (if applicable)	Refreshed daily	Refreshed monthly, daily, hourly or quarter-hourly based on customer choice	
15-minute Intervals of Reactive Demand and Energy Usage (kVar/kVarh)	Refreshed daily	Refreshed daily except Monthly service level where it is refreshed monthly	
Historical kW / kWh in 15-minute Intervals	Up to 48 months	Up to 48 months	
Historical kVar / kVarh in 15-minute Intervals	Up to 48 months	Up to 48 months	
Electronic Bill Image (PDF) - Current and Historical		Up to 48 months	Up to 48 months

	SCE Energy Manager Basic	SCE Cost Manager	SCE Bill Manager
Analytical Tools and Report Formats			
View Data in Charts, Graphs and Tables	X	X	X
Save Customized Frequently Used Reports	X	X	X
Trend-Data - Identify Highs and Lows	X	X	X
Aggregation of Multiple Service Accounts		X	X
Create New Groups of Accounts (by region etc.)	X	X	X
Variance Analysis		X	X
Benchmark Facility Cost and Usage		X	X
Energy Cost Estimation (based on 15-minute interval data)		X	
Rate Comparisons		X	
What If Analysis		X	
Download Data to PC (via Excel)	X	X	X
Pricing			
Price per Month, per Service Account	No charge to eligible customers	Varies depending on service level selected by customer	$10.00 initial set-up fee; $6.00 per month

Table 1 - SCE EnergyManager Products

1.3. SCE EnergyManager: Benefits

SCE EnergyManager is a Web-based application that provides energy information and analytical tools to help you to manage your energy usage more effectively.

The benefits of using SCE EnergyManager are:

- Reviewing energy data at 15-minute intervals in the form of charts, graphs, and table formats
- Viewing up to 48 months of historical kWh data in 15 minute intervals
- Saving customized frequently used reports
- Identifying high and low usage through trend data
- Creating service account groups, such as by region, type of business, etc.

1.4. Summary

SCE EnergyManager is a Web-based application that provides energy information and analytical tools to help you effectively manage your energy usage.

SCE EnergyManager Products are:

- Energy Manager Basic
- Cost Manager
- Bill Manager

Notes

2. GETTING STARTED

Objectives

At the end of this lesson, you will be able to:

- Understand New User Registration
- Understand Log-in Process
- Understand SCE EnergyManager System Requirements
- Know Help Desk Information

2.1. New User Registration Process

Note	The following steps are applicable only to Customer Administrators. Co-Users are granted access by their Customer Administrator and are not required to enroll with My Account.

Steps to Register:

1. After confirming the system requirements, access the SCE website and register yourself or the organization by clicking the **Register** link.

Figure 1 - Register Link

2. Enter the required information and click **Continue**. You will be directed to the Enroll for My Account page.

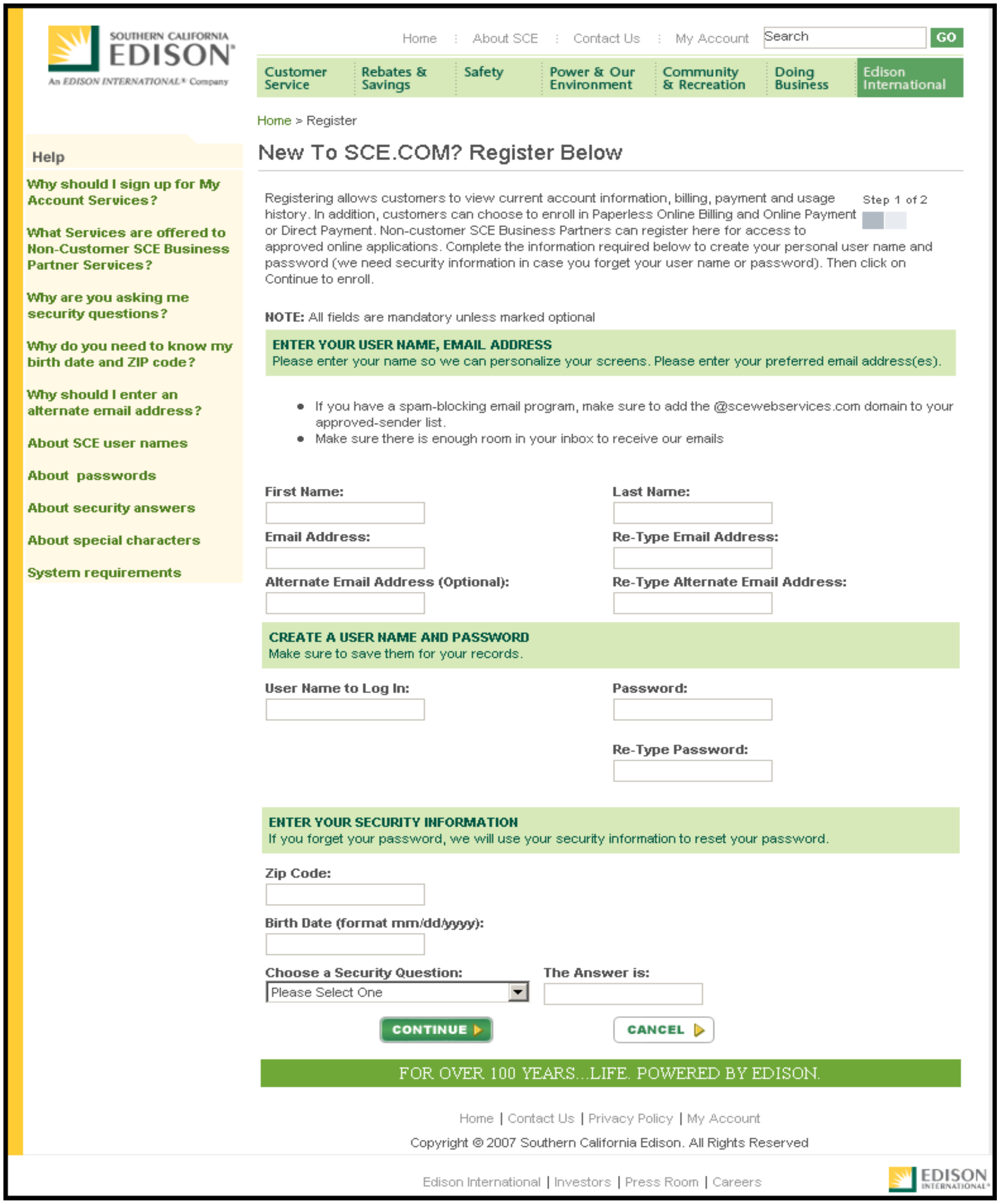


Figure 2 - New User Registration Process

3. To enroll, enter your SCE customer account number and last four digits of either SSN or TAX-ID. Click **Register Now**.

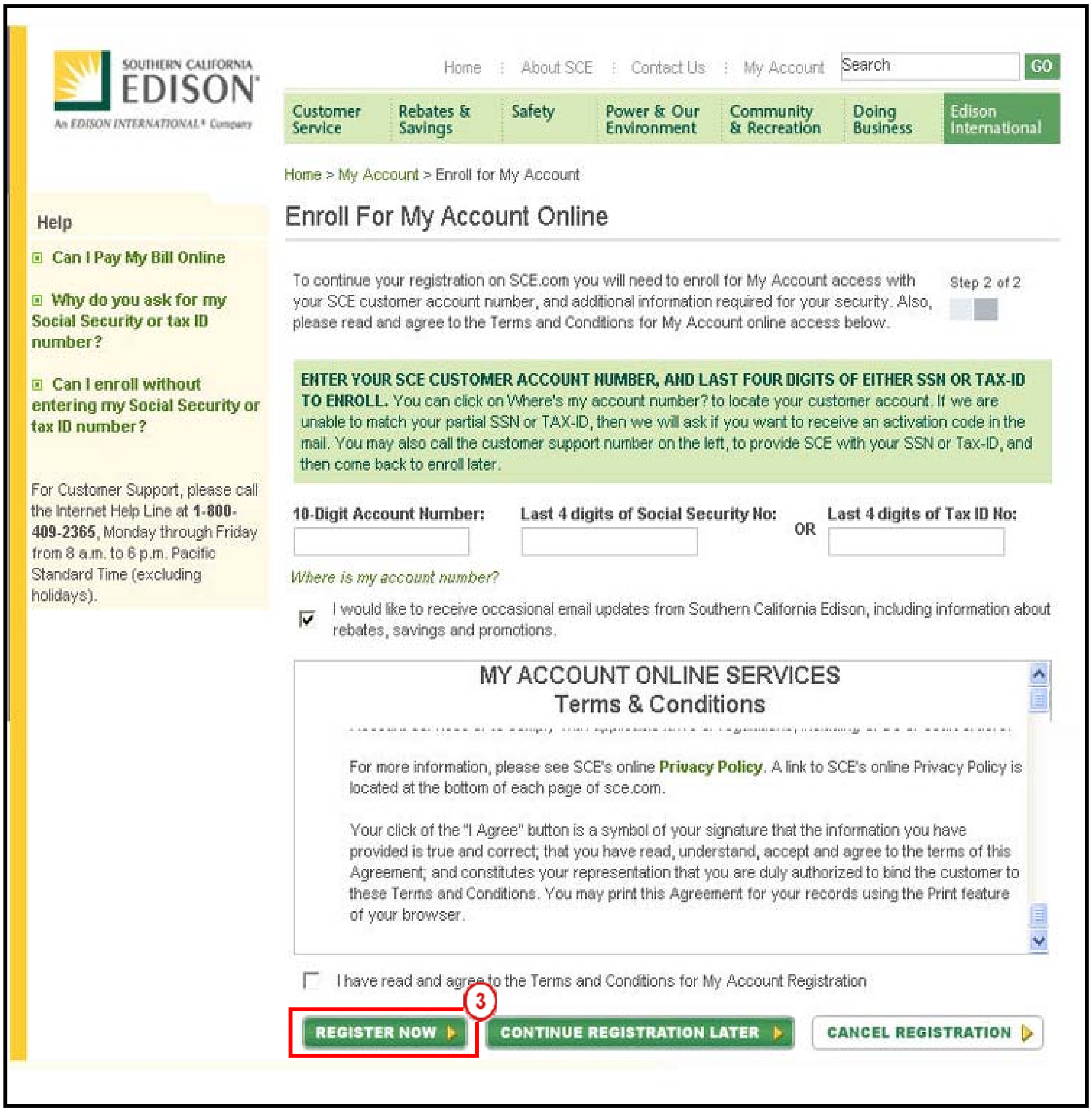


Figure 3 - My Account

Note	You will have My Account Access once verification is completed. This may take up to 48 hours. You may then log in to SCE.com and access SCE EnergyManager from the My Account page.

2.2. Log-in Process

A Customer Administrator can log in after successful Registration and getting access to My Account services. A Co-User can log in after receiving the User Name from the Customer Administrator and Password from SCE.com.

Steps to log in for an authorized Customer Administrator:

1. Access the SCE website (www.sce.com).
2. Enter your **User Name** and **Password** and click **LOG IN**.

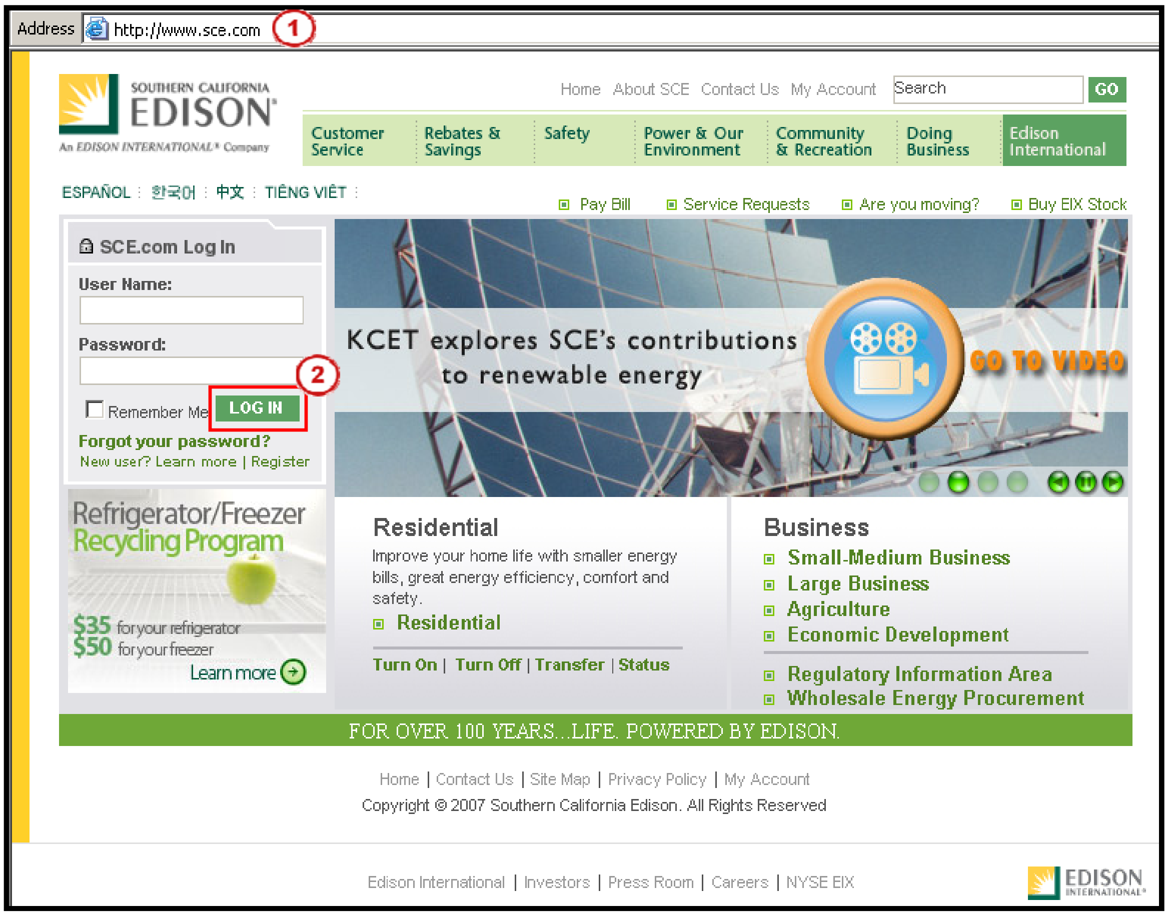


Figure 4 - Log-in Process

3. Click the **SCE EnergyManager® & Demand Response Tools** link in the left hand navigation pane of the My Accounts page. The default SCE EnergyManager page is displayed.

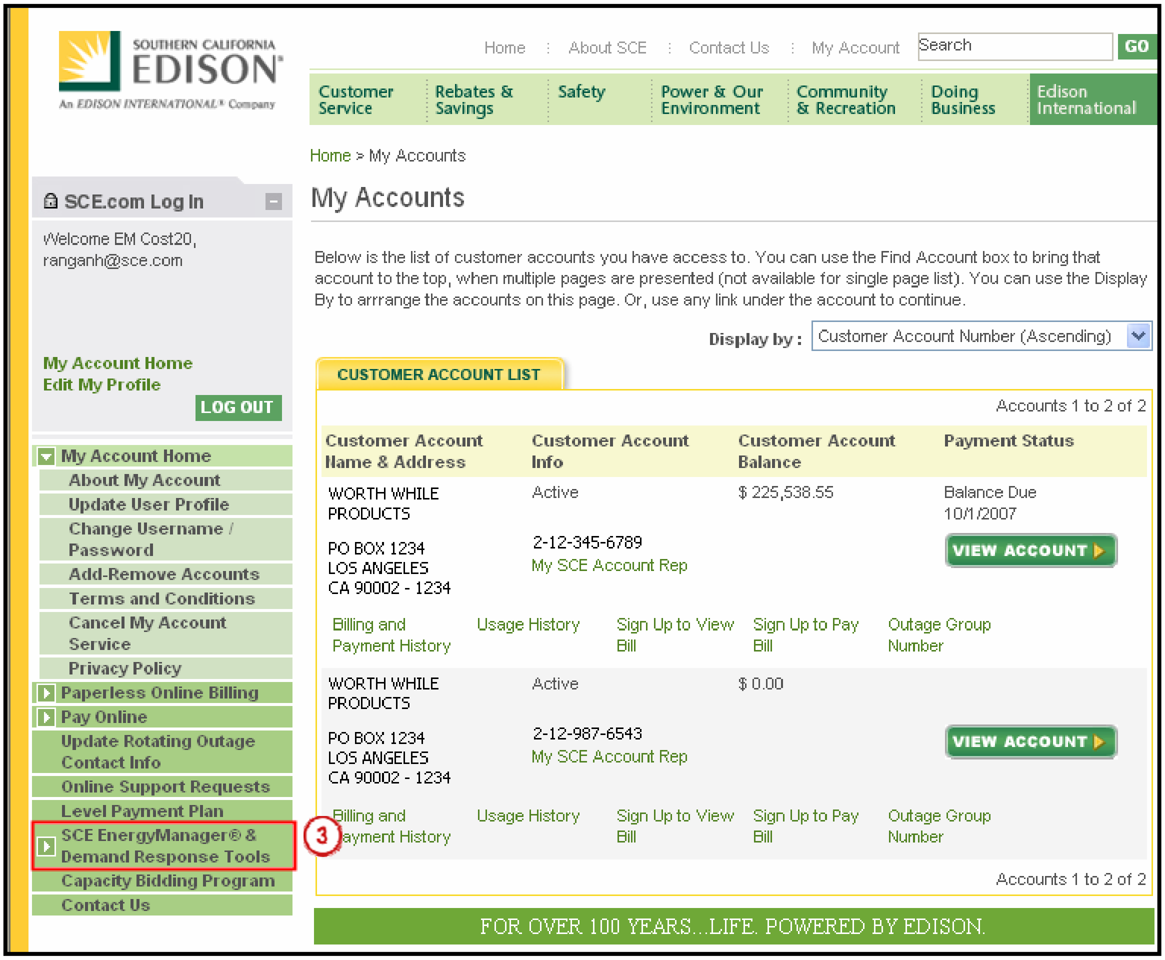


Figure 5 - Log-in process

Note	If you are a registered Co-User, you will be automatically directed to the SCE EnergyManager page after entering your User Name and Password.

2.3. System Requirements

The minimum system requirements to use SCE EnergyManager are:

Software/Hardware	Requirements
Electric Meter	SCE Interval Data Recorder (IDR)
Computer	Internet Access Intel Pentium II 450MHz or faster processor (or equivalent) 128MB of RAM (256MB recommended)
Screen Resolution	1024 X 768 pixels (preferred) 800 X 600 pixels
Monitor	High Color (16 bit) or greater
Operating System	Windows: • Windows 98 • Windows 2000 • Windows XP • Windows Vista • Keep your Microsoft Windows operating systems running smoothly by running Windows Update to install enhancements and patches **Note**: Macintosh Operating System is not supported
Web browser	Microsoft Internet Explorer® version 6.0 or higher version 6.0 or higher, Firefox® 1+, Opera® 7.11 or later, Netscape® 7.x or later
Other applications	Adobe® Acrobat® Reader 7+
	Adobe® Flash® 8+

Table 2 - System Requirements

Configuring your computer to use SCE EnergyManager applications is a one-time task. The configuration task is primarily for first-time users. You need to confirm that your software and hardware set up matches the defined operating system, screen resolution, color bit requirements, and Microsoft Internet Explorer browser requirements.

It is important to remember the configuration is workstation-specific. Logging in from different locations will require each computer to have SCE EnergyManager Suite minimum requirements.

2.4. Help Desk Support

The contact details for help desk support are provided in the table below:

Hours of Operation	Monday - Friday, 8:00 a.m. - 5:00 p.m.
Telephone	(888) 462 - 7078
Email	sceenergymanager@sce.com
Mailing Address	SCEEM Help Desk 6020 N. Irwindale Ave., Ste. M Irwindale, CA 91702-3264

Table 3 - Help Desk Information

2.5. Summary

- To access SCE EnergyManager, Customer Administrators need to Register first, and then log in.
- Co-Users do not register and may log in using the User Name provided by their Customer Administrator and Password provided by SCE.com.
- Certain minimum system requirements, listed in the chapter, are required for using SCE EnergyManager efficiently.
- Customers may use Help Desk Support in case of any problem.

Notes

3. ADMINISTRATIVE FUNCTIONS

Objectives

At the end of this lesson, you will be able to:

- List the various administrative functions
- Describe the following administrative functions:
  - Changing default settings
  - Viewing and customizing account information
  - Notifying users of energy bill availability
  - Granting permissions to Co-Users

3.1. Administrative Functions

The Customer Administrator can use SCE EnergyManager to enroll new Co-Users, grant permissions to Co-Users, and set default options for the screen elements. In addition, the Customer Administrator can also notify users regarding bill availability.

Steps to access Administrative Functions:

1. Log in to SCE EnergyManager. Click the **Admin** tab in the Home page.

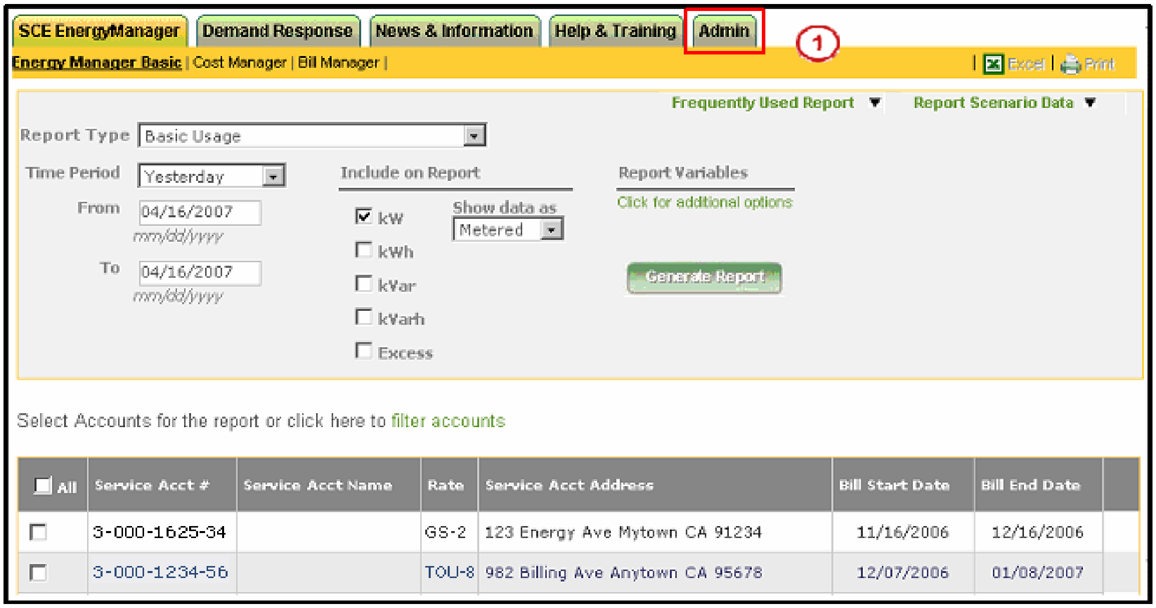


Figure 6 - Admin Tab

2. The Admin section is displayed.

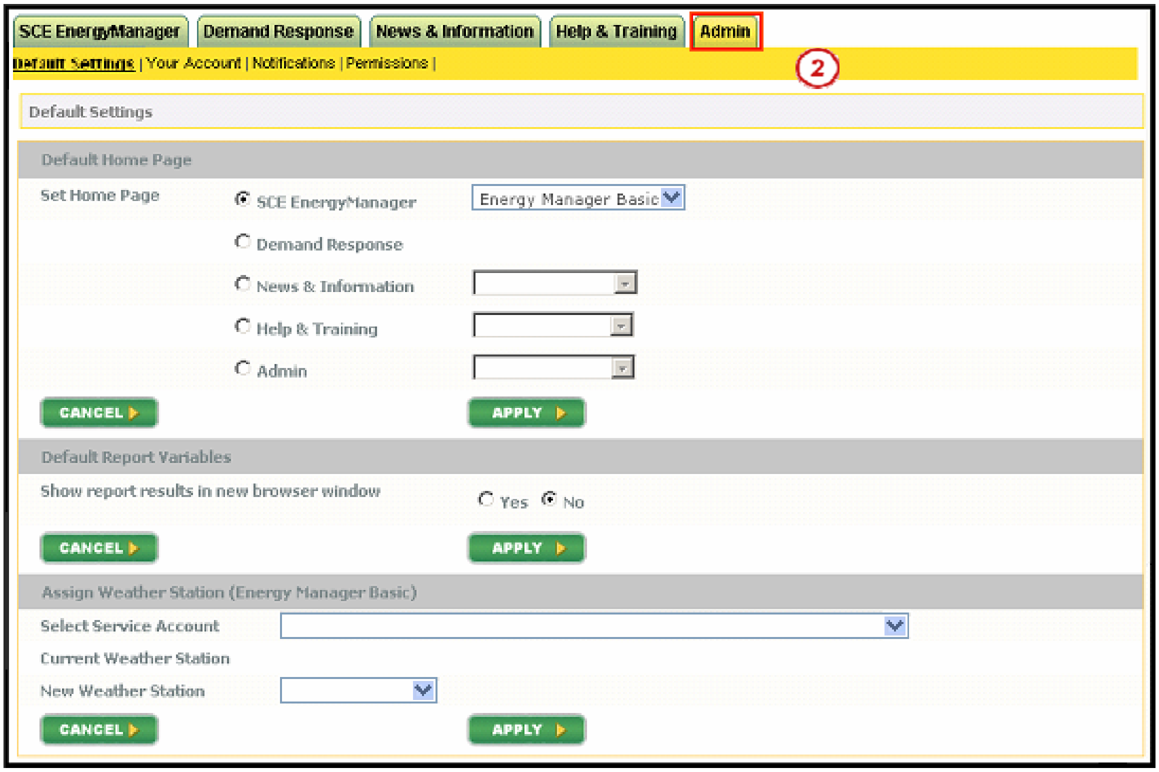


Figure 7 - The Administrative Functions

Administrative functions include:

- Default Settings
- Your Account
- Notifications
- Permissions

3.1.1. Default Settings

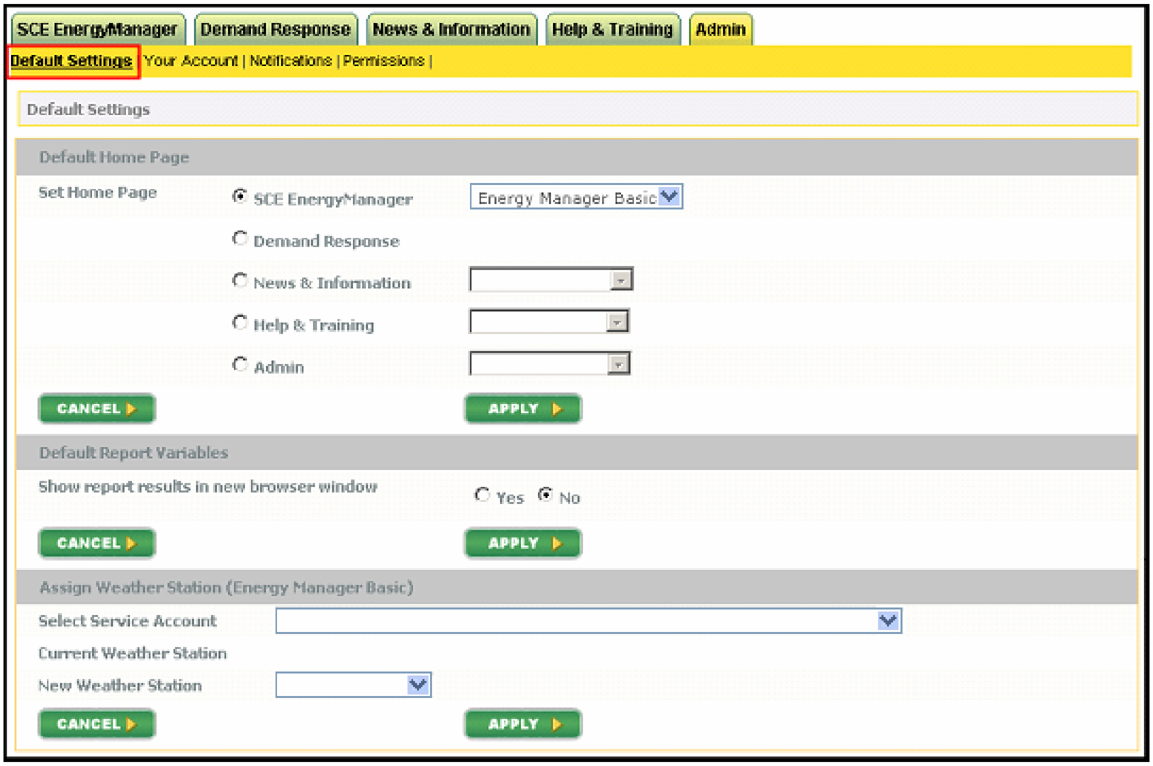


Figure 8 - Default Settings

The **Default Settings** link allows you to personalize your SCE EnergyManager Home page.

- You can modify or set the default view by using the drop downs in the **Set Home Page** area.
- You can set the default report variables for display of reports using the **Show Reports results in new browser window** option. Selecting 'Yes' will display the reports in a new browser window; selecting 'No' will display all reports in the current window.
- You can select a weather station for each of your Energy Manager Basic service accounts by using the **Assign weather station** option. Only one weather station can be assigned per service account.
- You may confirm each selection using the **Apply** button or cancel your changes using the **Cancel** button.

Steps to set an SCE EnergyManager program as the default Home Page:

1. Click the **SCE EnergyManager** radio button in the Set Home Page area.
2. Click the drop-down arrow and select the appropriate option. You can select Energy Manager Basic, Cost Manager, or Bill Manager as your default homepage.
3. Click **Apply** to confirm your default setting.

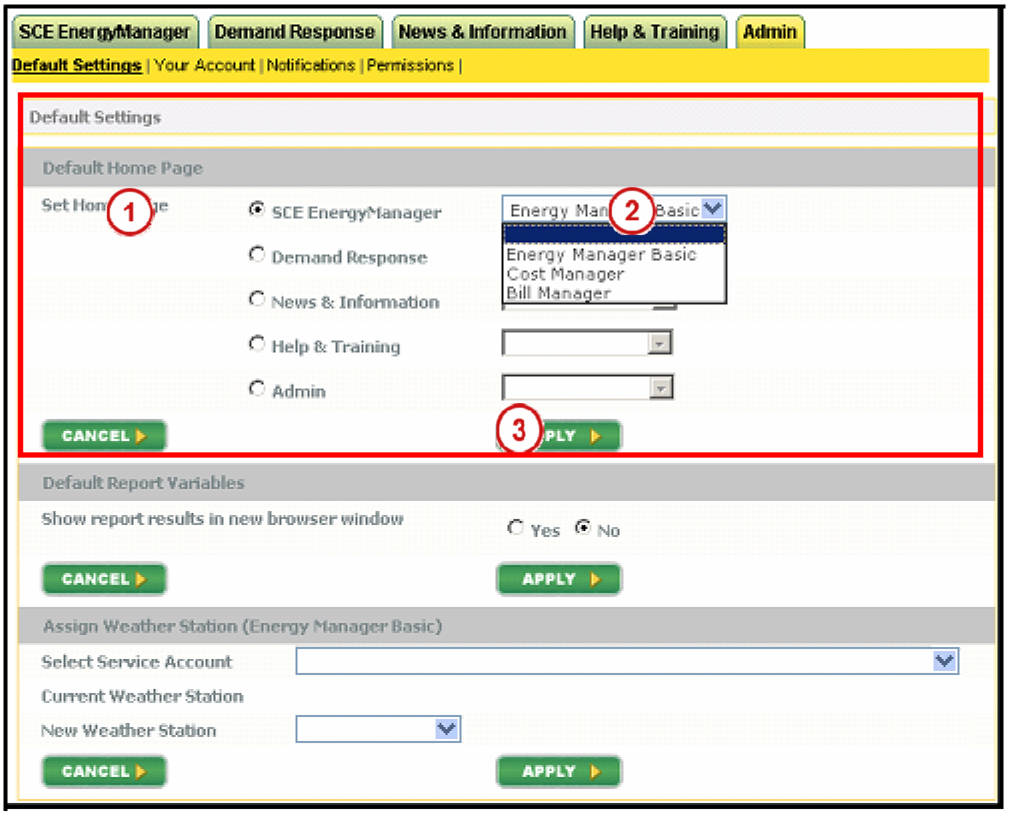


Figure 9 - Setting Default Home Page

Note	If you prefer, follow similar steps as desired to set Demand Response, News & Information, Help & Training or Admin as the Default Home Page.

Steps to set Default Report Variables:

1. Click the appropriate radio button in the **Show report results in new browser window** area.
2. Click **Apply** to confirm your default setting.

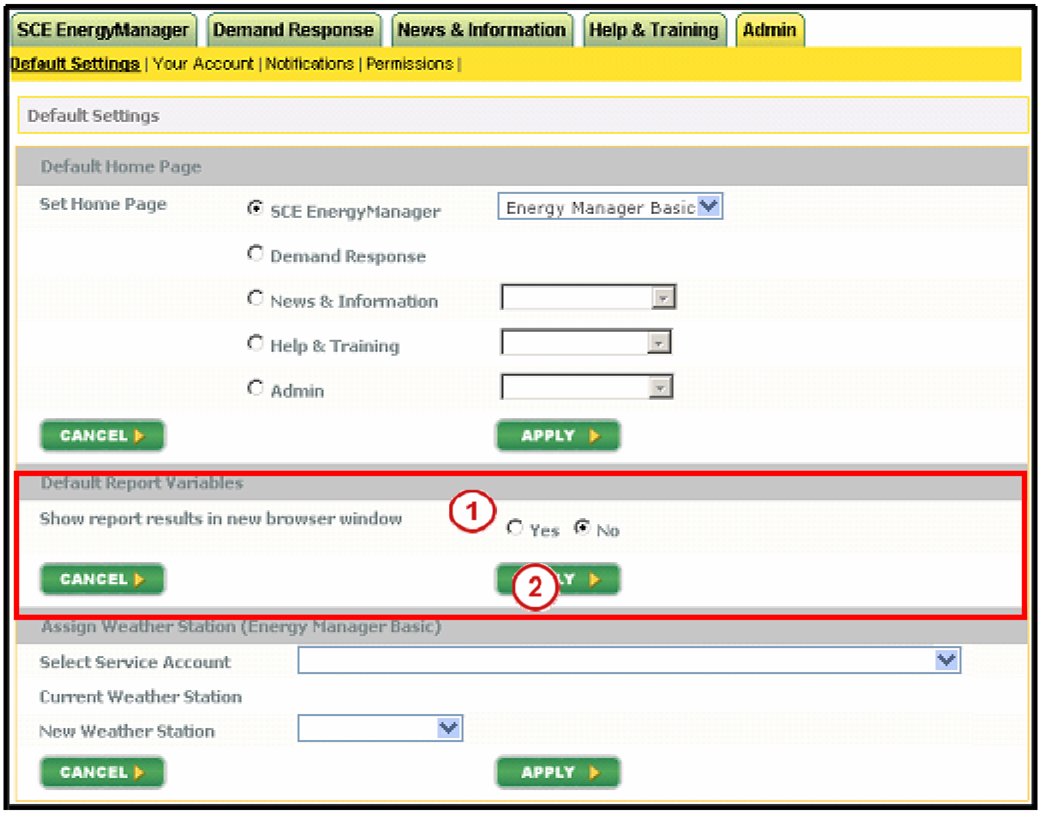


Figure 10 - Setting Default Report Variables

Note	For best results, SCE Cost Manager® users should retain the default setting of No.

Steps to assign a Weather Station to a Service Account:

1. Click the **Select Service Account** drop-down arrow in the Assign Weather station area and select the service account.
2. Click the **New Weather Station** drop-down and select the weather station to be assigned.
3. Click **Apply** to confirm your default setting. Repeat steps 1, 2 and 3 to assign a weather station to another service account.

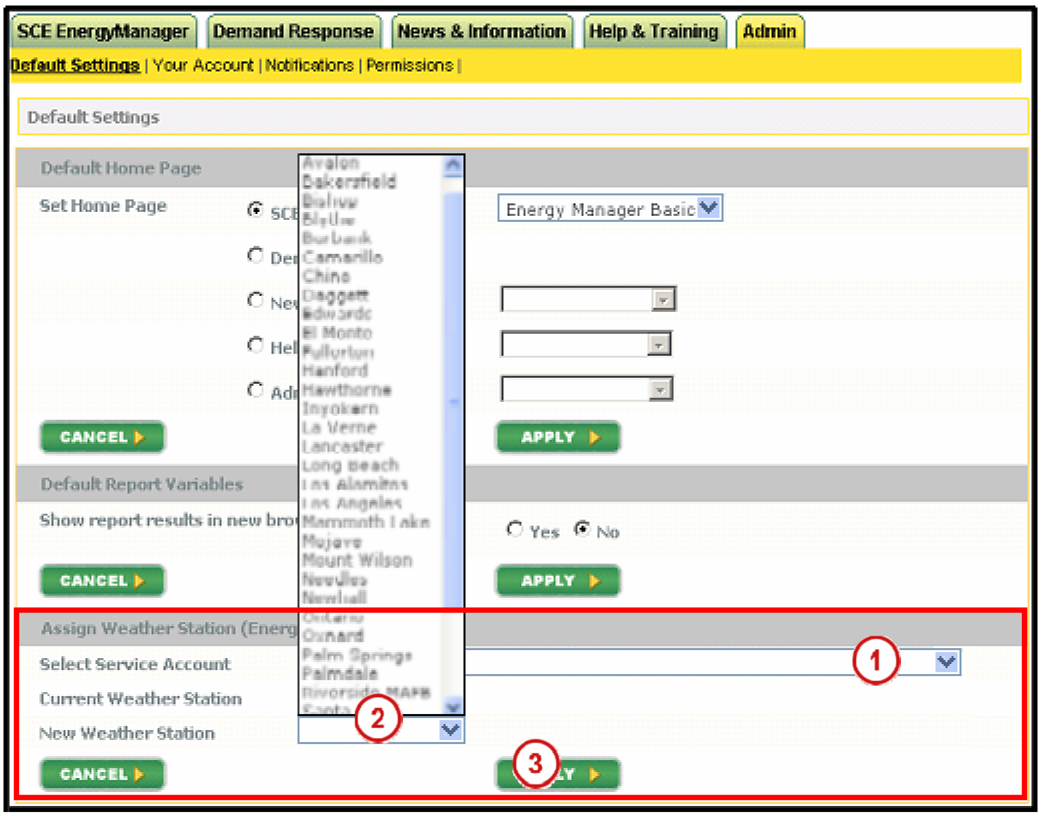


Figure 11 - Assigning a Weather Station

3.1.2. Your Account

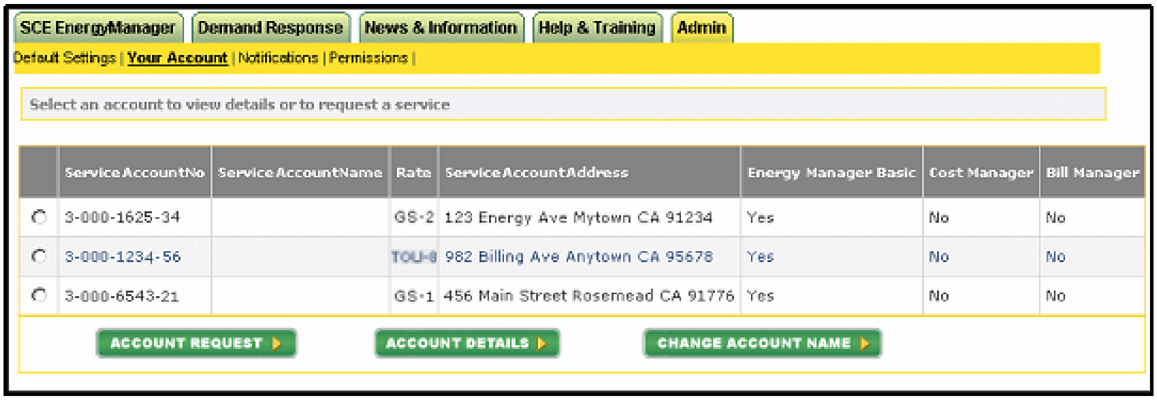


Figure 12 - Your Account

The **Your Account** link allows you to view a list of your program accounts. The list displays the Service Account Number, Service Account Name, Rate, Service Account Address, and programs assigned to the service account.

