Energy Profiler Online™ 8.0

User Guide

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PACIFICORP
A BERKSHIRE HATHAWAY ENERGY COMPANY

Legal Information

Safety Information

Important Information

Read these instructions carefully and look at the equipment to become familiar with the device before trying to install, operate, service or maintain it. The following special messages may appear throughout this manual or on the equipment to warn of potential hazards or to call attention to information that clarifies or simplifies a procedure.

The addition of either symbol to a “Danger” or “Warning” safety label indicates that an electrical hazard exists which will result in personal injury if the instructions are not followed.

This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

⚠ DANGER

DANGER indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

⚠ WARNING

WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

⚠ CAUTION

CAUTION indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury.

NOTICE

NOTICE, is used to address practices not related to physical injury.

Please Note

Electrical equipment should be installed, operated, serviced and maintained only by qualified personnel. No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this material.

A qualified person is one who has skills and knowledge related to the construction, installation, and operation of electrical equipment and has received safety training to recognize and avoid the hazards involved.

Table of Contents

Section 1—Overview

What is Energy Profiler Online?

Utility providers and their customers use Energy Profiler Online™ (EPO) to analyze and communicate energy consumption information. EPO provides system energy reporting, alarming, monitoring, analysis, and event management.

EPO helps you compare past energy use, anticipate energy costs, and manage curtailment events. The EPO system can receive meter consumption information and configure the incoming data according to your needs.

Energy Proflier Online is one of the industry's leading tools for web-based load data visualization and analysis. EPO takes interval meter data collected in a number of common file formats and presents it through your web browser using intuitive tables and graphs. You can access a secure area of your utility's web site to view load profiles, usage history, and a variety of helpful statistics.

With the energy usage information EPO provides, you can acknowledge notifications from distributors online and make informed decisions about your energy usage. The service is easy to use and is available 24 hours a day, everyday.

EPO Web Site Features

You can use EPO to monitor usage, evaluate the effectiveness of energy saving programs, establish benchmarks, and gain a better understanding of how your entire organization uses energy. With EPO you can do the following:

- Analyze information on multiple levels to isolate or consolidate sources.
- Retain historical data and statistics to track and compare past energy usage and price trends.
- Forecast power usage schemes and anticipate future costs by generating hypothetical scenarios.
- Synchronize data feeds from Schneider Electric hardware devices.
- Collect data points in intervals up to every 15 minutes—24 hours a day, 365 days a year.
- Track real-time and hourly pricing for the most up-to-date information needed to plan an energy strategy.
- Streamline communication with utilities for real-time pricing (RTP) and load curtailment program events.
- Automate bill estimation and tracking.
- Access user energy usage information in open, standard based Green Button format.

What's New

This user guide has been updated to include information for EPO 8.0. Supplemental information is provided as software updates become available.

To find out more about Schneider Electric products and services, visit us on the web at www.energyprofileronline.com or contact your power administrator.

Section 2—About The User Guide

Purpose

The purpose of this guide is to provide you with the knowledge and procedures needed to use Energy Profiler Online.

This document may be used as a guide to acquaint first-time users with the web site or as a reference manual for experienced users.

All input data is explained, with the most advanced features described in detail by showing displays of the application and providing step-by-step instructions.

Intended Audience

This document is written primarily for end users of EPO. An end user may be a utility employee or a customer of the utility. Please note that the EPO Administrator's Guide provides the most comprehensive information for utility distributors using EPO.

Structure

The sections in the user guide explain the technical information or operations necessary to use EPO from the web site. The manual is divided into four sections that are then subdivided into topics to correspond to the functions of the web site:

- Section 1–Overview introduces you to the software and its features.
- Section 2–About The User Guide describes the contents of this manual.
- Section 3–Getting Started describes how to log in and navigate EPO.
- Section 4–Using Energy Profiler Online describes how to use the EPO software and is organized to correspond to the site design.

Using This Document

This document presents information similar to a first time user's access to EPO. You can use it as both a learning aid and a reference tool. This document provides instructions on logging in, generating reports, responding to curtailment events, and more.

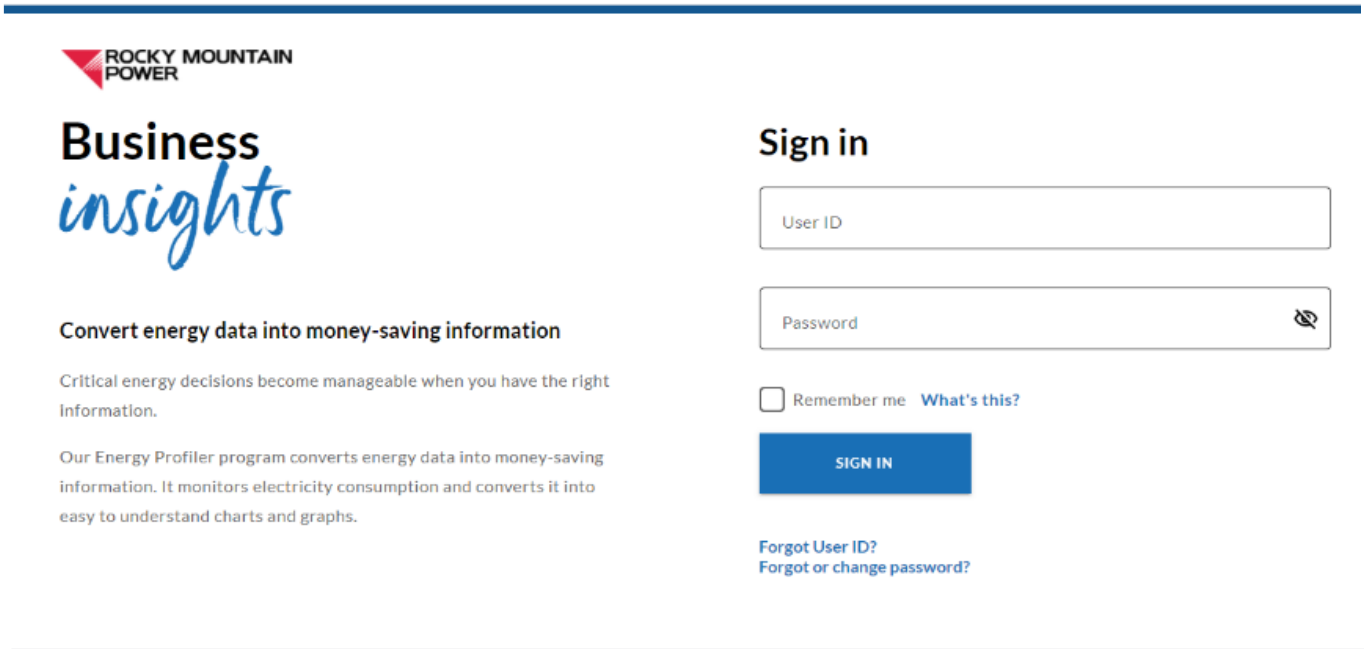
In addition to this user guide, every screen in EPO includes a help button. Click the Help link in the upper right corner of the screen to see details for the screen you are viewing.

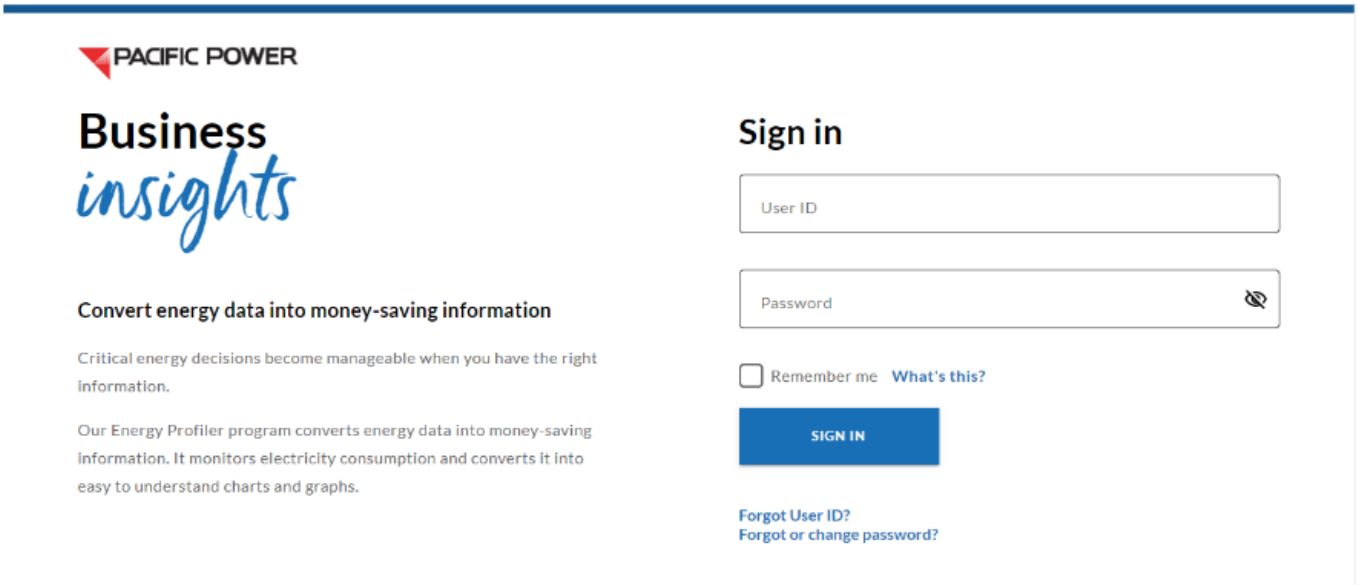
Section 3—Getting Started

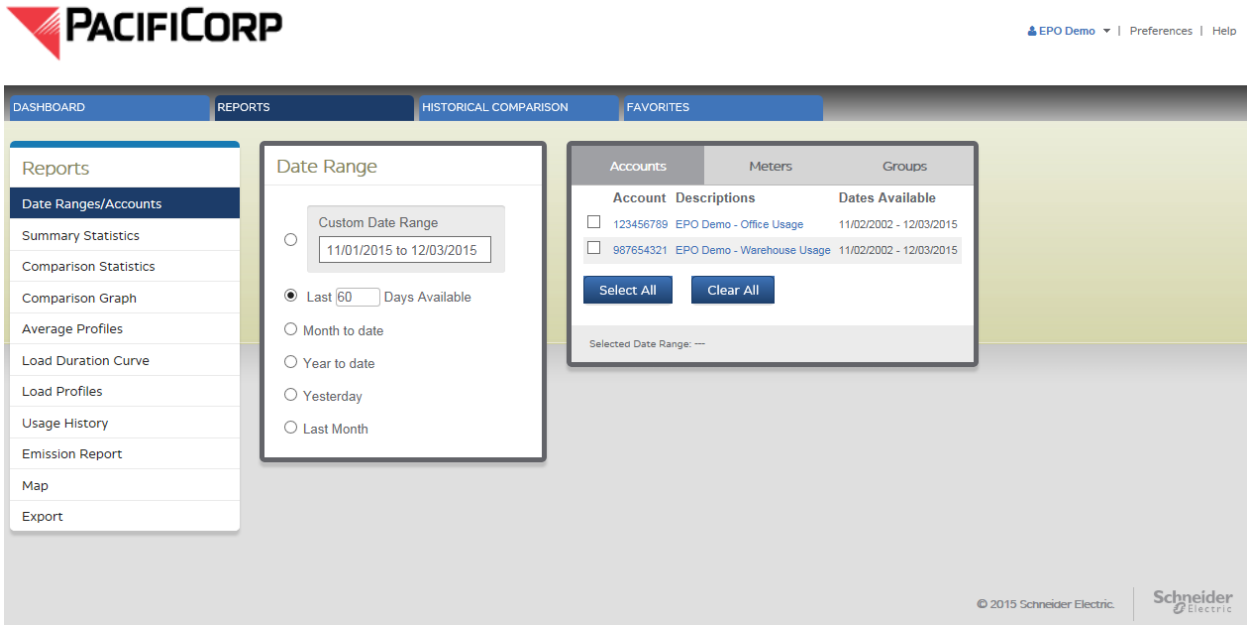
Logging in to the web site

Logging in to EPO is simple. However, you will need a User ID and Password from your system administrator.

1. In your web browser, navigate to the EPO **Login Page going to the URL**.
2. For Rocky Mountain Power – **https://csapps.rockymountainpower.net/business-insights**
3. For Pacific Power – **https://csapps.pacificpower.net/business-insights**
4. Enter your **User ID** and **Password – *(for first time log in you will need to reset your password by clicking "Forgot or change password").***







NOTE: If you are a first time user you will automatically be directed to the **Reports** tab and the **Date Ranges/Accounts** screen.

Once you've logged in, you can adjust your Preferences to log in to a favorite report on subsequent logins. See "Preferences" on page 61 for more information.

Navigating the EPO site

This section provides information about common features of EPO.

Global Navigation Bar

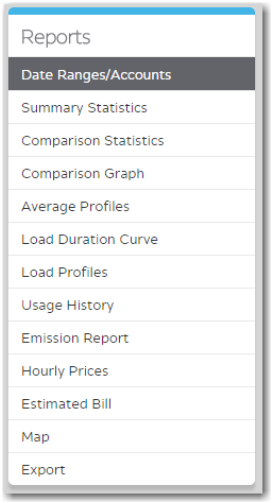
Tabs located on the global navigation bar near the top of the screen provide access to the main functions of EPO.

Click a tab to access the associated functions. Refer to Section 4–"Using Energy Profiler Online" on page 15 for more information about the functions in each tab.

You may not see all of the tabs shown above. The available tabs and functions are based on your subscription level. This document explains all of the functions of EPO, even if you do not have access to all functions.

Left Navigation Menu

The left navigation menu on the left side of the screen lists the functions available in the selected tab. The left navigation menu changes based on the tab you select.

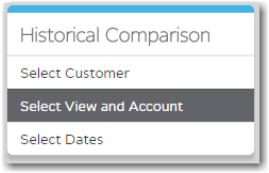


Using the Display Screens

You can navigate to each screen in EPO by using the tabs in the global navigation bar and clicking an item in the left navigation menu.

For example, the Historical Comparison tab is used to compare changes in past usage over selected periods for a single account only. Using the menu screens in this tab, you can generate reports and visual aids that compare data collected for an account over time.

The following example shows the left navigation menu for the Historical Comparison tab.

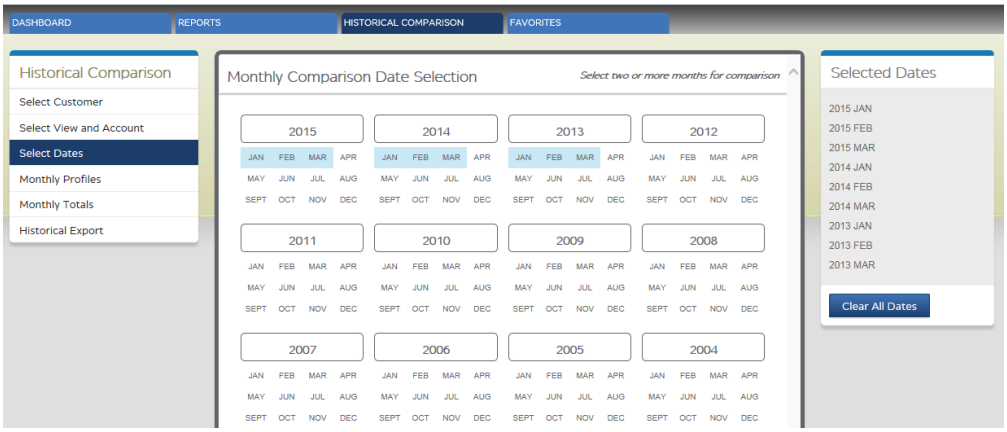


Why Did the Left Navigation Menu Change?

Menu choices may be similar or identical to choices in other tabs, while some menu choices are unique to one tab only. Also, left navigation menu options will update according to which selections are made.

For example, the Historical Comparison tab initially offers the Select View and Account, and Select Dates choices. Depending on which options are selected, additional menu choices may be shown.

Relative to the previous screen shot, the example below demonstrates that more menu options have become available after moving to the Select Dates screen.



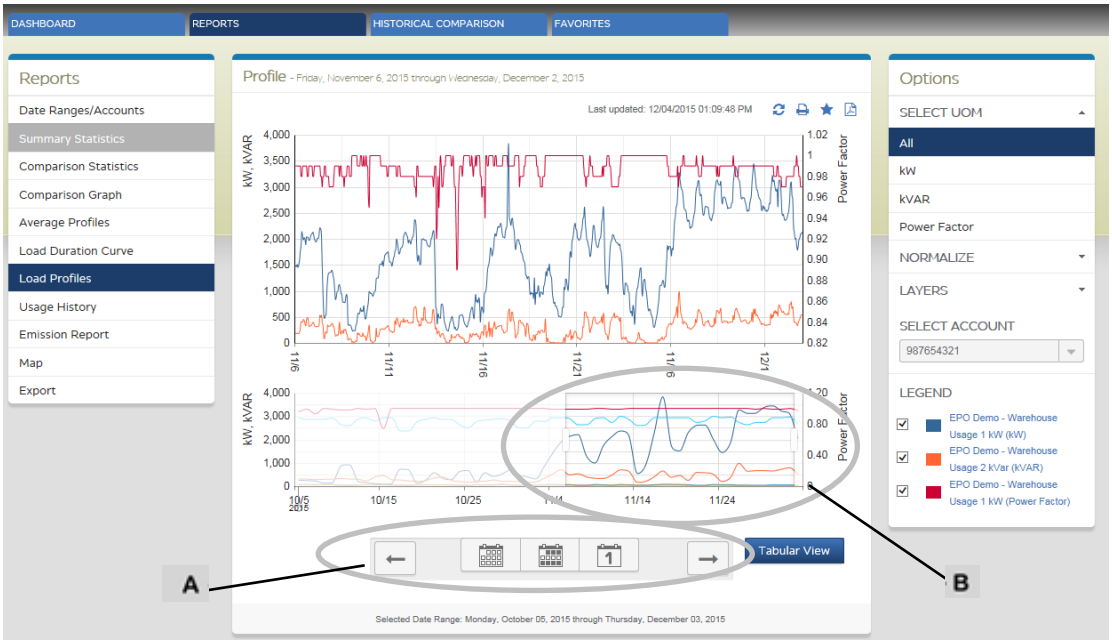
For more information on using Historical Comparison functions, refer to “Historical Comparison” on page 66.

Report Controls

The EPO web site uses several methods for adjusting and selecting data. Some screens offer buttons that assist in the saving, storing, formatting, or printing of a generated report.

You can use drop down menus, check boxes, radio buttons and more to adjust the report criteria, locate the source data, or alter the view.

The figure below highlights two of the chart controls available on a screen.



A	This control allows you to display your report data in a month view, a week view, or a day view. Use the arrows on either end to change the days being displayed in the graph.
B	The date range can be expanded or narrowed using the slider (hold and drag the edge of the slider to the right or left).

Section 4—Using Energy Profiler Online

The major functions of Energy Profiler Online are separated by the tab headings in the global navigation bar located at the top of the Energy Profiler Online site. Each tab contains a left navigation menu with various options. Click on a menu to perform specific functions, such as selecting accounts and viewing reports.

NOTE: This section describes each tab available in the top tool bar. For details on navigating the web site, refer to “Getting Started” on page 11.

Energy Profiler Online is offered on subscription levels. Higher subscription levels offer additional functionality by providing enhanced Energy Profiler Online modules.

This manual contains information on all aspects of Energy Profiler Online at all subscription levels. Therefore, you may see information in this manual that not be relevant if you are using a different subscription level.

Reports

The Reports tab is used for generating Energy Profiler Online reports. The system logs information collected from on-site meters for tracking, analysis, comparison, and bill estimation. You can use the Reports tab to generate reports that let you review the incoming load data and present the information in useful ways.

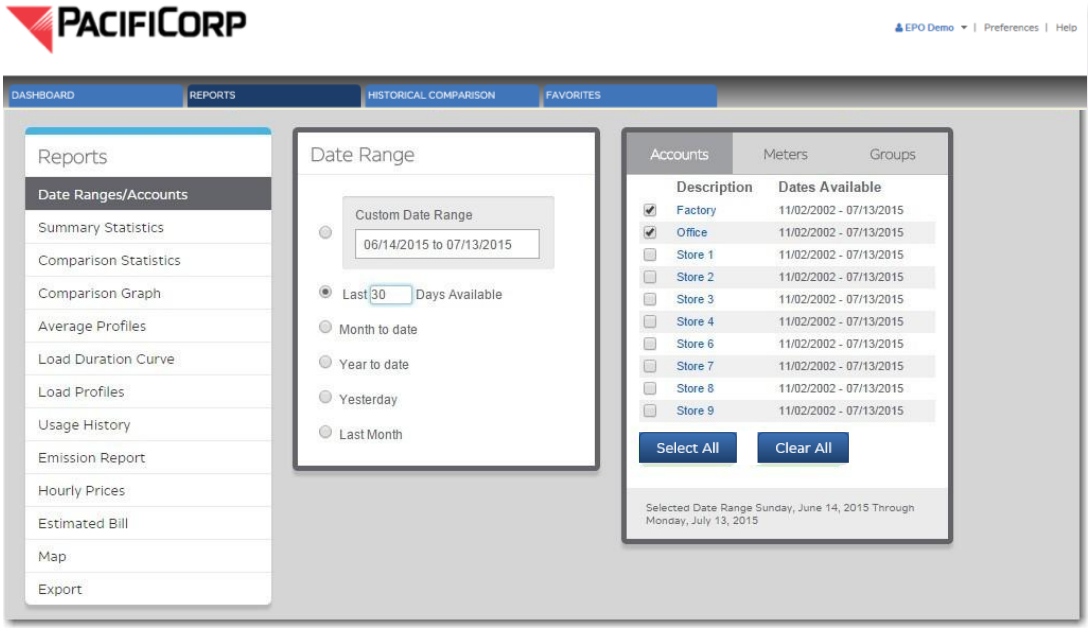
With Reports you can customize and save the reports with preferred attributes and route them using e-mail to interested parties. This section explains the tools and menu options in the Reports tab.

Date Ranges/Accounts

The Date Ranges/Accounts screen in the Reports tab is the first screen that appears when you log in to the site.

To set account and date range information for reports, complete these steps:

1. Click the **Reports** tab.
2. In the left navigation menu, click **Date Ranges/Accounts**.



3. Click **Accounts**, **Meters**, or **Groups** to select the type of entities for the analysis.

4. Check the box next to the account, group or meter you want to include in the analysis.
5. Under **Date Range**, select the date range for analysis. The date ranges available for each entity are shown in the **Description** box.
6. Select the type of report from the left navigation menu, such as **Summary Statistics**.

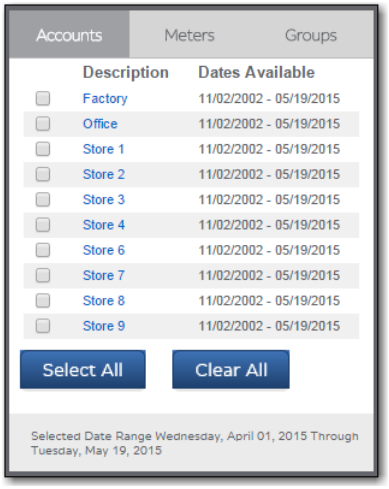
The report is displayed and shows the matching data for the select entities and data range.

Accounts, Meters, and Groups

One of the more valuable features of Energy Profiler Online is the flexibility of viewing and comparing data on multiple levels. You can set the reports to display information and statistics by account, meter, or group. These three levels of data are arranged in a hierarchical structure and include:

- **Accounts** – Compare and view data from individual accounts and optionally include multiple meters.
- **Meters** – Compare and view data from individual meters in an account, that is, a specific power meter located at a site.
- **Groups** – Compare and view data that is combined for several or all of your accounts.

On the Date Ranges/Accounts screen, click the **Accounts**, **Meters**, or **Groups** tab to see the available locations, devices, or groups for each reporting level. Check the box next to any item to select it for inclusion in the report.



All accounts belonging to you are available for analysis. By default, the Accounts level is activated when you log in.

Customers and Channels

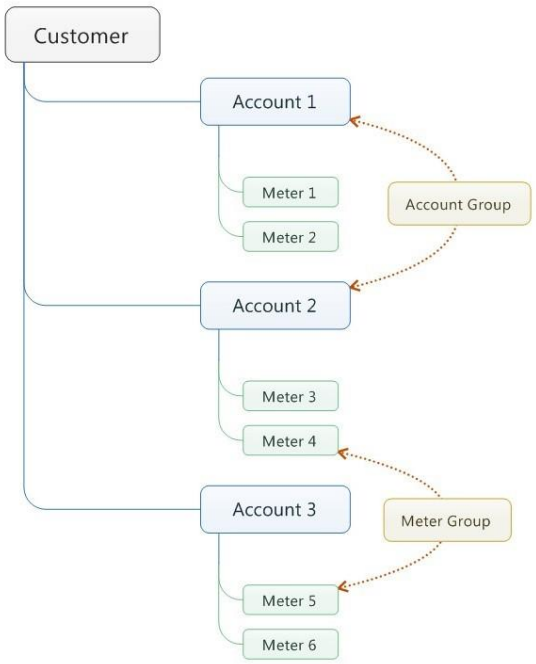
In addition to the account, meter, and group levels, data is also recorded at the Customer and Channel levels. You cannot adjust these levels with the same flexibility as the accounts, meters, and groups. However, it is important to understand how they interact with the other levels.

The Customer is the highest level in the hierarchy, such as a corporate chain. A Channel is the lowest level and refers to a subdivision of a meter. The hierarchy can be tailored for your analysis requirements. For example, you group accounts by region or building type, and compare their total energy usage. In this way, you can understand your organization's energy usage across multiple locations while still having the ability to analyze individual sites. You can also export usage data for further analysis.

From the account or meter reporting level, you are able to view the individually recorded channels for each meter. For example, an account with a meter on a solar panel would typically show the new kW for the account, but the details view would show the individual kW Delivered and kW Received channels.

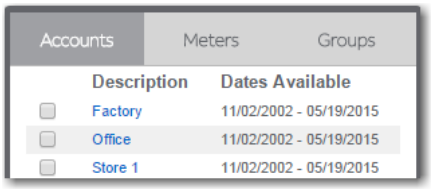
Data Hierarchy

The following figure shows a hierarchy of the data levels:



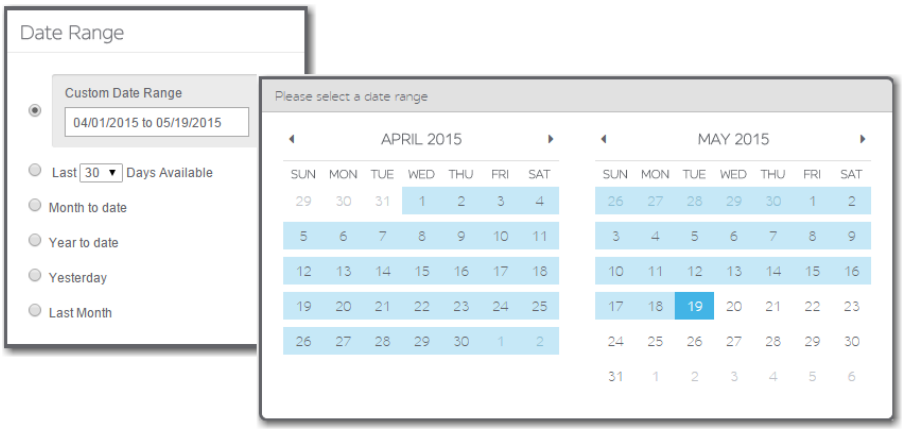
Date Range

In the **Accounts** and **Meters** tabs, the Dates Available column shows the time range for which data is available for each entity.



Use the Date Range fields to select the date ranges to include in analysis. You can select predefined ranges or select specific calendar dates.

If the selected date range falls outside the available dates for the specified accounts, a message informs you to select a data range that exists within the available data for the selection.



Custom Date Range– Month, day, and year fields to select a specific date range.

Last "X" Days Available– Data from the most recent 1–999 days available.

Month to Date– Data through the last available date for the current month.

Year to Date– Data up to and through the last available date for the current year.

Yesterday– Data for the day before the current date.

Last Month– Data for the previous full month.

Once selected, the date range will appear at the bottom of the Accounts, Meters, and Groups box on the date range screens and the bottom of all charts. It may also appear in the chart title, depending on the chart.