The Customer Administrator can perform the following functions:

- Submit a request for a new account
- View account details
- Create an Account Nickname

Steps to submit a request for a new account:

1. Navigate to the **Admin** tab and click **Your Account** in the Admin page.
2. Click the appropriate radio button to select the service account.
3. Click **Account Request**.

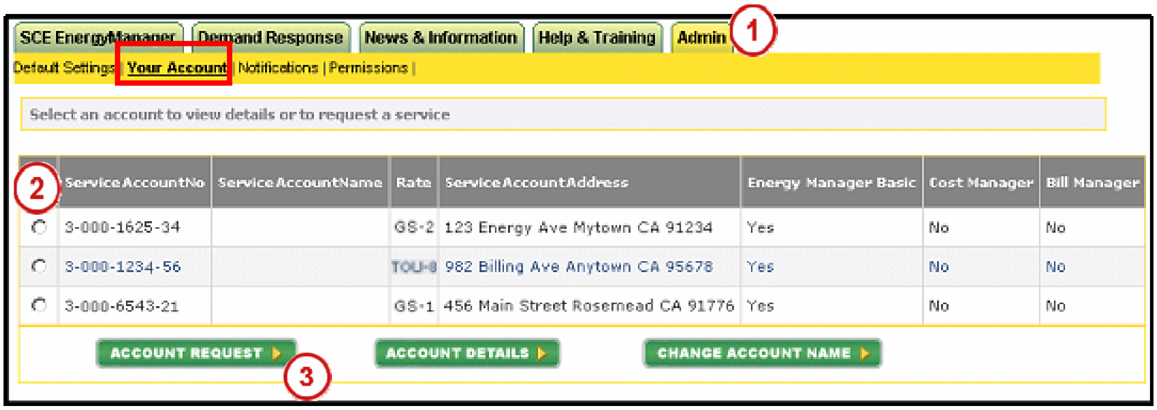


Figure 13 - Account Request

4. A form is displayed.
5. Enter the required details.
6. Click **Submit**.

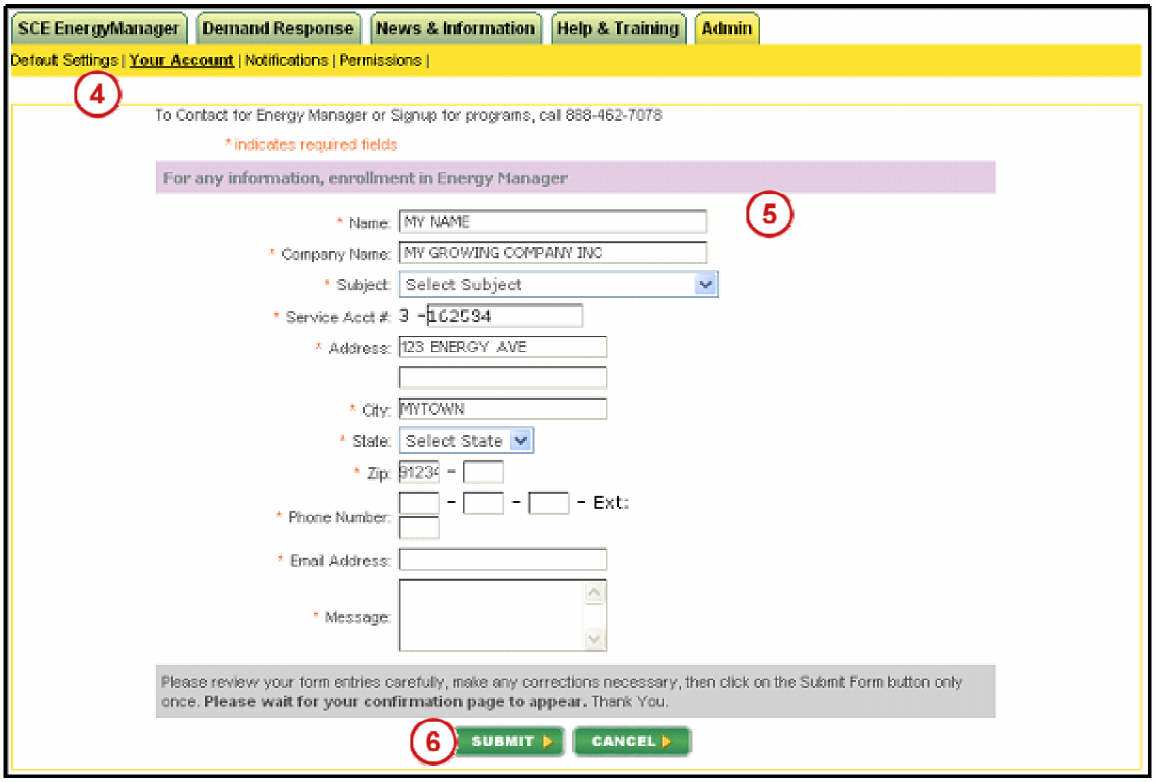


Figure 14 - Your Account Screen with the Form

Steps to view account details of an established account:

1. Navigate to the **Admin** tab and click **Your Account** in the Admin page.
2. Click the appropriate radio button to select the service account for which details are to be viewed.
3. Click **Account Details**. The account details of the selected service account are displayed.

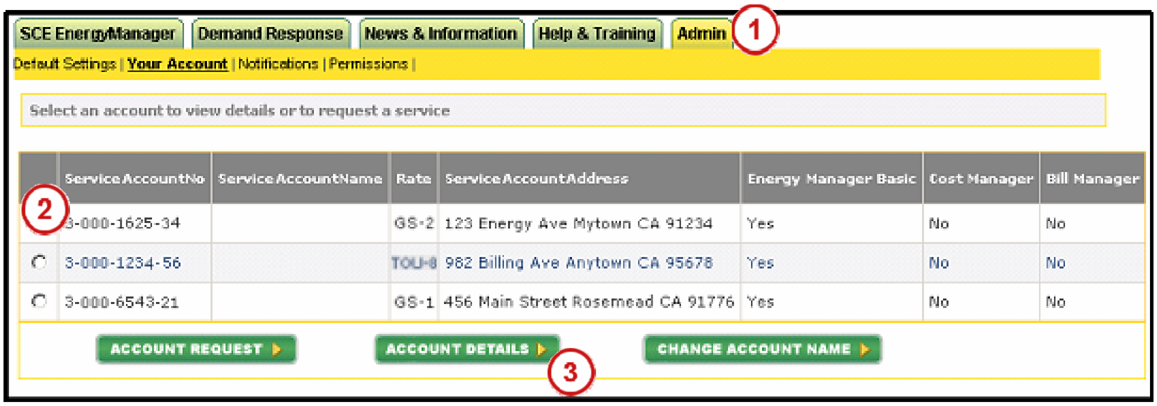


Figure 15 - Account Details

Steps to create an Account Nickname:

1. Navigate to the Admin tab and click **Your Account** in the Admin page
2. Click the appropriate radio button to select the service account for which the name is to be changed.
3. Click **Change Account Name**.

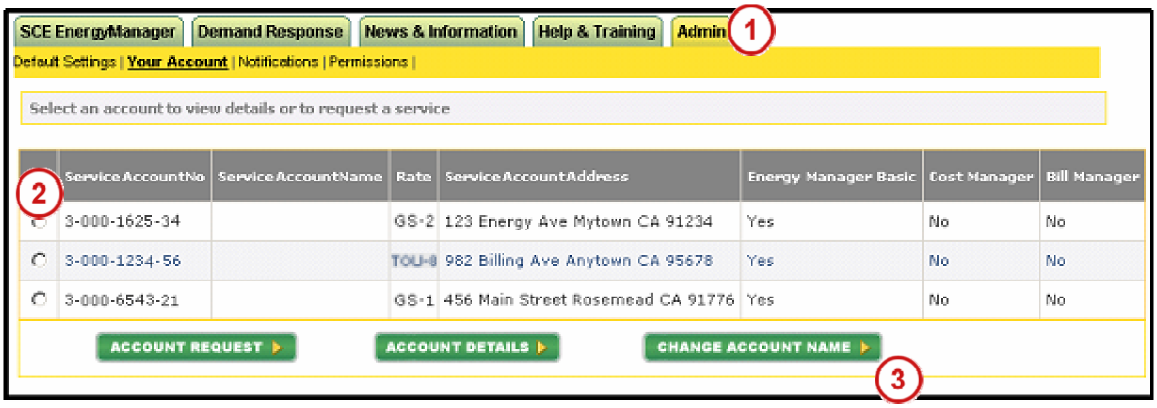


Figure 16 - Your Account

4. In the **Service Account Name** text box, enter the desired name for the service account.
5. Click **Apply** to confirm the changes.

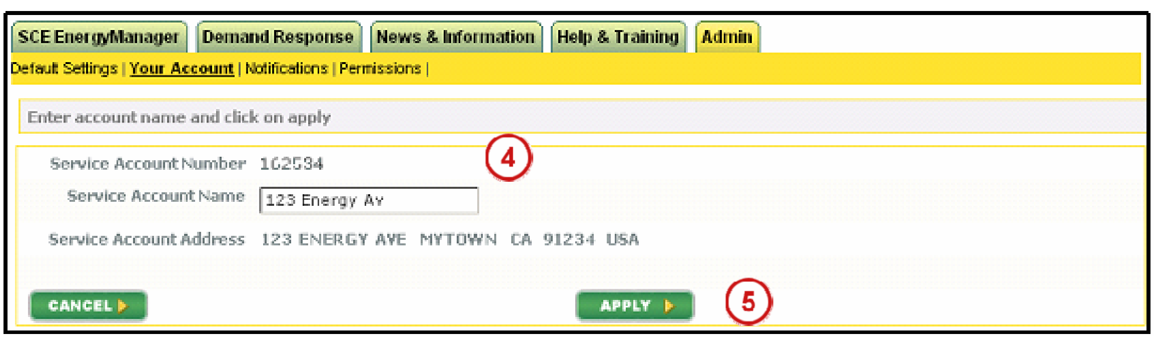


Figure 17 - Change Account Name

Note	The Account Nickname is used for personal reference only within the program.

3.1.3. Notifications

The **Notifications** link allows you to assign email addresses to receive Bill Notification for specific service accounts. As a Customer Administrator, you may also remove email addresses from your list. You may select service accounts from the list displayed or search for particular accounts.

Note	Only authorized users will have access to the bills on Bill Manager or Cost Manager. See Permissions.

Steps to assign Email addresses for Bill Notification:

1. Select the **Notifications** link in the Admin page. A list of service accounts is displayed.
2. Click the appropriate radio button to select a service account from the list. The **Bill Notification** area is displayed.

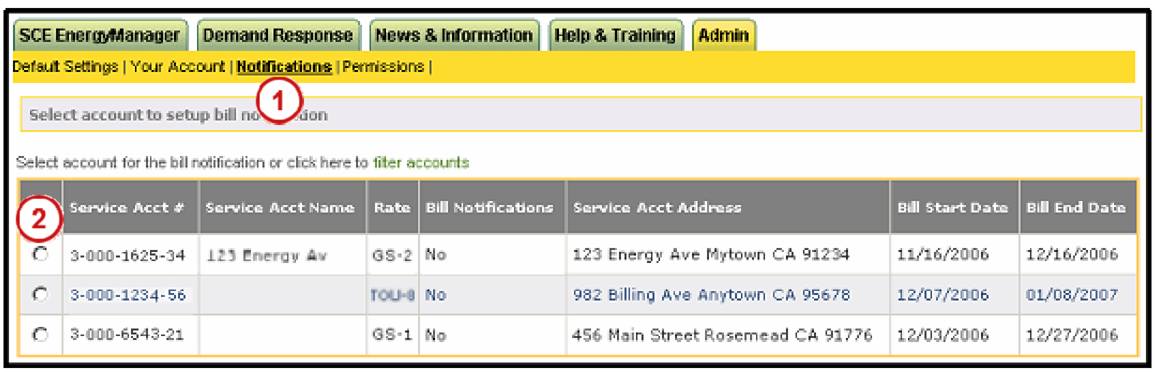


Figure 18 - Notifications

3. Type the Email addresses of the users to notify in the **Email Address** text boxes.
4. Click **Apply** to confirm the changes.

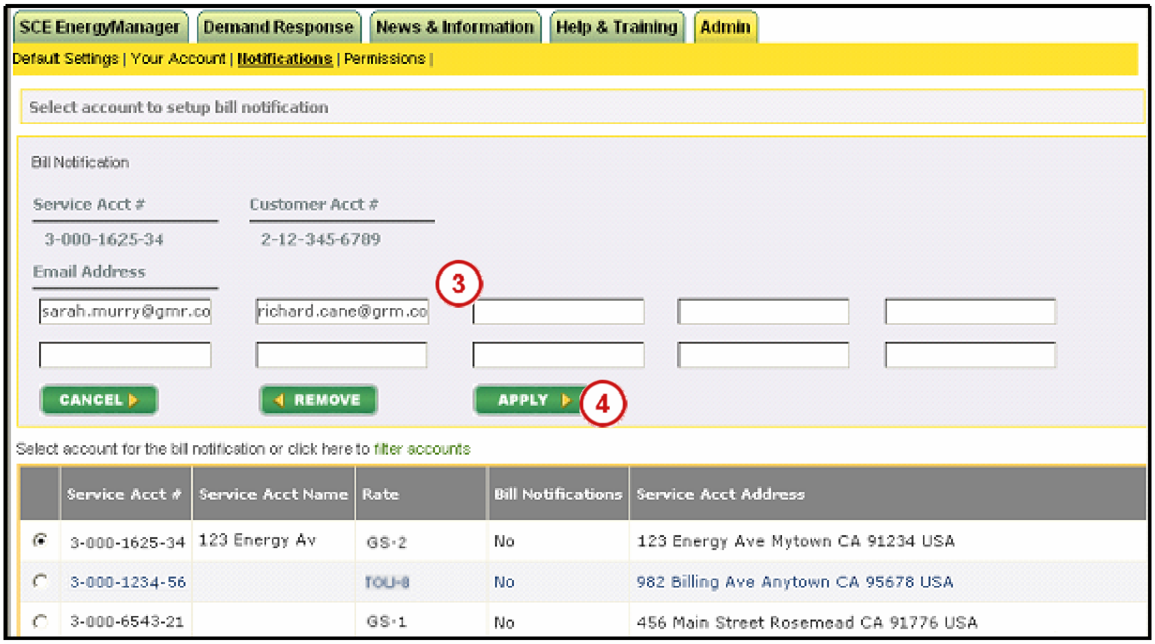


Figure 19 - Notifications Screen

Note	To remove Email addresses already assigned for Bill notification, select the email address and click the **Remove** button.

3.1.4. Permissions

As a Customer Administrator, you use the **Permissions** link to create Co-Users, and to assign or to restrict access to service accounts and SCE EnergyManager Programs. You may also remove users and edit Co-User permissions.

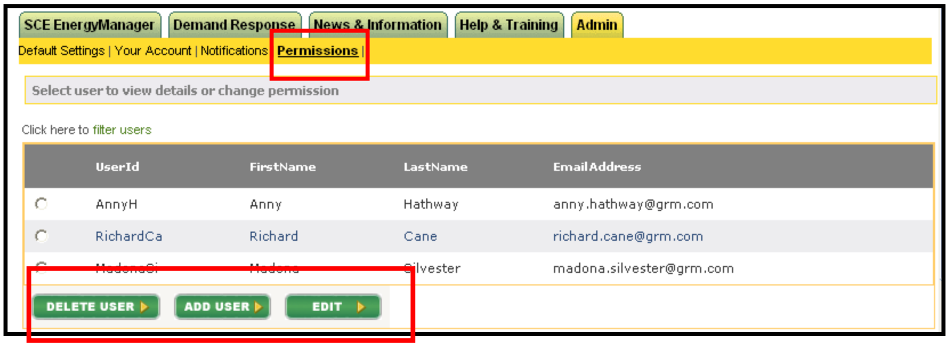


Figure 20 - Permissions Link

Steps to delete a user:

1. Select the **Permissions** link in the Admin page. A list of existing users is displayed.
2. Select a Co-User from the list of existing users.
3. Click **Delete**. A confirmation message is displayed.

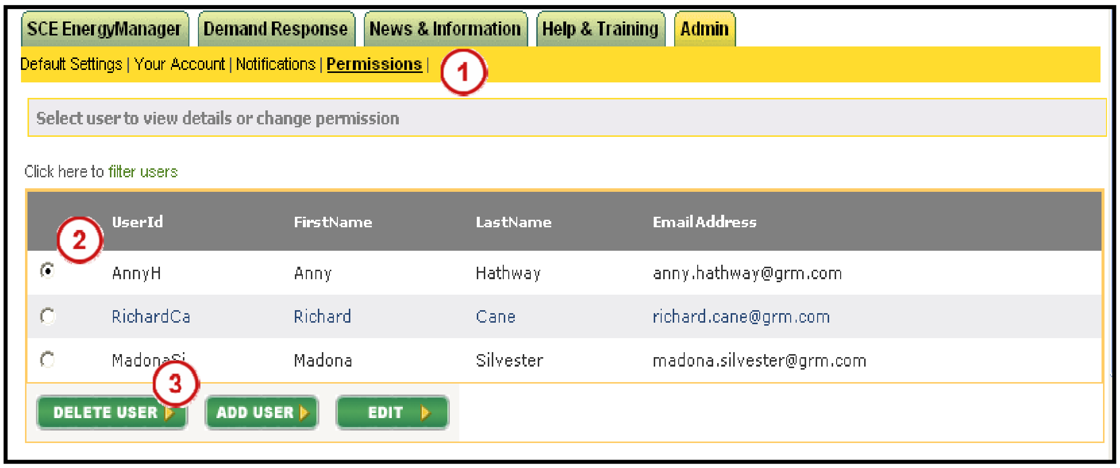


Figure 21 - Delete User

4. Click **OK** to delete the user.

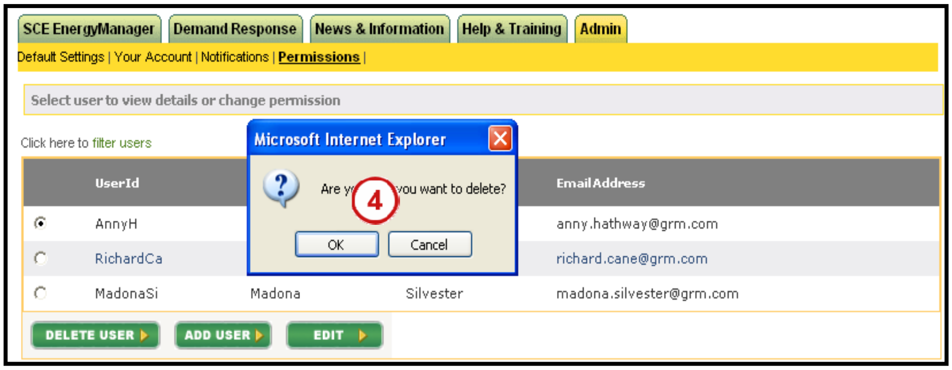


Figure 22 - Delete User

Steps to add a user:

1. Select the **Permissions** link in the Admin page. A list of existing users is displayed.

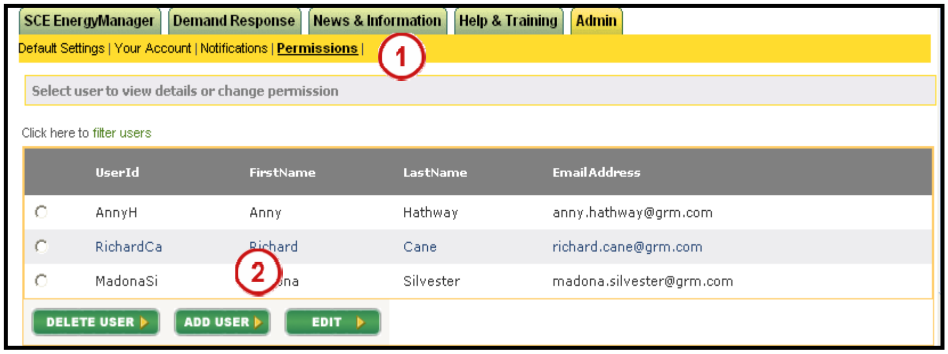


Figure 23 - Add User

2. Click the **Add User** button. A User Information screen is displayed.

3. Enter Co-User information in the User Name, First Name, Last Name, and Email Address text boxes.
4. Select the service account(s) and the program(s) to be associated to the new Co-User.
5. Click **Apply** to confirm the changes.

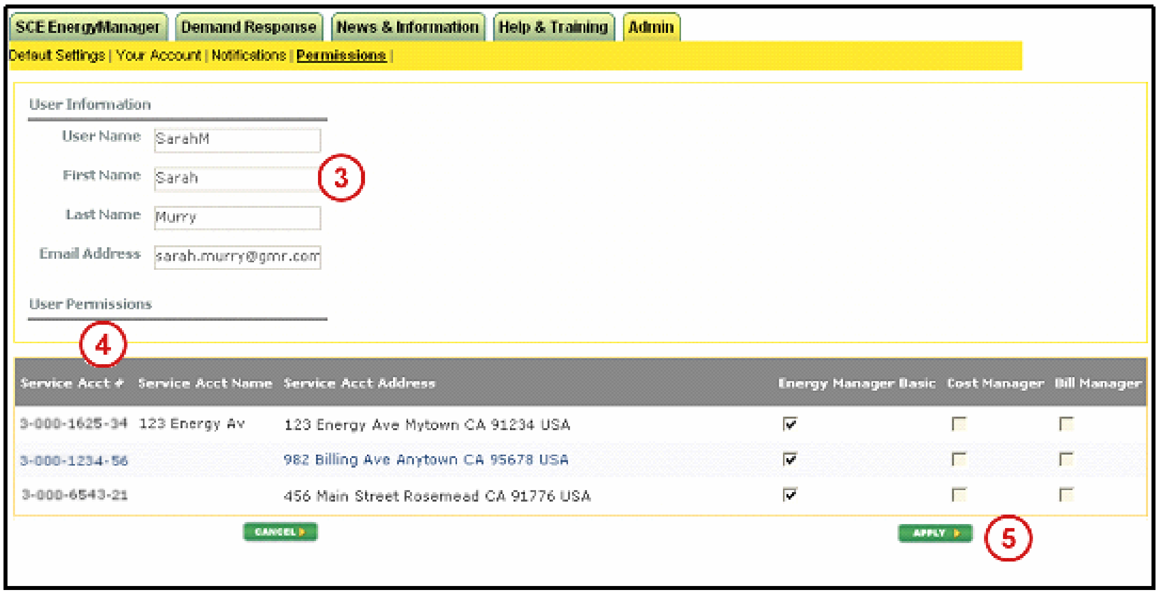


Figure 24 - Add User

Steps to edit user information:

1. Select the **Permissions** link in the Admin page. A list of existing users is displayed.
2. Select a Co-User from the list of existing users.

Figure 25 - Edit User Information

3. Click **Edit**. A user information screen is displayed.

4. Edit the user information and/or user access to the programs.
5. Click **Apply** to confirm the changes.

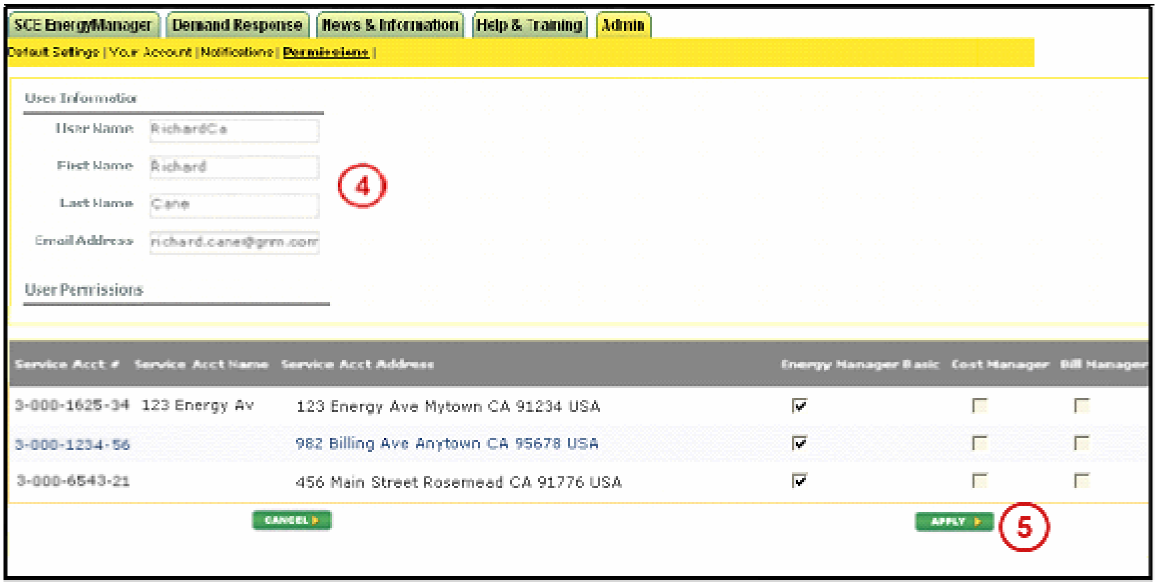


Figure 26 - Edit User Information

3.2. Summary

Administrative functions allow you to:

- Personalize your SCE EnergyManager experience using the **Default Settings** link.
- Manage service accounts using the **Your Account** link.
- Assign email addresses to receive Bill notification for specific service accounts using the **Notifications** link.
- Create, edit and delete Co-Users, assigning or restricting access to service accounts and SCE EnergyManager Programs using the **Permissions** link.

Notes

4. Introduction to Energy Manager Basic

Objectives

At the end of this lesson, you will be able to:

- Understand the need for Energy Manager Basic
- Understand the benefits of Energy Manager Basic
- Understand components of the Energy Manager Basic user interface

4.1. Why do you need Energy Manager Basic?

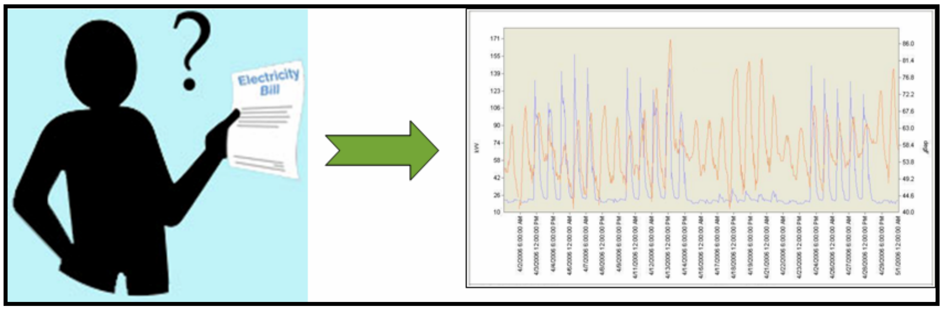


Figure 27 - Why use Energy Manager Basic?

Energy Manager Basic provides you with daily-refreshed energy information and a set of analytical tools that can be used to generate different types of reports. It allows you to:

- View and analyze energy usage
- Analyze energy consumption
- Manage energy costs effectively
- View historical energy data up to 48 months
- Review the 15-minute interval data in graph and tabular formats

4.2. Benefits

Energy Manager Basic is a user-friendly application, which allows you to make effective energy saving decisions for your business.

The benefits of using Energy Manager Basic are displayed in Figure 28.

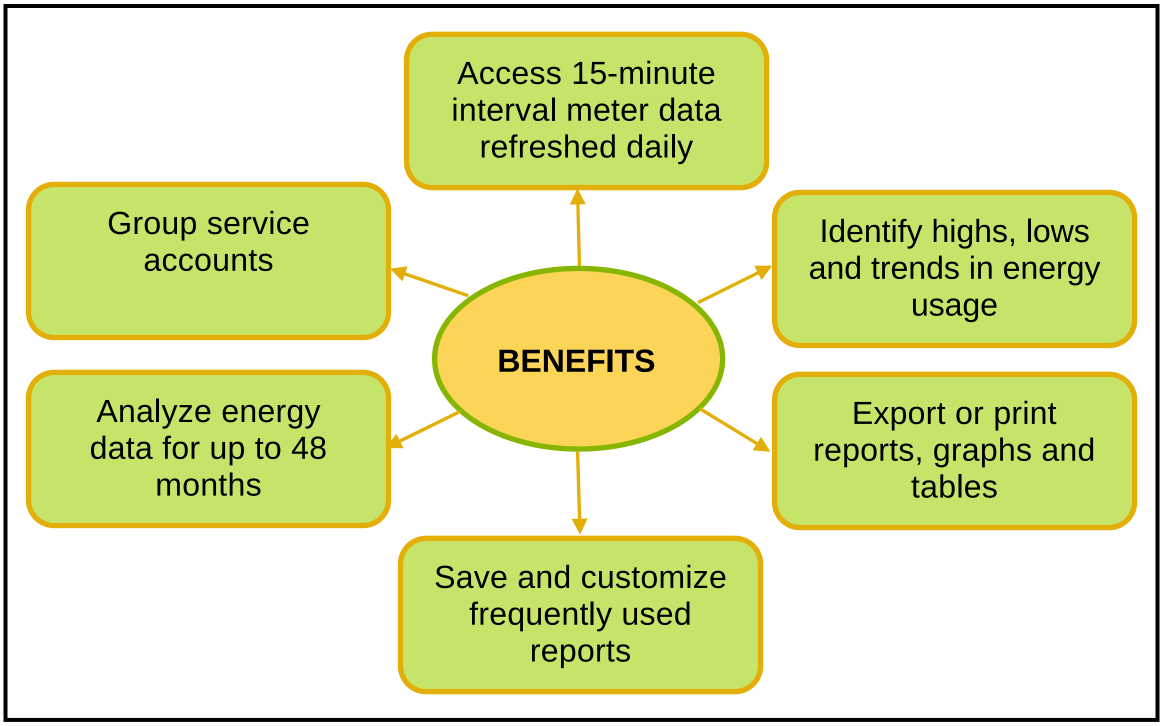


Figure 28 - Benefits of Energy Manager Basic

4.3. Components

Components refer to the screen elements of the Energy Manager Basic user interface. These components are the same across all reports of Energy Manager Basic. The components are displayed in Figure 29, and explained in Table 4.

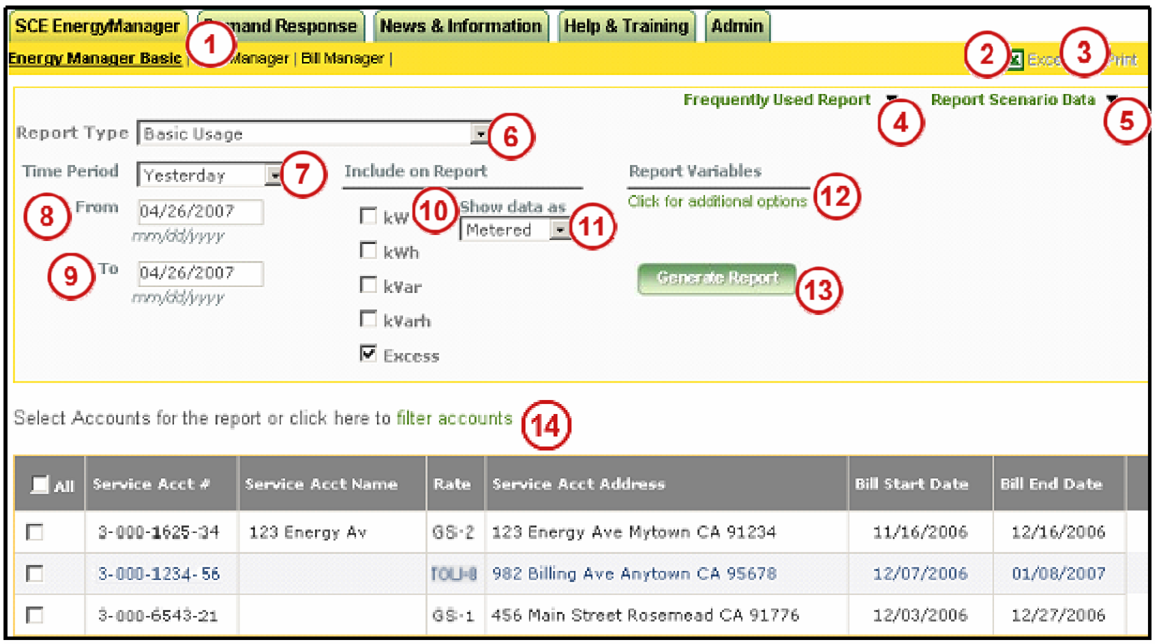


Figure 29 - Components of Energy Manager Basic

1	Tabs	Links to open SCE EnergyManager products
2	Excel	Exports generated summary and data tables to Excel
3	Print	Prints the generated report
4	Frequently Used Report	Saves, loads, modifies, and schedules reports for re-use
5	Report Scenario Data	Saves, loads, modifies sets of report variables and account lists
6	Report Type drop-down	Selects the report to be generated
7	Time-Period drop-down	Selects the time-period for which the report is to be generated

8	From	Specifies the start date of the report (used with Custom time period)
9	To	Specifies the end date of the report (used with Custom time period)
10	Include on Report	Controls meter channel(s) to be used for generating the report
11	Show data as	Controls data interval to be used for generating the report
12	Click for additional options	Allows user to specify optional report variables to generate a report
13	Generate Report button	Generates the specified report
14	Filter Accounts link	Searches for service accounts by Account Number, Account Name or Rate.

Table 4 - Components of Energy Manager Basic

4.4. Summary

- Energy Manager Basic provides you with daily-refreshed and historical energy information and a set of analytical tools that can be used to help you effectively manage your energy usage.
- It allows you to analyze and compare energy usage; to identify minimum, maximum and average energy usage; and to compare your usage to temperature data.
- Energy Manager Basic components include reports to be generated, report variables, and functions to facilitate efficient report processing.

Notes

5. REPORTS

Objectives

At the end of this lesson, you will be able to:

- Understand Energy Manager Basic Reports
- Understand Report Variables
- Search for service accounts

5.1. Overview

Energy Manager Basic offers three types of reports:

- Basic Usage Report - Displays energy usage of multiple service accounts for the selected time period, with minimum, maximum and average usage.
- Consumption Usage Report - Displays metered data for 15-minute intervals for the selected time period of multiple service accounts.
- Daily Line Chart Report - Displays 24-hourly usage of a single service account for the selected time period.

These reports allow users to view and analyze their energy usage and consumption data. They allow comparison of data for a range of parameters making analysis of data quick and easy. Users can specify the criteria for the report using report variables to get the required data. Each report has preset report criteria that the user can override.

5.2. Report Variables

The user can generate required reports by changing report parameters known as report variables. There are two types of report variables:

- Basic Report Criteria
- Additional Options

5.2.1. Basic Report Criteria

Basic report criteria are parameters which are critical for generating a report. These variables, such as the **Time Period** and **Include on Report**, allow the user to control the output of the report.

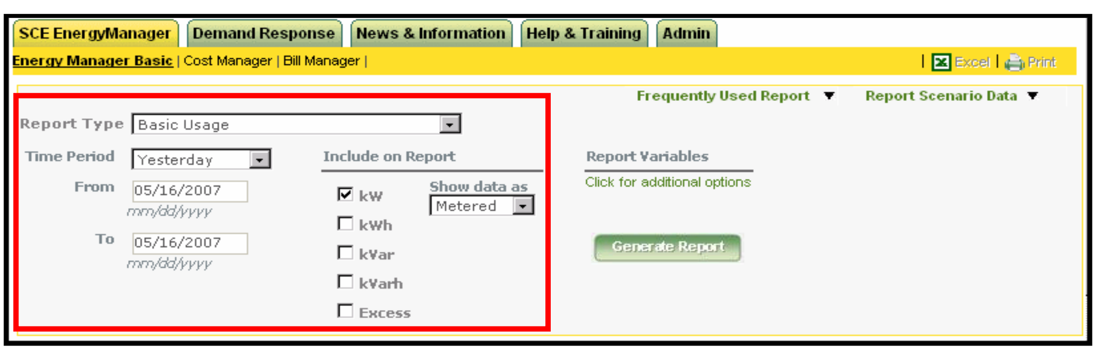
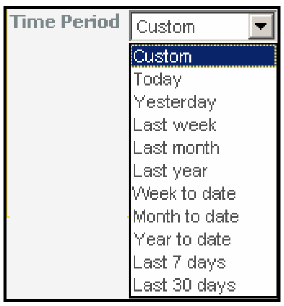
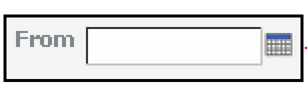


Figure 30 - The Basic Usage Report Screen with Report Variables

Basic report criteria are explained in the table below.