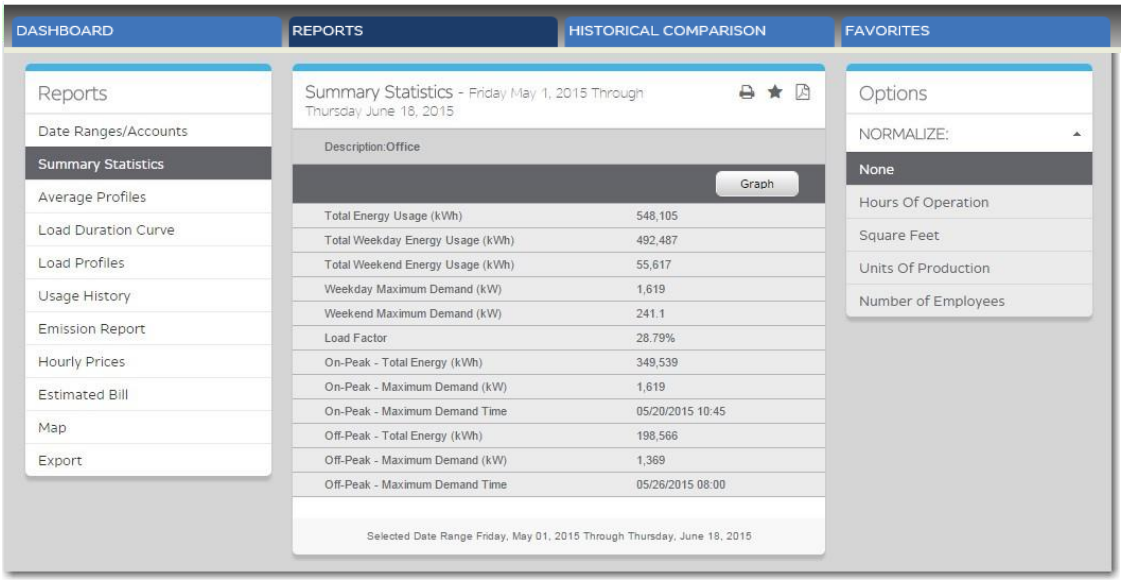
Summary Statistics

The Summary Statistics report displays data for accounts, meters, or groups as designated in the Date Ranges/Accounts screen.

To generate the Summary Statistics page follow these steps:

1. Click the **Reports** tab and click **Date Ranges/Accounts**.
2. Select the date range and the accounts, meters, or groups for the report.
3. In the left navigation menu, click **Summary Statistics**.

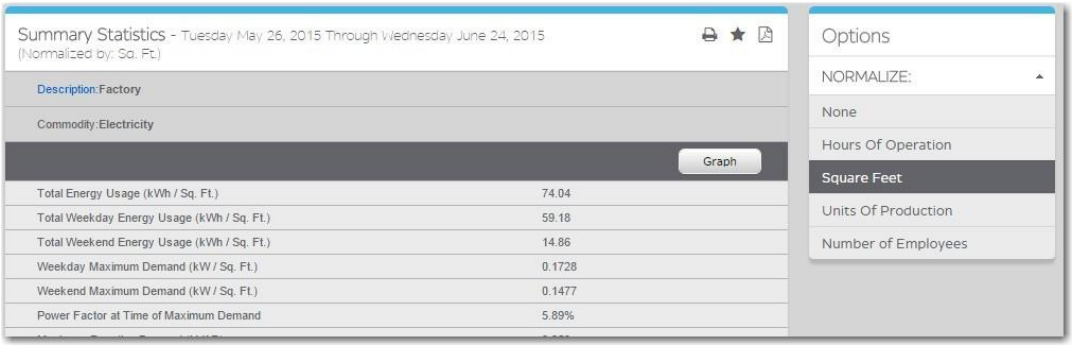
   The Summary Statistics page appears. This screen displays data for each entity in separate tables when multiple entities are selected.



Use the data on this screen to estimate or monitor elements such as Total Energy Usage during a variety of scenarios. Note that the values are presented by location and by commodity. Adjust the output data using the Options menus.

Normalization

You can analyze data by Hours of Operation, Square Feet, Units of Production, or by Number of Employees by selecting from the Normalize options.To change the default normalization factor applied to all your charts, adjust the default settings on the Preference screen. For more information about Normalization see “Normalization” on page 62.



About the Information on Summary Statistics

Energy Profiler Online generates a table for each account or meter selected. An asterisk indicates that data is missing for a selected date range. For more information on any missing data, contact your utility administrator.

The following table describes all of the data categories available. The data values shown in the Summary Statistics chart are defined by the billing rate assigned to your account.

Statistic	Description
Total Energy Usage	Total energy consumed by the account or group for the selected date range.
Total Weekday Energy Usage	Total energy consumed by the account or group on weekdays, for the selected date range. Weekdays are defined as Mondays through Fridays.
Total Weekend Energy Usage	Total energy consumed by the account or group on weekend days during the given date range. Weekends are defined as Saturdays and Sundays.
Peak Weekday Demand	Greatest observed demand value for the account or group in one interval on a weekday. Weekdays are defined as Monday through Friday.
Peak Weekend Demand	Greatest observed demand value for the account or group in one interval on a weekend. Weekends are defined as Saturday and Sunday.
Total On-Peak Energy Usage	Total energy consumed by the account or group during on-peak hours, for the selected date range. On-peak and off-peak periods are defined by your utility.
Total Off-Peak Energy Usage	Total energy consumed by the account or group during off-peak hours, for the selected date range. On-peak and off-peak periods are defined by the user's utility.
On-Peak Maximum Demand	Interval with the highest demand value during on-peak hours, for the selected date range. For accounts, all channels are aggregated to determine the total demand for a given interval. Likewise, for groups, all component accounts are aggregated to determine total demand for a given interval. On-peak and off-peak periods are defined by the user's utility.
Off-Peak Maximum Demand	Interval having the highest demand value during off-peak hours, for the selected date range. For accounts, all channels are aggregated to determine the total demand for a given interval. Likewise, for groups, all component accounts are aggregated to determine total demand for a given interval. On-peak and off-peak periods are defined by the user's utility.
On-Peak Maximum Demand Time	Date and time of the On-Peak Demand row.
Off-Peak Maximum Demand Time	Date and time of the Off-Peak Demand row.

Maximum Reactive Demand	Greatest observed reactive demand value (kVAR) for the account or group in one interval during the selected date range. This statistic is only displayed if the data includes reactive demand readings. Note that for groups, this value is the aggregate of all accounts in the group. This value is not based on the peak date and time of a system or other external data source.
Power Factor at Time of Maximum Demand	Power factor is the ratio of real power to total power. Real, or productive power, is the actual power used in a building, measured in kilowatts (kW). Reactive power generates the magnetic field for inductive loads such as motors, transformers, lighting ballasts, etc. Reactive power is measured in kilovars (kVAR). Total power (measured in kVA) is a combination of the real power and reactive power. This statistic is only displayed if the data includes reactive demand readings.
Load Factor	Percentage that indicates the relationship between typical demand and maximum demand. It is calculated by taking the average demand across the entire selected date range and dividing it by the maximum demand.

In the case of groups, note that the data for the group's component accounts are aggregated before the statistics are calculated. This aggregation is performed across channels and by units of measurement.

Within a group, all of the channels with kWh data are summed together to establish a totaled version of the data. The peak demand is therefore coincident across the accounts within a group.

Graphing The Data

Click **Graph** at the top of the tabular data to create a visual representation of the information on this report.

The statistics appear in the Average Profiles screen, with the data displayed in graphs.

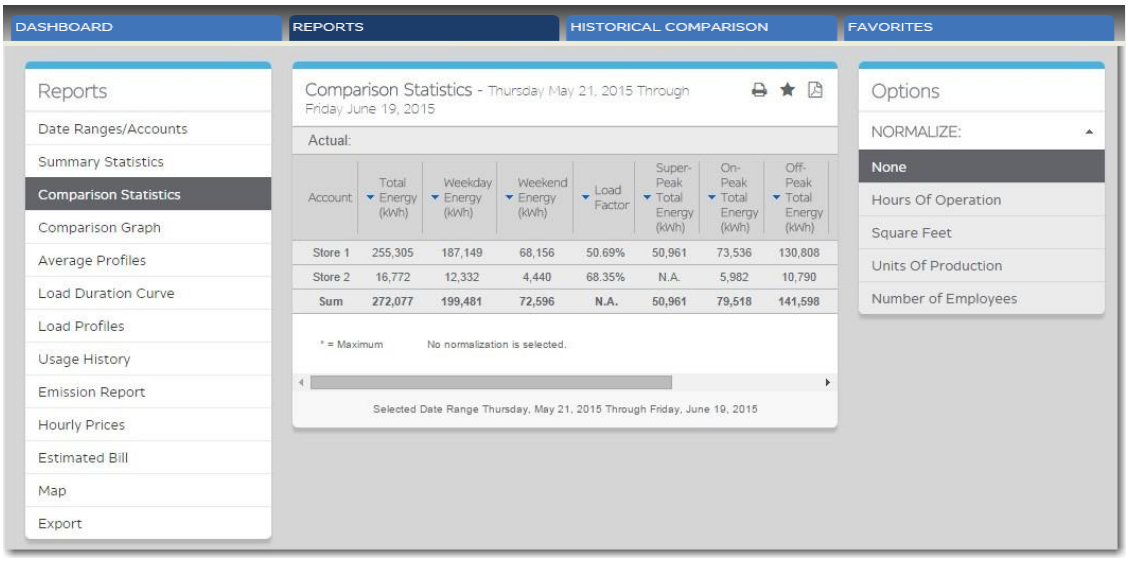
For more information on using this report, see “Average Profiles” on page 26.

Comparison Statistics

Use Comparison Statistics to compare information from the Summary Statistics page for multiple accounts, meters, or groups.

To generate the Comparison Statistics report follow these steps:

1. Click the **Reports** tab and click **Date Ranges/Accounts**.
2. Select the date range and the accounts, meters, or groups for the report.
3. In the side menu, click **Comparison Statistics**.



About this screen

The Comparison Statistics report presents a single table of statistics for each commodity with a line item for each account, meter, or group.

These statistics include information from the Summary Statistics report, but appear together here to facilitate a direct comparison of accounts, meters, or groups.

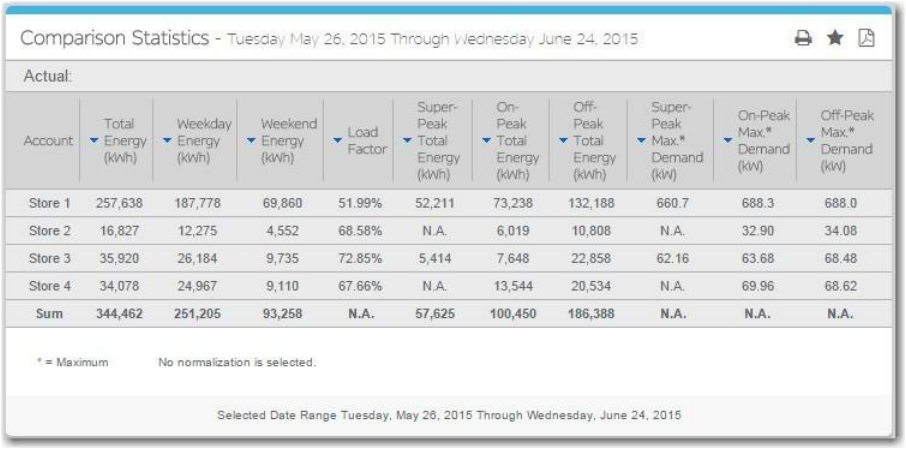
For groups, individual account data is aggregated before the statistics are calculated.

For example, all of the kWh data for accounts within a given group are added together at an interval level in order to establish an aggregated version of the data for the group as a whole.

If multiple accounts have different time definitions, the on-peak and off-peak kW values will not be displayed.

Sorting The Data

The table can be re-sorted by any statistic, highest to lowest value, by clicking the column header. If data is missing in the selected date range, an asterisk (*) will appear in the table.



Comparison Statistics - Tuesday May 26, 2015 Through Wednesday June 24, 2015

Actual:

Account	Total Energy (kWh)	Weekday Energy (kWh)	Weekend Energy (kWh)	Load Factor	Super-Peak Total Energy (kWh)	On-Peak Total Energy (kWh)	Off-Peak Total Energy (kWh)	Super-Peak Max.* Demand (kW)	On-Peak Max.* Demand (kW)	Off-Peak Max.* Demand (kW)
Store 1	257,638	187,778	69,860	51.99%	52,211	73,238	132,188	660.7	688.3	688.0
Store 2	16,827	12,275	4,552	68.58%	N.A.	6,019	10,808	N.A.	32.90	34.08
Store 3	35,920	26,184	9,735	72.85%	5,414	7,648	22,858	62.16	63.68	68.48
Store 4	34,078	24,967	9,110	67.66%	N.A.	13,544	20,534	N.A.	69.96	68.62
Sum	**344,462**	**251,205**	**93,258**	**N.A.**	**57,625**	**100,450**	**186,388**	**N.A.**	**N.A.**	**N.A.**

* = Maximum No normalization is selected.

Selected Date Range Tuesday, May 26, 2015 Through Wednesday, June 24, 2015

Statistics can also be Normalized by square footage, hours of operation, units of production, or number of employees to generate meaningful statistics for benchmarking.

Comparison Graph

Use the Comparison Graph report to show average load profiles for accounts, meters or groups of accounts, as well as an average of all accounts, meters or groups chosen from the specified date range.

To generate the Comparison Statistics report follow these steps:

1. Click the **Reports** tab and click **Date Ranges/Accounts**.
2. Select the date range and the accounts, meters, or groups for the report.
3. In the left navigation menu, click **Comparison Graph**.

The Comparison Graph page can only be used if multiple accounts, meters, or groups are selected on the Dates Ranges/Accounts screen.

The Comparison Statistics and Comparison Graph menu selections will not be displayed if only one account/meter/group is selected in the Date Ranges/Accounts screen.

About this screen

Use the Comparison Graph screen to compare average and peak day load profiles between accounts for the specified date range. By default, average weekday profiles for all selected accounts are displayed.

The accounts, meters, or groups selected in the Select Date Range/Accounts screen are listed here. Manipulate the graph by checking or un-checking the corresponding check box for each entity.

The Average Profile for Coincident Peakday Across Items selection reflects the average of all accounts when the sum of the total usage was the highest during the period selected.

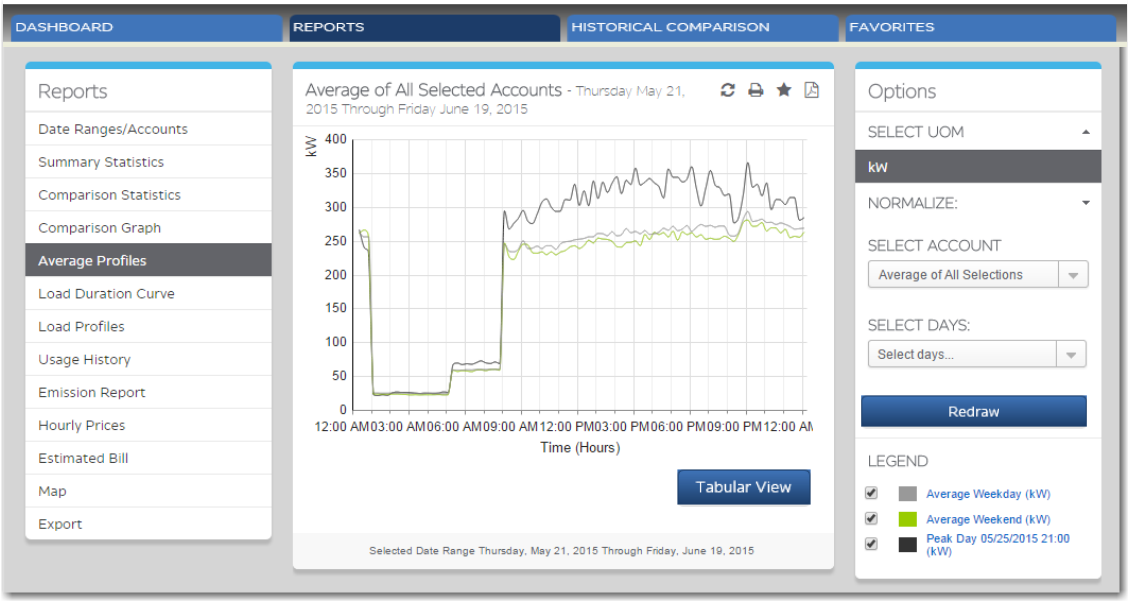
The default graph displays lines for an average weekday. Expand the **Profile Type** section of the chart control panel to change the graph display from an average weekday to an average weekend day or the peak day for each data stream.

Average Profiles

Use the Average Profiles report to view energy use averages during 24 hour periods for making comparisons of patterns that exist over time, independent of daily variances.

To generate the Average Profiles screen follow these steps:

1. Click the **Reports** tab and click **Date Ranges/Accounts**.
2. Select the date range and the accounts, meters, or groups for the report.
3. Select **Average Profiles** from the menu bar at left.
4. In the generated report, you can use the drop down menus and check boxes to adjust the data sets.



About this screen

This screen calculates and displays average load profiles from interval data for accounts, meters, or groups selected.

The default graph displays lines for the average weekday, average weekend, and peak day for the selected date range. A profile for any specific day within the selected date range can also be displayed on the same graph.

If a single group is selected for display, the profiles are aggregates of all accounts in that group. Aggregations are calculated by summing across accounts with the same unit of measure (e.g., kWh).

Click the Table button to view the data in numerical statistics.

Average Profile vs. Comparison Graph

You may notice that there is an overlap of the data on the Comparison Graph screen to the information displayed on the Average Profiles screen. Both screens compare 24 hour load profiles.

However, the Comparison Graph screen allows for multiple accounts to be compared against each other as separate entities, while the Average Profiles shows average weekday, average weekend, or specific day profiles for the account(s) selected to compare loads for certain 24 hour time periods.

Load Duration Curve

Load Duration Curves are profiles of demand that are useful for identifying peak demand sharing opportunities. This report displays the percentage of time a load persists at a given level for the selected date range by showing a graph for each account, meter, or group selected.

To generate the Load Duration Curve Report follow these steps:

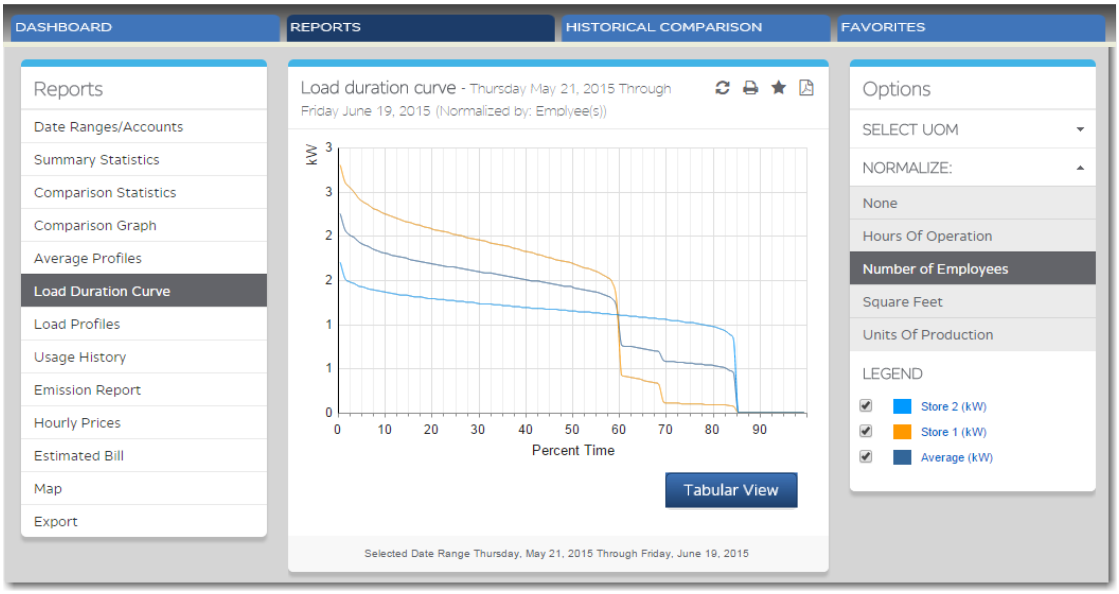
1. Click the **Reports** tab and click **Date Ranges/Accounts**.
2. Select the date range and the accounts, meters, or groups for the report.
3. In the left navigation menu, click **Load Duration Curve**.

In the example below, the Load Duration Curve indicates that the account uses about 650 kW for 10% of the time.

About this screen

If multiple accounts are selected, an average of those accounts is also provided. In this graph, the Y-axis depicts the units measured in the load duration curve. The X-axis indicates the proportion of time as a percentage of 100.

If you adjust any values in the Options menu, the graph automatically refreshes.



Load Profiles

The Load Profiles report displays a graph showing energy load profiles in a variety of time increments for the accounts, meters, or groups in the selected date range. Data can be aggregated or displayed by channel.

To generate the Load Profiles report follow these steps:

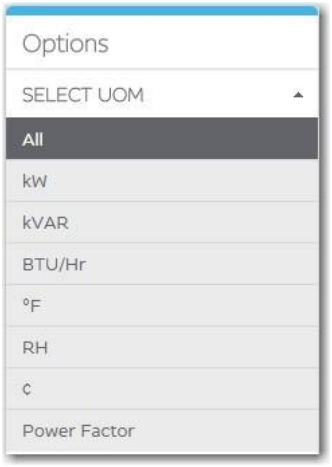
1. Click the **Reports** tab and click **Date Ranges/Accounts**.
2. Select the date range and the accounts, meters, or groups for the report.
3. In the left navigation menu, click **Load Profiles**.

NOTE: If data is missing in the selected date range, an asterisk (*) will appear and a blank space will display on the graph.

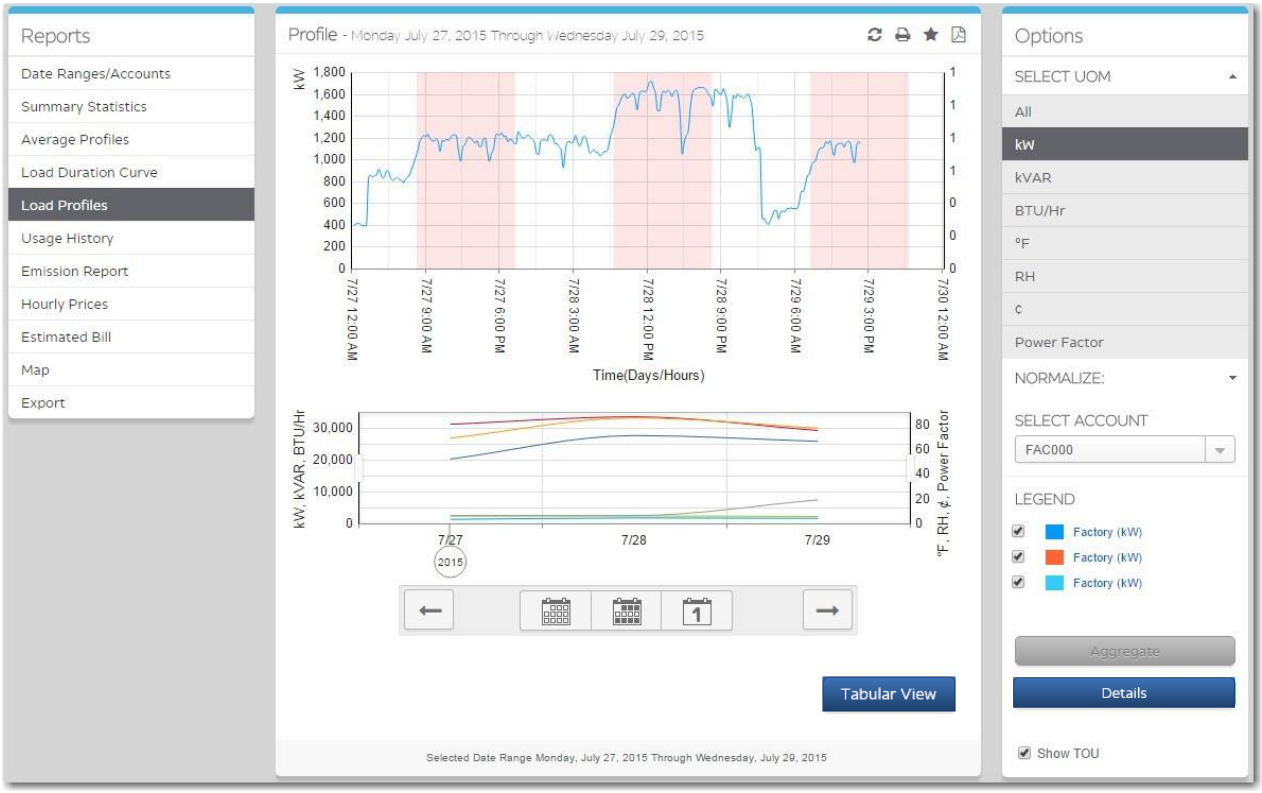
Changing Views

As a default, data in this report is shown in daily increments. In the single day, week, and X-week viewing mode, the date displayed in the date drop down menu corresponds to the beginning (left-most) date currently displayed in the chart. In the month viewing mode, the graph defaults to calendar month display.

You can display all units of measurement (UOM) in the graph, or you can select individual measurements to display. The number of options provided in the **Select UOM** section varies depending on the values being measured by an account.



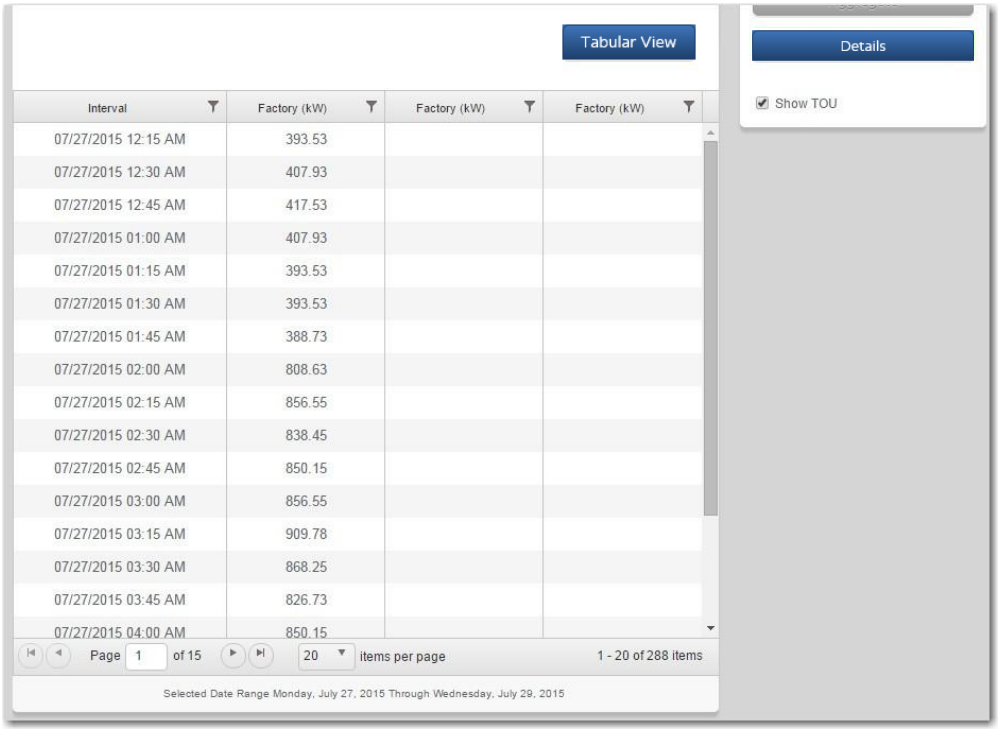
When only one account is selected, and a date range that is one week or less is selected, a check box labeled **Show TOU** (time of use) is displayed in the legend. Checking it will highlight time of use hours in the graph.



Zooming In

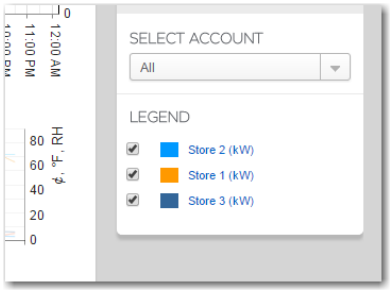
Adjust the slider to see a specific time increment. You can also see hour by hour for a specific day by clicking the Day Calendar icon at the bottom of the screen.

Click **Tabular View** to display the data in a table under the graph. The table provides filtering and sorting options.



View Accounts

Check the boxes in the **Select Account** area to specify which accounts or channels appear on the graph.