Variable	Options	Description
Report Type 		Allows you to select the report type to generate. You can generate Basic Usage Report, Consumption usage Report, or Daily Line Chart Report.
Time Period		Enables you to specify the time period for which the report is to be generated.
	Custom	Generates the report for a specific time period. **From** and **To** dates must be specified.
	Today	Generates the report for the current day.
	Yesterday	Generates the report for the previous day.
	Last week	Generates the report for the previous week (Sunday thru Saturday).
	Last month	Generates the report for the previous month.
	Last year	Generates the report for the previous year.
	Week to date	Generates the report for the period beginning previous Sunday through current date.
	Month to date	Generates the report for the period starting the first calendar day of the current month until the current date.
	Year to date	Generates the report for the period starting the first calendar day of the current year until the current date.
	Last 7 days	Generates the report for the last seven days from the current date.
	Last 30 day	Generates the report for the last 30 days from the current date.
From 	Calendar	Specifies the From date for the Custom time period. Type the date in mm/dd/yyyy format, or click the icon and select the required start date from the calendar control.

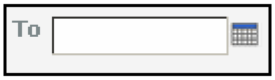
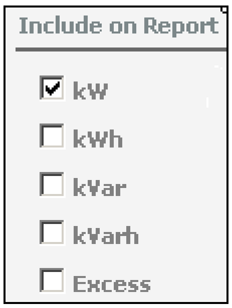
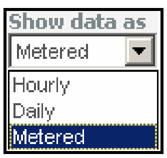
To  Calendar		Specifies the To date for the Custom time period. Type the date in mm/dd/yyyy format, or click the icon and select the required end date from the calendar control.
Include on Report		Specifies the Meter Channel to be selected.
	kW	Includes demand channel.
	kWh	Includes usage channel.
	kVar	Includes reactive demand channel.
	kVarh	Includes reactive usage channel.
	Excess	Includes excess kW/KWh generation.
Show data as		Allows you to set the Data Interval for certain reports.
	Hourly	Summarizes data by hour.
	Daily	Summarizes data by day.
	Metered	Displays 15-minute interval data.

Table 5 - Basic Report Criteria

5.2.2. Additional Options

In addition to basic report criteria, Energy Manager Basic provides several additional report variables for generating reports. These options vary depending on the report and are explained in the table below.

Additional Option	**Energy Manager Basic Report**			**Description**
	Basic Usage Report	Consumption Usage Report	Daily Line Chart Report	
Display Report Name As	X	X	X	Customizes the name of the report before generating it.
Weather Data	X	X	X	Displays weather data of the service account(s) selected for the same time period.
Select comparison time period	X			Compares energy usage (and weather data) from one time period with that of another time period.
Dates to exclude			X	Excludes particular dates from the specified time period.
Days to exclude			X	Excludes certain days from the specified time period.
Output Format - Horizontal and Vertical		X		Organizes details from multiple service accounts horizontally or vertically.

Table 6 - Additional Options

5.3. Searching and Selecting Service Accounts

If the service account you wish to use is not already displayed, you can find it by entering a criterion in the search area.

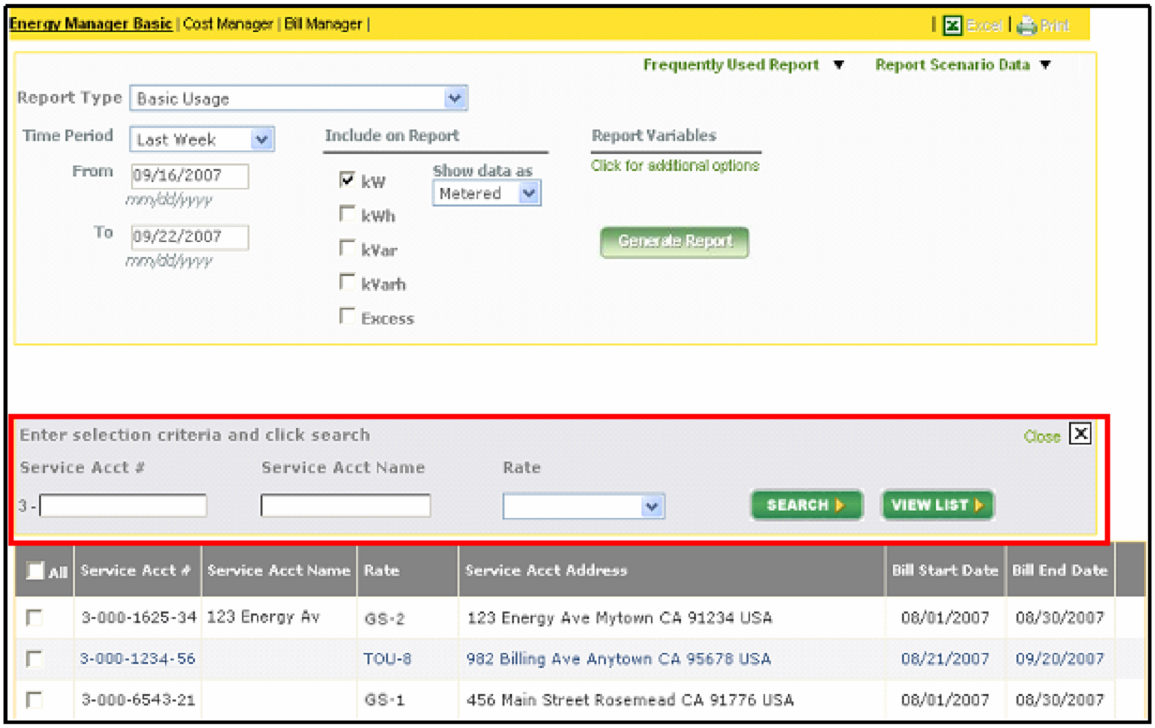


Figure 31 - Searching Service Accounts

The search variables and components are explained in the table below:

Variable	Description
Service Acct #	Searches based on the Service Account Number.
Service Acct Name	Searches based on the Service Account Name.
Rate	Searches based on the Rate.
Search button	Displays the results of the search.
View List button	Displays all the service accounts enrolled for the selected program.

Table 7 - Search Components

Steps to search for a service account based on the service account number:

1. Click the **filter accounts** link in the Energy Manager Basic screen.

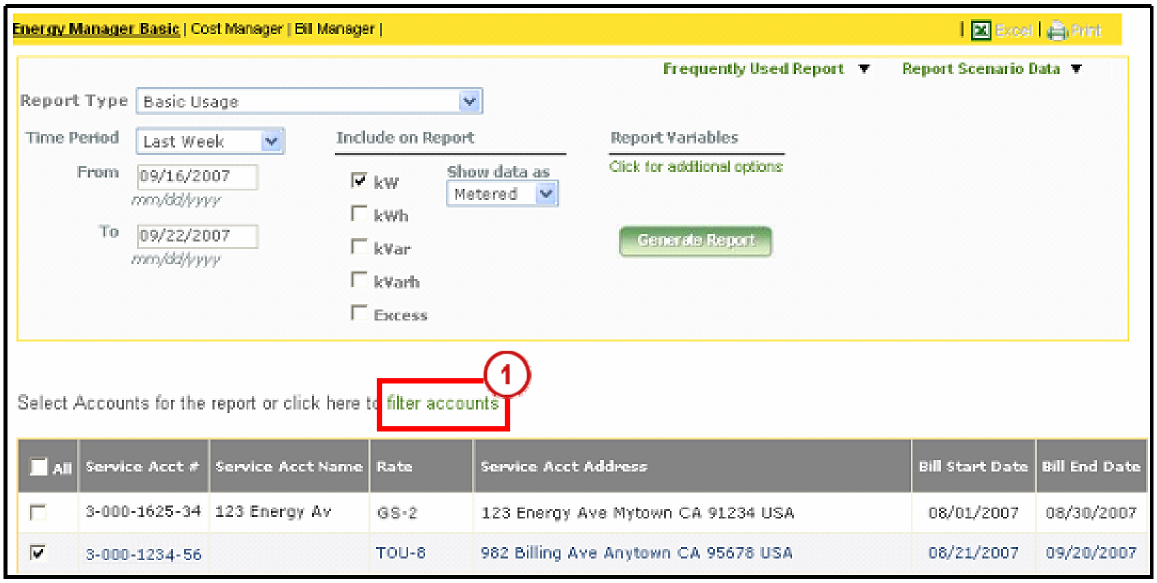


Figure 32 - Filter Accounts Link

2. To search for a service account, enter the Service Account Number in the search area.
3. Click the **Search** button.

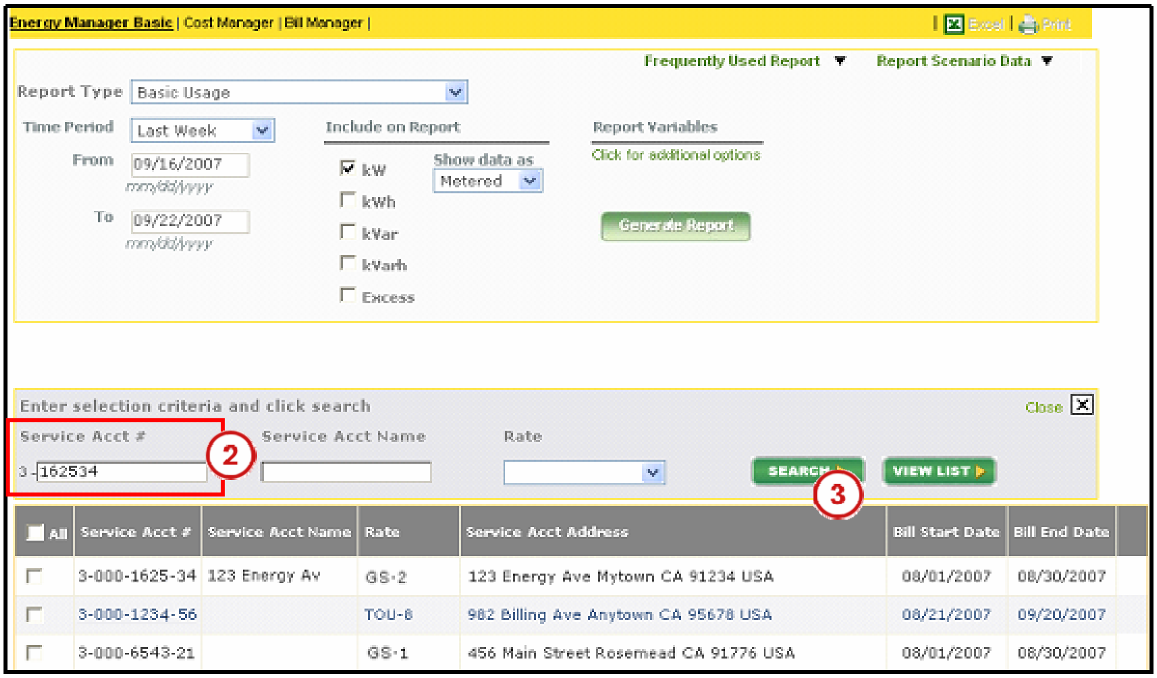


Figure 33 - Filter Accounts on Service Acct #

4. The service account(s) matching the criterion are displayed.

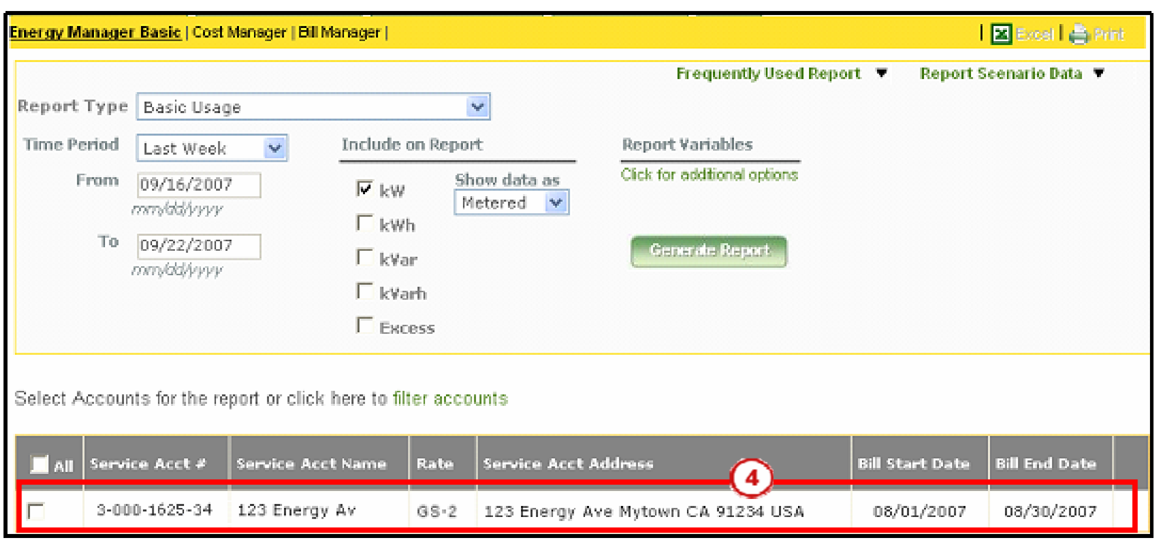


Figure 34 – List of Service Accounts Filtered by Service Acct #

Steps to list all service accounts without filter:

1. Click the **filter accounts** link in the Energy Manager Basic screen.

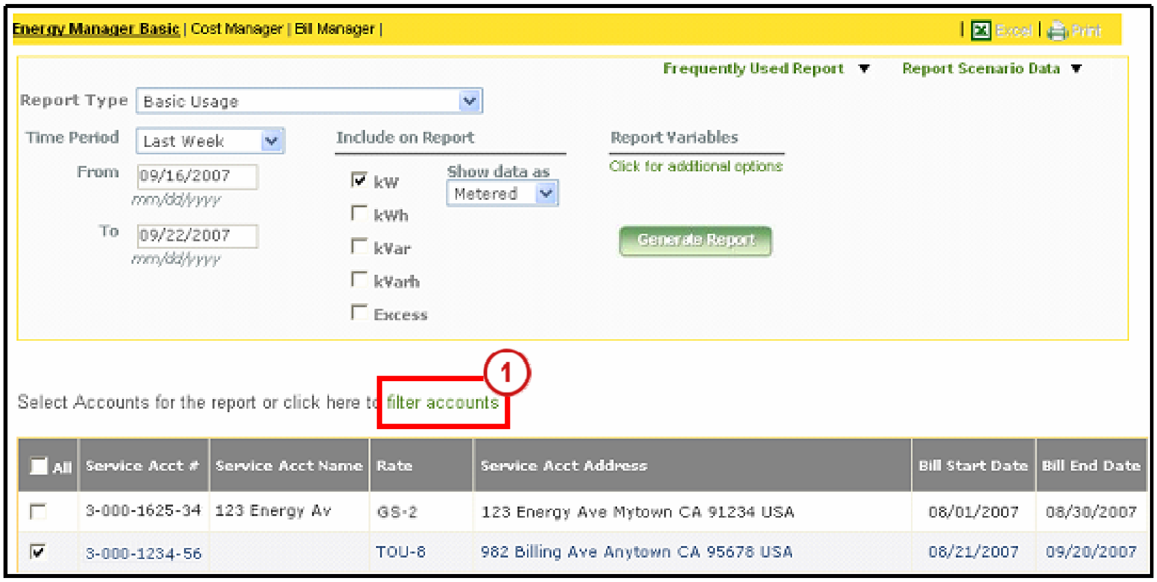


Figure 35 - Filter Accounts Link

2. In the Search area, click **View List** to view all the service accounts.

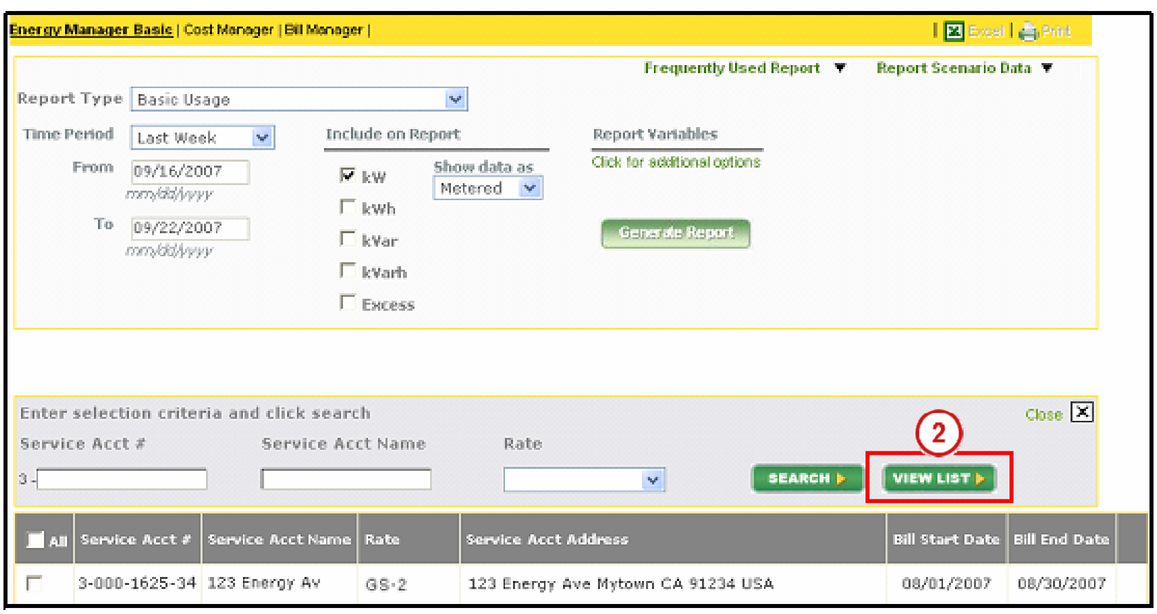


Figure 36 - View List

3. All the service accounts are displayed.

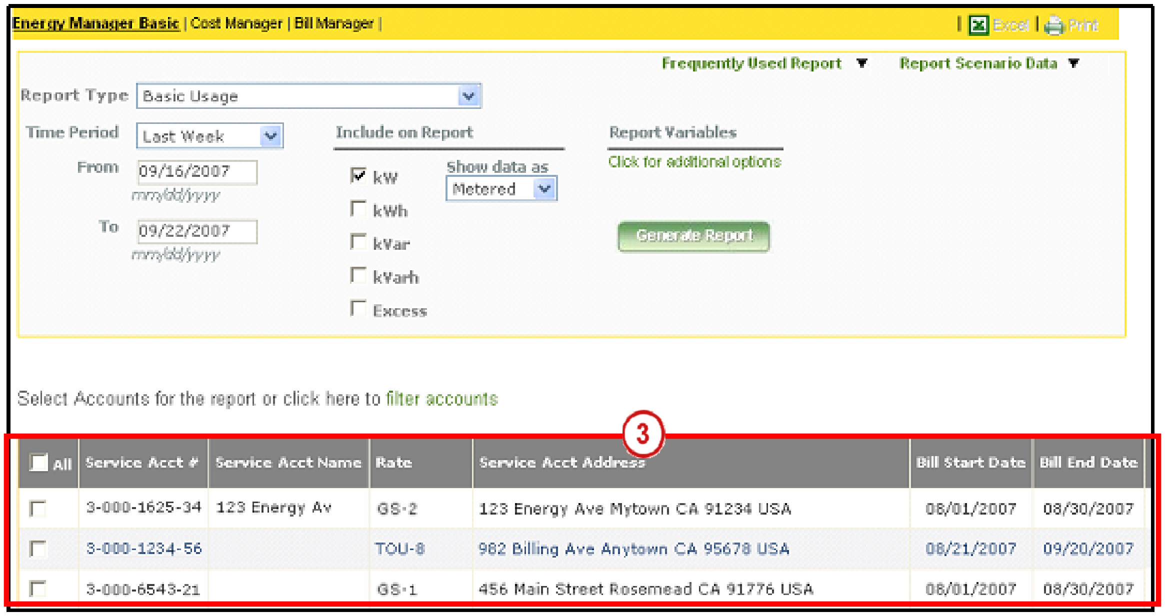


Figure 37 - View List Results

Steps to search for service account(s) based on the service account name:

1. Click the **filter accounts** link in the Energy Manager Basic screen.

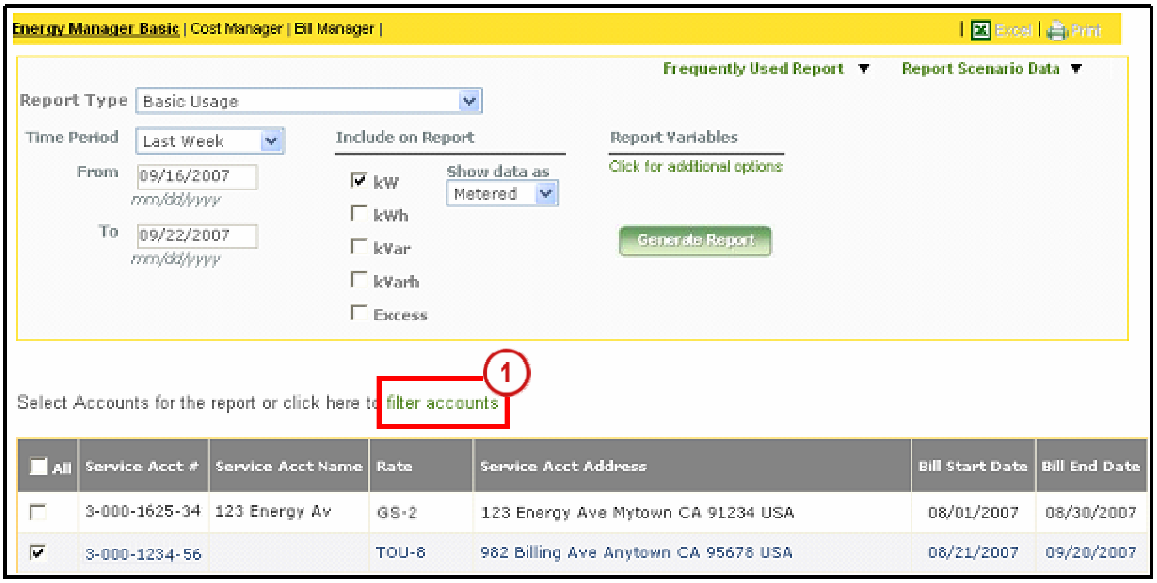


Figure 38 - Filter Accounts Link

2. To search for a service account, enter the Service Account Name in the search area.

3. Click the **Search** button.

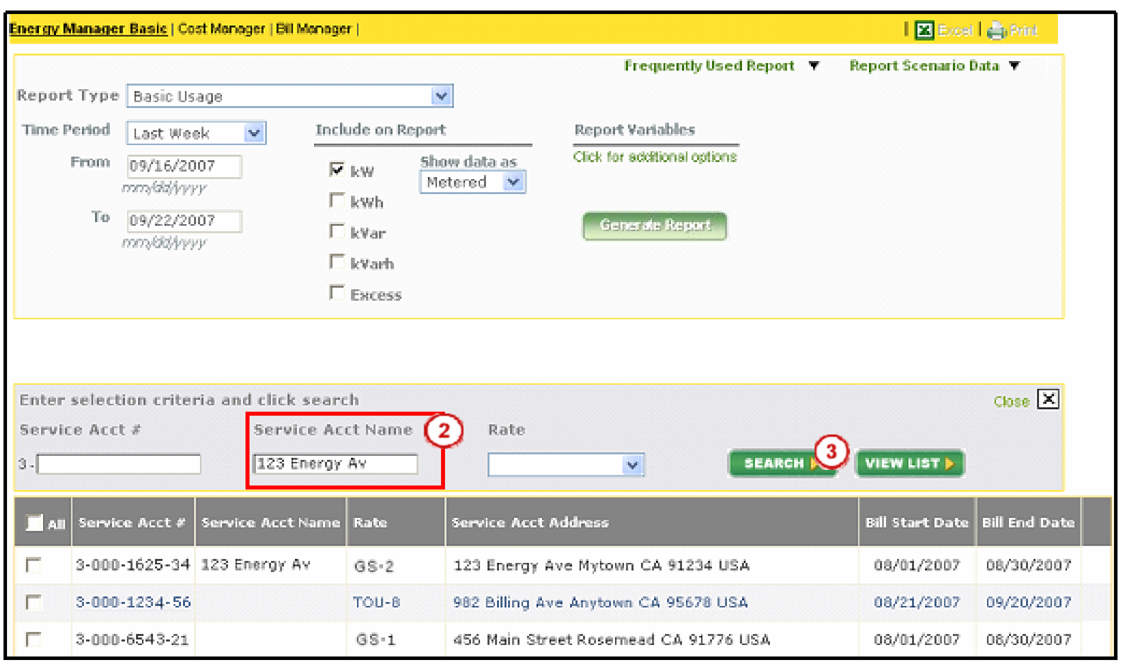


Figure 39 - Filter Accounts by Service Acct Name

4. The service account(s) matching the criterion are displayed.

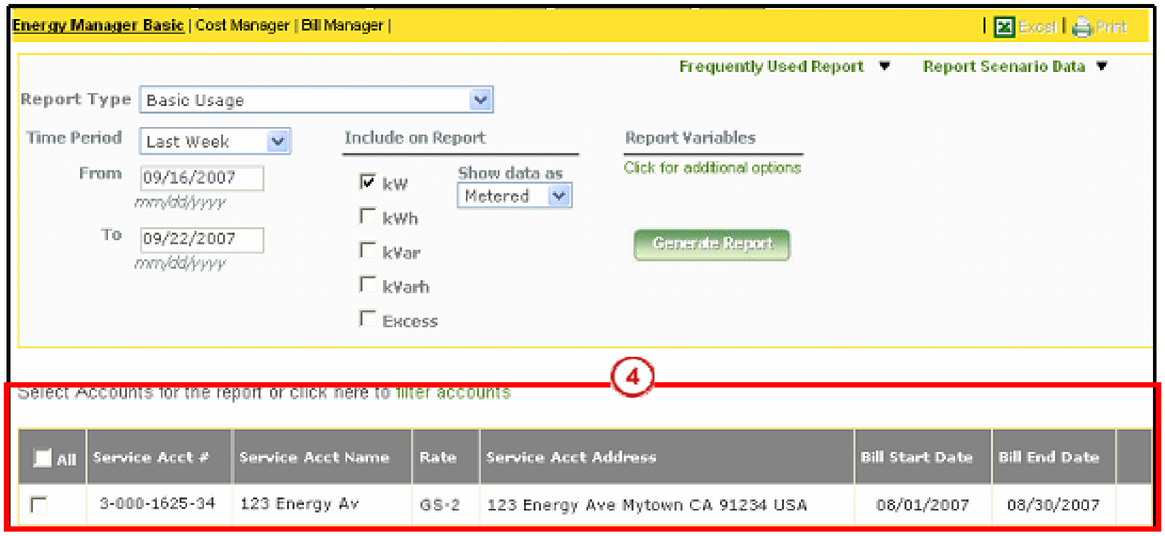


Figure 40 - Filter Accounts on Service Acct Name

Note	You can search for service account(s) by using a partial entry in the Service Account Number or Service Account Name field.

5.4. Summary

- SCE EnergyManager Basic offers three reports:
  - Basic Usage Report
  - Consumption Usage Report
  - Daily Line Chart Report
- The reports may be generated using basic report criteria and additional options.
- Service accounts can be filtered using Service Account Number, Service Account Name, and Rate; or they can be listed without filter.

Notes

6. BASIC USAGE REPORT

Objectives

At the end of this lesson, you will be able to:

- Understand the functionality of Basic Usage Report
- Understand the features of Basic Usage Report
- Generate the Basic Usage Report using Basic Report Criteria and Additional Options

6.1. Introduction to Basic Usage Report

This report allows you to view your energy usage within a selected time period, of selected service accounts, with a summary indicating the minimum, maximum, and average demand.

The default basic report criteria for the Basic Usage Report are listed below:

Variable	Option
Time Period	Yesterday
Include on Report	kW
Show data as	Metered

Table 8 - Basic Usage Report Default Basic Report Criteria

For more information on variables refer to section 5.2 Report Variables.

6.2. Report Parameters

The table below lists the Data Interval report parameters with the maximum number of service accounts and maximum time period that apply to each parameter for the Basic Usage Report.

Data Interval	Maximum Service Accounts	Maximum Time Period
Metered	3	31 days
Hourly	10	31 days
Daily	20	1 year

Table 9 - Basic Usage Report Parameters

6.3. Report Generation

Let us generate the Basic Usage Report using customized variables.

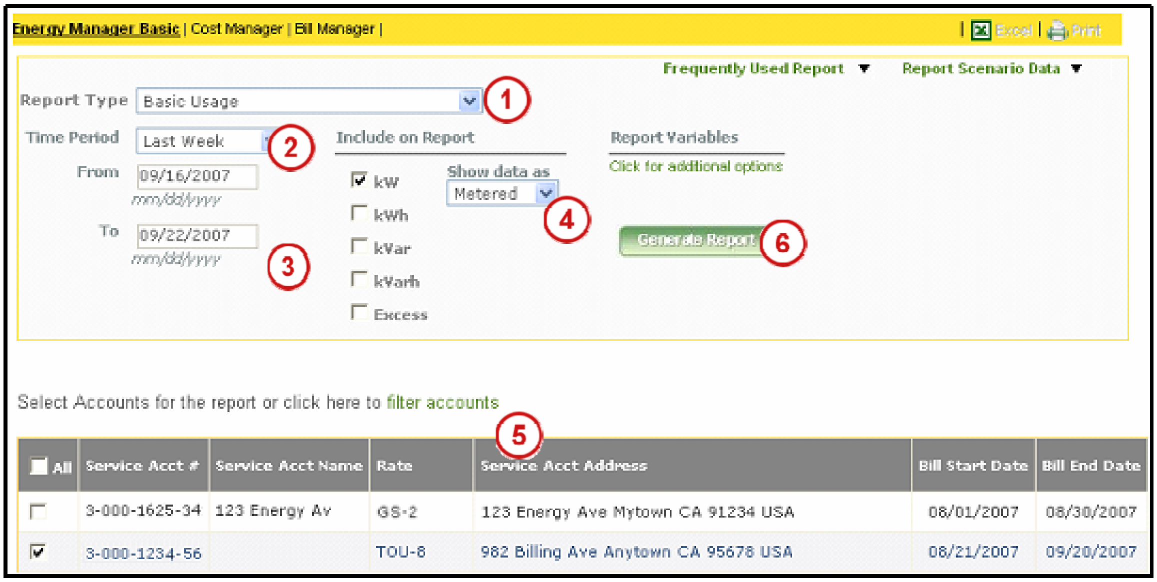


Figure 41 – Generating Basic Usage Report

Steps to generate the report:

1. Select the **Report Type**.
2. Select the **Time Period.**
3. Select the **Meter Channel** (Include on Report).
4. Select the **Data Interval** (Show Data As).
5. Select the **Service Account**(s).
6. Click **Generate Report**.

Report Output

The report displays the usage of the selected service account(s), for the selected time period in a Graph, Summary Table and Data Table.

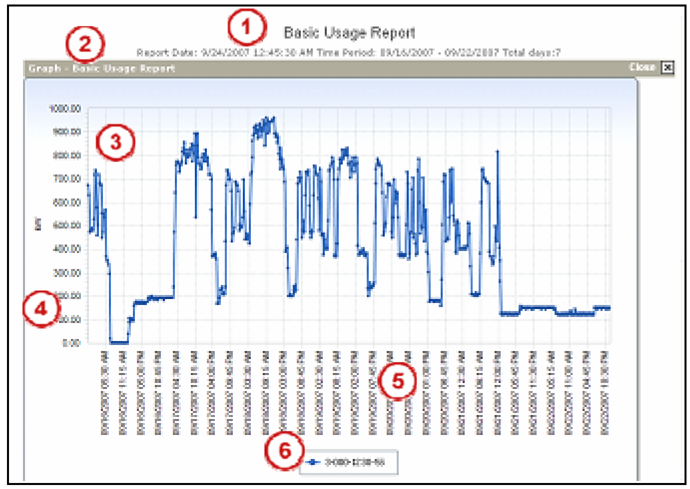
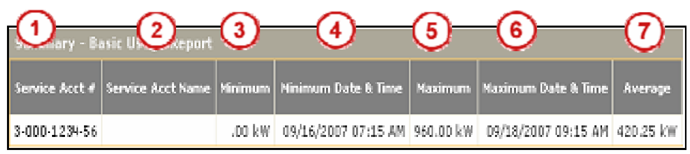
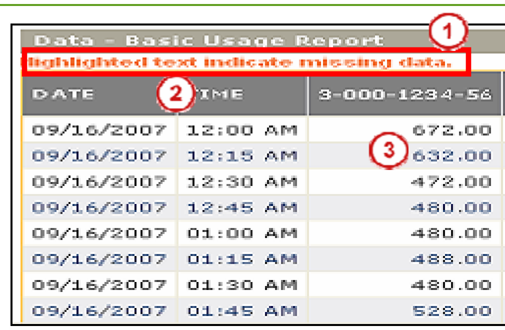
<table>
<tr><th>Report Component</th><th>Description</th></tr>
<tr><td>Line Graph
1. Report Name
2. Selected Time Period
3. Energy Data for selected Meter Channel
4. Y- axis - Meter Channel
5. X- axis - Data Interval
6. Legend for Service Account</td><td>
</td></tr>
<tr><td>Summary Table
1. Service Account Number
2. Service Account Name
3. Minimum Energy Usage
4. Minimum Date and Time stamp
5. Maximum Energy Usage
6. Maximum Date and Time stamp
7. Average Energy Usage</td><td>
<table><tr><th>Service Acct #</th><th>Service Acct Name</th><th>Minimum</th><th>Minimum Date & Time</th><th>Maximum</th><th>Maximum Date & Time</th><th>Average</th></tr>
<tr><td>3-000-1234-56</td><td></td><td>.00 kW</td><td>09/16/2007 07:15 AM</td><td>960.00 kW</td><td>09/18/2007 09:15 AM</td><td>420.25 kW</td></tr></table></td></tr>
<tr><td>Data Table
8. Message demonstrating how unavailable interval data is indicated
9. Date and Time stamp for the selected Data Interval
10. Usage during selected Data Interval by selected Service Account(s)</td><td>
Data - Basic Usage Report
Highlighted text indicate missing data.
<table><tr><th>DATE</th><th>TIME</th><th>3-000-1234-56</th></tr>
<tr><td>09/16/2007</td><td>12:00 AM</td><td>672.00</td></tr>
<tr><td>09/16/2007</td><td>12:15 AM</td><td>632.00</td></tr>
<tr><td>09/16/2007</td><td>12:30 AM</td><td>472.00</td></tr>
<tr><td>09/16/2007</td><td>12:45 AM</td><td>480.00</td></tr>
<tr><td>09/16/2007</td><td>01:00 AM</td><td>480.00</td></tr>
<tr><td>09/16/2007</td><td>01:15 AM</td><td>488.00</td></tr>
<tr><td>09/16/2007</td><td>01:30 AM</td><td>480.00</td></tr>
<tr><td>09/16/2007</td><td>01:45 AM</td><td>528.00</td></tr></table></td></tr>
</table>

Table 10 - Basic Usage Report Output

6.4. Additional Options

The Basic Usage report has the following additional options:

- Display Report Name As
- Use Weather Data
- Select comparison time period

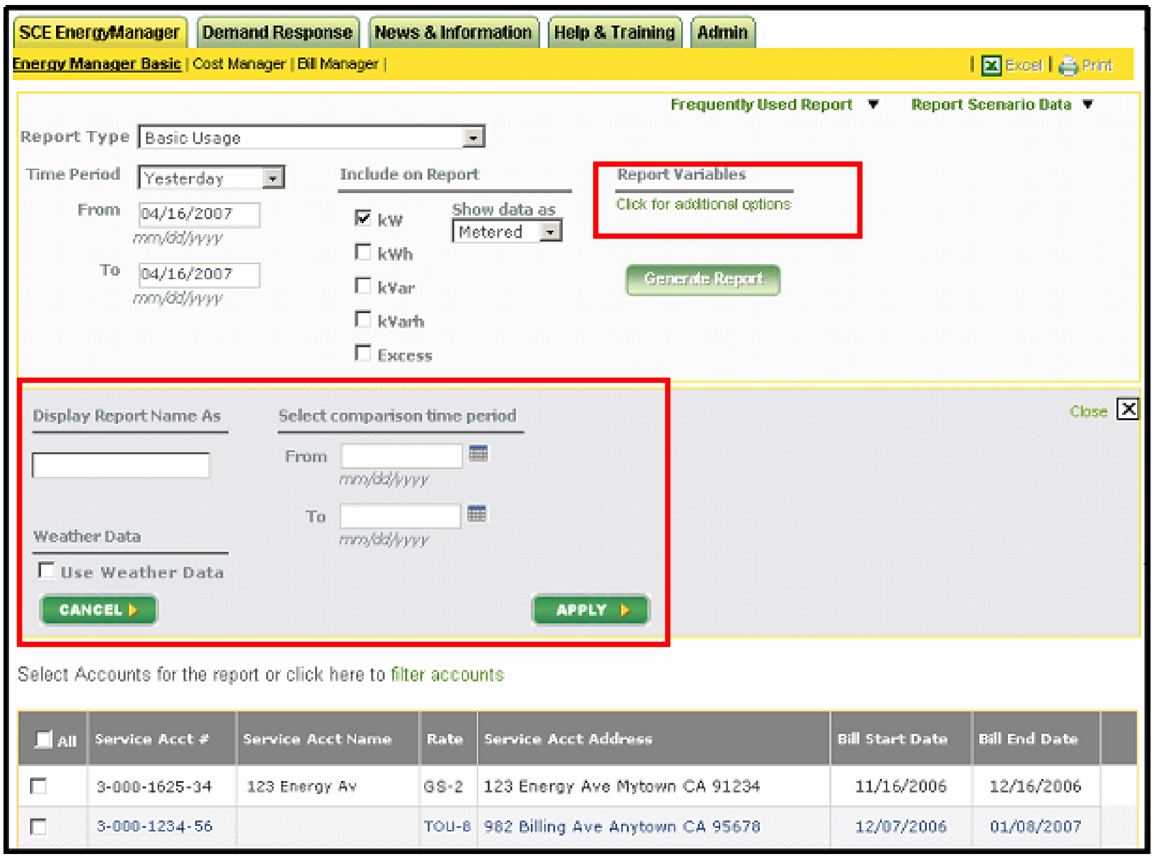


Figure 42 - Basic Usage Report Additional Options

6.4.1. Display Report Name As

This variable allows you to enter a customized report name for the report.