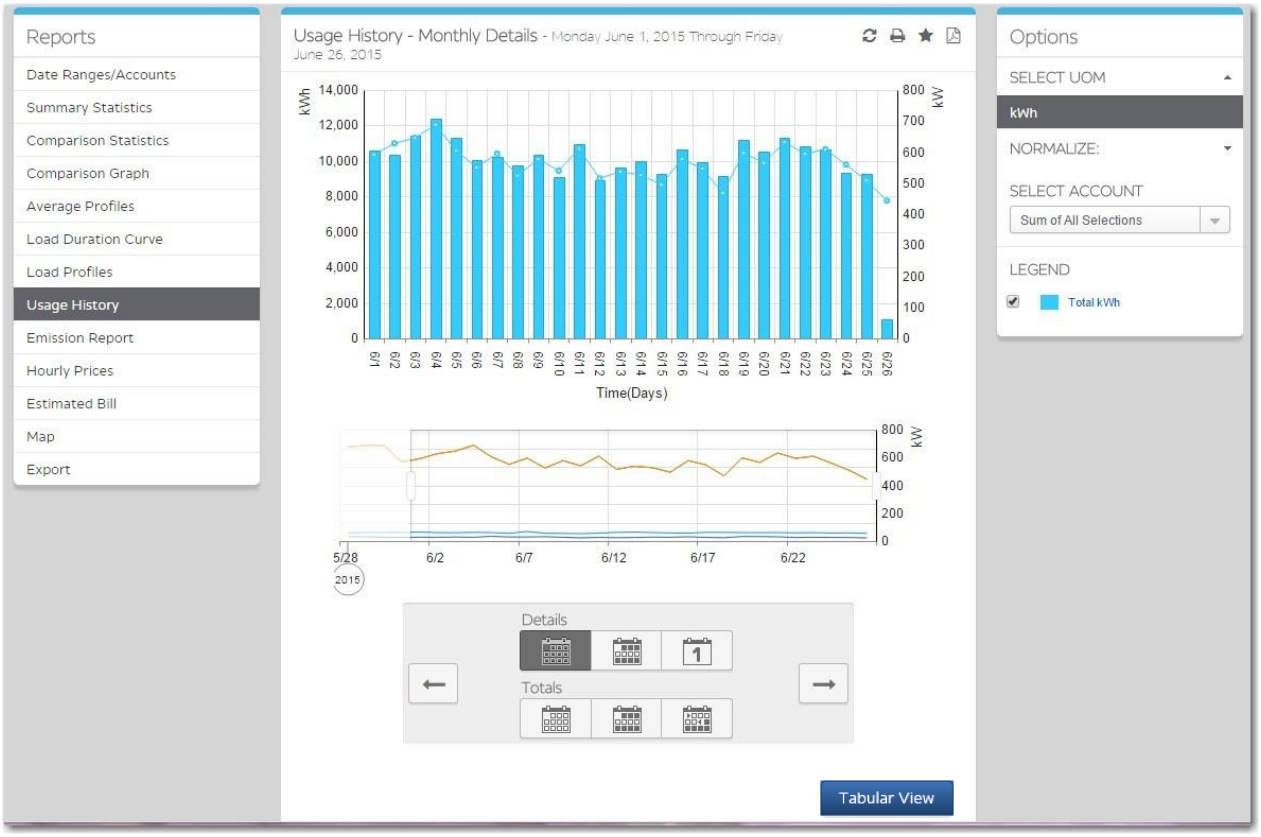


Usage History

This report displays a bar chart showing total energy usage, and a line chart depicting peak demand for the selected accounts, meters, or groups given a selected date range.

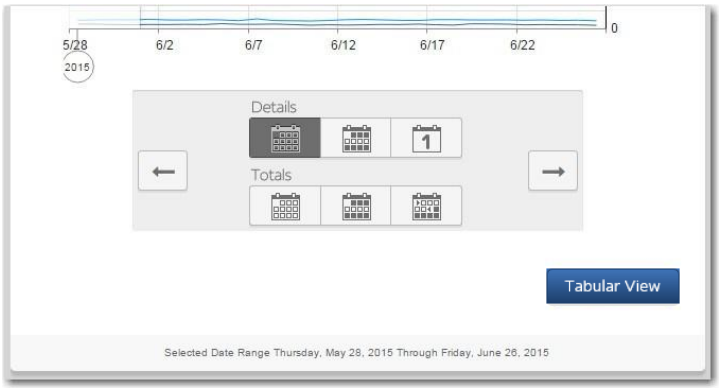
To generate the Usage History report follow these steps:

1. Click the **Reports** tab and click **Date Ranges/Accounts**.
2. Select the date range and the accounts, meters, or groups for the report.
3. Select **Usage History** from the menu bar at left.



Changing Views

Use this report to review energy usage for weekly or monthly time intervals. Using the calendar icons at the bottom of the screen, change the views by clicking **Weekly Detail** or **Monthly Detail** icons. Only one account (or aggregation) and commodity type can be used at a time.



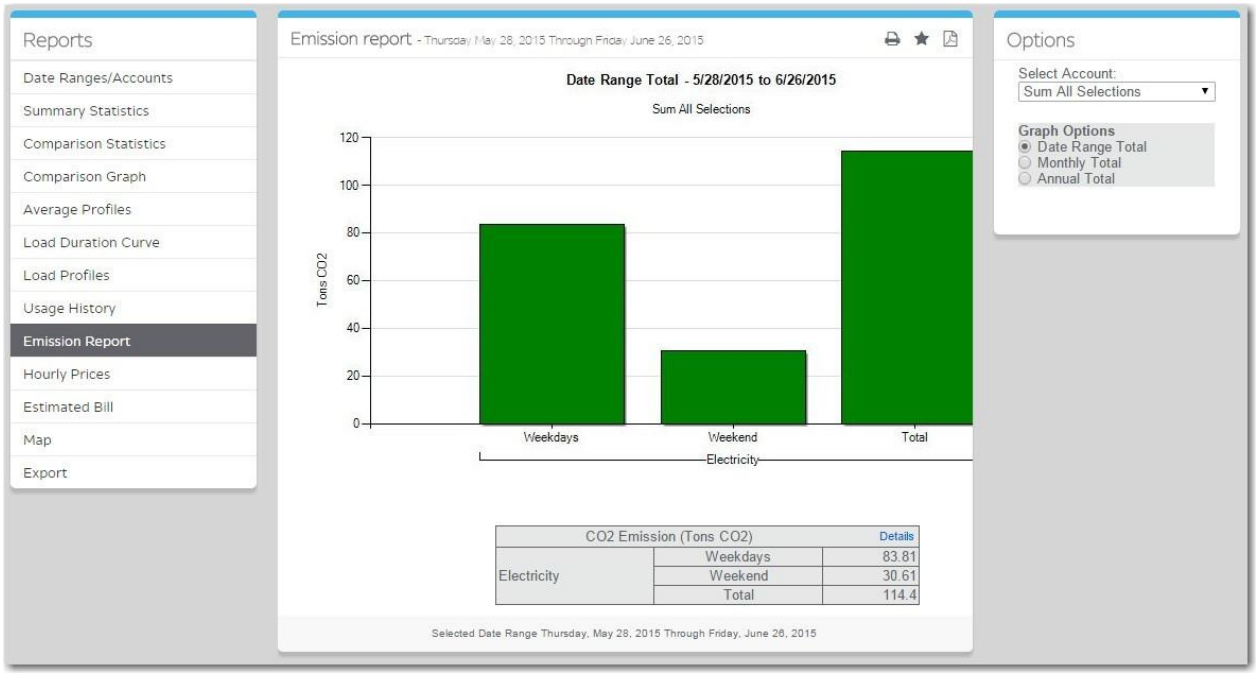
Emission Report

This report displays the details of the CO_2 emissions calculated for the selected accounts, meters, or groups. You can see total CO_2 emissions for the date range and adjust the report resolution (in terms of month/year). Graphs may also show target values in addition to actual emissions.

- **Progressive target** is a portion of the total target. The percentage value of the CO_2 emission level with respect to the progressive target is shown on the graph. If the target has not been specified for any of the past years, the actual CO_2 emission is considered in lieu of the target for the year.
- **Absolute target** indicates the target set for the year. The to date target indicates the progressive value of the target up to the current date. CO_2 emission Reduction is the difference between up to date target value and the actual CO_2 emission. Click the Details button to view the year wise breakup of the total indicated.

To generate the CO_2 emission Report report follow these steps:

1. Click the **Reports** tab and click **Date Ranges/Accounts**.
2. Select the date range and the accounts, meters, or groups for the report.
3. In the left navigation menu, click **Emission Report**.



The CO_2 emissions are calculated based on the energy consumed during a certain date range and use a certain specified CO_2 emission factor. For information on specifying the CO_2 emission factor, see “Edit Account Information” on page 79.

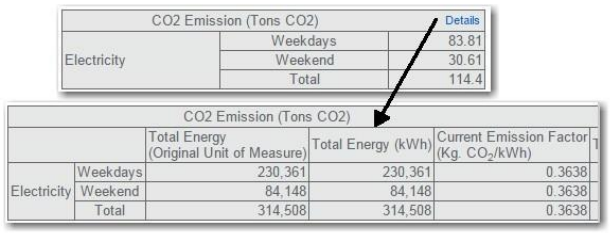
The combination of the selections on the CO_2 emission Report will present graphic illustrations of CO_2 emissions for the accounts and time periods selected. For most tables the details will include Total Energy (kWh), CO_2, Absolute Target Value, To Date Target Value CO_2 emission Reduction.

The following table describes of the options available on the CO_2 emission Report screen.

Select Account	Specific entity for which CO_2 emission information is required. If multiple accounts are being analyzed, the options are specific selection, Sum of all selections and Compare selections.
Graph options	Resolution and time period of the graphical display of CO_2 emission. Options are provided to view the total for the entire date range, obtain monthly CO_2 emission levels and obtain yearly CO_2 emission levels.
Graph	Graph displayed will depend on the selection of the graph options and the account selection options. The information displayed includes the CO_2 emissions due to different sources of energy and the analysis of your performance against the targets.
Table	Information in the table will depend on the graph selected. It will provide additional qualifying information for the graph and also the specific figures for CO_2 emission, energy consumption and target values. Click the Details button to obtain more information. Click the Reduce button to display only the summary information.
Legend	Displayed when the Compare selections option is selected. It provides a legend for the graphical display. Select a particular account by clicking on the check boxes by the account name in the Legend.

Commodity Details

Click the **Details** link to expand the table for a line item breakdown per commodity for each account. Click the **Reduce** link to return to the return to the summary table.



CO2 Emission (Tons CO2)		Details
Electricity	Weekdays	83.81
	Weekend	30.61
	Total	114.4

CO2 Emission (Tons CO2)				
		Total Energy (Original Unit of Measure)	Total Energy (kWh)	Current Emission Factor (Kg. CO_2/kWh)
Electricity	Weekdays	230,361	230,361	0.3638
	Weekend	84,148	84,148	0.3638
	Total	314,508	314,508	0.3638

The sections below describe the output for each selection combination.

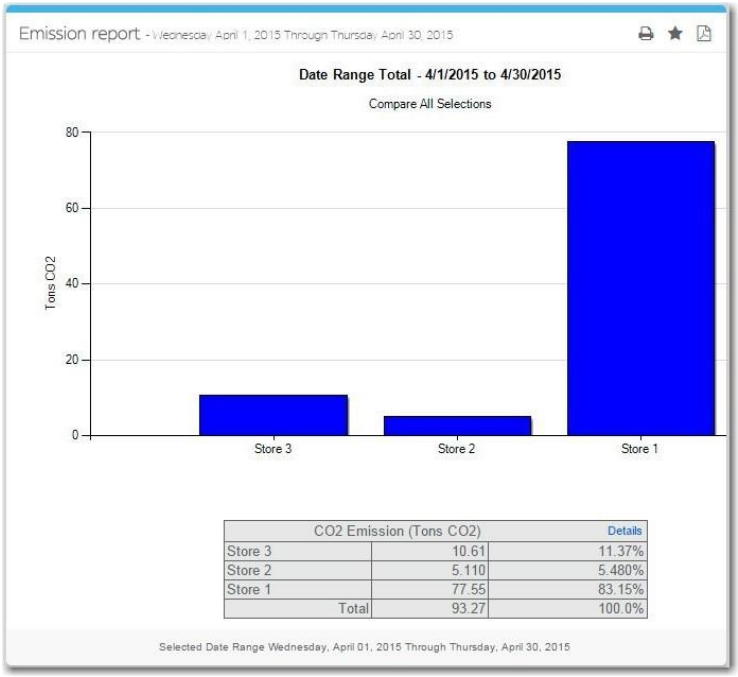
If the current year is selected, the information for the current month will also be displayed. The details will include Total Energy (kWh), CO_2, Absolute Target Value, To Date Target Value CO_2, and CO_2 emission Reduction.

Date Range Total + Single/Sum of All Selection(s)

Select this combination of factors and the CO_2 emission Report report generates a vertical bar chart showing total CO_2 emissions for all accounts for the date range specified. In addition to a grand total, the summations are broken down by commodity type and weekdays versus weekends.

Date Range Total + Compare All Selections

Select this combination of factors and the CO_2 emission Report report generates a vertical bar chart comparing total CO_2 emissions by account for the entire date range specified.



Monthly Total + Single/Sum of All Selections

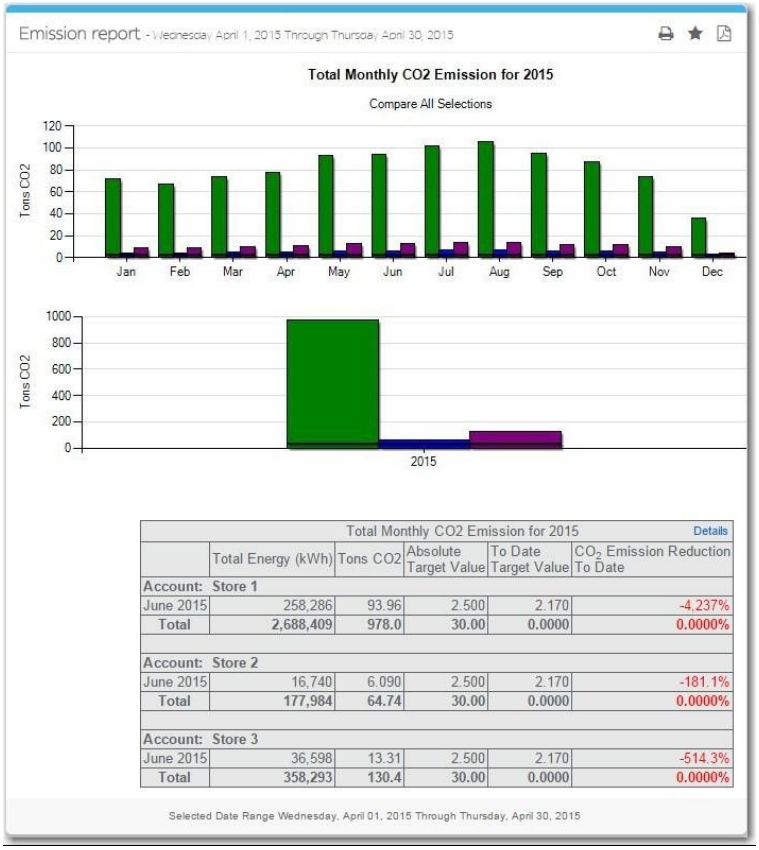
This report includes two graphs. The graph at left shows the monthly CO_2 emissions for a selected year.