Steps to generate the report using Display Report Name As:

1. Specify the basic report criteria and service account(s) for the report.
2. Select the **Click for additional options** link.
3. Specify the desired heading in the **Display Report Name As** text box.
4. Click **Apply**.
5. Click **Generate Report**.

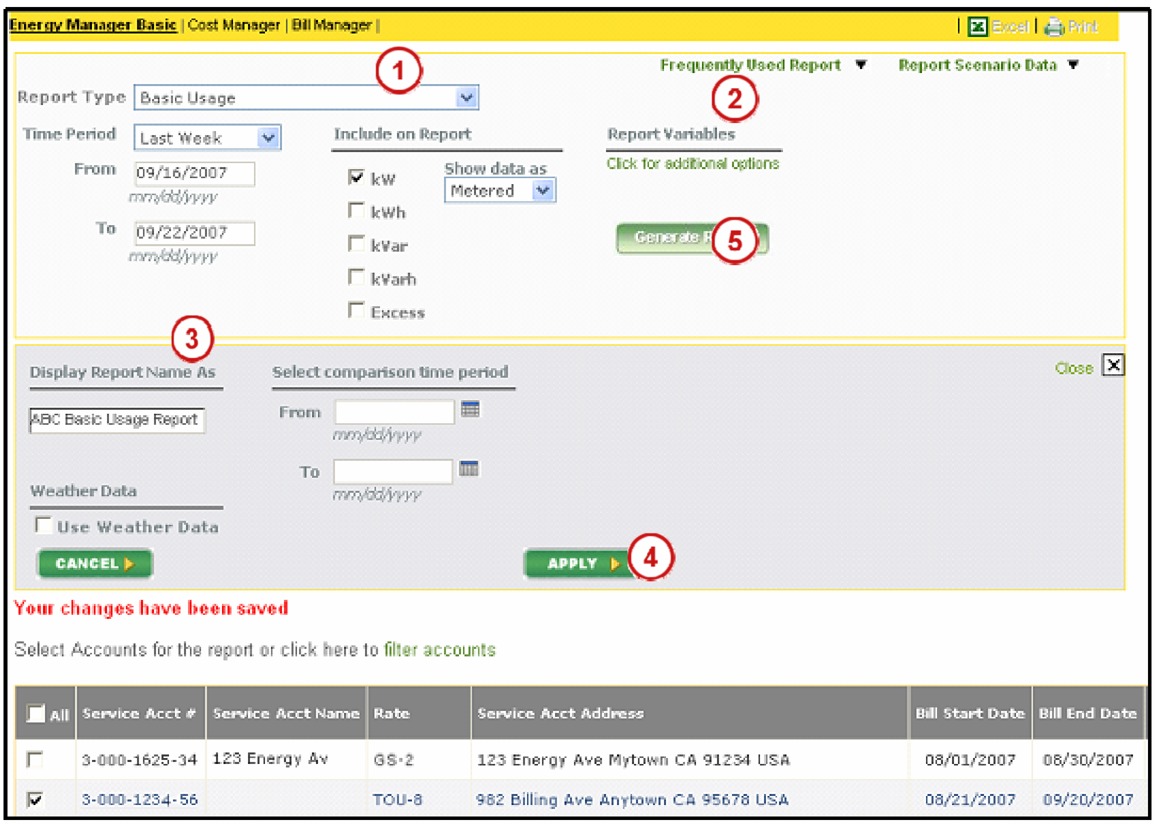


Figure 43 - Display Report Name As

Report Output

In addition to the standard information, the report displays the following:

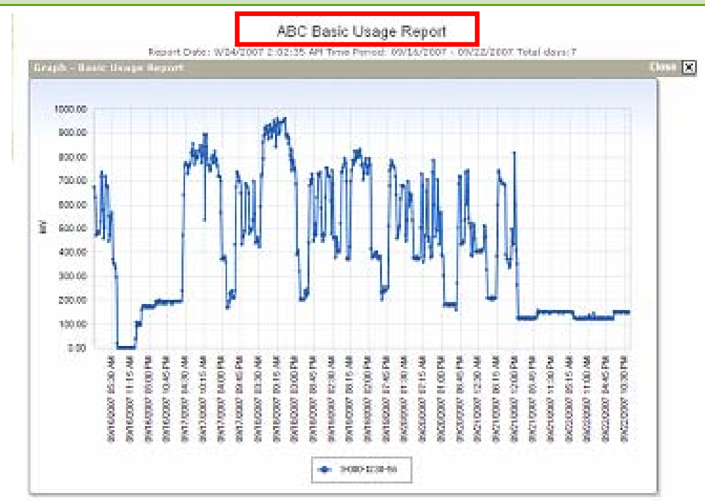
Report Component	Description
Line Graph Customized report name	

Table 11 - Basic Usage Report: Display Report Name As Output

6.4.2. Weather Data

This variable allows you to view your usage in correlation with the weather data if a weather station has been assigned to the service account. For more information on how to assign a weather station, refer to the section 3.1.1.1 Default Settings for Steps to Assign a Weather Station to a Service Account.

Steps to generate the report using Weather Data:

1. Follow steps 1-5 for report generation (see Figure 41 – Generating Basic Usage Report).
2. Select the **Click for additional options** link.
3. Select **Use Weather Data**.
4. Click **Apply**.
5. Click **Generate Report**.

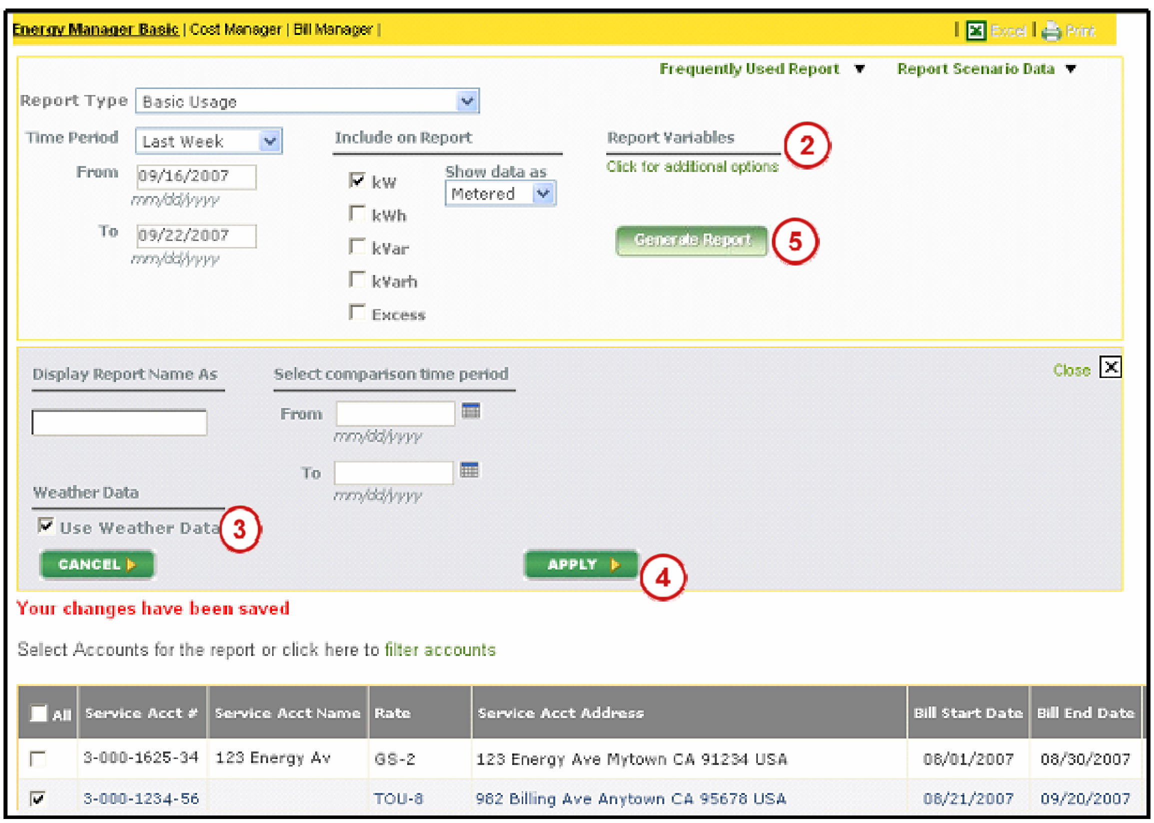


Figure 44 - Generating the Report with Weather Data

Report Output

In addition to the standard information, the report displays the following:

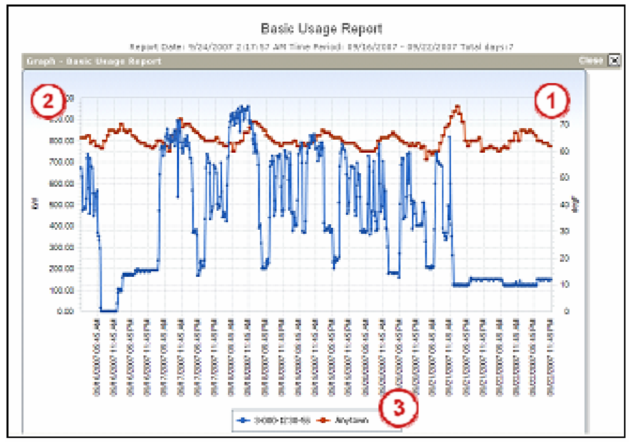
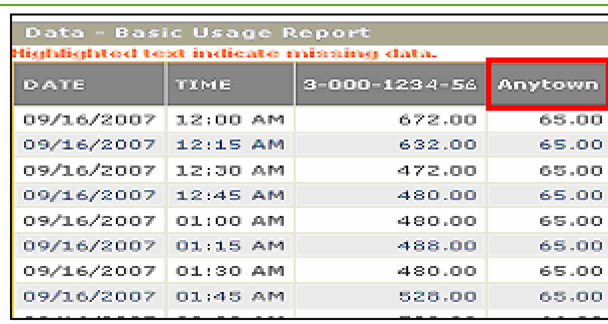
<table>
<tr><th>Report Component</th><th>Description</th></tr>
<tr><td>Line Graph
1. Temperature in Fahrenheit on right Y - axis
2. Weather data of the assigned weather station
3. Legend for Weather Station</td><td>
</td></tr>
<tr><td>Summary Table
1. Weather station in the first column
2. Minimum temperature with Date and Time stamp
3. Maximum temperature with Date and Time stamp
4. Average temperature</td><td>
Summary - Basic Usage Report
<table>
<tr><th>e Acct #</th><th>Service Acct Name</th><th>Minimum</th><th>inimum Date & Time</th><th>Maxi</th><th>Maximum Date & Time</th><th>A</th></tr>
<tr><td>3-000-1234-56</td><td></td><td>.00 kW</td><td>09/16/2007 07:15 AM</td><td>960.00 kW</td><td>09/18/2007 09:15 AM</td><td>420.25 kW</td></tr>
<tr><td>Anytown</td><td></td><td>57 degF</td><td>09/21/2007 06:02 AM</td><td>77 degF</td><td>09/22/2007 06:02 AM</td><td>64.52 degF</td></tr>
</table></td></tr>
<tr><td>Data Table
Temperatures of the weather station(s), in Fahrenheit at each Data Interval</td><td>
Data - Basic Usage Report
Highlighted text indicate missing data.
<table>
<tr><th>DATE</th><th>TIME</th><th>3-000-1234-56</th><th>Anytown</th></tr>
<tr><td>09/16/2007</td><td>12:00 AM</td><td>672.00</td><td>65.00</td></tr>
<tr><td>09/16/2007</td><td>12:15 AM</td><td>632.00</td><td>65.00</td></tr>
<tr><td>09/16/2007</td><td>12:30 AM</td><td>472.00</td><td>65.00</td></tr>
<tr><td>09/16/2007</td><td>12:45 AM</td><td>480.00</td><td>65.00</td></tr>
<tr><td>09/16/2007</td><td>01:00 AM</td><td>480.00</td><td>65.00</td></tr>
<tr><td>09/16/2007</td><td>01:15 AM</td><td>488.00</td><td>65.00</td></tr>
<tr><td>09/16/2007</td><td>01:30 AM</td><td>480.00</td><td>65.00</td></tr>
<tr><td>09/16/2007</td><td>01:45 AM</td><td>528.00</td><td>65.00</td></tr>
</table></td></tr>
</table>

Table 12 - Basic Usage Report: Weather Data Output

6.4.3. Select comparison time period

This variable allows you to compare your energy data for the same Meter Channel from a different time period. If you also select Use Weather Data, weather from both time periods will be included in the comparison.

Steps to generate the report using Select comparison time period:

1. Follow steps 1-5 for report generation (see Figure 41 – Generating Basic Usage Report).
2. Select the **Click for additional options** link.
3. Select the **From** and **To** dates in the Select comparison time period area.
4. Click **Apply**.
5. Click **Generate Report**.

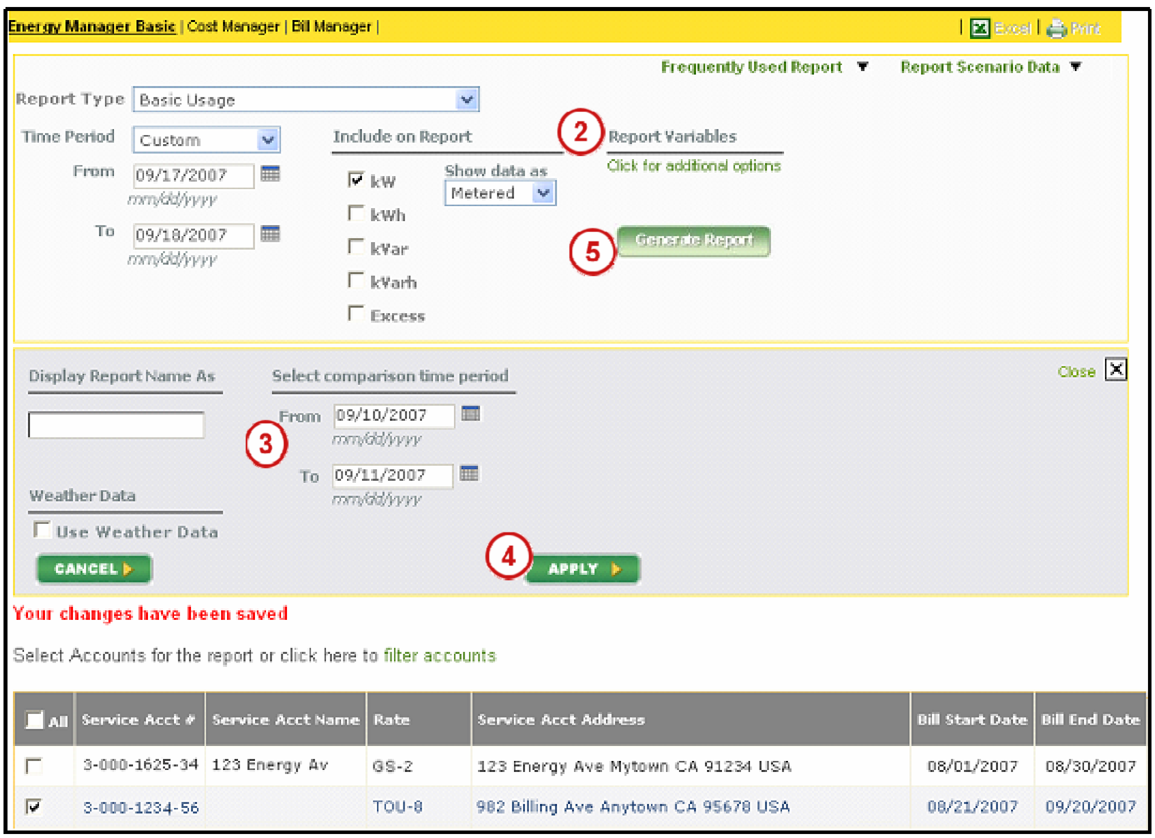


Figure 45 - Select comparison time period

Report Output

In addition to the standard information, the report displays the following:

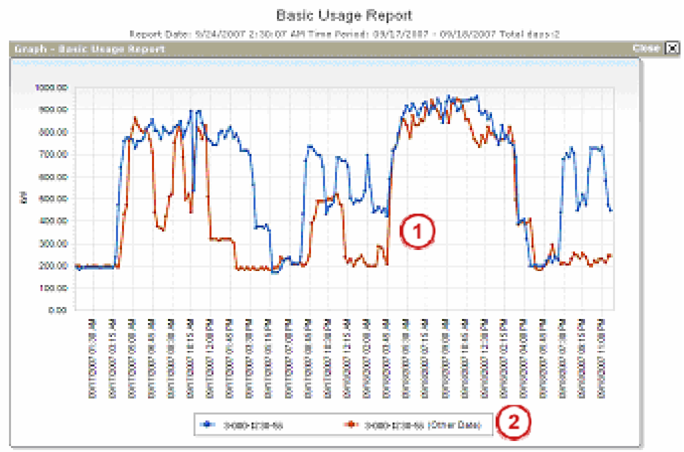
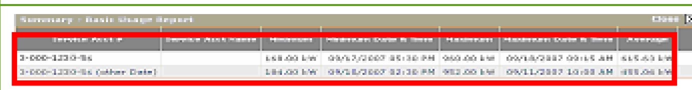
<table>
<tr><th>Report Component</th><th>Description</th></tr>
<tr><td>Line Graph
1. Energy Data for Comparison Time Period.
2. Legend for Comparison Time Period</td><td>
</td></tr>
<tr><td>Summary Table
Service Account Number, Service Account Name, Minimum, Maximum Energy Usage, with Date and Time stamps, and Average Energy Usage from Comparison Time Period</td><td></td></tr>
<tr><td>Data Table
Date, Time stamp and Usage for selected Data Interval from Comparison Time Period</td><td>Data - Basic Usage Report
Highlighted text indicate missing data.
<table>
<tr><th>DATE</th><th>TIME</th><th>3-000-1234-56</th></tr>
<tr><td>09/18/2007</td><td>09:00 PM</td><td>480.00</td></tr>
<tr><td>09/18/2007</td><td>09:15 PM</td><td>520.00</td></tr>
<tr><td>09/18/2007</td><td>09:30 PM</td><td>472.00</td></tr>
<tr><td>09/18/2007</td><td>09:45 PM</td><td>632.00</td></tr>
<tr><td>09/18/2007</td><td>10:00 PM</td><td>728.00</td></tr>
<tr><td>09/18/2007</td><td>10:15 PM</td><td>728.00</td></tr>
<tr><td>09/18/2007</td><td>10:30 PM</td><td>728.00</td></tr>
<tr><td>09/18/2007</td><td>10:45 PM</td><td>720.00</td></tr>
<tr><td>09/18/2007</td><td>11:00 PM</td><td>736.00</td></tr>
<tr><td>09/18/2007</td><td>11:15 PM</td><td>584.00</td></tr>
<tr><td>09/18/2007</td><td>11:30 PM</td><td>472.00</td></tr>
<tr><td>09/18/2007</td><td>11:45 PM</td><td>448.00</td></tr>
<tr><td>09/10/2007</td><td>12:00 AM</td><td>200.00</td></tr>
<tr><td>09/10/2007</td><td>12:15 AM</td><td>200.00</td></tr>
<tr><td>09/10/2007</td><td>12:30 AM</td><td>192.00</td></tr>
<tr><td>09/10/2007</td><td>12:45 AM</td><td>192.00</td></tr>
<tr><td>09/10/2007</td><td>01:00 AM</td><td>200.00</td></tr>
</table></td></tr>
</table>

Table 13 - Basic Usage Report: Select Comparison Time Period Output

Note	You may also generate the Basic Usage Report using any combination of the additional options. To save or view the report with your customized settings, refer to Chapter 9: Universal Report Features.

6.5. Summary

- The Basic Usage Report allows you to view your energy usage of multiple service accounts for a specific time period.
- You may generate the Basic Usage Report with report variables, using basic report criteria and additional options.
- You may view usage in correlation with the weather or with usage from another time period.

6.6. Knowledge and Skill Check

Exercise:

Scenario: You are a Facility Manager. Two months ago, you implemented new climate control equipment and now you want to assess energy demand against temperature. You need a report that will display hourly demand for last month, comparing it to demand from the same time period the previous year and outdoor temperatures during these time periods.

Hint:

- **Report Type** - Basic Usage Report
- **Time Period** - Last Month
- **Show data as** - Hourly
- **Include on Report** - kW
- **Weather Data** - Select weather data for the city nearest to your location
- **Comparison Time Period** - Custom

Steps:

1. From the **Report Type** drop-down list, select Basic Usage.
2. Select the report variables above.
3. Generate the report.
4. Compare demand from both Time Periods with weather data.

Notes

7. Consumption Usage Report

Objectives

At the end of this lesson, you will be able to:

- Understand the functionality of Consumption Usage Report
- Understand the features of Consumption Usage Report
- Generate the Consumption Usage Report using Basic Report Criteria and Additional Options

7.1. Introduction to Consumption Usage Report

This report allows you to view your energy usage in 15-minute intervals within a selected time period, for selected service accounts.

The default basic report criteria for the Consumption Usage Report are listed below:

Variable	Option
Time Period	Yesterday
Include on Report	kWh

Table 14 - Consumption Usage Report Default Basic Report Criteria

For more information on variables, refer to section 5.2 Report Variables.

7.2. Report Parameters

The table below lists the maximum number of service accounts with the maximum time period for the Consumption Usage Report. Metered is the only Data Interval available.

Maximum Service Accounts	Maximum Time Period
10	1 month
100	1 day

Table 15 - Consumption Usage Report Parameters

7.3. Report Generation

Let us generate the Consumption Usage Report using customized variables.

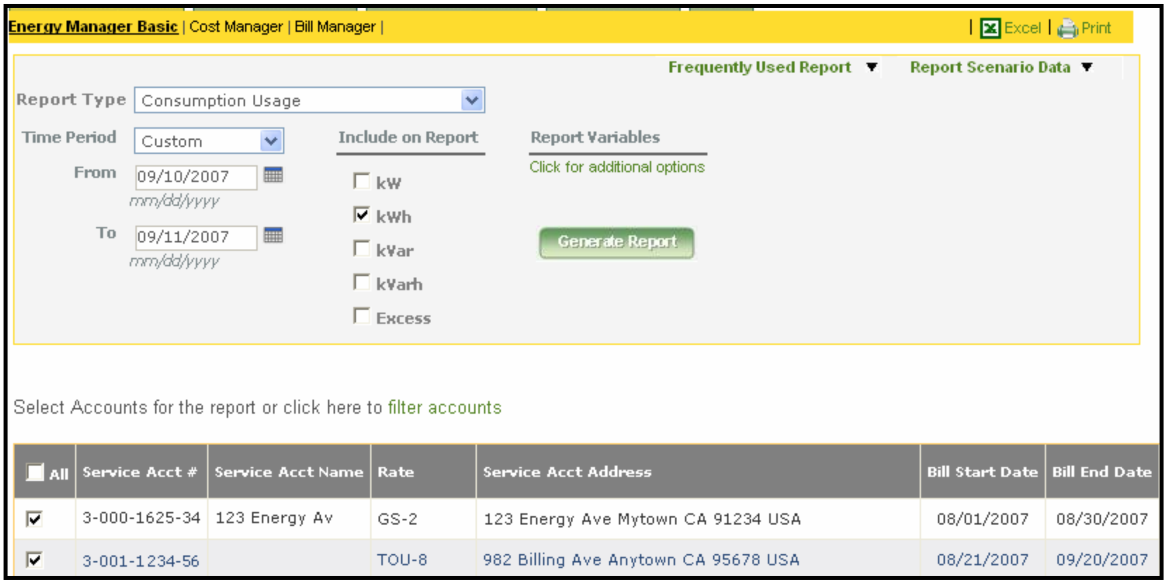


Figure 46 - Generating Consumption Usage Report

Steps to generate the report:

1. Select the **Report Type**.
2. Select the **Time Period**.
3. Select the **Meter Channel** (Include on Report)
4. Select the **Service Account**(s).
5. Click **Generate Report.**

Report Output

The report displays the usage for the selected service account(s), for the selected time period in a Graph and Data Table format.

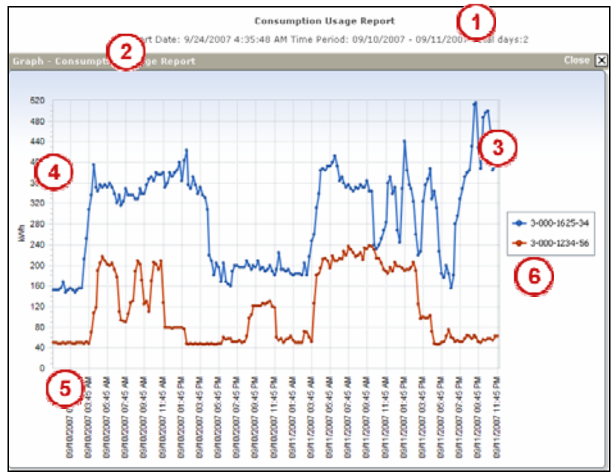
<table>
<tr><th>Report Component</th><th>Description</th></tr>
<tr><td>Line Graph
1. Report Name
2. Selected Time Period
3. Energy Data for selected Meter Channel
4. Y- axis - Meter Channel
5. X- axis - Data Interval
6. Legend for Service Account</td><td>
</td></tr>
<tr><td>Data Table
1. Message demonstrating how unavailable interval data is indicated
2. Date and Time stamp for Data Interval
3. Usage by selected Service Account(s)</td><td>Data - Consumption Usage Report
Highlighted text indicate missing dat
<table>
<tr><th>DATE</th><th>TIME</th><th>3-000-1625-35</th><th>3-000-1234-56</th></tr>
<tr><td>09/10/2007</td><td>12:00 AM</td><td>152.00</td><td>50.00</td></tr>
<tr><td>09/10/2007</td><td>12:15 AM</td><td>152.00</td><td>50.00</td></tr>
<tr><td>09/10/2007</td><td>12:30 AM</td><td>152.00</td><td>48.00</td></tr>
<tr><td>09/10/2007</td><td>12:45 AM</td><td>156.00</td><td>48.00</td></tr>
<tr><td>09/10/2007</td><td>01:00 AM</td><td>168.00</td><td>50.00</td></tr>
<tr><td>09/10/2007</td><td>01:15 AM</td><td>148.00</td><td>48.00</td></tr>
<tr><td>09/10/2007</td><td>01:30 AM</td><td>152.00</td><td>50.00</td></tr>
</table></td></tr>
</table>

Table 16 - Consumption Usage Report Output

7.4. Additional Options

The Consumption Usage report has the following additional options:

- Display Report Name As
- Use Weather Data
- Output Format - Horizontal and Vertical

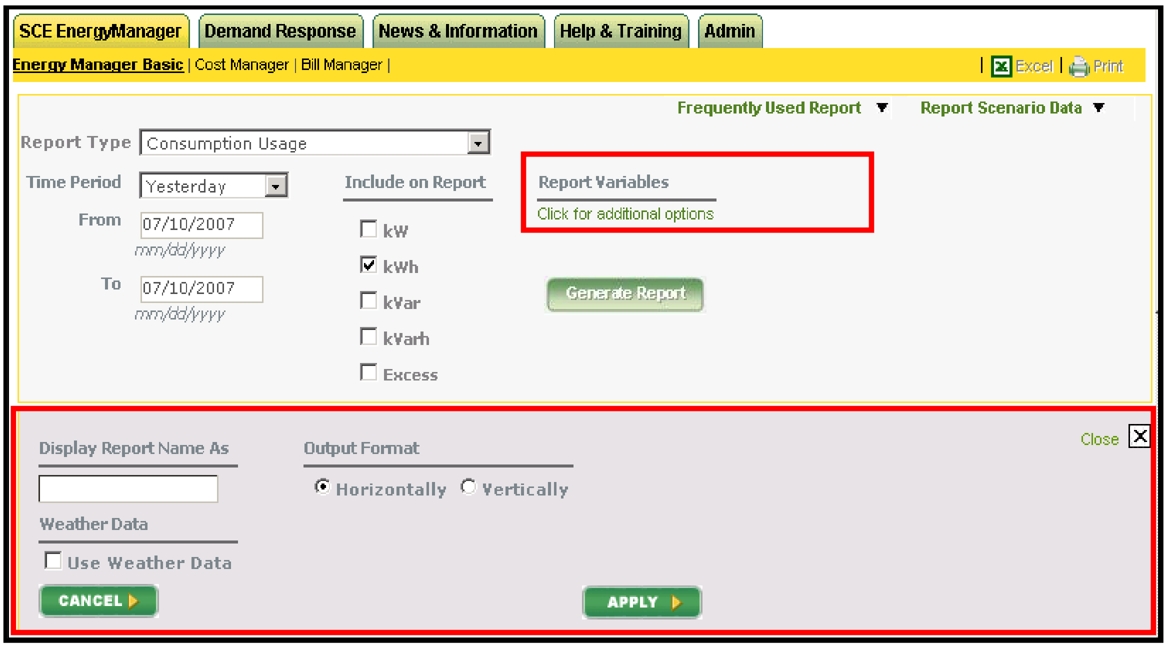


Figure 47 - Consumption Usage Report Additional Options

7.4.1. Display Report Name As

This variable allows you to enter a customized report name for the report.

Steps to generate the report using Display Report Name As:

1. Specify the basic report criteria and service account(s) for the report.
2. Select the **Click for additional options** link.
3. Specify the desired heading in the **Display Report Name As** text box.
4. Click **Apply**.
5. Click **Generate Report**.

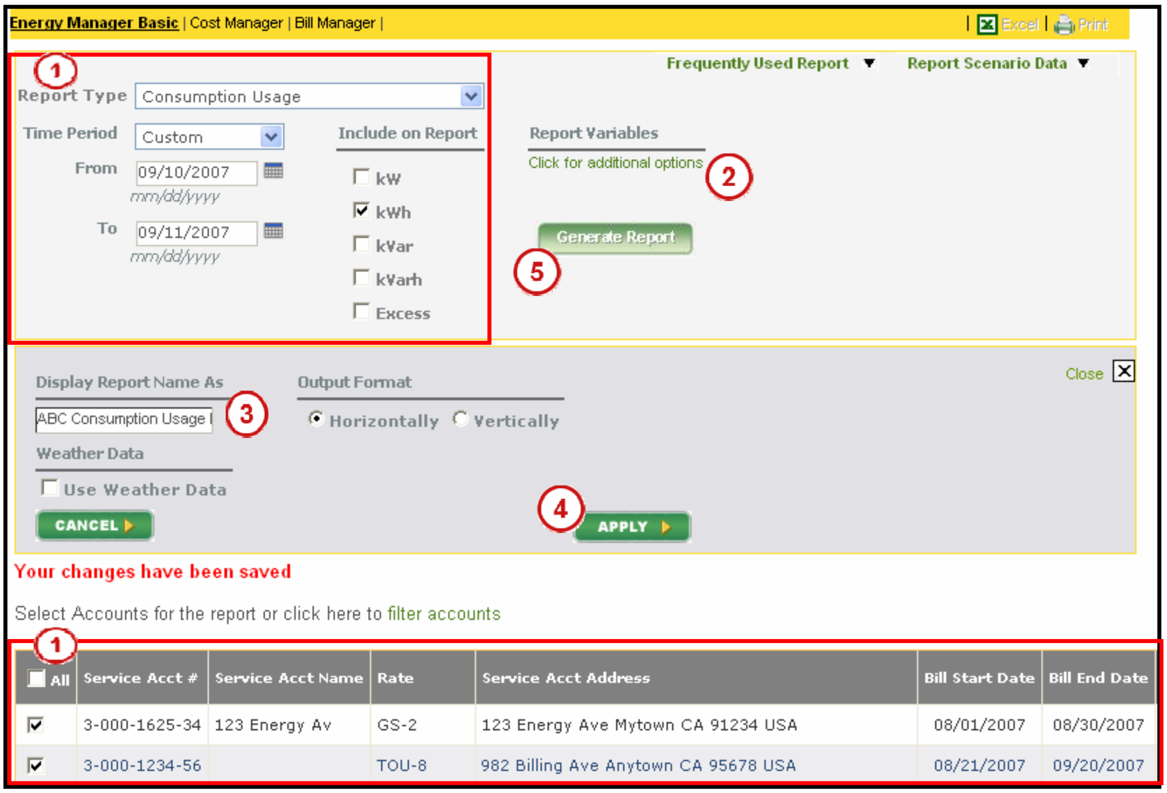


Figure 48 - Display Report Name As

Report Output

In addition to the standard information, the report displays the following:

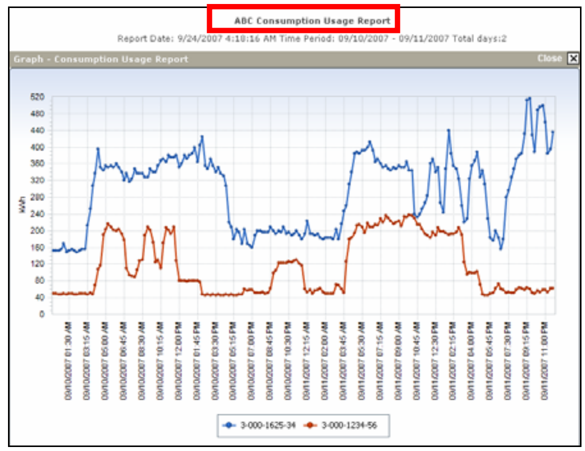
Report Component	Description
Line Graph Customized report name	

Table 17 - Consumption Usage Report: Display Report Name As Output

7.4.2. Weather Data

This variable allows you to view your usage in correlation with the weather data if a weather station has been assigned to the service account. For more information on how to assign a weather station, refer to section 3.1.1.1 Default Settings for Steps to Assign a Weather Station to a Service Account.

Steps to generate the report using Weather Data:

1. Follow steps 1-4 for report generation (see Figure 46 - Generating Consumption Usage Report).
2. Select the **Click for additional options** link.
3. Select **Use Weather Data**.
4. Click **Apply**.
5. Click **Generate Report**.

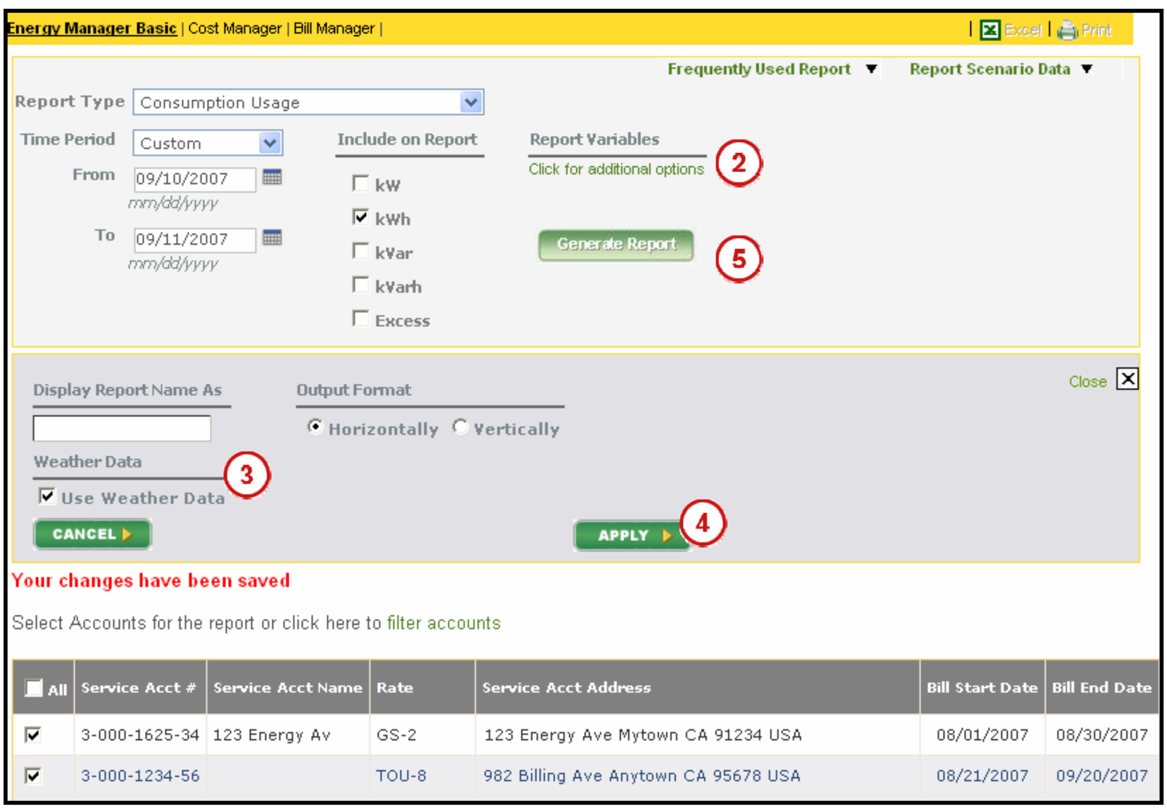


Figure 49 - Generating the Report with Weather Data

Report Output

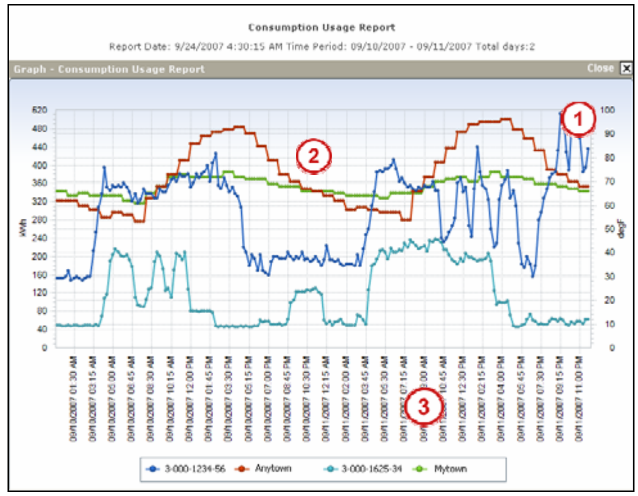
In addition to the standard information, the report displays the following:

<table>
<tr><th>Report Component</th><th>Description</th></tr>
<tr><td>

Line Graph

1. Temperature in Fahrenheit on right Y – axis
2. Weather data of the assigned weather station
3. Legend for Weather Station

</td><td>



</td></tr>
<tr><td>

Data Table

Temperatures of the weather station(s), in Fahrenheit at each Data Interval

</td><td>

Data - Consumption Usage Report

Highlighted text indicate missing data.

DATE	TIME	3-000-1625-34	Mytown	3-000-1234-56	Anytown
09/10/2007	12:00 AM	152.00	62.00	50.00	66.00
09/10/2007	12:15 AM	152.00	62.00	50.00	66.00
09/10/2007	12:30 AM	152.00	62.00	48.00	66.00
09/10/2007	12:45 AM	156.00	62.00	48.00	66.00
09/10/2007	01:00 AM	168.00	62.00	50.00	64.00
09/10/2007	01:15 AM	148.00	62.00	48.00	64.00
09/10/2007	01:30 AM	152.00	62.00	50.00	64.00

</td></tr>
</table>

Table 18 - Consumption Usage Report: Weather Data Output

7.4.3. Output Format - Horizontal and Vertical

This variable allows you to view energy data for multiple selected service accounts in either horizontal or vertical format; the default format is horizontal. If you also select Use Weather Data, weather will be displayed similarly to the energy data.

Steps to generate the report using Output Format - Horizontal and Vertical:

1. Follow steps 1-5 for report generation (see Figure 46 - Generating Consumption Usage Report).
2. Select the **Click for additional options** link.
3. Retain **Horizontally** to display the report in horizontal output format.

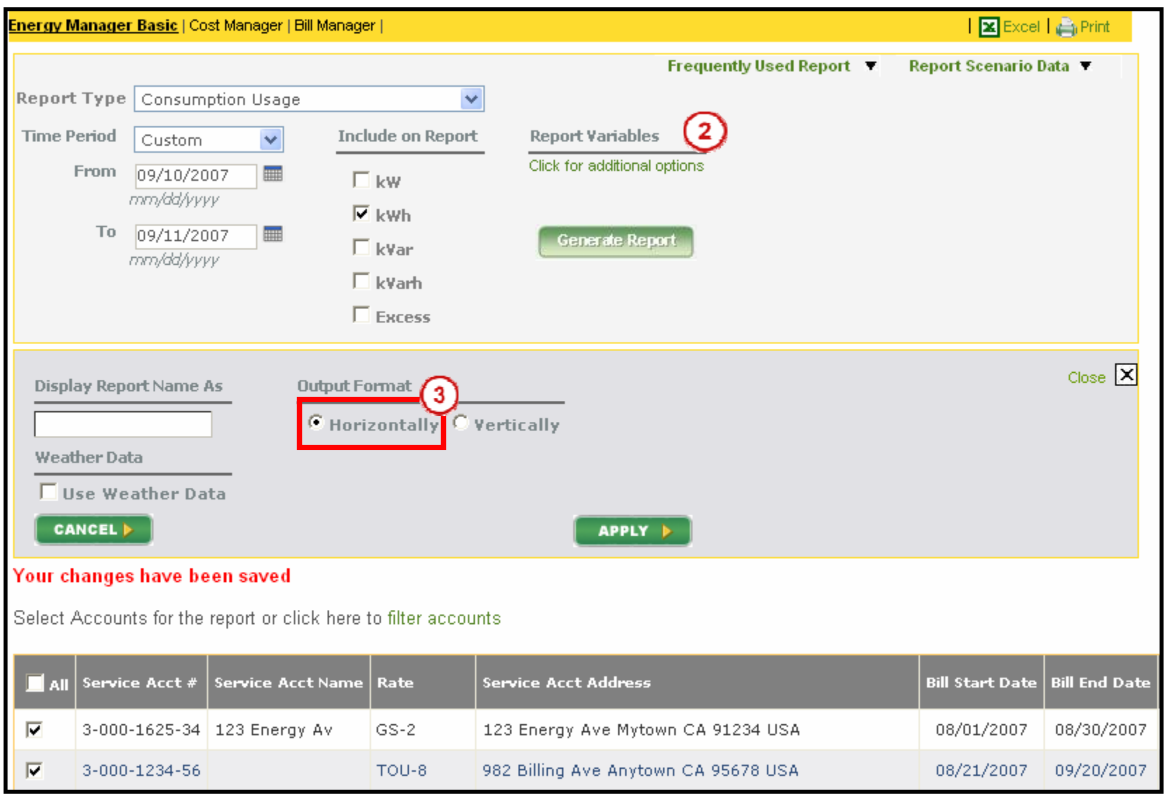


Figure 50 - Output Format: Horizontally (Default)

Note	Horizontally is the default Output Format option. To use that option does not require additional steps unless you have selected Vertically previously.

OR

4. Select **Vertically** to display the report in vertical output format.

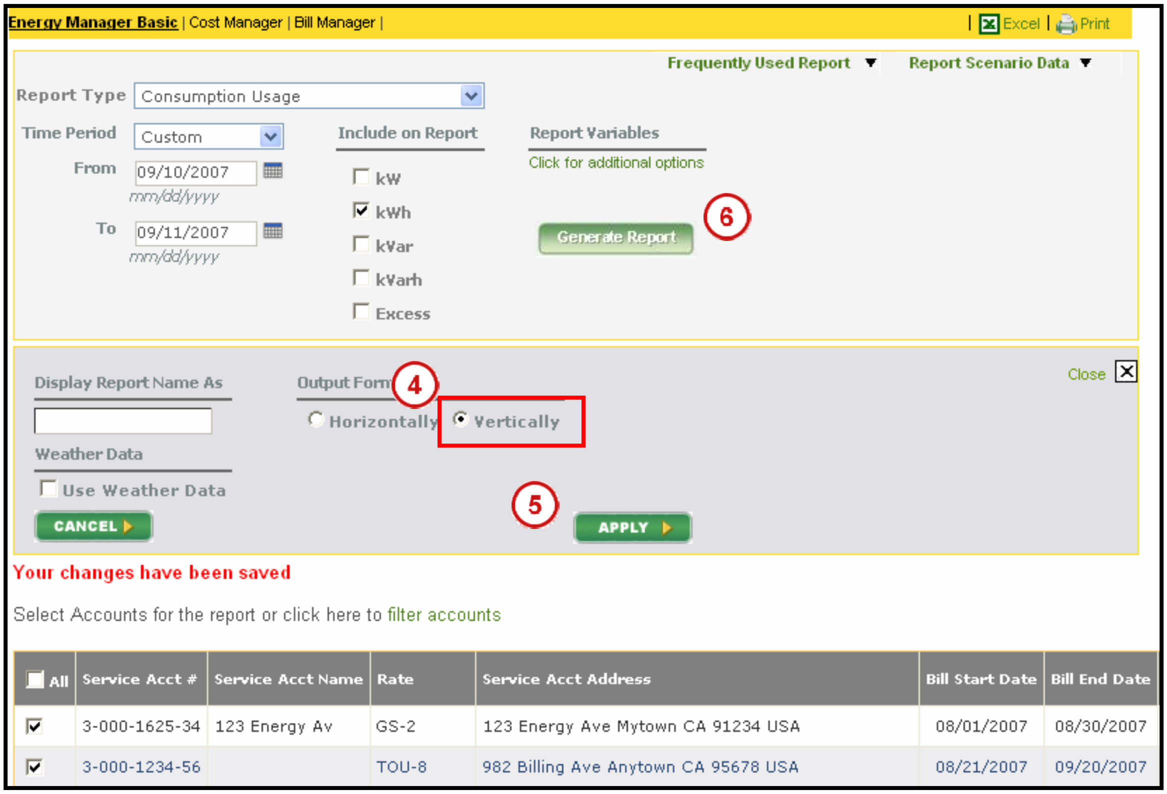


Figure 51 - Output Format: Vertically

5. Click **Apply**.

6. Click **Generate Report**.

Report Output

In addition to the standard information, multiple service accounts are organized in the data table according to the Output Format chosen:

<table>
<tr><th>Report Component</th><th>Description</th></tr>
<tr><td>Data Table
Output Format: Horizontally
Each service account, is displayed in a separate column</td><td>Data - Consumption Usage Report
Highlighted text indicate missing data.
<table>
<tr><th>DATE</th><th>TIME</th><th>3-000-1625-34</th><th>3-000-1234-56</th></tr>
<tr><td>09/10/2007</td><td>12:00 AM</td><td>152.00</td><td>50.00</td></tr>
<tr><td>09/10/2007</td><td>12:15 AM</td><td>152.00</td><td>50.00</td></tr>
<tr><td>09/10/2007</td><td>12:30 AM</td><td>152.00</td><td>48.00</td></tr>
<tr><td>09/10/2007</td><td>12:45 AM</td><td>156.00</td><td>48.00</td></tr>
<tr><td>09/10/2007</td><td>01:00 AM</td><td>168.00</td><td>50.00</td></tr>
<tr><td>09/10/2007</td><td>01:15 AM</td><td>148.00</td><td>48.00</td></tr>
<tr><td>09/10/2007</td><td>01:30 AM</td><td>152.00</td><td>50.00</td></tr>
</table></td></tr>
<tr><td>Data Table
Output Format: Vertically
1. Service accounts are displayed sequentially in the same column
2. Energy Usage and Weather Data appear in the column marked USAGE_DATA</td><td>Data - Consumption Usage Report
Highlighted text indicate missing data.
<table>
<tr><th>DATE</th><th>TIME</th><th>USAGE_DATA</th></tr>
<tr><td>09/11/2007</td><td>08:45 PM</td><td>384.00</td></tr>
<tr><td>09/11/2007</td><td>09:00 PM</td><td>432.00</td></tr>
<tr><td>09/11/2007</td><td>09:15 PM</td><td>512.00</td></tr>
<tr><td>09/11/2007</td><td>09:30 PM</td><td>516.00</td></tr>
<tr><td>09/11/2007</td><td>09:45 PM</td><td>428.00</td></tr>
<tr><td>09/11/2007</td><td>10:00 PM</td><td>388.00</td></tr>
<tr><td>09/11/2007</td><td>10:15 PM</td><td>488.00</td></tr>
<tr><td>09/11/2007</td><td>10:30 PM</td><td>496.00</td></tr>
<tr><td>09/11/2007</td><td>10:45 PM</td><td>500.00</td></tr>
<tr><td>09/11/2007</td><td>11:00 PM</td><td>460.00</td></tr>
<tr><td>09/11/2007</td><td>11:15 PM</td><td>384.00</td></tr>
<tr><td>09/11/2007</td><td>11:30 PM</td><td>396.00</td></tr>
<tr><td>09/11/2007</td><td>11:45 PM</td><td>436.00</td></tr>
<tr><td>3-000-1234-56</td><td></td><td></td></tr>
<tr><td>09/10/2007</td><td>12:00 AM</td><td>50.00</td></tr>
<tr><td>09/10/2007</td><td>12:15 AM</td><td>50.00</td></tr>
<tr><td>09/10/2007</td><td>12:30 AM</td><td>48.00</td></tr>
<tr><td>09/10/2007</td><td>12:45 AM</td><td>48.00</td></tr>
<tr><td>09/10/2007</td><td>01:00 AM</td><td>50.00</td></tr>
<tr><td>09/10/2007</td><td>01:15 AM</td><td>48.00</td></tr>
</table></td></tr>
</table>

Table 19 - Consumption Usage Report: Output Format

Note	You may also generate the Consumption Usage Report using any combination of the additional options. To save or view the report with your customized settings, refer to Chapter 9: Universal Report Features.

7.5. Summary

- The Consumption Report allows you to view your energy usage of multiple service accounts for a specific time period.
- You may generate the Consumption Report with report variables, using basic report criteria and additional options.
- You may view the usage in correlation with the weather.
- You may organize the data table information from multiple service accounts horizontally or vertically.

7.6. Knowledge and Skill Check

Exercise:

Scenario: Your Southern California Edison Account Executive has put together a proposal for your company that recommends several ways to save energy. In order to see how they might impact your business, you need a report showing consumption in 15-minute intervals for all your service accounts, which you will download to Excel for multiple periods

Hint:

- **Report Type** - Consumption Usage Report
- **Time Period** - Year to Date
- **Include on Report** - kWh
- **Output Format** - Vertical (facilitates PivotTable or PivotChart creation)

Steps:

1. From the **Report Type** drop-down list, select Consumption Usage.
2. Select the report variables above.
3. Generate the report.
4. Select the **Excel** link to download data to Excel.
5. Repeat as needed.

Notes

8. DAILY LINE CHART REPORT

Objectives

At the end of this lesson, you will be able to:

- Understand the functionality of Daily Line Chart Report
- Understand the features of Daily Line Chart Report
- Generate the Daily Line Chart Report using Basic Report Criteria and Additional Options

8.1. Introduction to Daily Line Chart Report

This report allows you to view your energy usage on each day selected within a selected time period of a single service account, a 24-hour chart, with a summary indicating the minimum, maximum, and average usage.

The default basic report criteria for the Daily Line Chart Report are listed below:

Variable	Option
Time Period	Last Week
Include on Report	kWh

Table 20 - Daily Line Chart Report Default Basic Report Criteria

For more information on variables, refer to section 5.2 Report Variables.

8.2. Report Parameters

The table below lists the maximum number of service accounts with the maximum time period for the Daily Line Chart Report. Hourly is the only Data Interval available.

Maximum Service Accounts	Maximum Time Period
1	1 year

Table 21 - Daily Line Chart Report Parameters

8.3. Report Generation

Let us generate the Daily Line Chart Report using customized variables.

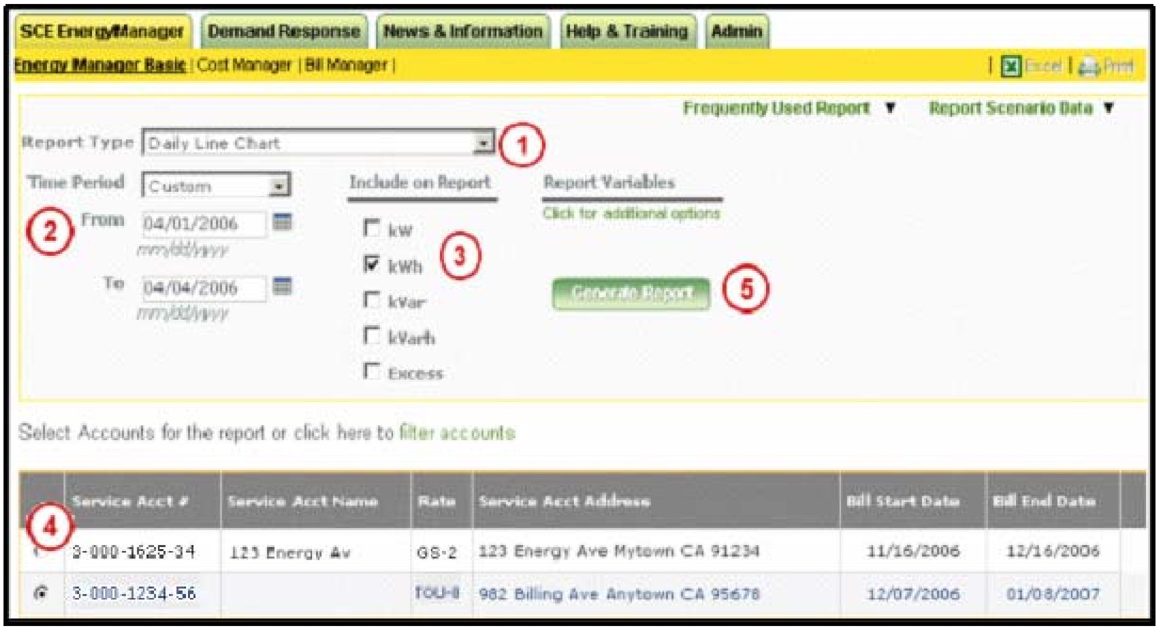


Figure 52 - Generating Daily Line Chart Report

Steps to generate the report:

1. Select the **Report Type**.
2. Select the **Time Period**.
3. Select the **Meter Channel** (Include on Report).
4. Select the **Service Account**.
5. Click **Generate Report**.

Report Output

The report displays the usage of the selected service account for the selected time period in Graph, Summary and Data Table format.

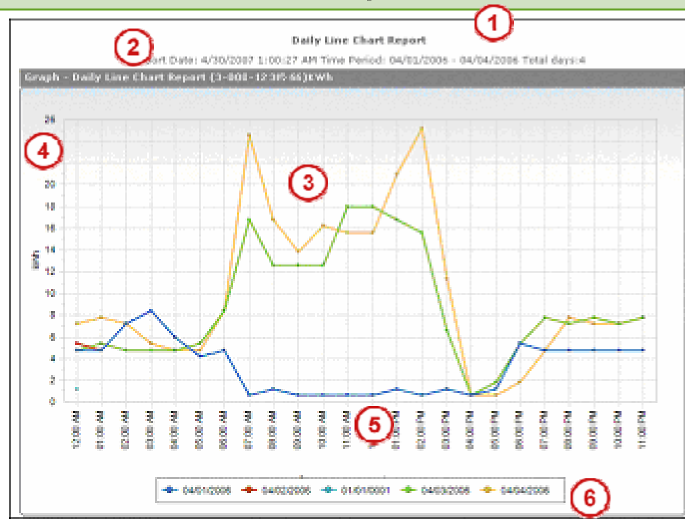
<table>
<tr><th>Report Component</th><th>Description</th></tr>
<tr><td>Line Graph
1. Report Name
2. Selected Time Period
3. Energy Data from each day for selected Meter Channel
4. Y- axis - Meter Channel
5. X- axis - Data Interval
6. Legend for Days within Selected Time Period</td><td>
</td></tr>
<tr><td>Summary Table
1. Minimum Energy Usage
2. Minimum Date and Time stamp
3. Maximum Energy Usage
4. Maximum Date and Time stamp
5. Average Energy Usage</td><td>
<table>
<tr><th colspan="5">Summary - Daily Line Chart Report (3-000-1234-56)KWh</th></tr>
<tr><th>Minimum</th><th>Minimum Date & Time</th><th>Maximum</th><th>Maximum Date & Time</th><th>Average</th></tr>
<tr><td>(1) [illegible]Wh</td><td>04/01(2)[illegible]06 07:00 AM</td><td>2(3)[illegible] kWh</td><td>04/04(4)[illegible]06 02:00 PM</td><td>6.2(5)[illegible] kWh</td></tr>
</table>
</td></tr>
<tr><td>Data Table
Usage by date</td><td>
<table>
<tr><th colspan="13">Data - Daily Line Chart Report (3-000-1234-56)KWh</th></tr>
<tr><th>DATE</th><th>12:00 AM</th><th>01:00 AM</th><th>02:00 AM</th><th>03:00 AM</th><th>04:00 AM</th><th>05:00 AM</th><th>06:00 AM</th><th>07:00 AM</th><th>08:00 AM</th><th>09:00 AM</th><th>10:00 AM</th><th>11</th></tr>
<tr><td>04/01/2006</td><td>4.80</td><td>4.80</td><td>7.20</td><td>8.40</td><td>6.00</td><td>4.20</td><td>4.80</td><td>.60</td><td>1.20</td><td>.60</td><td>.60</td><td></td></tr>
<tr><td>04/02/2006</td><td>5.40</td><td>4.80</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>01/01/0001</td><td>1.20</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>04/03/2006</td><td>4.80</td><td>5.40</td><td>4.80</td><td>4.80</td><td>4.80</td><td>5.40</td><td>8.40</td><td>16.80</td><td>12.60</td><td>12.60</td><td>12.60</td><td></td></tr>
<tr><td>04/04/2006</td><td>7.20</td><td>7.80</td><td>7.20</td><td>5.40</td><td>4.80</td><td>4.80</td><td>8.40</td><td>24.60</td><td>16.80</td><td>13.80</td><td>16.20</td><td></td></tr>
</table>
</td></tr>
</table>

Table 22 - Daily Line Chart Report Output

8.4. Additional Options

The Daily Line Chart report has the following additional options:

- Display Report Name As
- Use Weather Data
- Check days to exclude
- Select dates to exclude from report

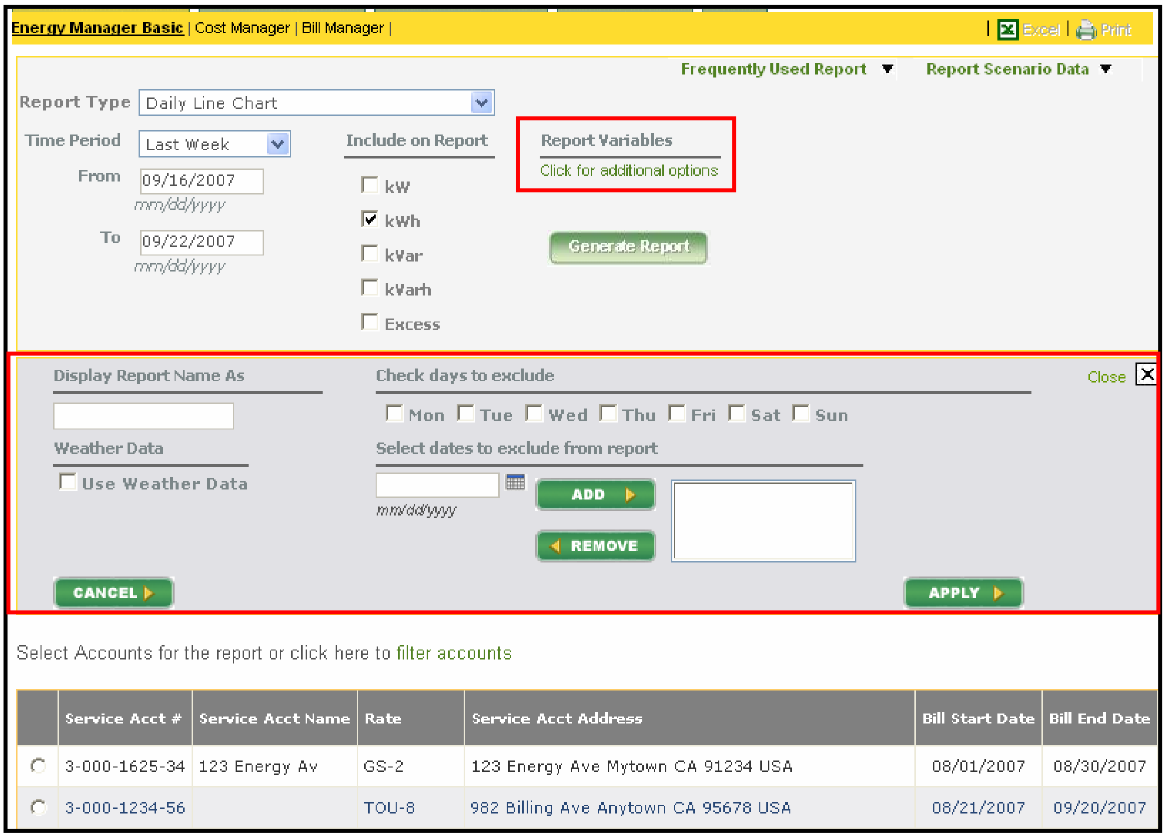


Figure 53 - Daily Line Chart Report Additional Options

8.4.1. Display Report Name As

This variable allows you to enter a customized report name for the report.

Steps to generate the report using Display Report Name As:

1. Specify the basic report criteria and service account for the report.
2. Select the **Click for additional options** link.
3. Specify the desired heading in the **Display Report Name As** text box.
4. Click **Apply**.
5. Click **Generate Report**.

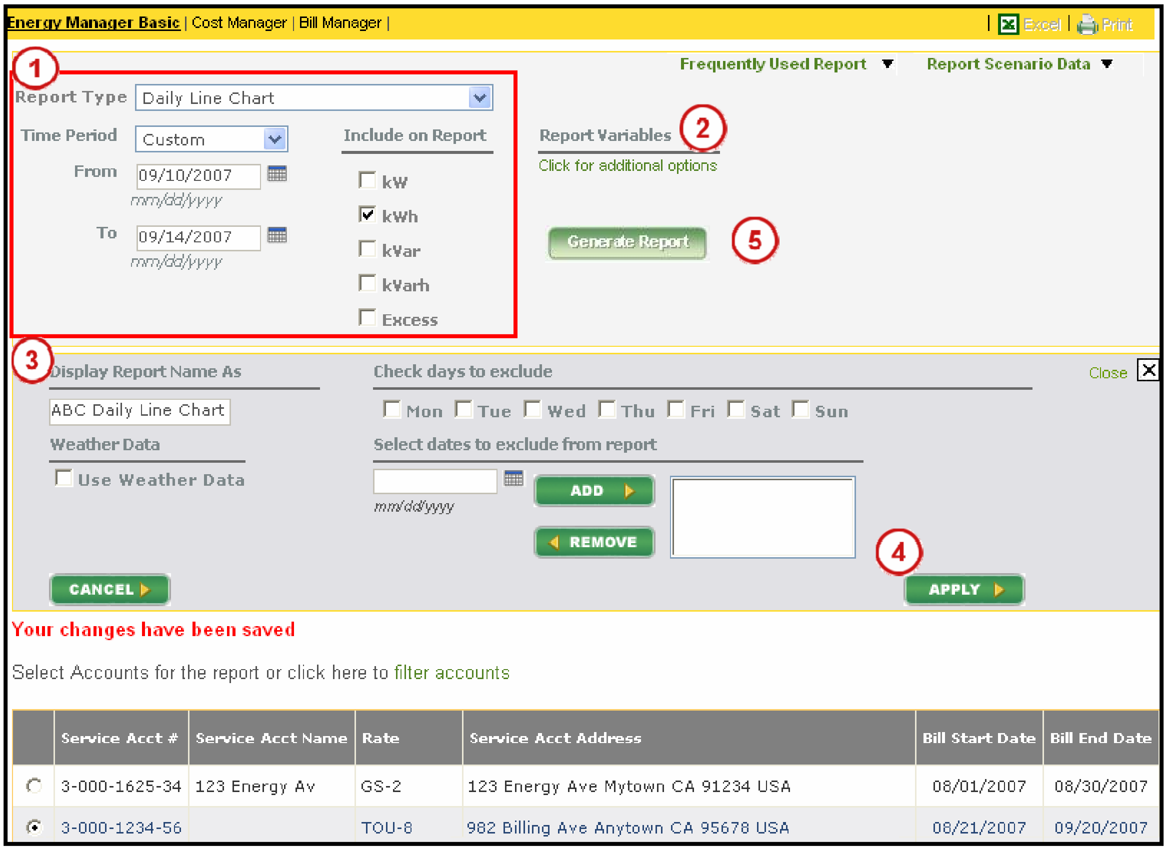


Figure 54 - Display Report Name As

Report Output

In addition to the standard information, the report displays the following:

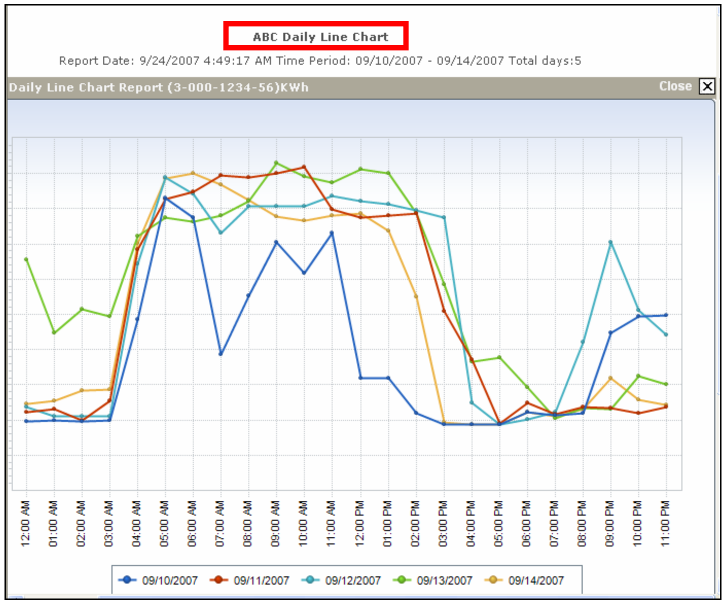
<table>
<tr><th>Report Component</th><th>Description</th></tr>
<tr><td>Line Graph
Customized report name</td><td>
</td></tr>
</table>

Table 23 - Daily Line Chart Report: Display Report Name As Output

8.4.2. Weather Data

This variable allows you to view your usage in correlation with the weather data if a weather station has been assigned to the service account. For more information on how to assign a weather station, refer to section 3.1.1.1 Default Settings for Steps to Assign a Weather Station to a Service Account.

Steps to generate the report using Weather Data:

1. Follow steps 1-5 for report generation (see Figure 52 - Generating Daily Line Chart Report).
2. Select the **Click for additional options** link.
3. Select **Use Weather Data**.
4. Click **Apply**.
5. Click Generate Report.

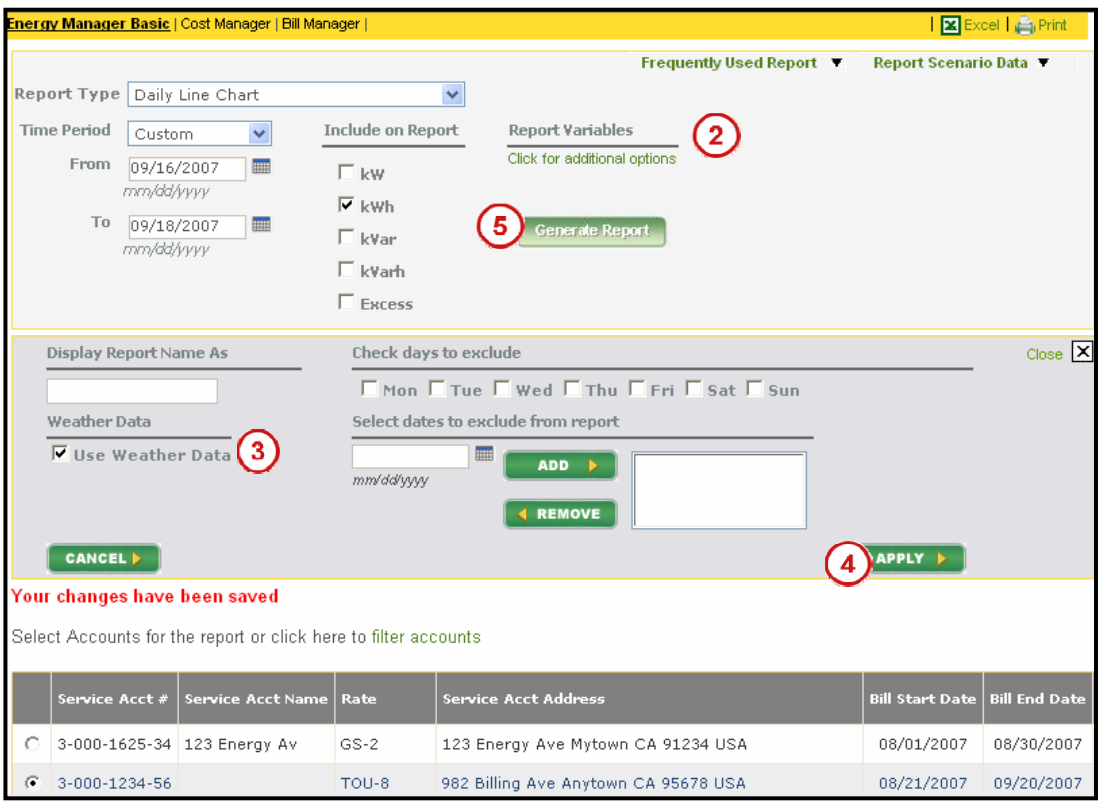


Figure 55 - Generating the Report with Weather Data

Report Output

In addition to the standard information, the report displays the following:

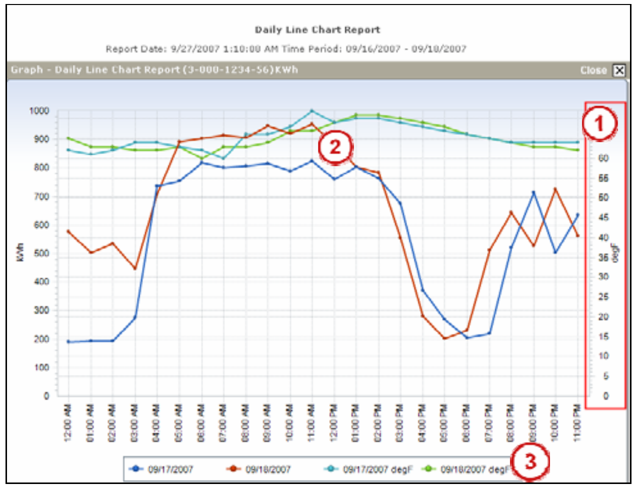
<table>
<tr><th>Report Component</th><th>Description</th></tr>
<tr><td>Line Graph
1. Temperature in Fahrenheit on right Y - axis
2. Weather data of the assigned weather station
3. Legend for Weather Station</td><td>
</td></tr>
<tr><td>Summary Table
1. Minimum temperature with Date and Time stamp
2. Maximum temperature with Date and Time stamp
3. Average temperature</td><td>Summary - Daily Line Chart Report (3-000-1234-56)KWh
<table>
<tr><th>Minimum</th><th>Minimum Date & Time</th><th>Maximum</th><th>Maximum Date & Time</th><th>Average</th></tr>
<tr><td>190.00 kWh</td><td>09/17/2007 12:00 AM</td><td>952.00 kWh</td><td>09/18/2007 11:00 AM</td><td>615.63 kWh</td></tr>
<tr><td>60</td><td>09/18/2007 06:02 AM</td><td>72</td><td>09/16/2007 06:02 AM</td><td>65.31</td></tr>
</table>
1 2 3</td></tr>
<tr><td>Data Table
Temperatures of the weather station in Fahrenheit at each Data Interval</td><td>Data - Daily Line Chart Report (3-000-1234-56)KWh
<table>
<tr><th>DATE</th><th>12:00 AM</th><th>01:00 AM</th><th>02:00 AM</th><th>03:00 AM</th><th>04:00 AM</th></tr>
<tr><td>09/17/2007</td><td>190.00</td><td>192.00</td><td>192.00</td><td>274.00</td><td>738.00</td></tr>
<tr><td>09/18/2007</td><td>576.00</td><td>504.00</td><td>536.00</td><td>446.00</td><td>708.00</td></tr>
<tr><th>DATE</th><th>12:00 AM</th><th>01:00 AM</th><th>02:00 AM</th><th>03:00 AM</th><th>04:00 AM</th></tr>
<tr><td>09/17/2007</td><td>62.00</td><td>61.00</td><td>62.00</td><td>64.00</td><td>64.00</td></tr>
<tr><td>09/18/2007</td><td>65.00</td><td>63.00</td><td>63.00</td><td>62.00</td><td>62.00</td></tr>
</table></td></tr>
</table>

Table 24 - Daily Line Chart Report: Weather Data Output

8.4.3. Check days to exclude and Select dates to exclude from report

These variables allow you to exclude specific days and/or dates from the specified time period of the Daily Line Chart Report. If you also select Use Weather Data, weather will be excluded for the same days or dates.

Steps to generate the report using Check days to exclude and Select dates to exclude from report:

1. Follow steps 1-5 for report generation (see Figure 52 - Generating Daily Line Chart Report).
2. Select the **Click for additional options** link.
3. Select the desired day(s) from the **Check days to exclude** option to exclude certain day(s) from the report.
4. Select the desired date(s) from the **Select dates to exclude from report** calendar control. Click **Add** for each desired date to exclude from, or **Remove** to include the desired date in, the report.