The graph at right shows the total CO_2 emission for the year. If the current year is selected, the total CO_2 emission will be indicated up to and including the current month and day.

If the monthly and annual CO_2 emission targets have been specified for the account, they will be indicated by red blocks on the graph. For information on setting targets, see “View Account Information” on page 79.

Monthly Total + Compare All Selections

The CO_2 emissions for each account are indicated as a separate bar for each month. So, for one month, several bars will be used to represent all the selected accounts.



Total Monthly CO2 Emission for 2015					Details
	Total Energy (kWh)	Tons CO2	Absolute Target Value	To Date Target Value	CO_2 Emission Reduction To Date
Account: Store 1					
June 2015	258,286	93.96	2.500	2.170	-4,237%
Total	**2,688,409**	**978.0**	**30.00**	**0.0000**	**0.0000%**
Account: Store 2					
June 2015	16,740	6.090	2.500	2.170	-181.1%
Total	**177,984**	**64.74**	**30.00**	**0.0000**	**0.0000%**
Account: Store 3					
June 2015	36,598	13.31	2.500	2.170	-514.3%
Total	**358,293**	**130.4**	**30.00**	**0.0000**	**0.0000%**

Selected Date Range Wednesday, April 01, 2015 Through Thursday, April 30, 2015

The table below the graphs shows the summary of the total CO_2 emission details for the selected year and for each selected account.

The Absolute Target indicates the target set for the year. The 'To Date' target indicates the progressive value of the target to the current date.

For example, the absolute target set for the year for the Factory account may be 24,650kg of CO_2. The progressive target up to a date (April) will be 7,631 kg of CO_2.

CO_2 emission Reduction is the difference between the up-to-date target value and the actual CO_2 emission.

Click the Details button to view the monthly break down of the total indicated.

Annual Total + Single/Sum of All Selections

This report displays two graphs. The yearly total graph indicates a trend of the CO_2 emissions over a period of years. The targets will also be indicated on these graphs if they have been set for those years.

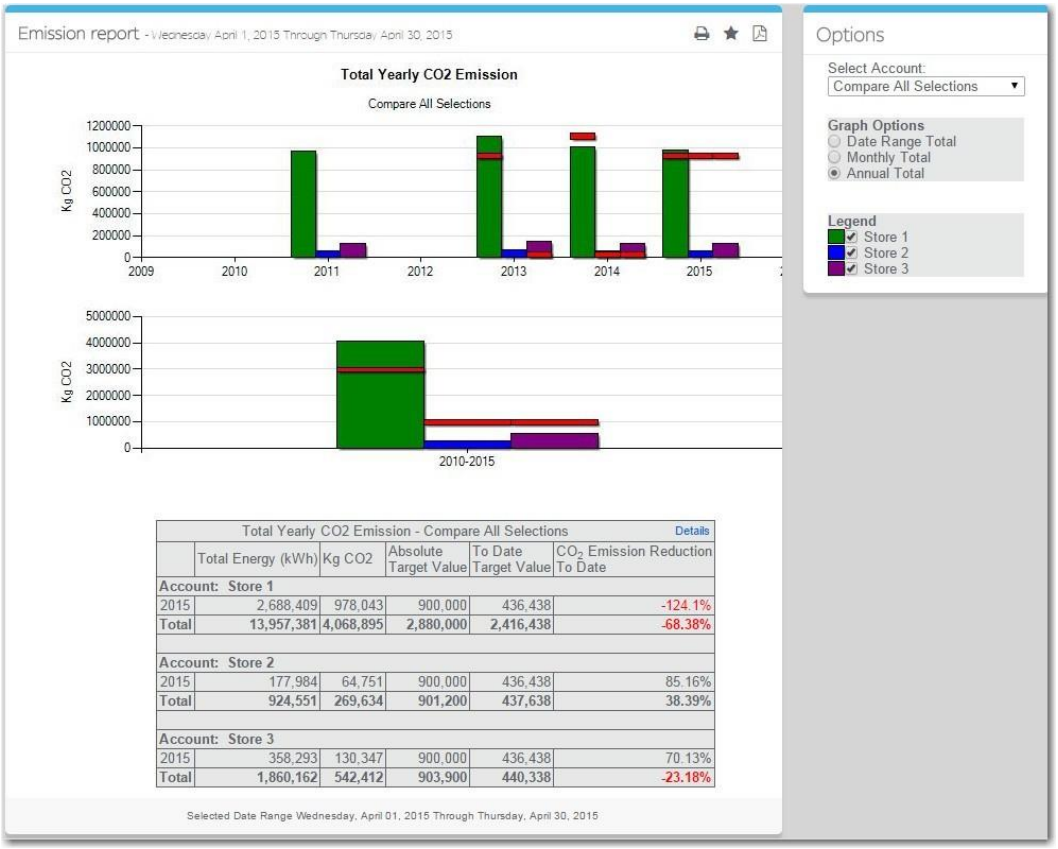
The graph on right gives the total CO_2 emission for all the years displayed. The table displays the values for the data indicated in the graph.

The yearly CO_2 emission for the years are shown as bars on the chart. The data is displayed for all the years for which CO_2 emission data is available, irrespective of the date range selected. The annual target is indicated as dashes against the bars.

When more than one account is selected, the yearly CO_2 emission levels for each account are indicated side by side.The second graph shows total CO_2 emission for all the years up to the current date. The progressive target up to the current year is displayed on the graph as a dash.

Annual Total + Comparison of All Selections

This graph is similar to the Monthly Total Comparison except that it compares annual time periods.



Total Yearly CO2 Emission - Compare All Selections — Details

	Total Energy (kWh)	Kg CO2	Absolute Target Value	To Date Target Value	CO_2 Emission Reduction To Date
Account: Store 1					
2015	2,688,409	978,043	900,000	436,438	-124.1%
Total	**13,957,381**	**4,068,895**	**2,880,000**	**2,416,438**	**-68.38%**
Account: Store 2					
2015	177,984	64,751	900,000	436,438	85.16%
Total	**924,551**	**269,634**	**901,200**	**437,638**	**38.39%**
Account: Store 3					
2015	358,293	130,347	900,000	436,438	70.13%
Total	**1,860,162**	**542,412**	**903,900**	**440,338**	**-23.18%**

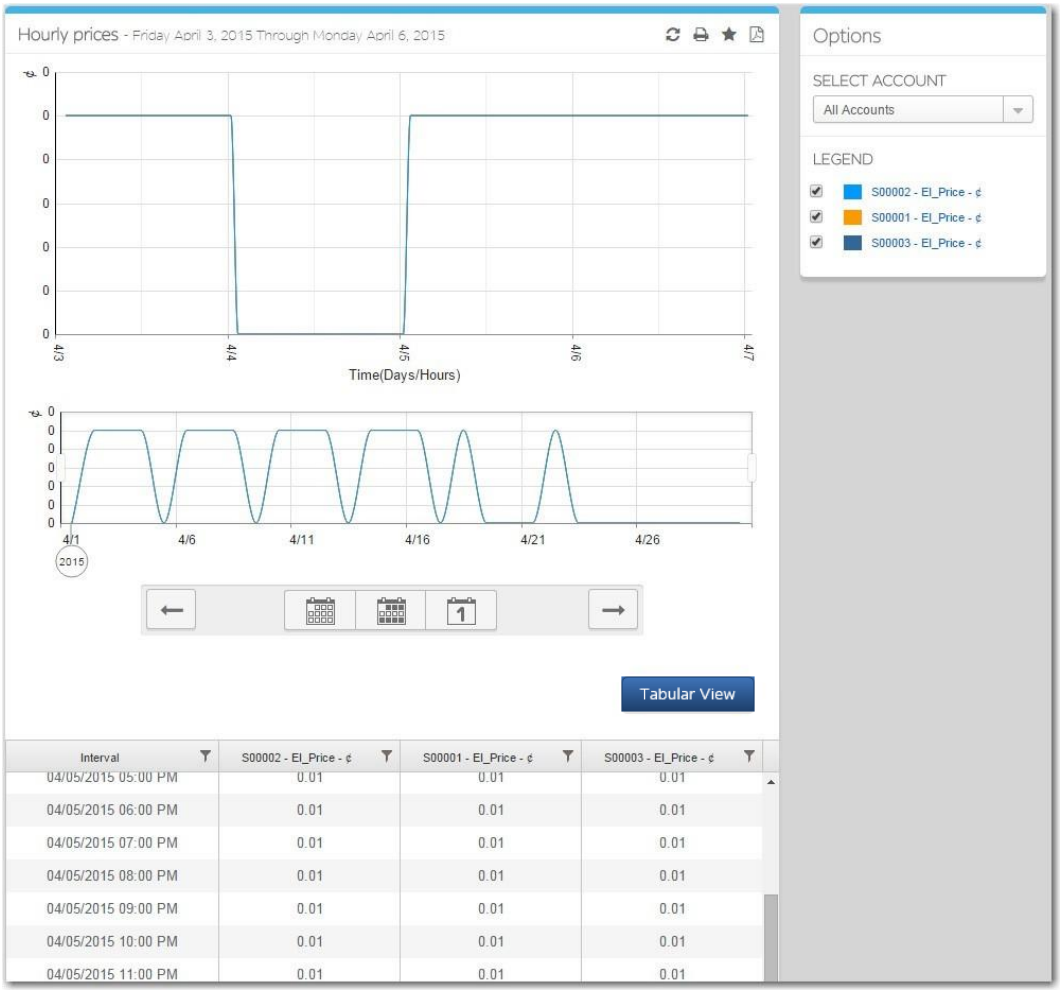
Hourly Prices

This report shows the hourly prices that are applicable for each selected account.

To generate the Hourly Prices report follow these steps:

1. Click the **Reports** tab and click **Date Ranges/Accounts**.
2. Select the date range and the accounts, meters, or groups for the report.
3. In the left navigation menu, click **Hourly Prices**.

   If multiple accounts are selected and more than one hourly price applies, a separate table appears for each. Scroll down to view additional tables.



Price Streams

Rates used for price streams are determined by your utility provider. Energy Profiler Online supports both Real Pricing and Hourly Pricing structures. For more information about pricing contact your utility provider.

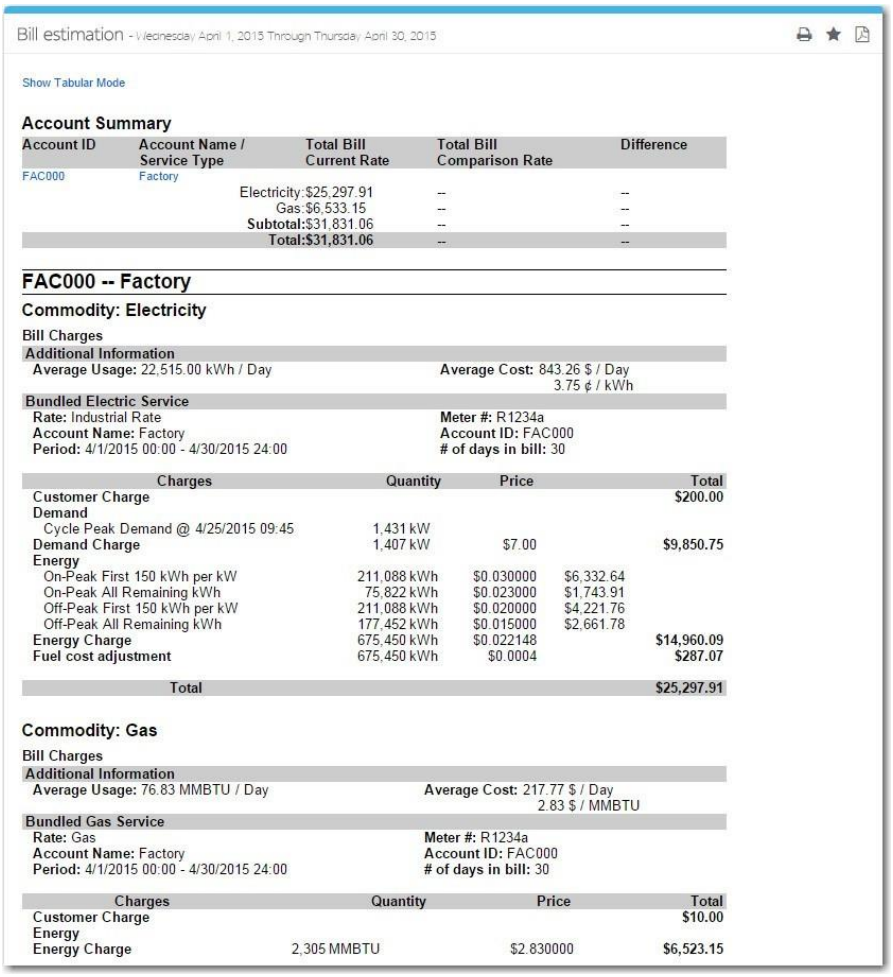
Estimated Bill

Calculate an estimated bill based on usage, price streams, and rate scenarios with this module.

To start the Estimated Bill module follow these steps:

1. Click the **Reports** tab and click **Date Ranges/Accounts**.
2. Select the date range and the accounts, meters, or groups for the report.
3. In the left navigation menu, click **Estimated Bill**.

The estimated bill has two view modes, Tabular view, and Image view. Click the Show Tabular Mode link at the top of the report to switch from image to tabular view.



Bill estimation - Wednesday April 1, 2015 Through Thursday April 30, 2015

Show Tabular Mode

Account Summary

Account ID	Account Name / Service Type	Total Bill Current Rate	Total Bill Comparison Rate	Difference
FAC000	Factory			
		Electricity:$25,297.91	--	--
		Gas:$6,533.15	--	--
		Subtotal:$31,831.06	--	--
		Total:$31,831.06	--	--

FAC000 -- Factory

Commodity: Electricity

Bill Charges

Additional Information

Average Usage: 22,515.00 kWh / Day
Average Cost: 843.26 $ / Day
3.75 ¢ / kWh

Bundled Electric Service

Rate: Industrial Rate
Account Name: Factory
Period: 4/1/2015 00:00 - 4/30/2015 24:00
Meter #: R1234a
Account ID: FAC000
# of days in bill: 30

Charges	Quantity	Price		Total
Customer Charge				**$200.00**
Demand				
Cycle Peak Demand @ 4/25/2015 09:45	1,431 kW			
Demand Charge	1,407 kW	$7.00		**$9,850.75**
Energy				
On-Peak First 150 kWh per kW	211,088 kWh	$0.030000	$6,332.64	
On-Peak All Remaining kWh	75,822 kWh	$0.023000	$1,743.91	
Off-Peak First 150 kWh per kW	211,088 kWh	$0.020000	$4,221.76	
Off-Peak All Remaining kWh	177,452 kWh	$0.015000	$2,661.78	
Energy Charge	675,450 kWh	$0.022148		**$14,960.09**
Fuel cost adjustment	675,450 kWh	$0.0004		**$287.07**
Total				**$25,297.91**

Commodity: Gas

Bill Charges

Additional Information

Average Usage: 76.83 MMBTU / Day
Average Cost: 217.77 $ / Day
2.83 $ / MMBTU

Bundled Gas Service

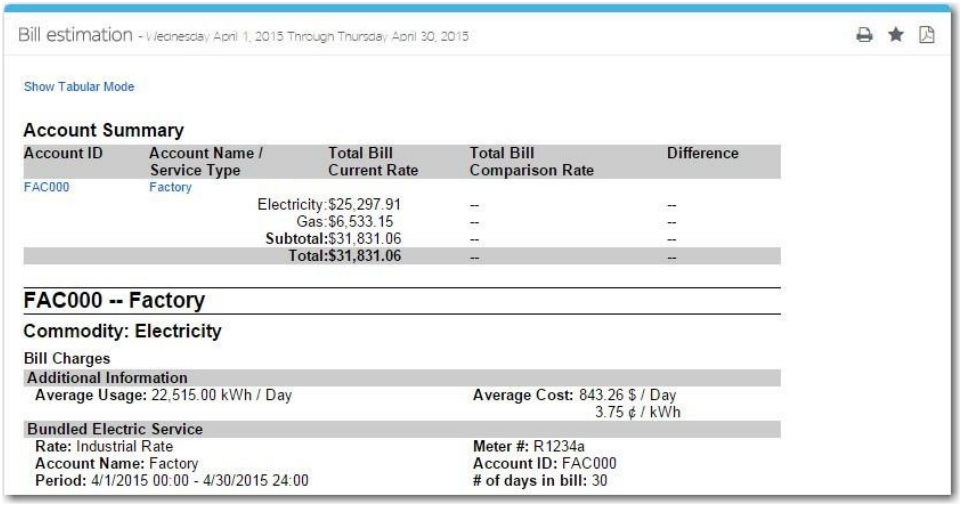
Rate: Gas
Account Name: Factory
Period: 4/1/2015 00:00 - 4/30/2015 24:00
Meter #: R1234a
Account ID: FAC000
# of days in bill: 30

Charges	Quantity	Price	Total
Customer Charge			**$10.00**
Energy			
Energy Charge	2,305 MMBTU	$2.830000	**$6,523.15**

The Energy Profiler Online administrator assigns the rate used in the estimated bill calculation. You can use bill estimation to compare costs of single or multiple accounts/meters/groups by selecting multiple accounts in the Date Ranges/Account screens.

Image View

The Image View is the default view when you first navigate to the Estimated Bill module. This report displays a hypothetical bill in detail for the selected date range.



If multiple accounts were selected on the Date Ranges/Accounts screen this page will display a summary for all accounts at the top of the page. You can view detailed information for each account separately by scrolling down.

Account Summary

This table displays summary information for the accounts to compare them side by side. Click on the Account ID or Account Name to jump your cursor to that account's detailed bill on this report.

Heading	Description
Account ID:	This is the primary account identifier in the service
Account Name:/ Service Type	This is a more descriptive identifier.
Total Bill Current Rate	This is the sum of all charges for each account.
Total Bill Comparison Rate	This is the sum of all charges for the hypothetical scenarios for each account
Difference	This is the Total Bill Comparison Rate subtracted from the Total Bill Current Rate for each account.

Detailed Line Item Bills

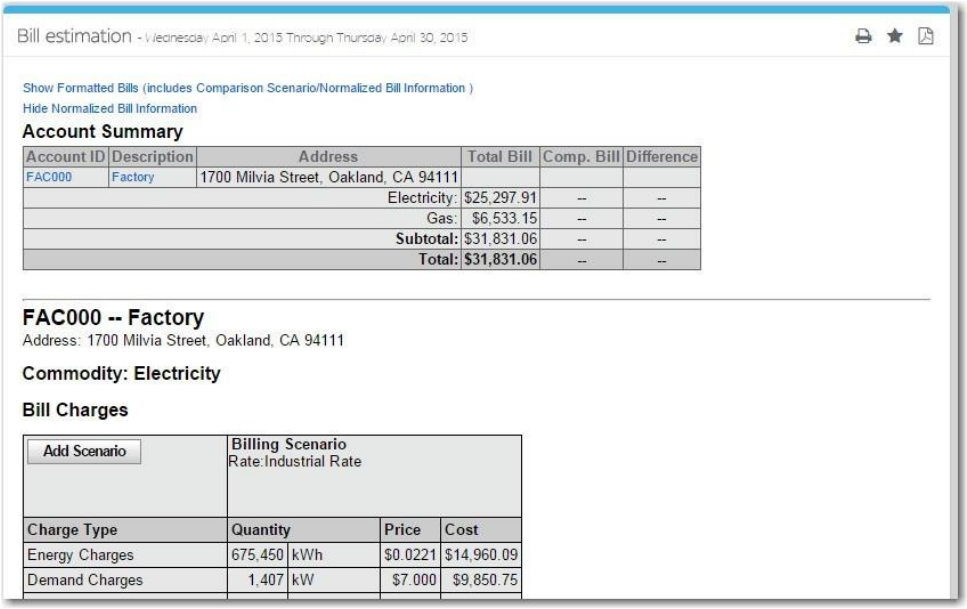
Estimated Bill generates a bill for each account separately and includes a detailed line item breakdown of consumption information by commodity.

Additional Information	Description
Average Usage	Mean per day kWh usage.
Average Cost	Mean per dollar amount or as cost per kWh.
Bundled Electric Service	**Description**
Rate	Ratio per unit price used for the service.
Meter #	Numerical identifier for an onsite meter.
Account Name	Alphabetical identifier as designated upon upload to Energy Profiler Online.
Account ID	Alpha-numeric identifier.

Period	Time range for the calculations as specified on the Date Ranges/Accounts screen.
# of days in bill:	Sum of all days within selected period.
Charges	**Description**
Demand	The rate at which electric energy consumed at a given instant or averaged over a designated period, usually expressed in kilowatts or megawatts (electric).
Demand Charge	The financial charge associated with the Demand.
Energy	The quantity of electricity delivered over a period of time. The commonly used unit of electrical energy is the kilowatt-hour (kWh).
Energy Charge	The financial charge associated with Energy usage.
Reactive Demand	The rate at which reactive electric demand is consumed at a given instant or averaged over a designated period. Reactive power is usually measured in kilo volt amperes reactive (kVAr).
Reactive Adjustment	A component of the electricity billing rate associated with Reactive Demand. There are several types of reactive adjustment common on utility rates. Some are: kVAr at time of peak demand Peak kVAR Power Factor target
Reactive Energy	Reactive energy is the an amount of electrical energy that is used but does not provide useful power. Reactive energy is often used when creating or maintaining electromagnetic fields that are common in the when operating motors, generators, and most other electrical devices.

Tabular View

The most advanced Bill Estimation features will appear in Tabular View. Create hypothetical scenarios and compare them with actual bills in Tabular View.

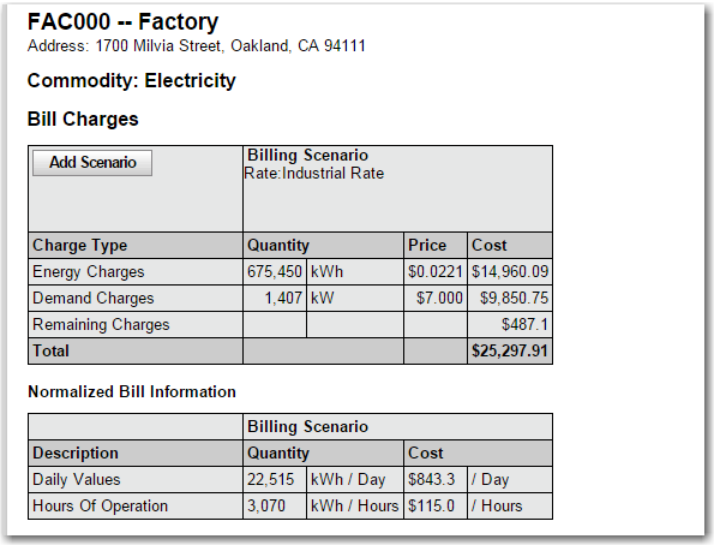


Account Summary

As with the Image View, view bills for multiple accounts in Tabular View with a summary of all accounts at the top and detailed information for each account below. Click the account numbers in the summary section to jump directly to the detail section of the bill for that account.

Bill Estimation Scenarios

Create multiple hypothetical scenarios to compare past consumption costs in Tabular View. Click **Add Scenario** to create a new scenario.



FAC000 -- Factory
Address: 1700 Milvia Street, Oakland, CA 94111

Commodity: Electricity

Bill Charges

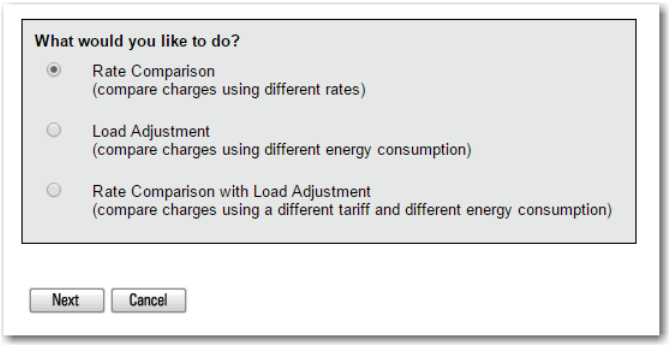
Add Scenario	Billing Scenario Rate:Industrial Rate			
Charge Type	**Quantity**		**Price**	**Cost**
Energy Charges	675,450	kWh	$0.0221	$14,960.09
Demand Charges	1,407	kW	$7.000	$9,850.75
Remaining Charges				$487.1
Total				**$25,297.91**

Normalized Bill Information

	Billing Scenario			
Description	**Quantity**		**Cost**	
Daily Values	22,515	kWh / Day	$843.3	/ Day
Hours Of Operation	3,070	kWh / Hours	$115.0	/ Hours

The What If Scenario Creator appears. This tool enables you to walk step by step to make selections to create or edit a comparison scenario.

Choose from scenarios that adjust either the rate charged, the amount of load consumed, or both.



What would you like to do?

- (•) Rate Comparison
  (compare charges using different rates)
- ( ) Load Adjustment
  (compare charges using different energy consumption)
- ( ) Rate Comparison with Load Adjustment
  (compare charges using a different tariff and different energy consumption)

Next Cancel

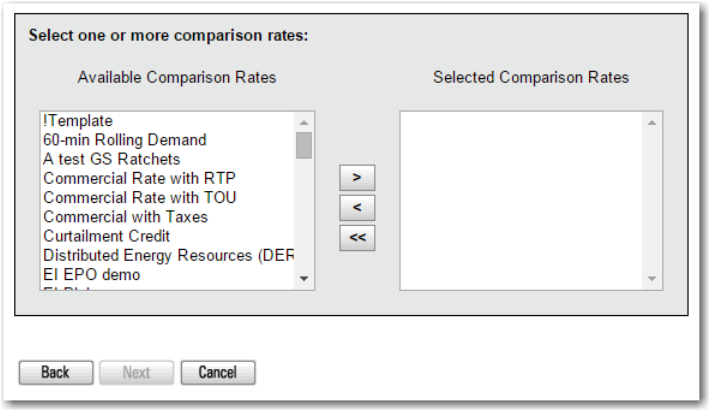
Rate Comparison

Use the rate comparison option to create a scenario to compare the financial impact of your current rate against a different rate.

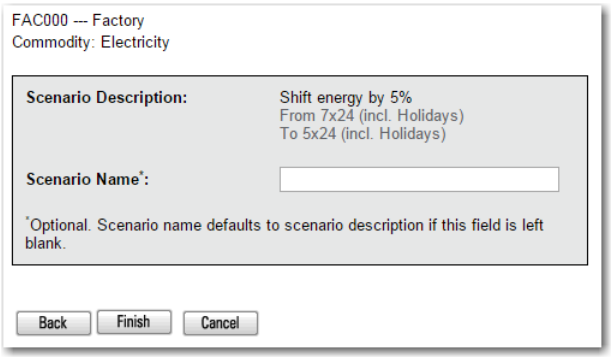
To begin creating a rate comparison scenario:

1. Click the **Reports** tab and click **Date Ranges/Accounts**.
2. Select the date range and the accounts, meters, or groups for the report.
3. In the side menu, click **Estimated Bill**.
4. In the **Estimated Bill** report press **Show Tabular Mode**.
5. Click **Add Scenario**.

6. Select **Rate Comparison** and you are directed to a screen that prompts you to select a comparison rate.



7. Select a rate and click **>**. Selected rates are moved to the **Selected Comparison Rates** box. To select more than one rate hold the <SHIFT> or <CTRL> key and click on your choices.
8. Click **Next**. The **Scenario Description** screen appears.



9. Enter the name you want to give the scenario. If you leave this space blank, the scenario name will default to the scenario description.
10. Click **Finish**.

The comparison scenario is displayed alongside the estimated bill. The **Difference** column appears to show the difference between the estimated bill total charges and the comparison scenario total charges.

Tips

- If you want to change the scenario selections, click **Edit** in the **Comparison Scenario** section of the bill charges table. The WISC tool opens the comparison scenario so that you can modify the scenario.
- The estimated bills generated in tabular view do not separate the details for each Charge Type. If you want to see complete bill details, view the bill in Image View after you have created hypothetical scenarios.
- Estimated bills can also display normalized data when the accounts are configured to do so. When normalized data is present in the estimated bill in Tabular View, the normalized usage and normalized costs are displayed in a separate table called Normalized Bill

Information. You can hide the normalized bill information by clicking the **Hide Normalized Bill Information** link at the top of the report.

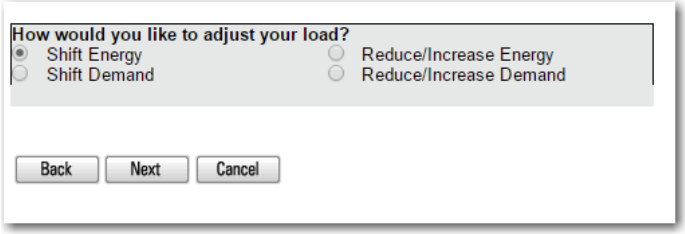
- If there is more than one comparison scenario, you can move a comparison scenario next to the billing scenario. Click the comparison scenario header and drag it next to the billing scenario table.