5. Click **Apply**.

6. Click **Generate Report**.

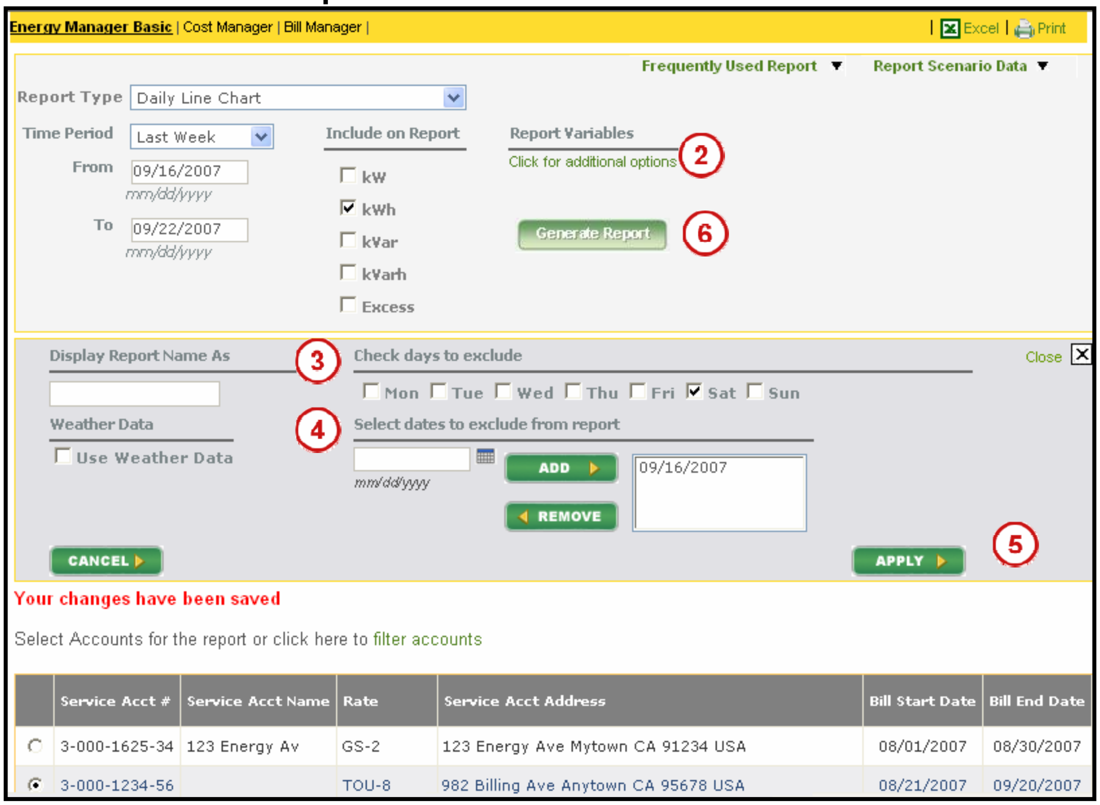


Figure 56 - Check days to exclude and Select dates to exclude from report

Report Output

In addition to the standard information, the report displays the following:

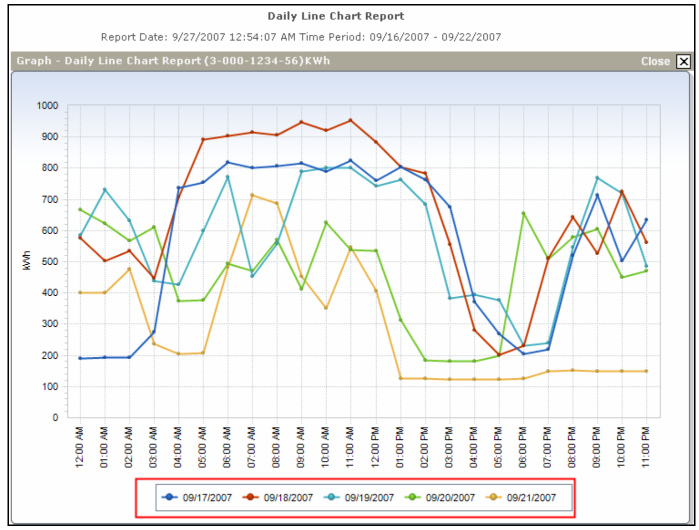
<table>
<tr><th>Report Component</th><th>Description</th></tr>
<tr><td>Line Graph
Usage data omitted for the day(s) and date(s) excluded (i.e., Saturday and 09/16/2007)</td><td>
</td></tr>
<tr><td>Summary Table
Usage data for excluded day(s)/date(s) not factored in result</td><td>
Summary - Daily Line Chart Report (3-000-1234-56)KWh
<table>
<tr><th>Minimum</th><th>Minimum Date & Time</th><th>Maximum</th><th>Maximum Date & Time</th><th>Average</th></tr>
<tr><td>124.00 kWh</td><td>09/21/2007 03:00 PM</td><td>952.00 kWh</td><td>09/18/2007 11:00 AM</td><td>514.52 kWh</td></tr>
</table></td></tr>
<tr><td>Data Table
Usage data for excluded date(s) not displayed</td><td>
Data - Daily Line Chart Report (3-000-1234-56)KWh
<table>
<tr><th>DATE</th><th>12:00 AM</th><th>01:00 AM</th><th>02:00 AM</th><th>03:00 AM</th><th>04:00 AM</th></tr>
<tr><td>09/17/2007</td><td>190.00</td><td>192.00</td><td>192.00</td><td>274.00</td><td>738.00</td></tr>
<tr><td>09/18/2007</td><td>576.00</td><td>504.00</td><td>536.00</td><td>446.00</td><td>708.00</td></tr>
<tr><td>09/19/2007</td><td>584.00</td><td>730.00</td><td>632.00</td><td>438.00</td><td>428.00</td></tr>
<tr><td>09/20/2007</td><td>666.00</td><td>624.00</td><td>568.00</td><td>610.00</td><td>374.00</td></tr>
<tr><td>09/21/2007</td><td>402.00</td><td>402.00</td><td>476.00</td><td>238.00</td><td>206.00</td></tr>
</table></td></tr>
</table>

Table 25 - Daily Line Chart Report: Exclude from report Output

Note	You may also generate the Daily Line Chart Report using any combination of the additional options. To save or view the report with your customized settings, refer to Chapter 9: Universal Report Features.

8.5. Summary

- The Daily Line Chart Report allows you to view your energy demand and usage of a single service account for a maximum of one year.
- You may generate the Daily Line Chart Report with report variables, using basic report criteria and additional options.
- You may view usage in correlation with the weather.
- You may select days and/or dates to be excluded from the report.

8.6. Knowledge and Skill Check

Exercise:

Scenario: Demand for your products has increased by 30%. Your Operations Manager wants to compare the impact of adding two days to the weekly production schedule to adding five evening shifts. You need to know the difference between your maximum and average weekday daytime energy demand and that of evenings and weekends.

Hint:

- **Report Type** - Daily Line Chart Report
- **Time Period** - Last 30 days
- **Include on Report** - kW
- **Check days to exclude** - Saturday and Sunday, and then Monday through Friday to get a clear picture of the differences

Steps:

1. From the **Report Type** drop-down list, select Daily Line Chart.
2. Select the options suggested above.
3. Generate the report.
4. Select the **Print** link to get a hard copy.
5. Repeat as needed.

Notes

9. UNIVERSAL REPORT FEATURES

Objectives

At the end of this lesson, you will be able to:

- Understand Excel and Print functionality
- Understand Frequently Used Report functionality
- Understand Report Scenario Data functionality

9.1. Introduction to Universal Report Features

SCE EnergyManager has some features, which are common across all the reports. These features allow you to export and print a report. You can also save, load, and modify a frequently used report, a report scenario, or an account list.

Universal report features are listed below.

1. Excel: Export report data into a spreadsheet
2. Print: Print a report
3. Frequently Used Report:
    - Save Report
    - Load Report
    - Modify Report
    - Report Scheduling
4. Report Scenario Data:
    - Save Scenario
    - Load Scenario Report
    - Modify scenario
    - Save AcctList
    - Load AcctList
    - Modify AcctList

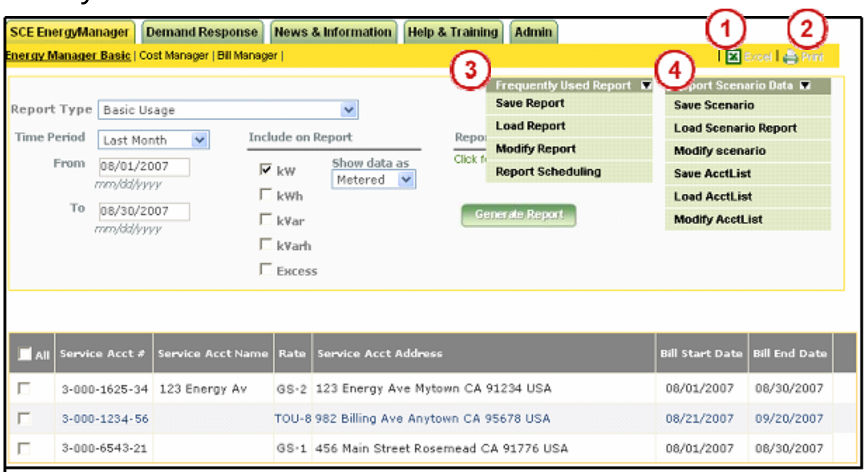


Figure 57 - Common Report Features

9.2. Excel

The Excel link allows you to export report data to a spreadsheet. The spreadsheet can be opened or saved as an Excel workbook.

Note	If you don't have Excel installed on your computer, you can open, view, and print Excel workbooks using Microsoft Excel Viewer 2003, which can be downloaded free of charge. You can also copy data from Excel Viewer 2003 to another program.

Steps to Export a report to Excel:

1. Generate the report, or load a previously saved report, that you want to export to Excel.
2. Click the **Excel** link. A file download dialogue box is displayed.

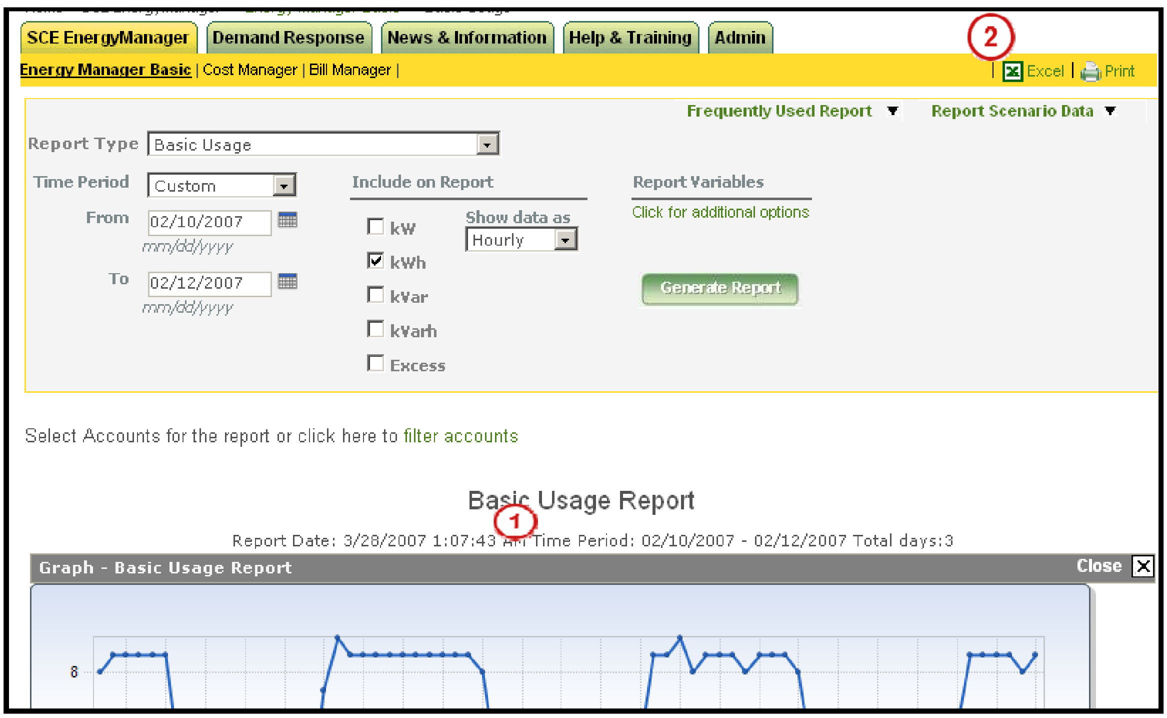


Figure 58 - Excel Link

3. Select **Open** in the File Download box to view the report data in Excel; or
4. Select **Save** in the File Download box to save the excel file before viewing it.

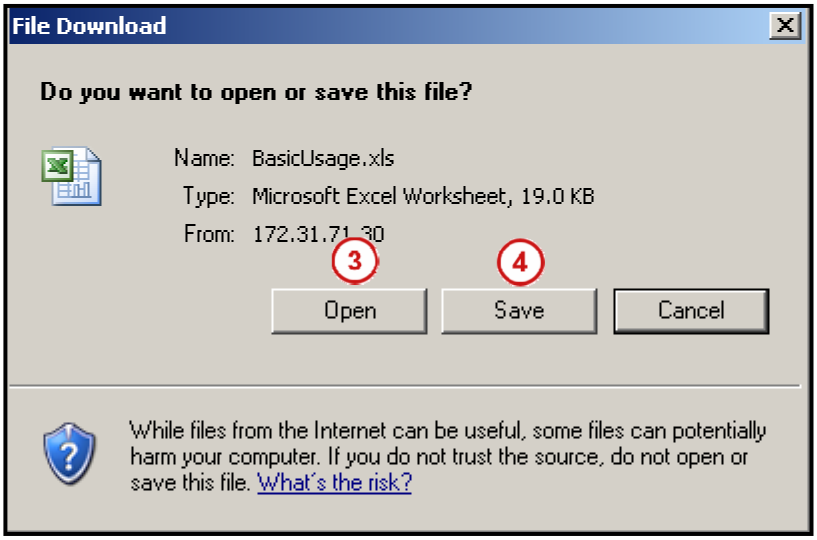


Figure 59 - Excel File Download

9.3. Print

The Print link allows you to print the results of a report. The following steps outline how to print a report if your Default Report Variable to Show report results in new browser window is No. For more information on how to change how report results are shown, refer to section 3.1.1.1 for Steps to set Default Report Variables.

Steps to print a report:

1. Generate the report, or load a previously saved report, that you want to print
2. Click the **Print** link.

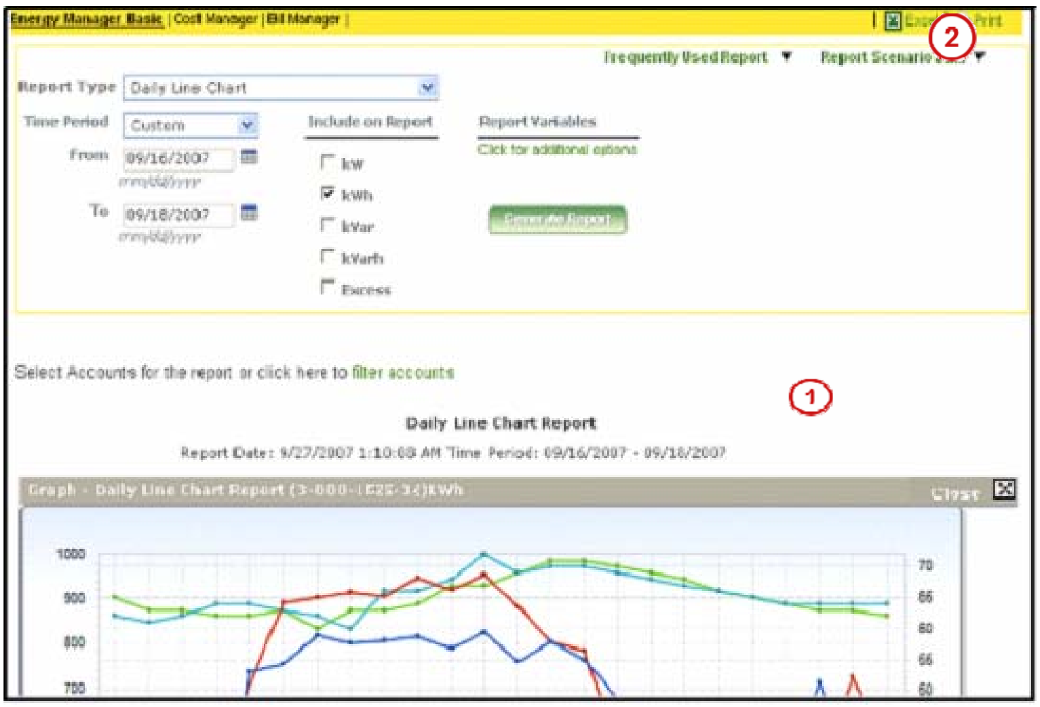


Figure 60 - Print Report

Note	If you have set your Default Report Variable to Show report results in new browser window to Yes, you may skip the next step.

3. Click the **Print** icon.

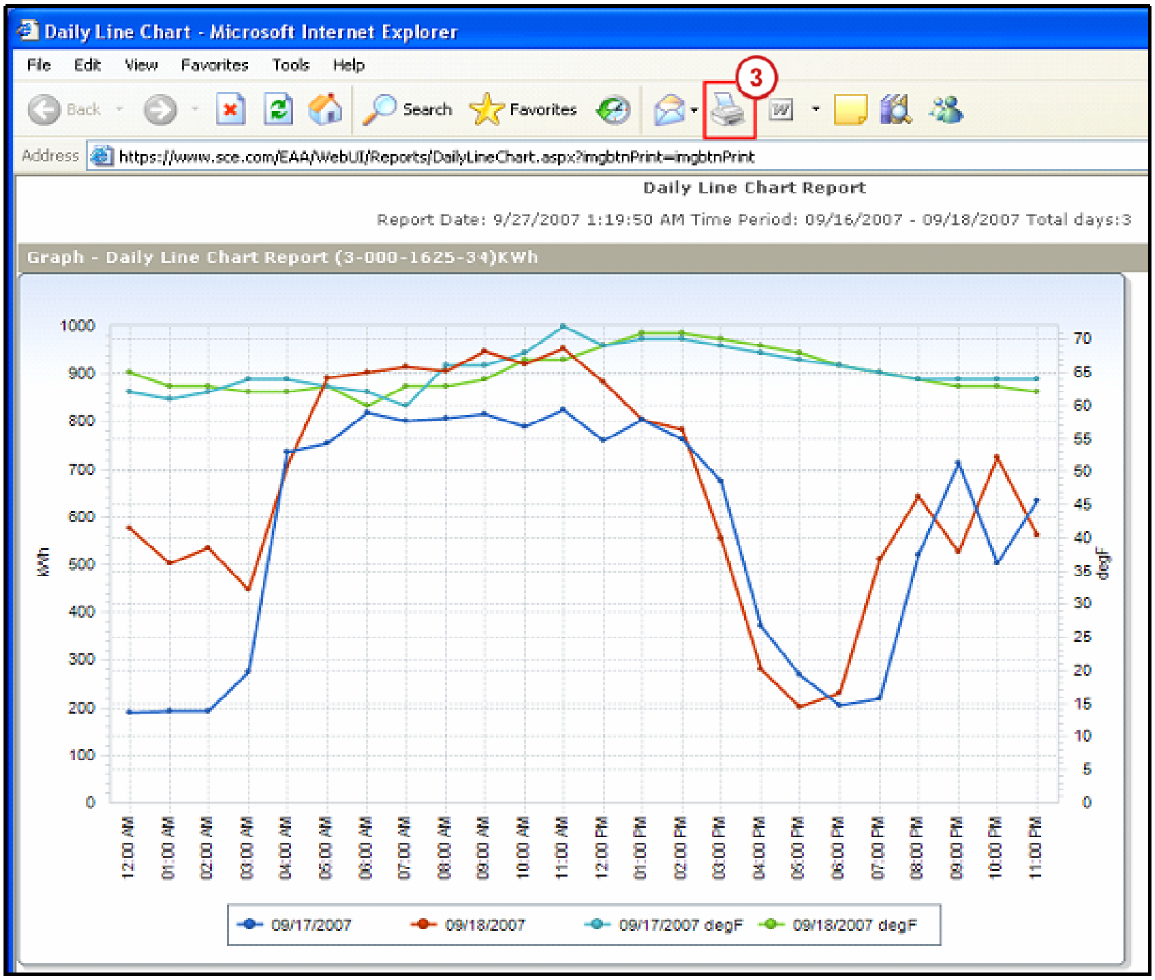


Figure 61 - Print Report

9.4. Frequently Used Report

The Frequently Used Report component allows you to save, load, modify and schedule reports for re-use. You may save reports using names and descriptions of your choice for easy reference and for use at a later date.

The **Frequently Used Report** link drop-down offers the following Report functions:

- Save Report
- Load Report
- Modify Report
- Report Scheduling

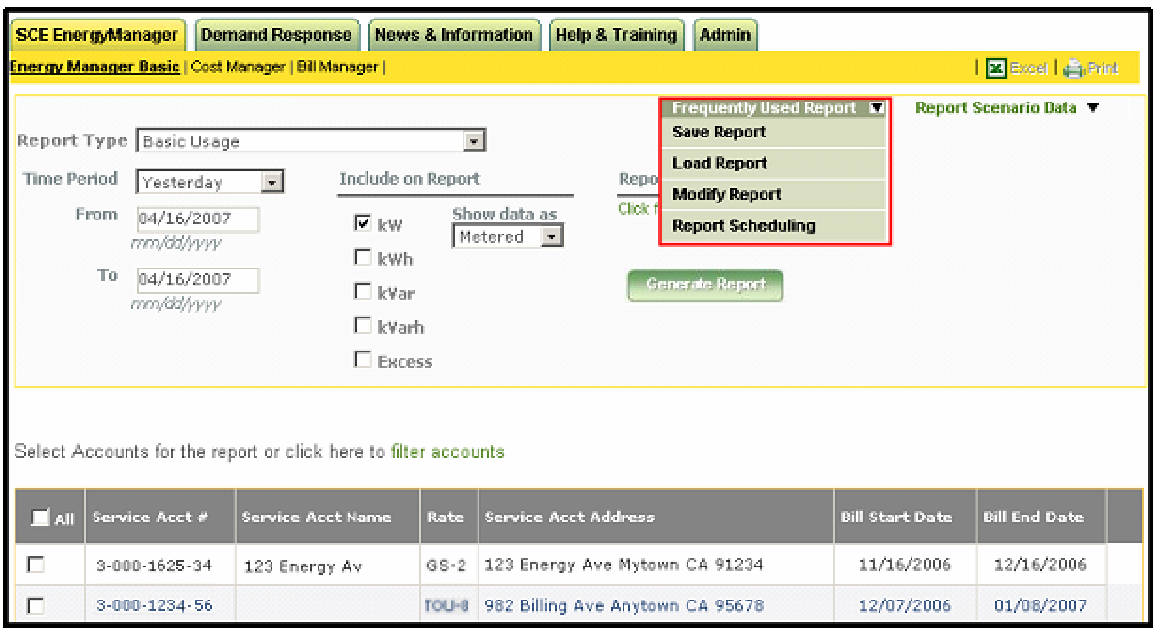


Figure 62 - Frequently Used Report

9.4.1. Save Report

The Save Report function allows you to save reports using names and descriptions of your choice for easy reference. You may share saved reports with authorized users.

Note	A relative time period will always report data for the same time period relative to the current date. A custom time period will always stay fixed. For example, if a frequently used report is saved with the last month time period, then the loaded report will be generated with the same time period (last month), but relative to the current month.

Steps to Save a Frequently Used Report:

1. Generate the desired report
2. Click the **Frequently Used Report** drop-down arrow to view the menu.
3. Select the **Save Report** option.

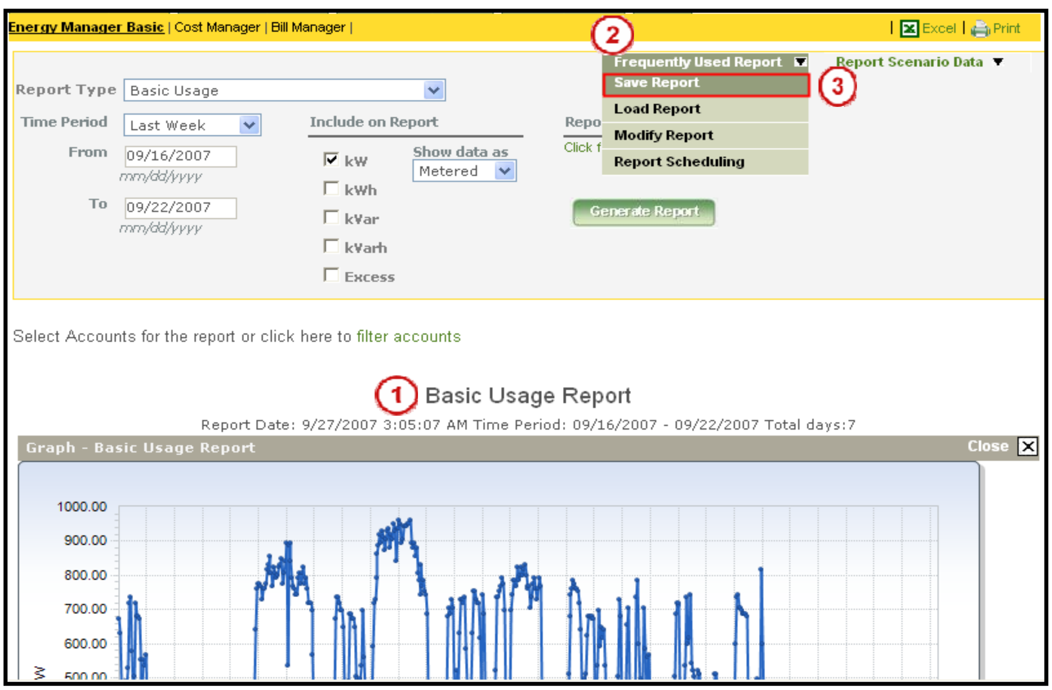


Figure 63 - Save Report

4. Enter a report name in the **Report Name** text box (REQUIRED).
5. Enter a short description in the **Description** text box (OPTIONAL).
6. Enter additional details in the **Detail Description** text box (OPTIONAL).
7. Select **Authorized Users** from the list to **Share the report with**. Click the **Add** button to add the **Assigned Users**. To remove **Assigned Users**, select the user and click the **Remove** button (OPTIONAL).
8. Click **Apply** to save your Frequently Used Report.

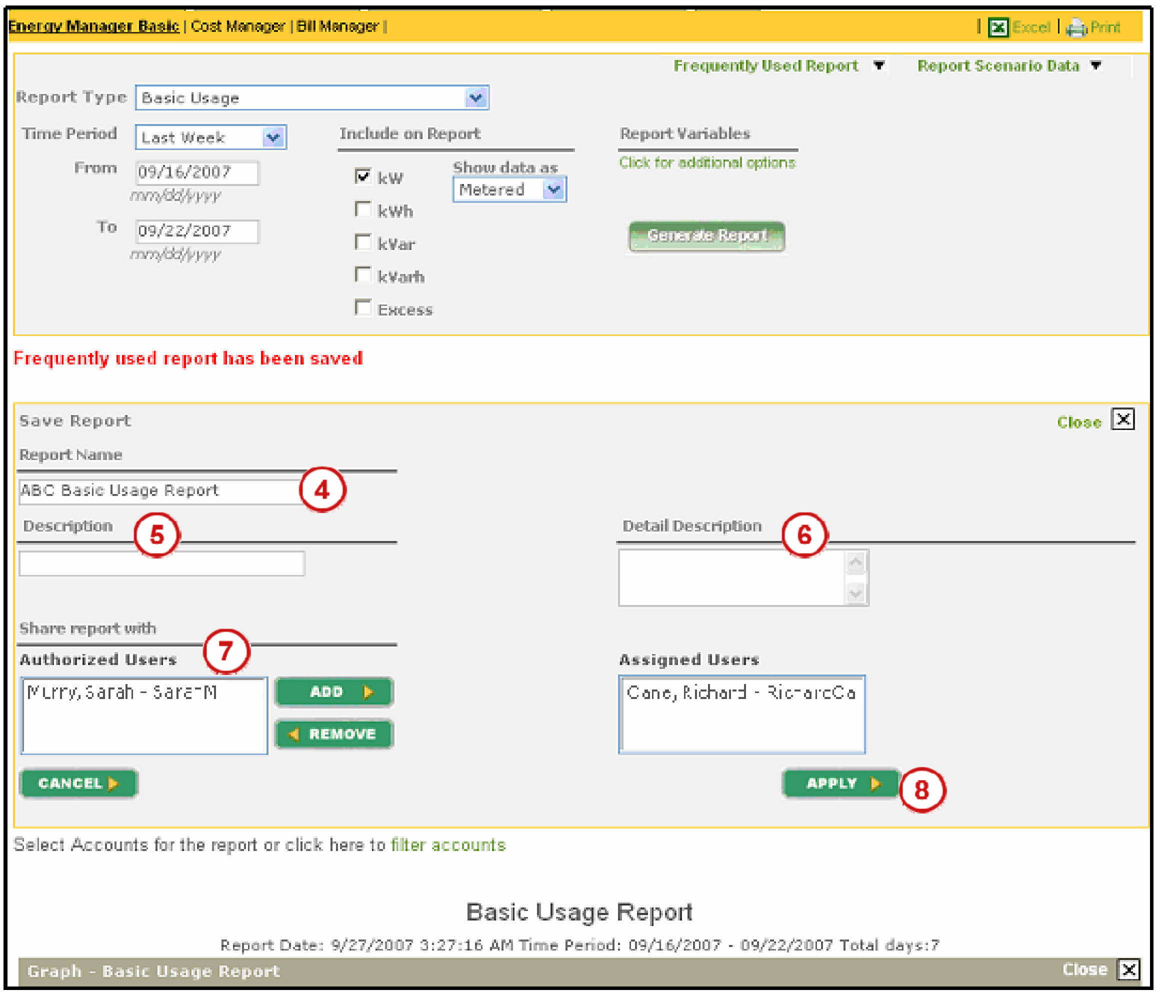


Figure 64 - Save Report

9.4.2. Load Report

The Load Report function allows you to select a previously saved report and generate it based on the saved report variables. Assigned users view saved reports using Load Report.

Steps to Load a Frequently Used Report:

1. Click the **Frequently Used Report** drop-down arrow to view the menu.
2. Select the **Load Report** option. A list of saved reports is displayed.

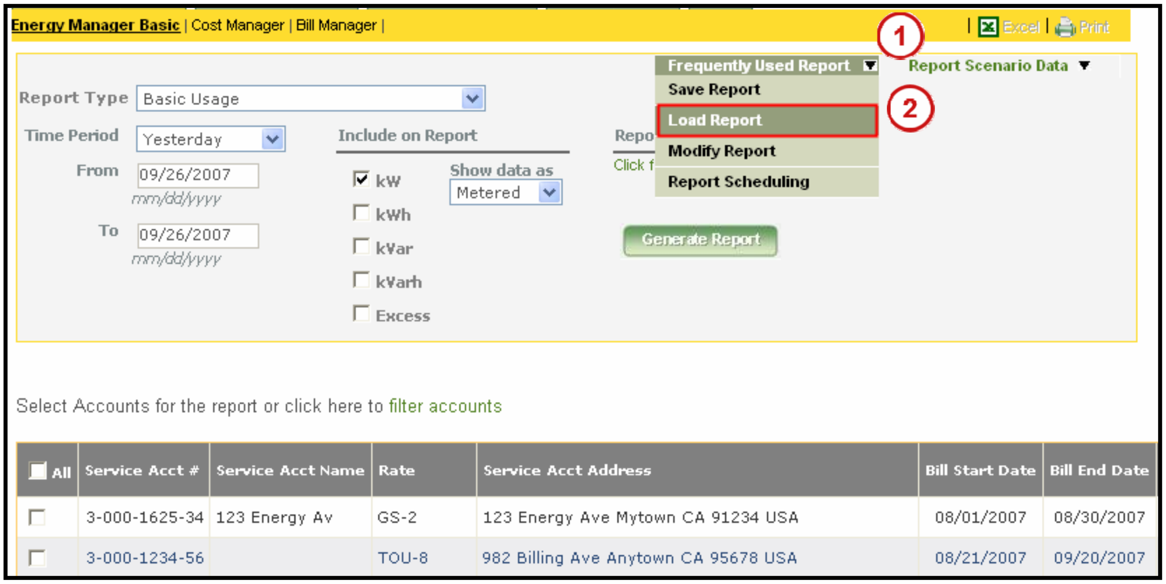


Figure 65 - Load Report

3. Click the appropriate radio button to select the desired report.
4. Click **Load** to view the selected report.

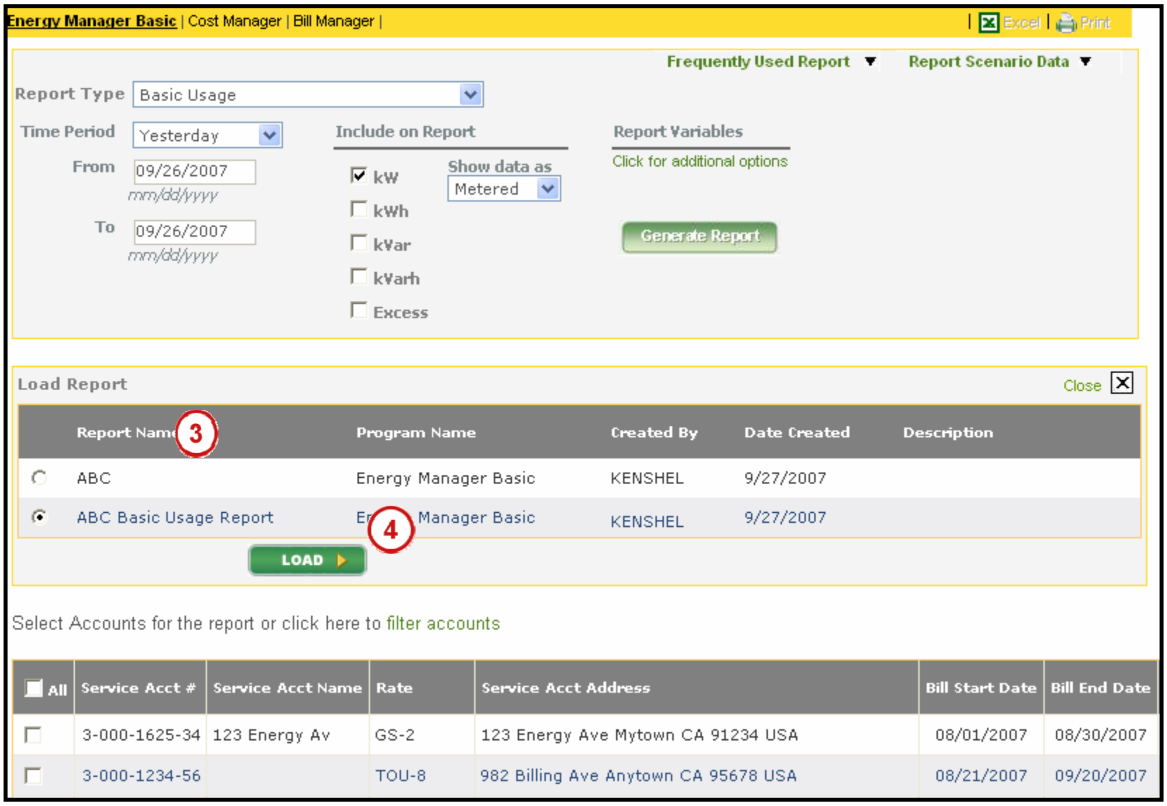


Figure 66 - Load Report

5. The report is generated.

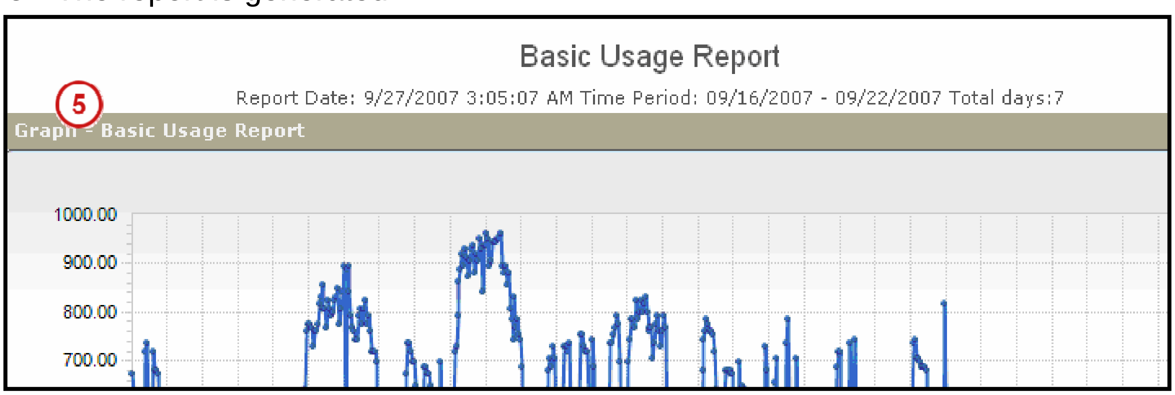


Figure 67 - Load Report Result

9.4.3. Modify Report

The Modify Report function allows the user who created the Frequently Used Report to select it and to modify any of the report variables, including basic report criteria, additional options, as well as the Save Report variables like the Saved Report Name, Descriptions, and Assigned Users. The Modify Report function also allows you to delete a saved report.

Steps to Modify a Frequently Used Report:

1. Click the **Frequently Used Report** drop-down arrow to view the menu.
2. Select the **Modify Report** option. A list of saved reports is displayed.

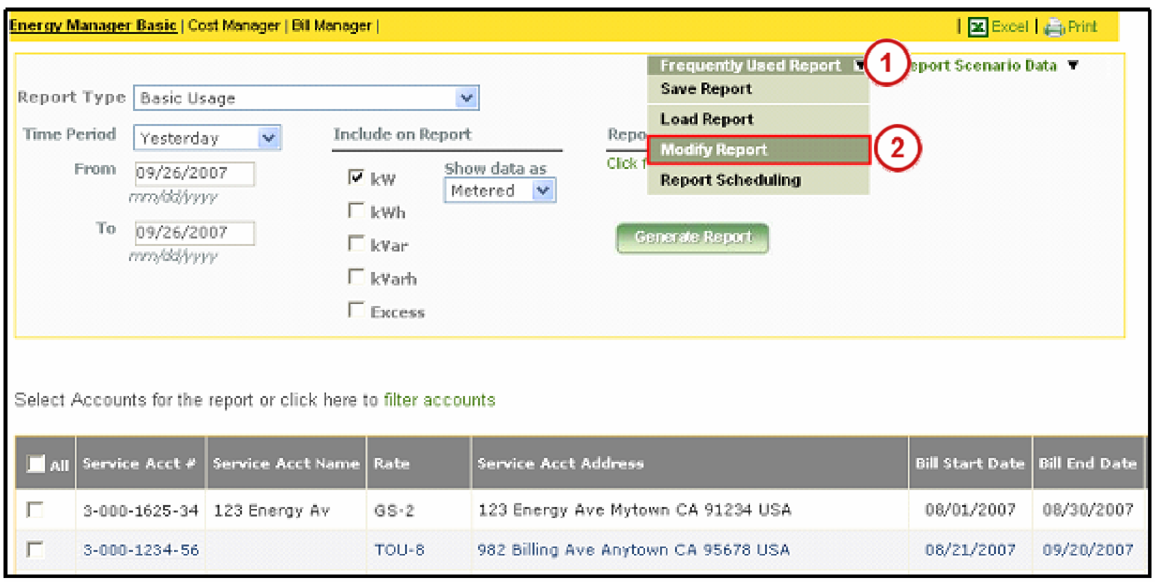


Figure 68 - Modify Report

3. Click the appropriate radio button to select the desired report.
4. Click **Edit** to view and modify the selected saved report variables.

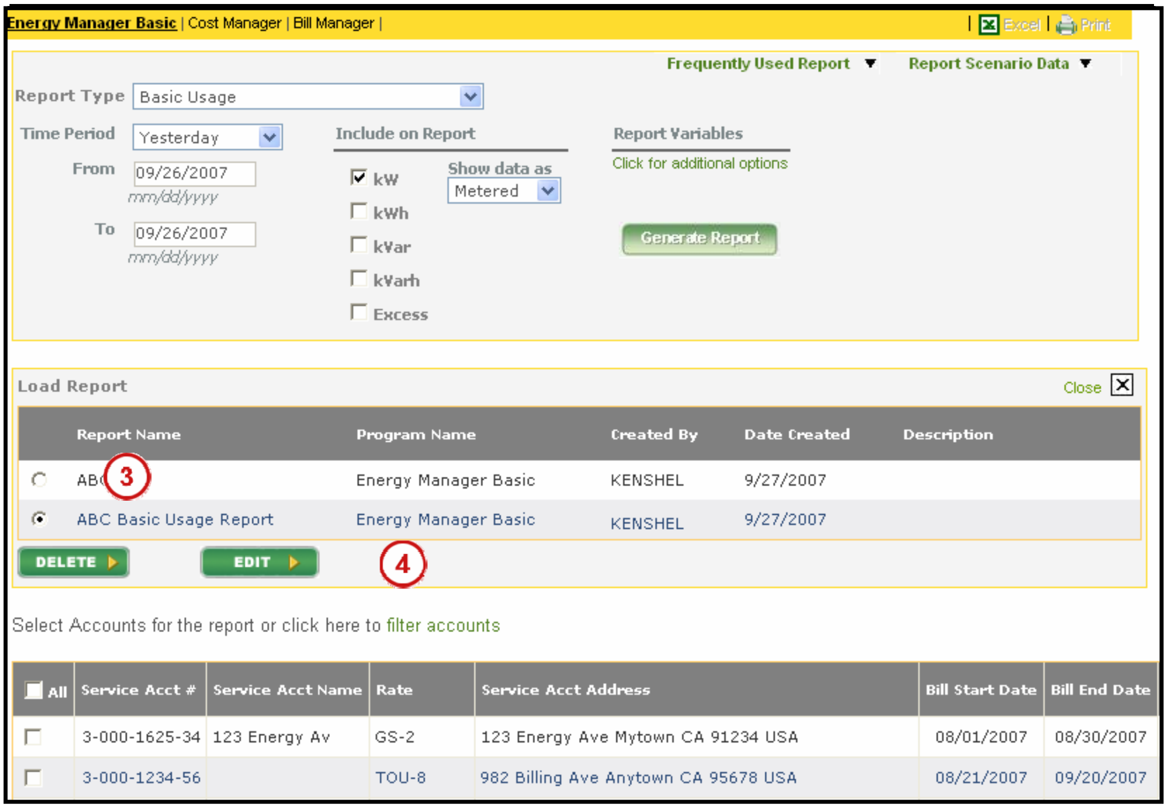


Figure 69 - Modify Report

Note	You can delete the selected Saved Report from the list by clicking the **Delete** button.

5. Modify the Basic Report Criteria if required.
6. Select the **Click for additional options** link to add or modify the Saved Report's additional options, and click **Apply** in the Additional Options area, if required.

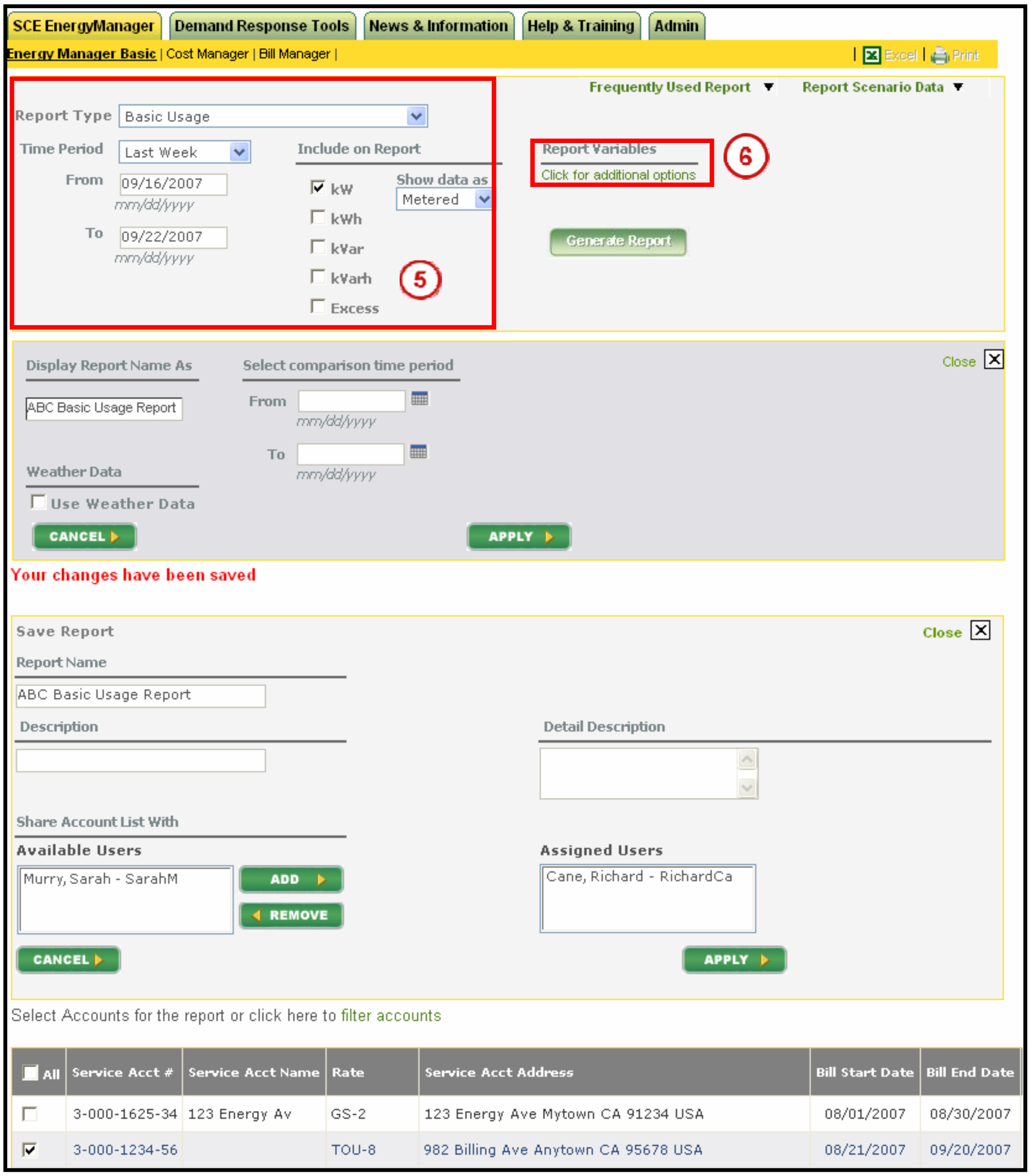


Figure 70 - Modify Report

Note	It is not necessary to modify the Basic Report Criteria, if required, before applying changes to additional options unless you are changing Report Type.

7. Modify the Saved Report variables—Report Name, Descriptions, Assigned Users list—if required, and click **Apply** in the **Save Report** area to confirm the changes to the Frequently Used Report.

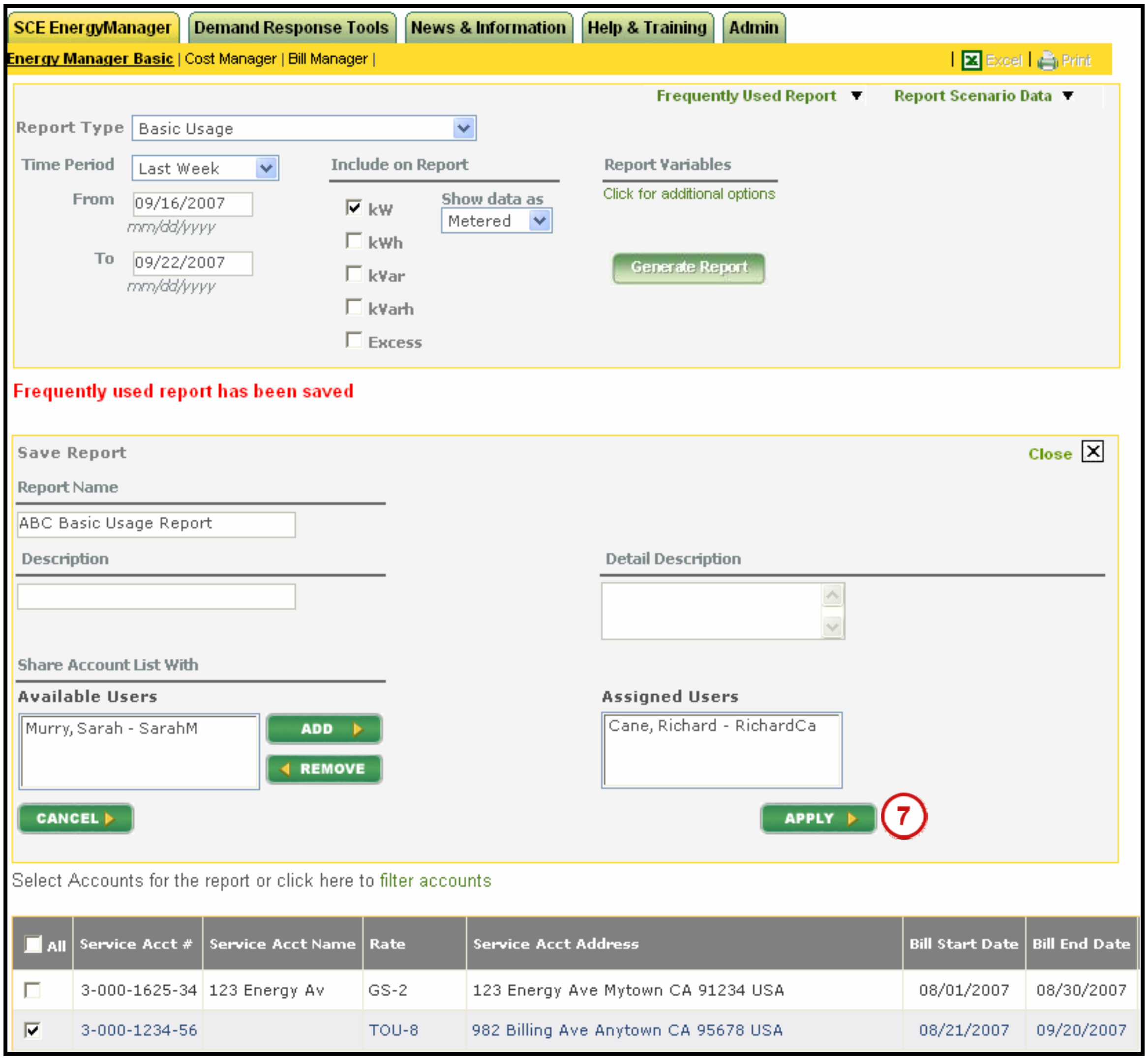


Figure 71 - Modify Report

Note	When you load this report, it will be generated with the modified report variables.

9.4.4. Report Scheduling

The Report Scheduling function allows you to plan the schedule and delivery of saved reports to the assigned users via Email. The assigned users receive a link, which takes them to the scheduled report.

Steps to Schedule a Frequently Used Report:

1. Click the **Frequently Used Report** drop-down arrow to view the menu.
2. Select the **Report Scheduling** option. A list of saved reports is displayed.

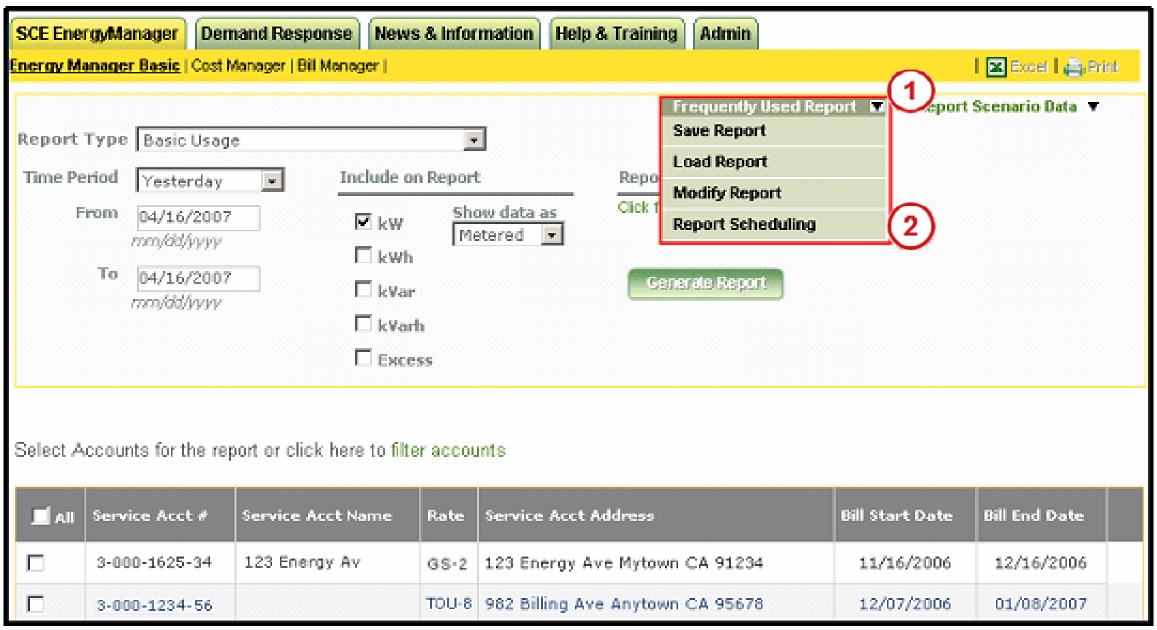


Figure 72 - Report Scheduling

3. Click the appropriate radio button to select the desired report.
4. Enter a subject in the **Subject Title for Email** text box.
5. Click the appropriate radio button to select a **Delivery Frequency** for the Email. Click the appropriate radio button to **Select day of the week** if your Delivery Frequency selection is Weekly. Click the appropriate number from the drop-down arrow to **Select day of the month** if your Delivery Frequency selection is Monthly.
6. Set **Delivery Time** for the Email. The Delivery Time maps to the Delivery Frequency chosen, with quarter-hour precision within the 24-hour window. Using the drop-down arrows, select the Hour, Quarter-hour Minute, and AM/PM.
7. **Select Email Recipients** from the list of **Authorized Users**. Click the **Add** button to add the **Assigned Users**. To remove **Assigned Users** select the user and click the **Remove** button.
8. Click **Apply** to save the report schedule.

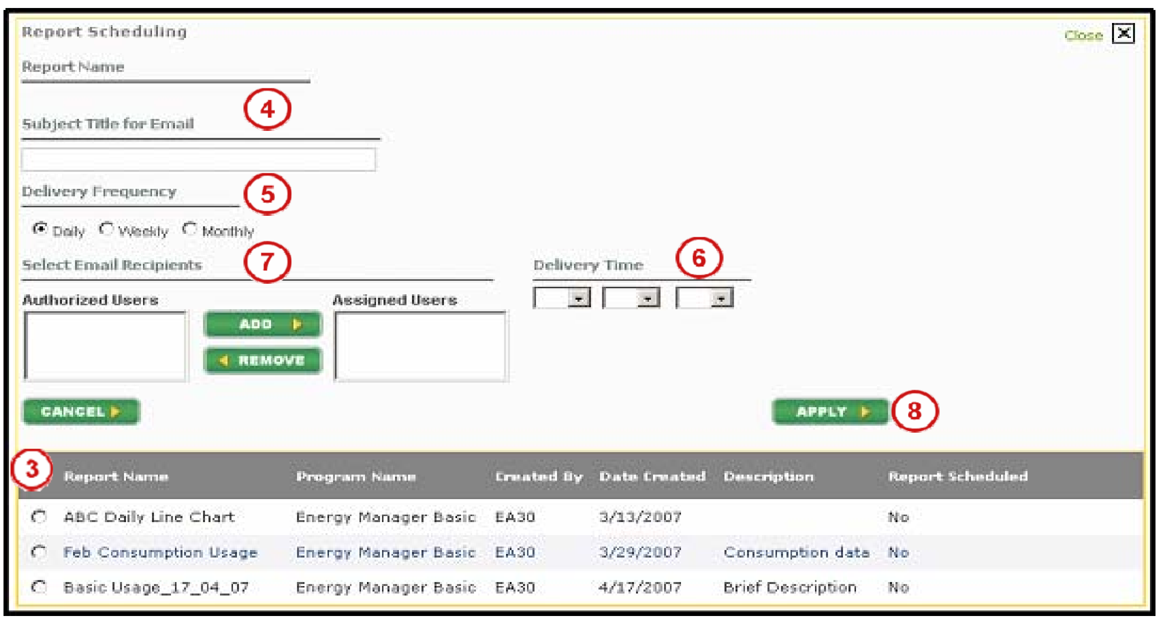


Figure 73 - Report Scheduling

Note	Only saved reports can be scheduled for delivery. Only the **Authorized Users** selected to **Share the report with** in the Save Report or Modify Report function will be available to **Select Email Recipients**.

9.5. Report Scenario Data

The Report Scenario Data component allows you to save, load, and modify sets of report variables and account lists. You may use certain report variables on a frequent basis to generate various reports. To avoid having to enter these variables repeatedly, you can save these in the form of scenarios. Scenarios allow you to customize reports used on a regular basis.

The **Report Scenario Data** link drop-down offers the following Scenario functions:

- Save Scenario
- Load Scenario Report
- Modify scenario

It also allows you to group service accounts with the following Account List functions:

- Save AcctList
- Load AcctList
- Modify AcctList

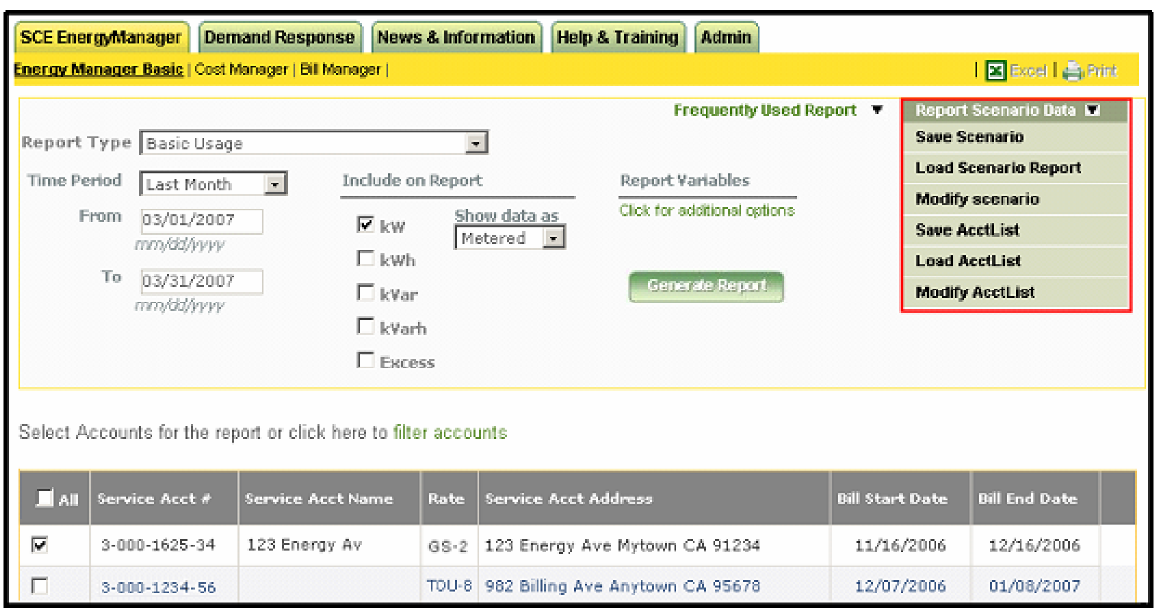


Figure 74 - Report Scenario Data

9.5.1. Save Scenario

The Save Scenario function allows you to save report variables as a scenario prior to generating a report. You can save a scenario by selecting the Save Scenario option from the Report Scenario Data drop-down menu.

Steps to Save a Scenario:

1. Select a report, enter the desired report variables and click the **Report Scenario Data** drop-down arrow to view the menu.
2. Select the **Save Scenario** option.

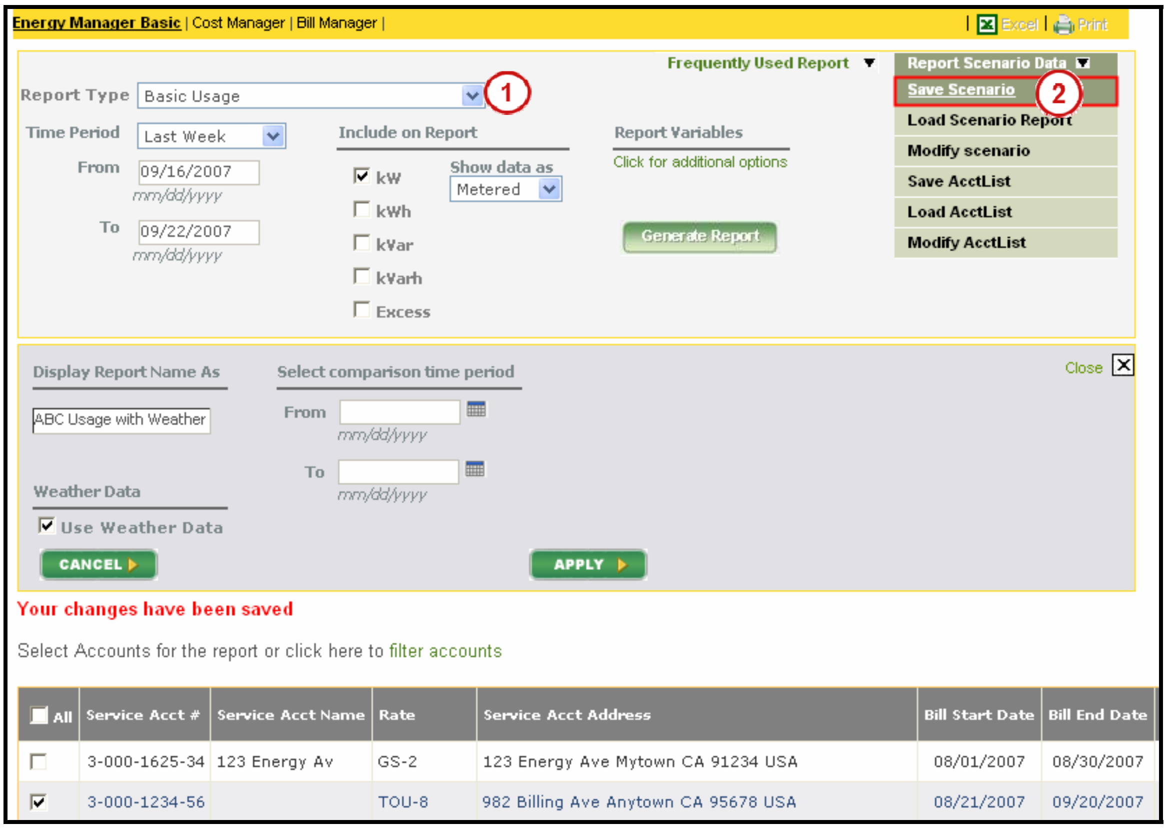


Figure 75 - Save Scenario

3. Enter a scenario name in the **Report Name** text box (REQUIRED).
4. Enter a short description in the **Description** text box (OPTIONAL).
5. Enter additional details in the **Detail Description** text box (OPTIONAL).
6. Click **Apply** to save your Scenario.

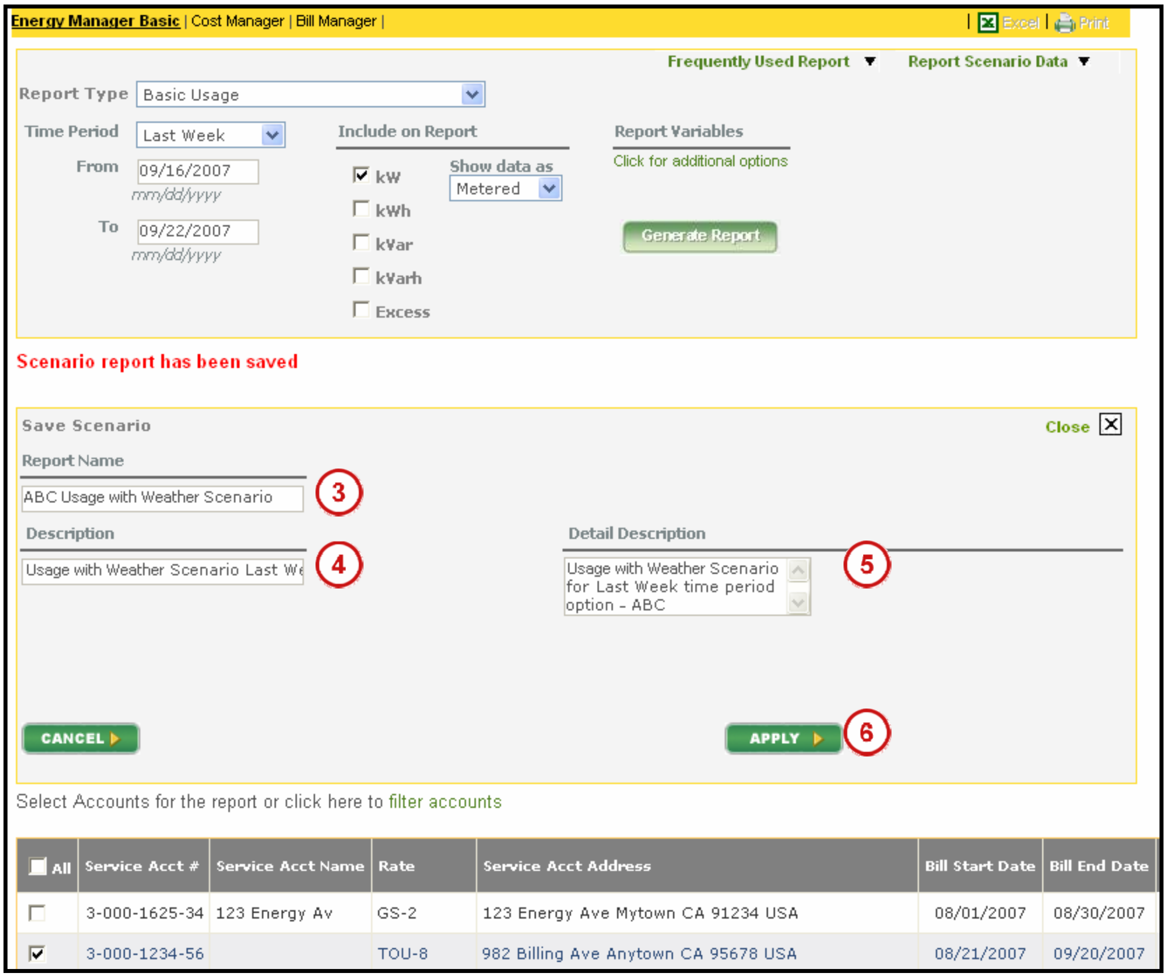


Figure 76- Save Scenario

Note	Save Scenario saves the report variables independent of the selected report.

9.5.2. Load Scenario Report

The Load Scenario Report function allows you to select a previously saved scenario and apply it to generate a report. The saved scenarios are listed with the Scenario Name, Program Name, Created By, Date Created and Description.

Steps to Load a Scenario:

1. Click the **Report Scenario Data** drop-down arrow to view the menu.
2. Select the **Load Scenario Report** option. A list of saved scenarios is displayed.

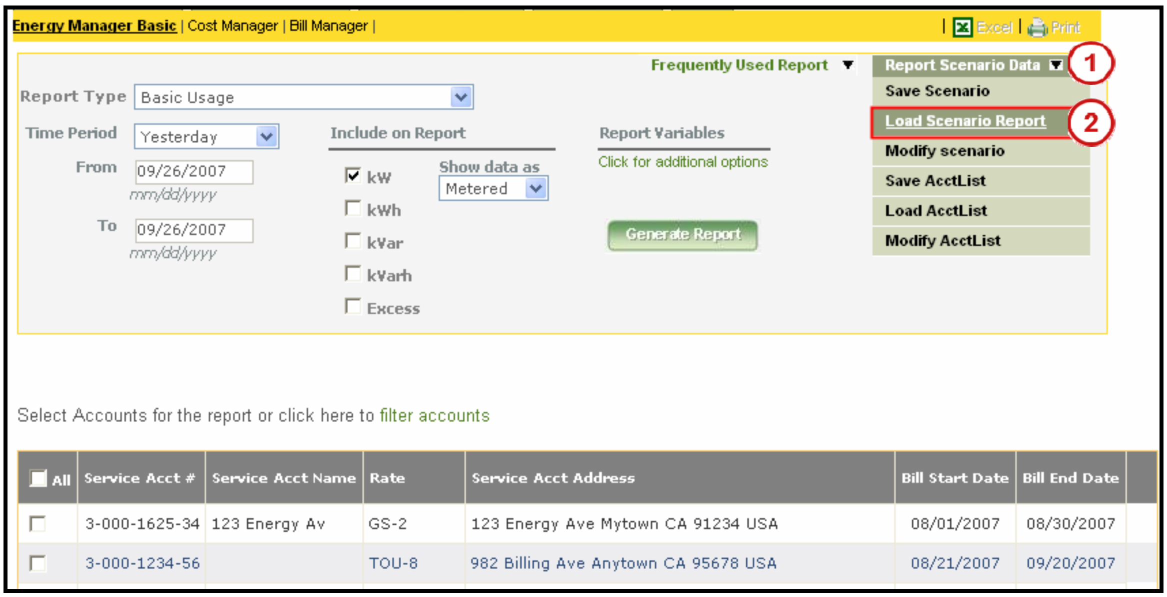


Figure 77 - Load Scenario Report

3. Click the appropriate radio button to select the desired scenario.
4. Click **Load** to view the selected scenario. The basic report criteria saved in the scenario are displayed.

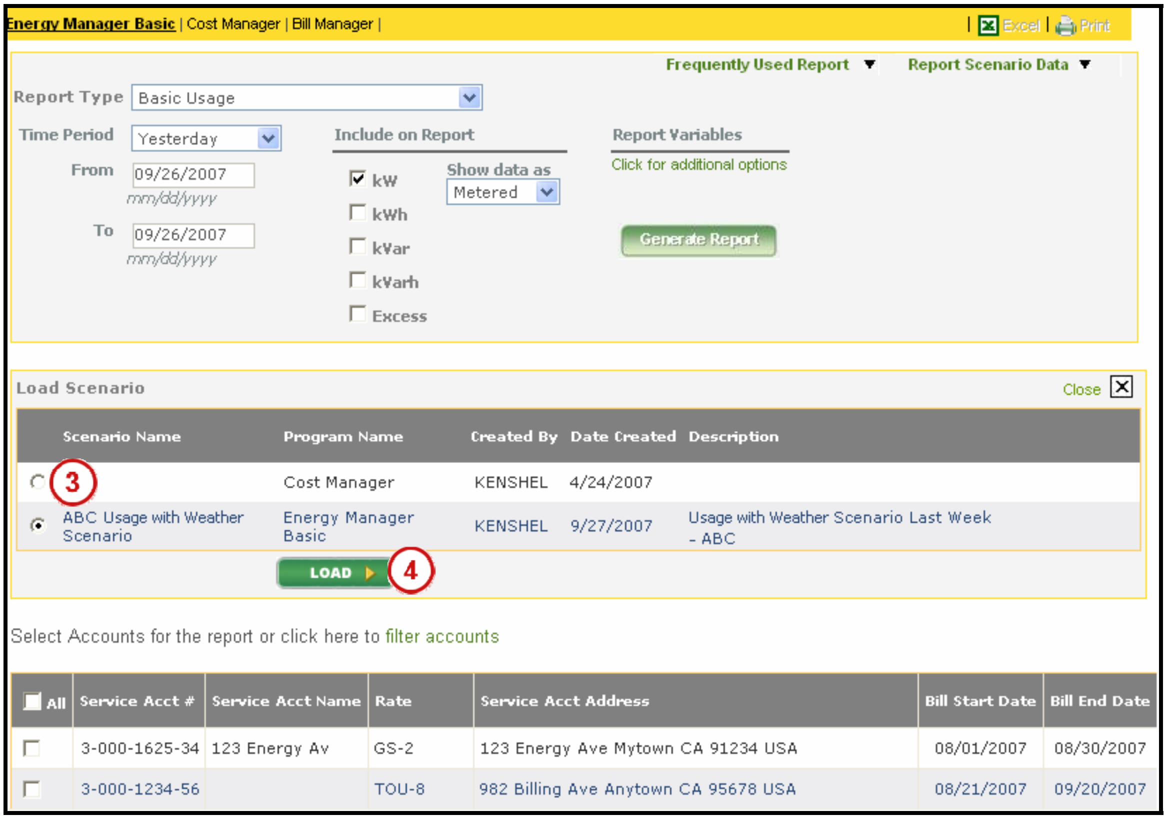


Figure 78 - Load Scenario Report

Note	Load Scenario does not generate the report. To view results of the report variables saved; select the desired report to generate.

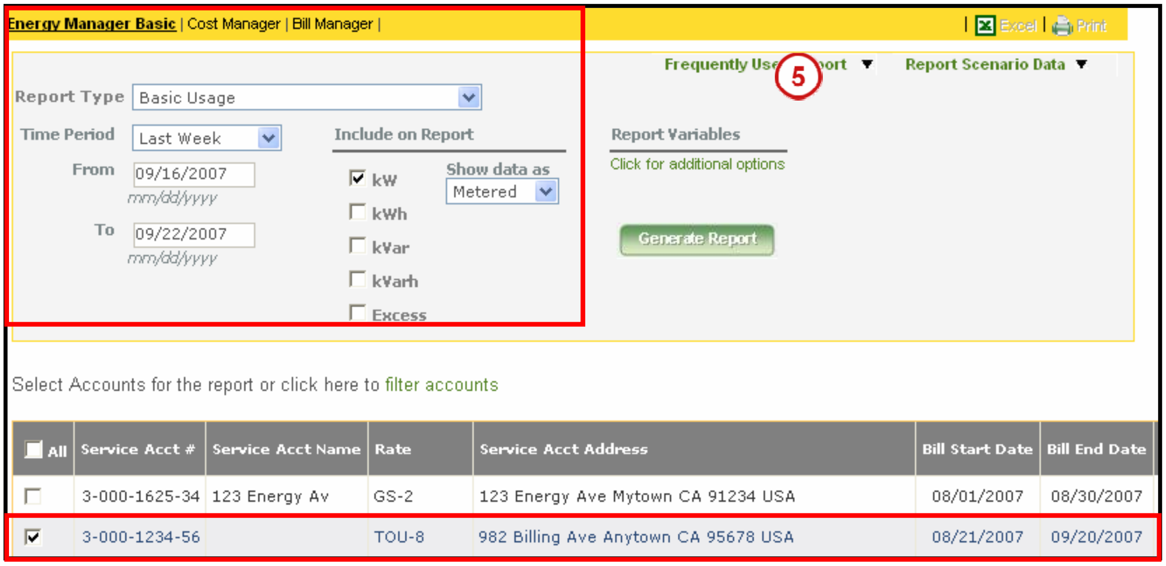


Figure 79 - Load Scenario Report

5. To see additional options saved in the scenario, select the **Click for additional options** link. The Additional options saved in the scenario are displayed.

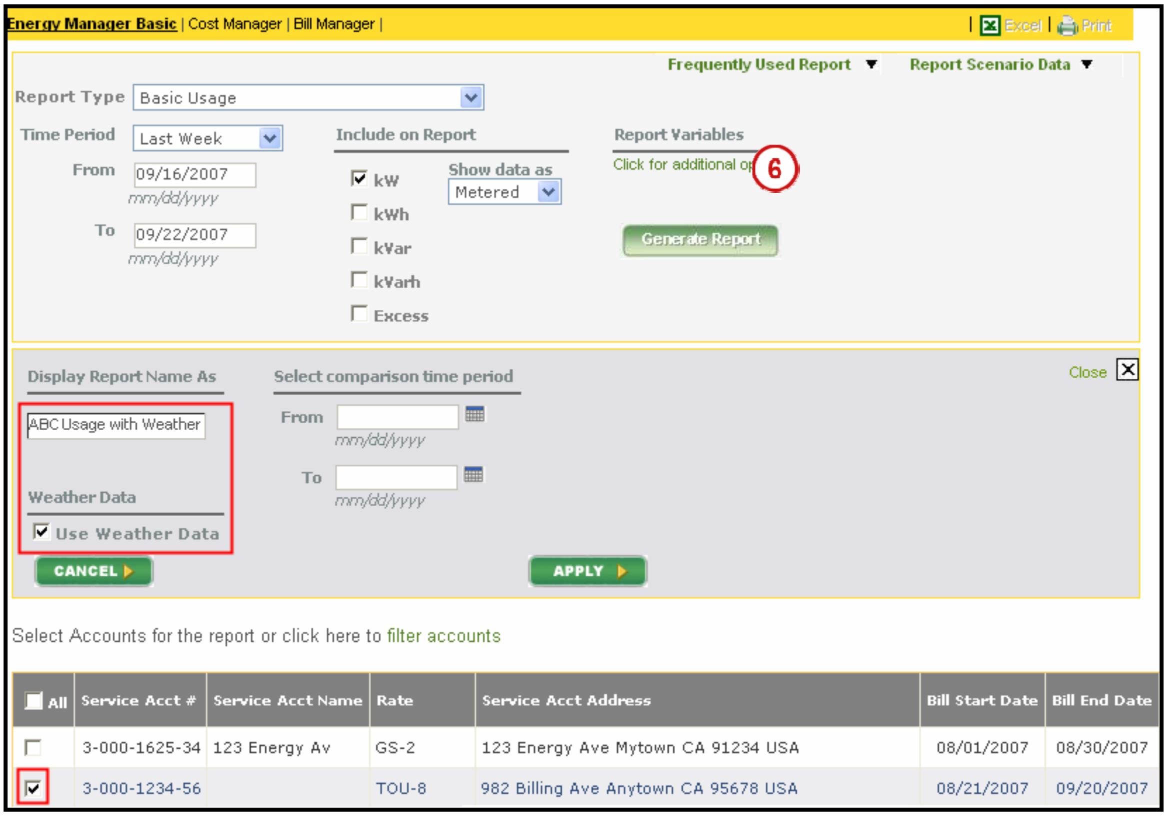


Figure 80 - Load Scenario Report Additional Options

6. Click **Generate Report**.

9.5.3. Modify Scenario

The Modify Scenario function allows the user who created the Scenario to select it and to modify any of the saved report variables, including the Scenario Name, Descriptions, Basic Report Criteria and Additional Options. The Modify Scenario function also allows you to delete a saved scenario.

Steps to Modify a Scenario:

1. Click the **Report Scenario Data** drop-down arrow to view the menu.
2. Select the **Modify Scenario** option. A list of saved scenarios is displayed.

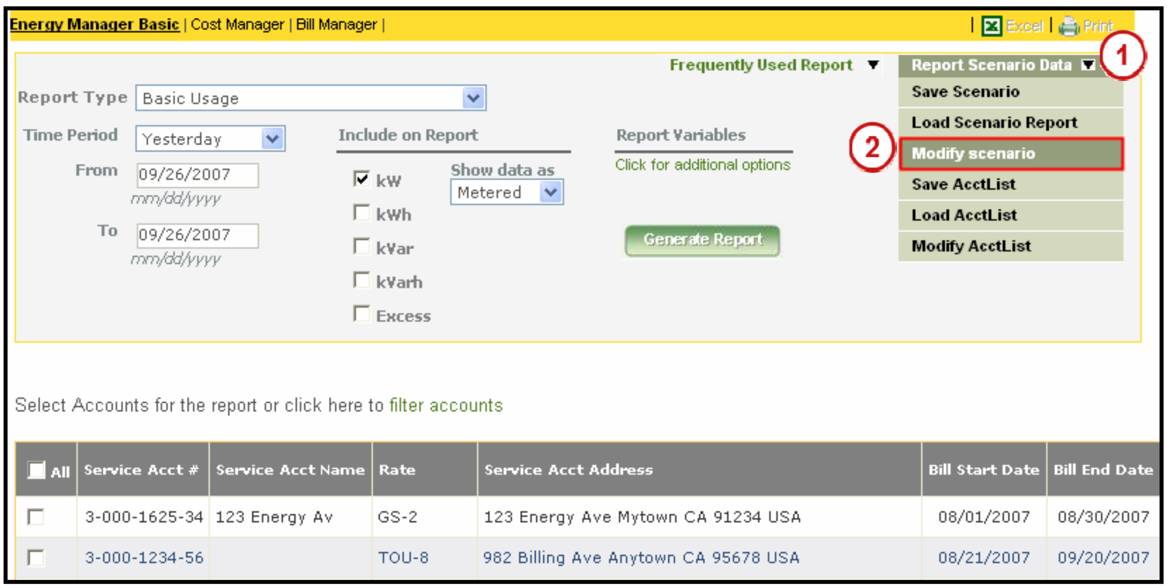


Figure 81 - Modify Scenario

3. Click the appropriate radio button to select the desired scenario.
4. Click **Edit** to view and modify the selected saved scenario variables.

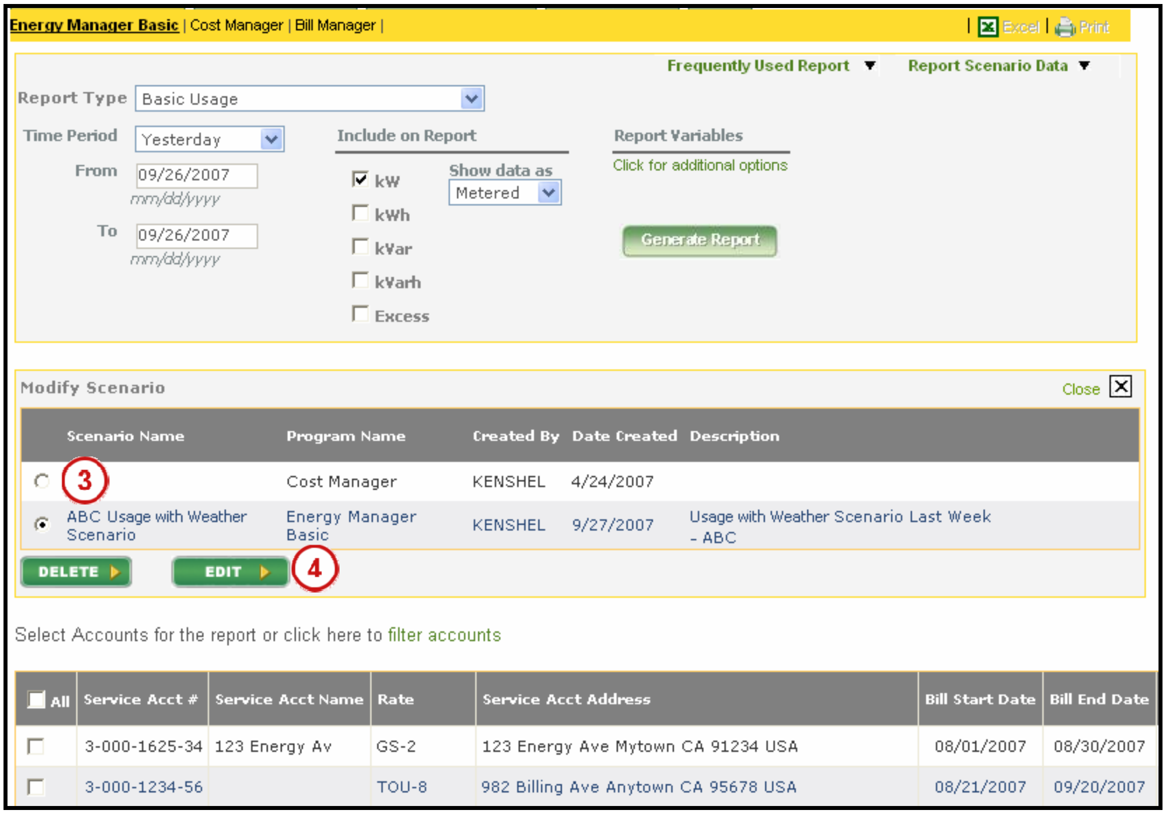


Figure 82 - Modify Scenario

Note	You can delete the selected Saved Scenario from the list by clicking the **Delete** button.

5. Modify the Basic Report Criteria if required.
6. Select the **Click for additional options** link to add or modify the Saved Scenario's additional options, and click **Apply** in the Additional Options area, if required.

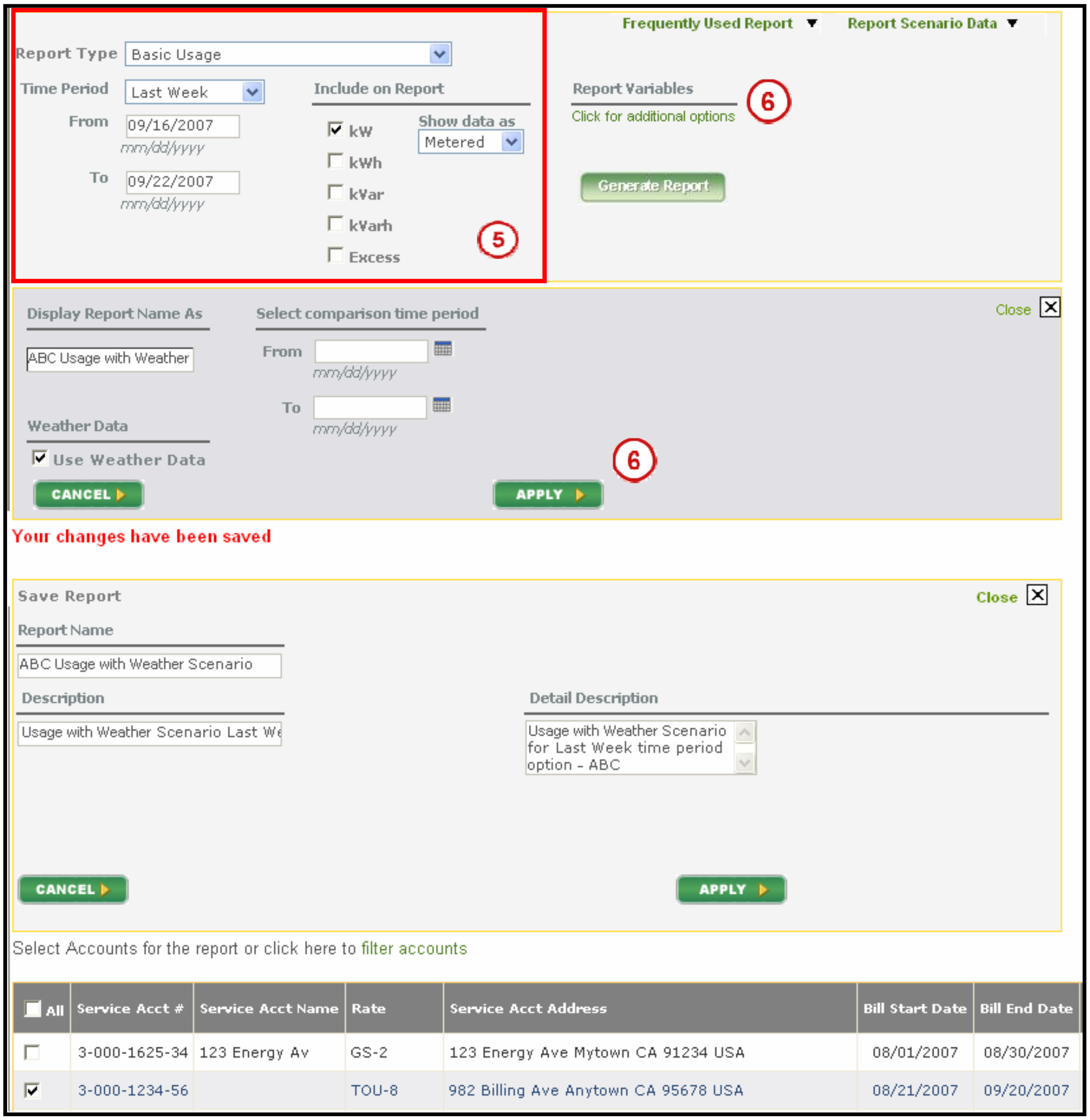


Figure 83 - Modify Scenario

7. Modify the Saved Scenario variables—Scenario Name, Descriptions—if required, and click **Apply** in the **Save Scenario** area to confirm the changes to the Report Scenario.

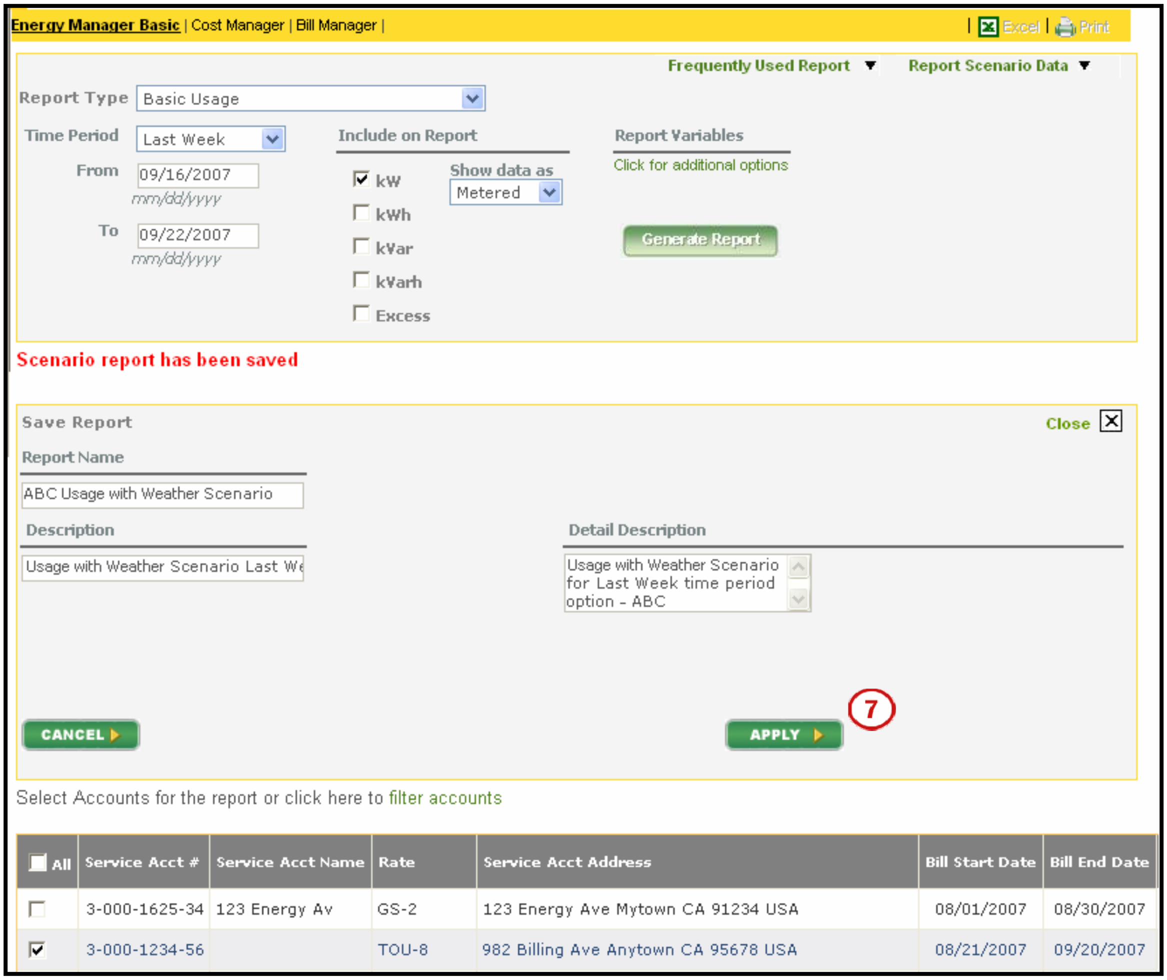


Figure 84 - Modify Scenario

Account List

The Account List is a group of service accounts that can be used for report generation. An Account List combines service account numbers for use within Energy Manager Basic, Cost Manager or Bill Manager.

The Account List function also allows you to create multiple groups of service accounts for each program and select authorized users who can access these Account Lists. If the same service accounts are available in the other programs and the user has access to these accounts, then the Account Lists may be accessed from the other programs as well.

9.5.4. Save AcctList

The Save Account List function allows you to save grouped service accounts using names and descriptions of your choice for easy reference. You may share saved account lists with authorized users.

Steps to Save an Account List:

1. Select service accounts to group. For help selecting service accounts, refer to section 5.3 Searching and Selecting Service Accounts.
2. Click the **Report Scenario Data** drop-down arrow to view the menu.

3. Select the **Save AcctList** option.

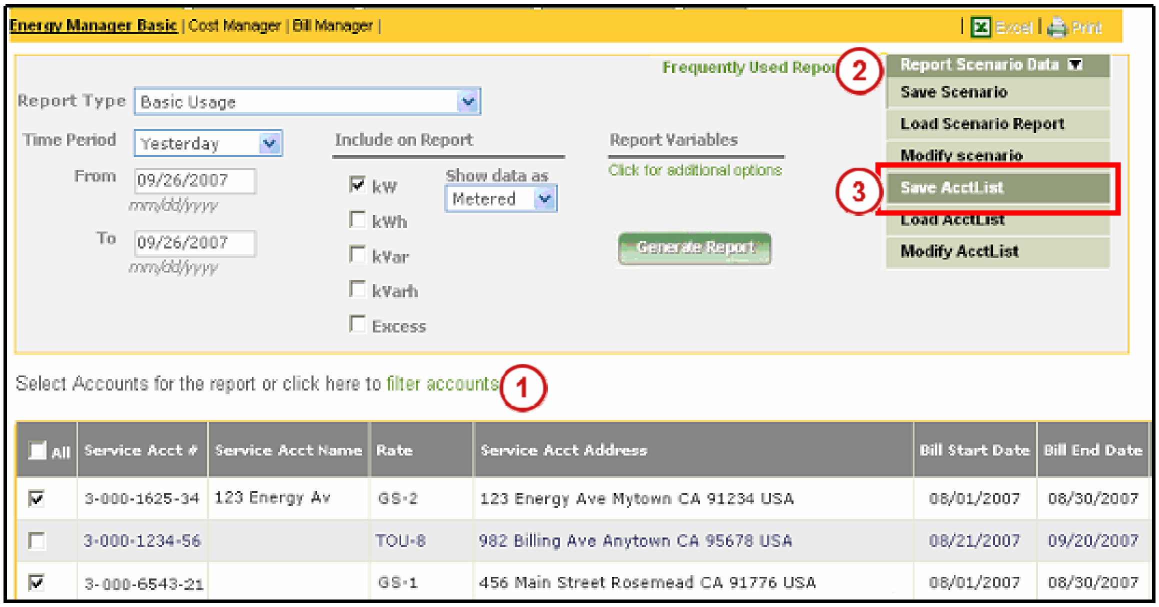


Figure 85 - Save AcctList

4. Enter an account list name in the **Account List Name** text box (REQUIRED).
5. Enter a short description in the **Short Description** text box (OPTIONAL).
6. Enter additional details in the **Detail Description** text box (OPTIONAL).

7. Select **Assigned Users** from the list to **Share Account List With**. Click the **Add** button to add the **Assigned Users**. To remove **Assigned Users**, select the user and click the **Remove** button (OPTIONAL.

8. Click **Apply** to save your Account List.

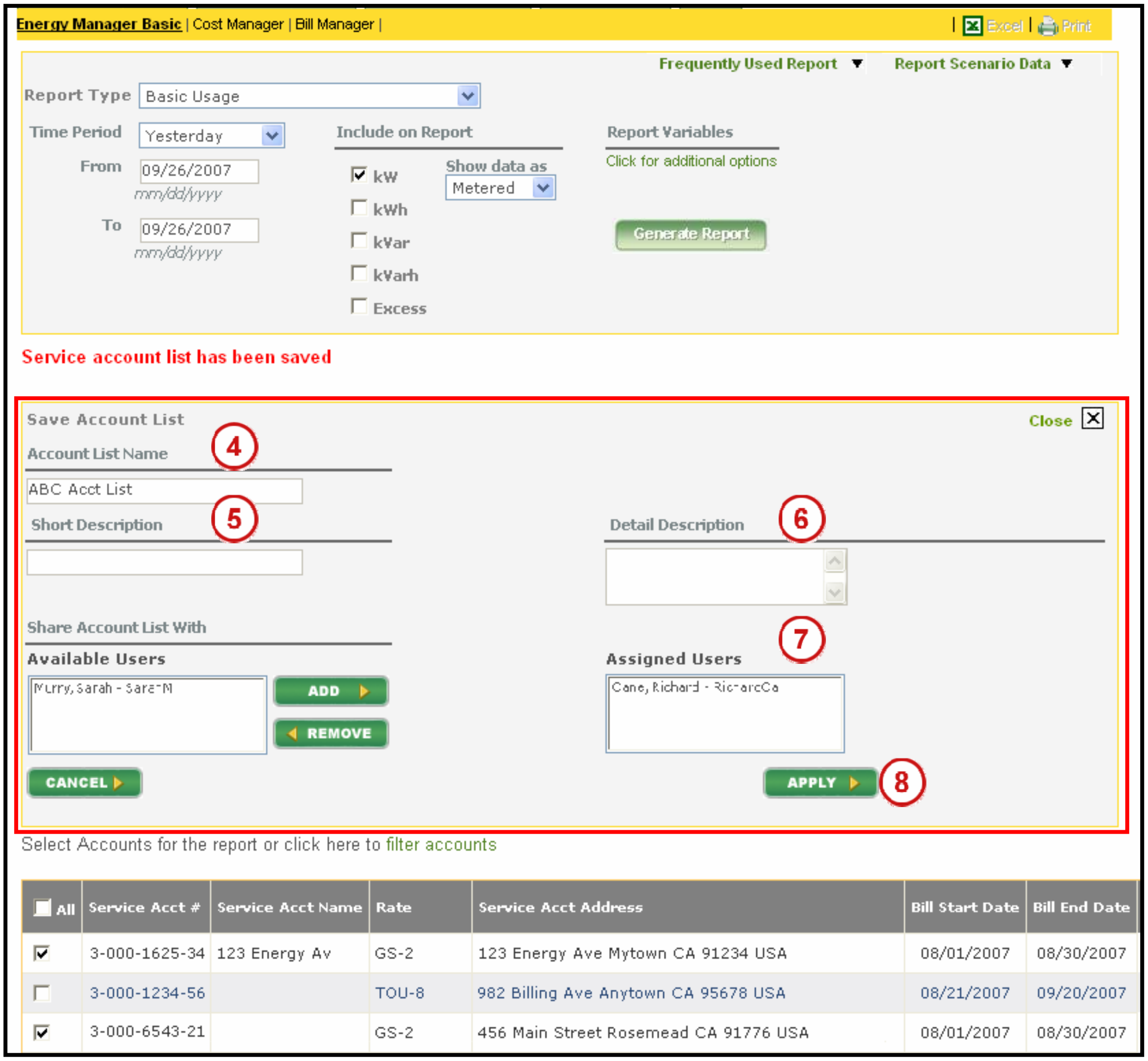


Figure 86 - Save AcctList

9.5.5. Load AcctList

The Load Account List function allows you to select a previously saved account list and apply it to generate a report. The service accounts in the list are automatically selected for report generation. Assigned users can view saved account lists using Load AcctList.

Steps to Load an Account List:

1. Select the desired report to be generated.
2. Click the **Report Scenario Data** drop-down arrow to view the menu.
3. Select the **Load AcctList** option. A list of saved account lists is displayed.

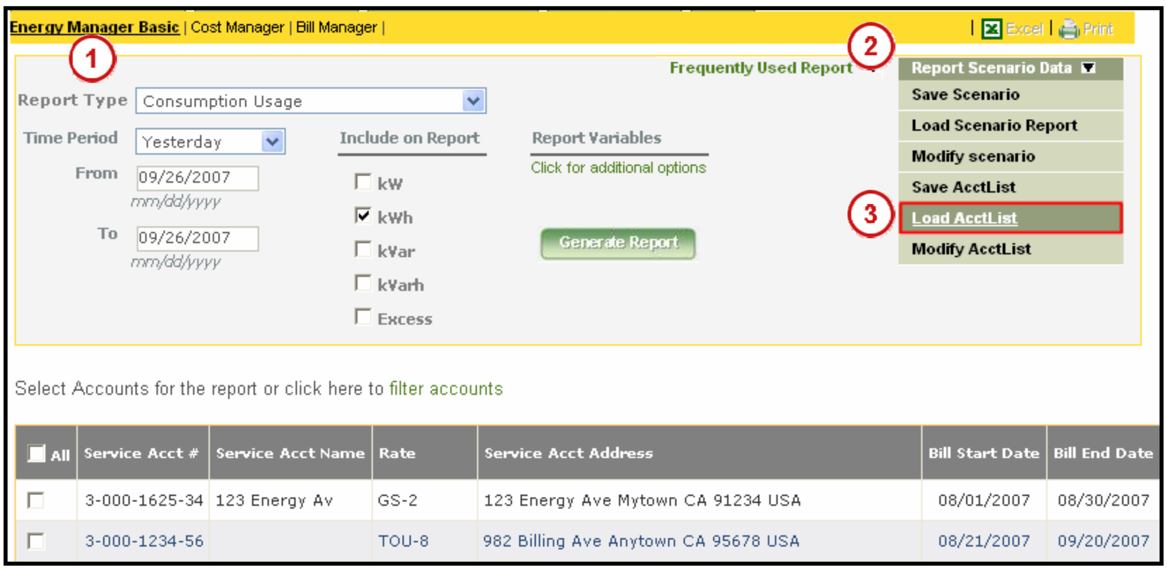


Figure 87 - Load AcctList

4. Click the appropriate radio button to select the desired account list.
5. Click **Load** to view the selected service accounts in the account list.

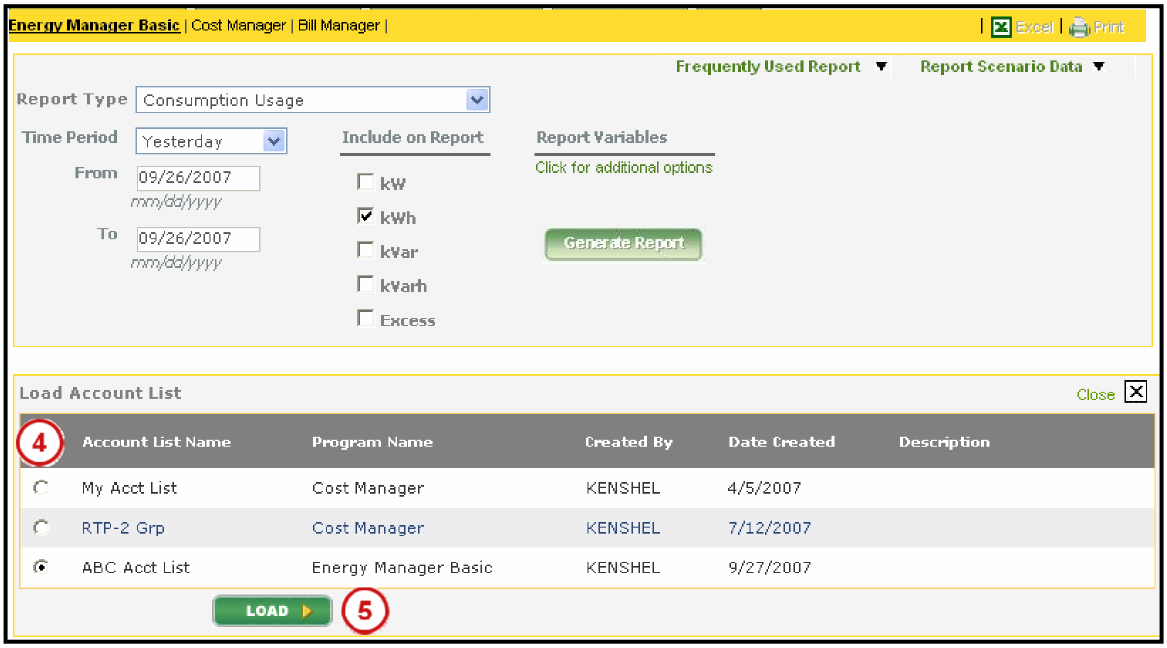


Figure 88 - Load AcctList

6. The service accounts in the Account List are automatically selected, ready for you to generate the report for the selected service accounts.

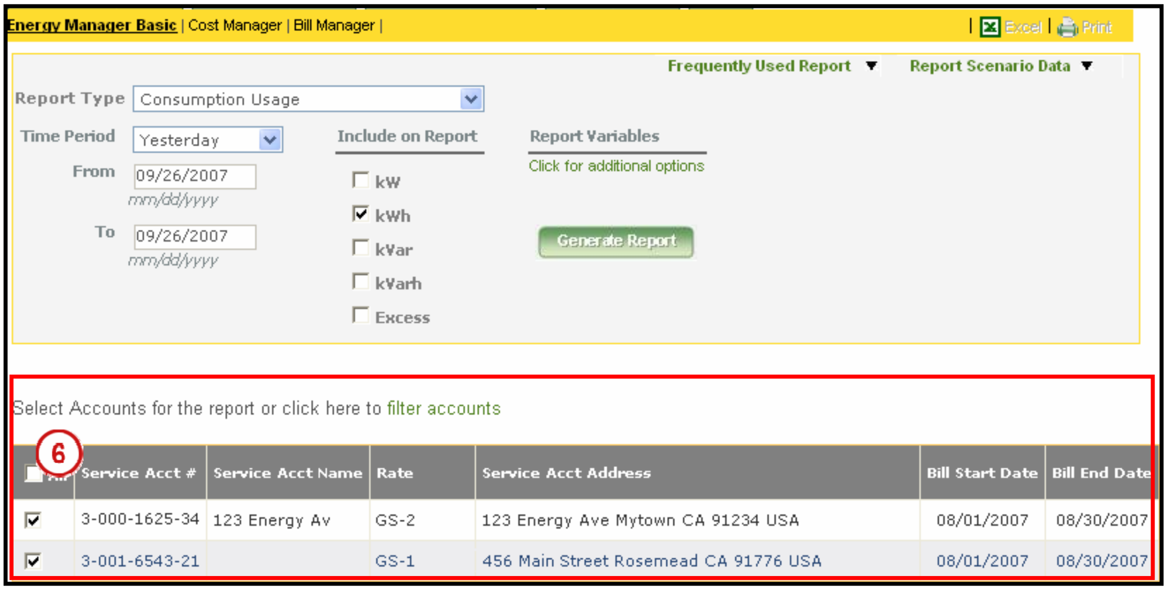


Figure 89 - Load AcctList

9.5.6. Modify AcctList

The Modify Account List function allows the user who created the scenario to select it and to modify any of the account list variables, including which service accounts are selected, the Account List Name, the Descriptions and Assigned Users. The Modify AcctList function also allows you to delete a saved account list.

Steps to Modify an Account List:

1. Click the **Report Scenario Data** drop-down arrow to view the menu.
2. Select the **Modify AcctList** option. A list of saved account lists is displayed.

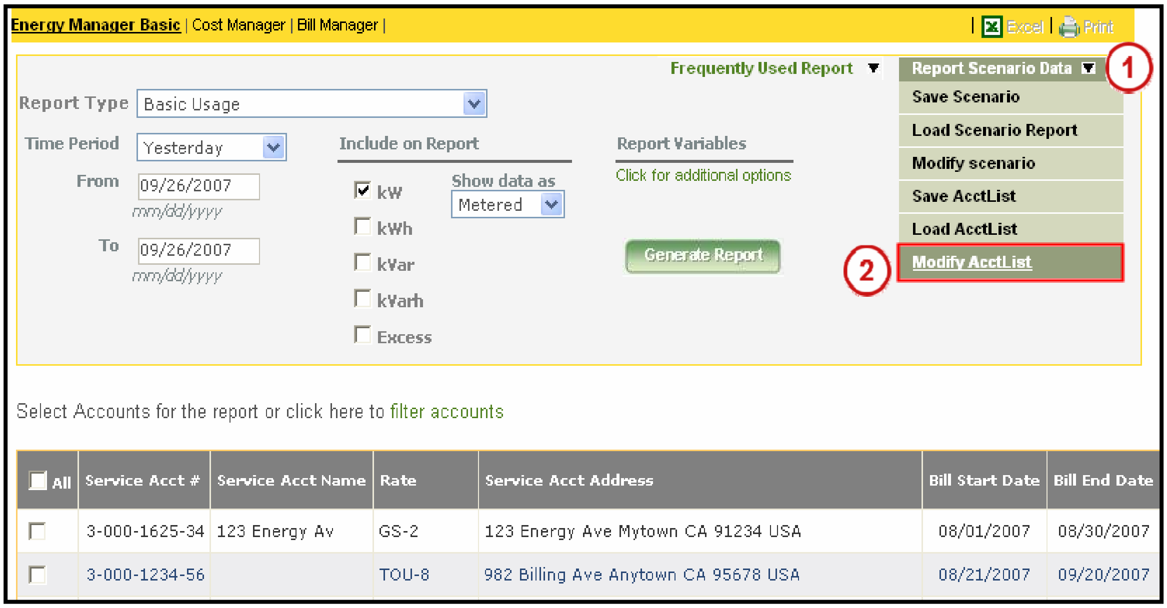


Figure 90 - Modify AcctList

3. Click the appropriate radio button to select the desired account list.
4. Click **Edit** to view and modify the selected saved account list.

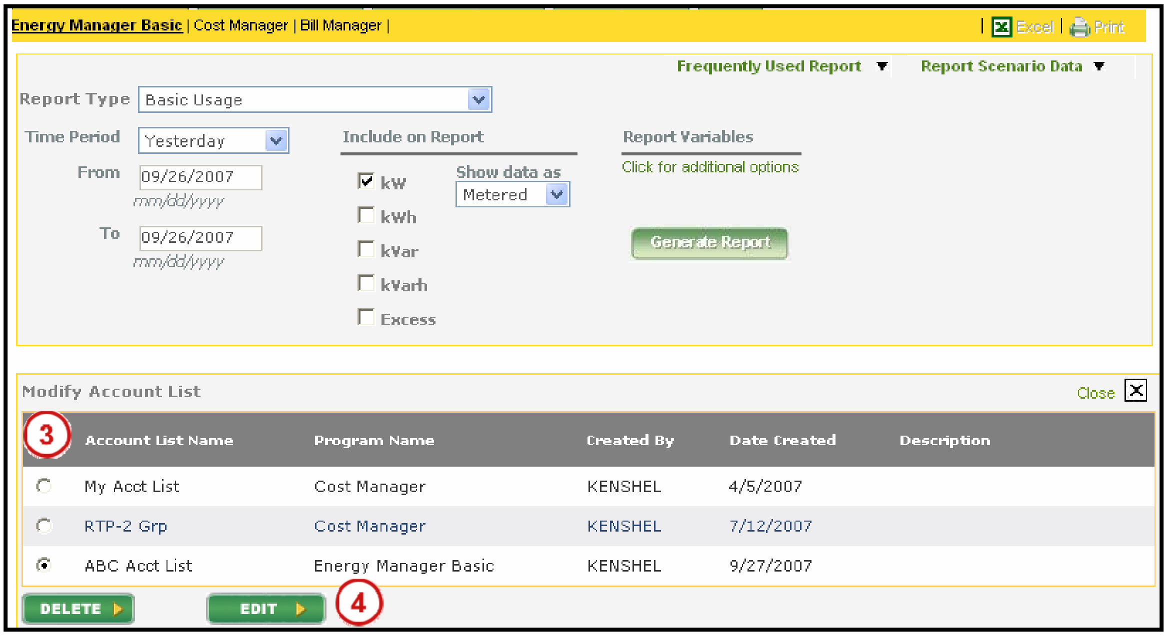


Figure 91 - Modify AcctList

Note	You can delete the selected Saved Account List from the list by clicking the **Delete** button.

5. Modify the Account List Name, Descriptions, Assigned Users list, or Selected Service Accounts, and click **Apply** in the **Modify Service Account List** section.

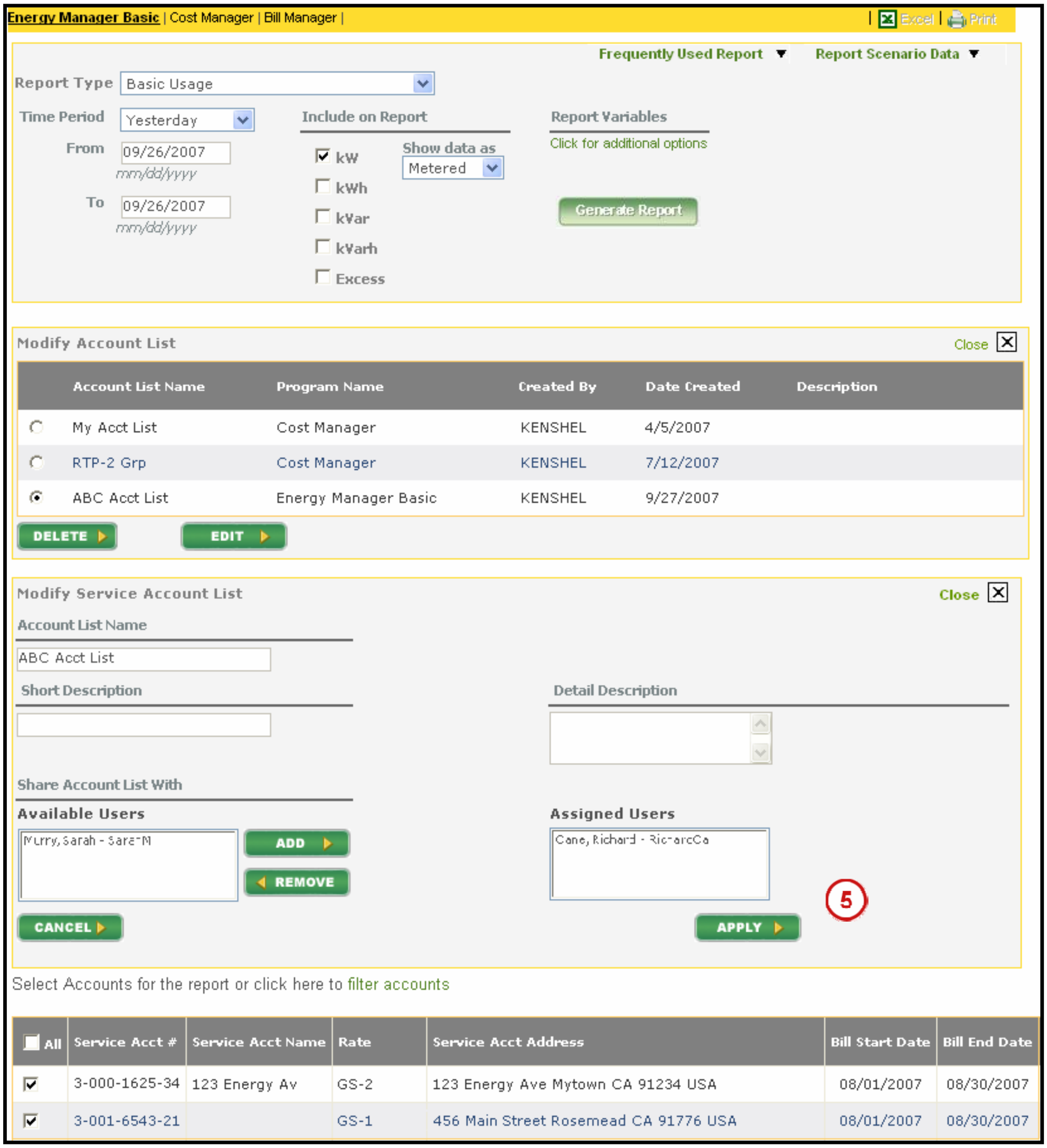


Figure 92 - Modify AcctList

9.6. Summary

Universal Report features allow you to

- Export report data to Excel
- Print Reports
- Save Reports for future reference, re-use and scheduling
- Save report variables, as scenarios and account lists, to apply to make consistent report generation more efficient.

Notes

FIGURES

TABLES