Load Adjustment

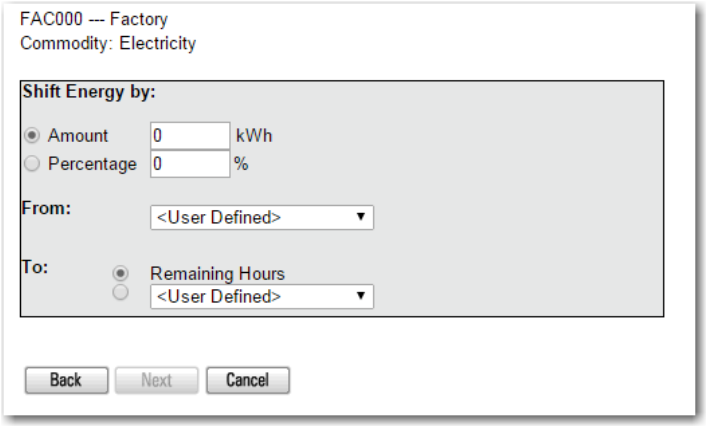
Use this option to create a load adjustment comparison scenario for estimating the financial impact of shifting, reducing, or increasing your load during certain times. The Load Adjustment feature also contains a Power Factor Correction option.

The steps for creating a load adjustment what if scenario are similar to creating a rate comparison scenario. To begin creating a load adjustment scenario:

1. In the **Estimated Bill** report press **Show Tabular Mode**.
2. Press the **Add Scenario** button.
3. Select **Load Adjustment** then select the way you want to adjust your load. The typical Energy Profiler Online user may have up to 5 options for adjusting their load in the WISC.

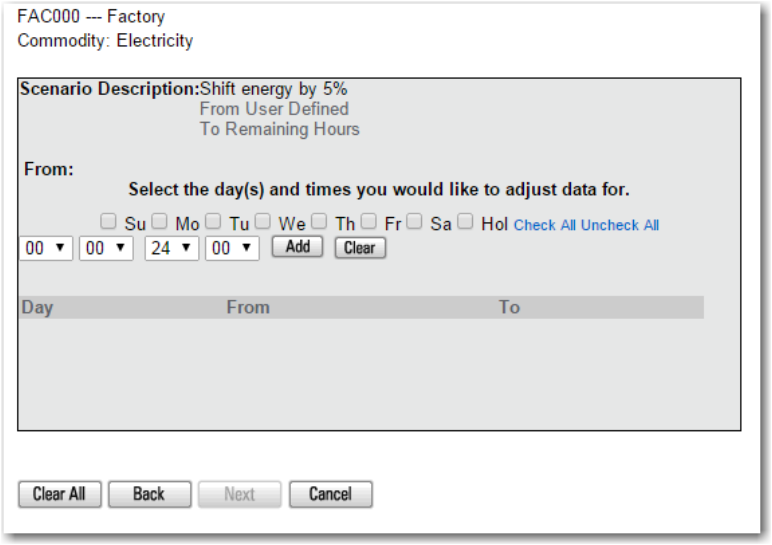


   - — **Shift Energy** - Move energy from specified days and time ranges to other specified days and time ranges.
   - — **Shift Demand** - Move demand from specified days and time ranges to other specified days and time ranges.
   - — **Reduce/Increase** - Energy to reduce or increase energy from specified days and time ranges.
   - — **Reduce/Increase Demand** - Reduce or increase demand from specified days and time ranges.
   - — **Power Factor Adjustment** - Modify your Power Factor to simulate the installation of Power Factor correcting equipment.
4. Select the **Load Adjustment** factor and click next to specify details about the load adjustment factor.



5. Enter the details of the **Load Adjustment** factor and click **Next**.

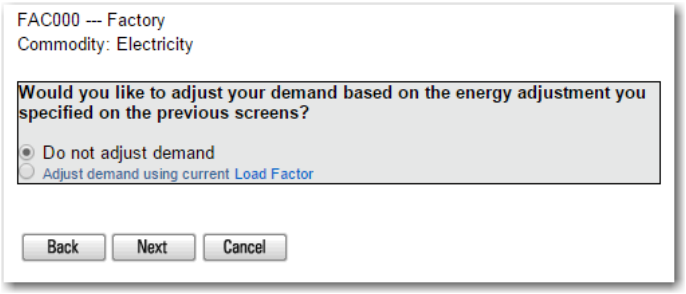
6. Select the days and times you would like to adjust the data for and click **Add**, and then click **Next**.



7. Review the options to adjust the demand.

   When you perform an energy load adjustment for a specified time range, you have the option of adjusting their demand for the same time range using your current **Load Factor** and vice versa.

   The **Load Factor** is the ratio of the average load supplied to the peak or maximum load during a designated period. **Load Factor**, in percent, also may be derived by multiplying the kWh in a given period by 100, and dividing by the product of the maximum demand in kW and the number of hours in the same period. Total Energy (kWh) / Peak Demand * Number of Hours in time period.

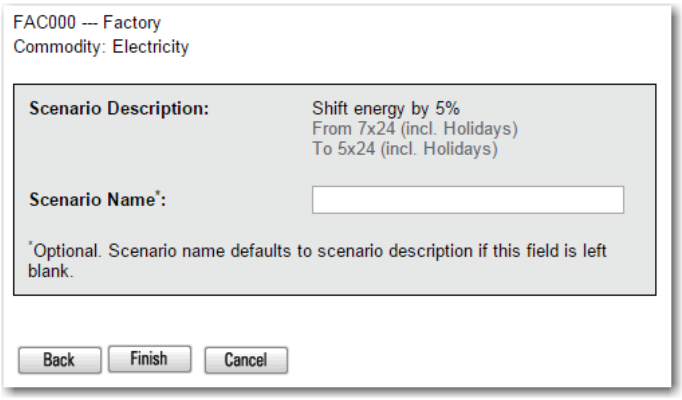


   — **Do not adjust demand** - if you do not want to adjust your demand based on the energy adjustment you specified on the previous screen.

   — **Adjust demand using current Load Factor** - if you would like to adjust demand based on the energy adjustment you specified on the previous screen. Click the Load Factor link to view a detailed explanation of a load factor. Click the link again to close the explanation.

8. Select an option and click **Next**.

9. Enter the name you want to give the scenario. If you leave this space blank, the scenario name will default to the scenario description.



10. Click **Finish**.

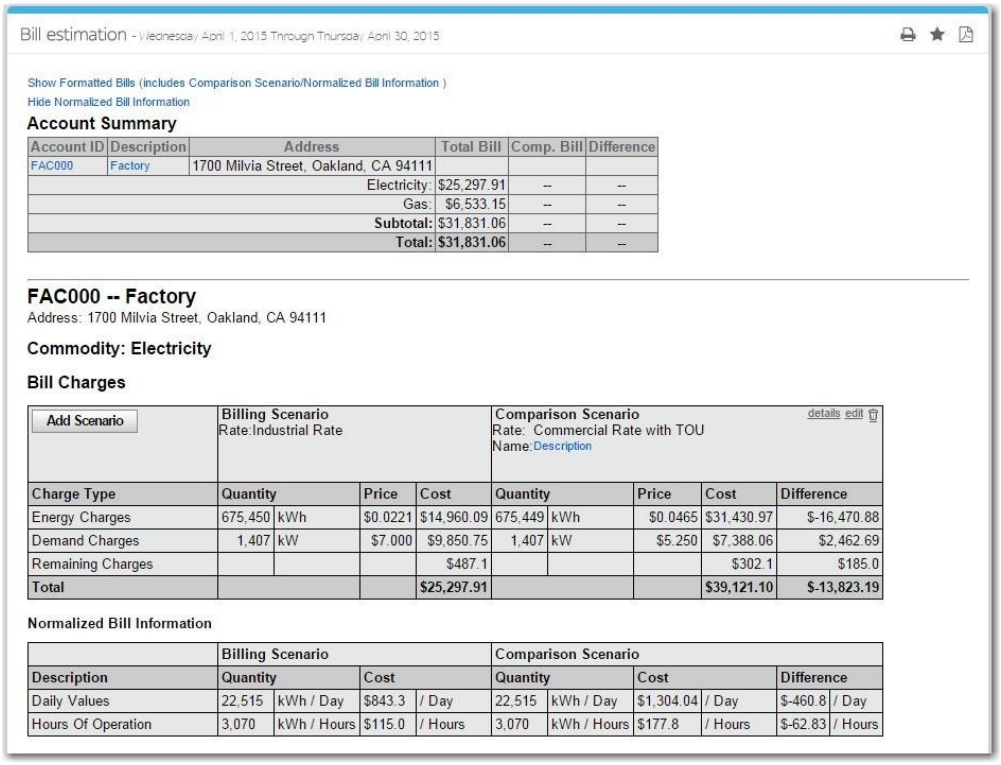
The comparison scenario appears alongside the estimated bill. The **Difference** column also appears to show the difference between the estimated bill total charges and the comparison scenario total charges.

Tips

- If you want to change the scenario selections, click **Edit** in the **Comparison Scenario** section of the bill charges table. The WISC tool opens the comparison scenario so that you can modify the scenario.
- The estimated bills generated in tabular view do not separate the details for each Charge Type. If you want to see complete bill details, view the bill in Image View after you have created hypothetical scenarios.
- Estimated bills can also display normalized data when the accounts are configured to do so. When normalized data is present in the estimated bill in Tabular View, the normalized usage and normalized costs are displayed in a separate table called Normalized Bill Information. You can hide the normalized bill information by clicking the **Hide Normalized Bill Information** link at the top of the report.
- If there is more than one comparison scenario, you can move a comparison scenario next to the billing scenario. Click the comparison scenario header and drag it next to the billing scenario table.

Rate Comparison with Load Adjustment

Create a What If scenario to compare charges using a different tariff and different energy consumption. The process for creating this scenario combine the steps from both the Rate Comparison and Load Adjustment What If scenarios as described above.



Bill estimation - Wednesday April 1, 2015 Through Thursday April 30, 2015

Show Formatted Bills (includes Comparison Scenario/Normalized Bill Information)
Hide Normalized Bill Information

Account Summary

Account ID	Description	Address	Total Bill	Comp. Bill	Difference
FAC000	Factory	1700 Milvia Street, Oakland, CA 94111			
		Electricity:	$25,297.91	--	--
		Gas:	$6,533.15	--	--
		Subtotal:	$31,831.06	--	--
		Total:	**$31,831.06**	--	--

FAC000 -- Factory
Address: 1700 Milvia Street, Oakland, CA 94111

Commodity: Electricity

Bill Charges

Add Scenario	Billing Scenario Rate:Industrial Rate				Comparison Scenario Rate: Commercial Rate with TOU Name:Description				details edit
Charge Type	**Quantity**		**Price**	**Cost**	**Quantity**		**Price**	**Cost**	**Difference**
Energy Charges	675,450	kWh	$0.0221	$14,960.09	675,449	kWh	$0.0465	$31,430.97	$-16,470.88
Demand Charges	1,407	kW	$7.000	$9,850.75	1,407	kW	$5.250	$7,388.06	$2,462.69
Remaining Charges				$487.1				$302.1	$185.0
Total				**$25,297.91**				**$39,121.10**	**$-13,823.19**

Normalized Bill Information

	Billing Scenario				Comparison Scenario				
Description	**Quantity**		**Cost**		**Quantity**		**Cost**		**Difference**
Daily Values	22,515	kWh / Day	$843.3	/ Day	22,515	kWh / Day	$1,304.04	/ Day	$-460.8 / Day
Hours Of Operation	3,070	kWh / Hours	$115.0	/ Hours	3,070	kWh / Hours	$177.8	/ Hours	$-62.83 / Hours

Mapping

In Energy Profiler Online you can view account locations in a map. The physical address of the account must be entered for the location to appear on the map. Site addresses are entered and maintained on the View Account Information screen. Refer to “Edit Account Information” on page 79 for more information.

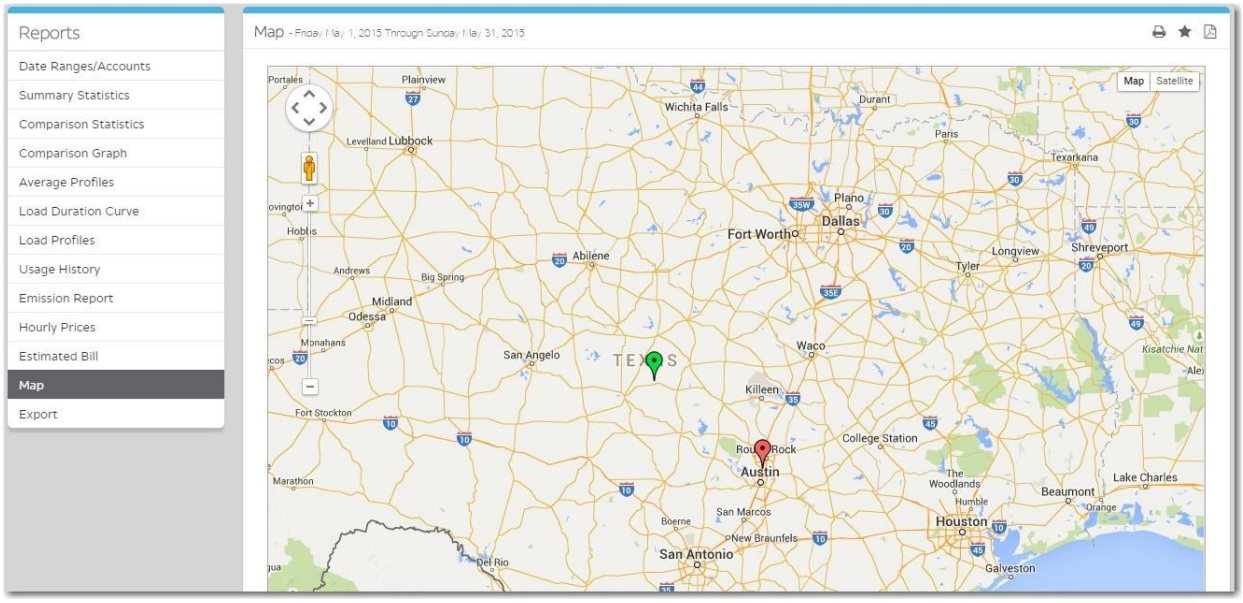
The location pin shows summary energy and CO2 emission values for a selected date range. The color of the location pin indicates the account’s status in regards to defined emission targets.

- Gray - Emission target is not defined for the site.
- Red - The site is exceeding the emissions target.
- Green - The site is under the emissions target.

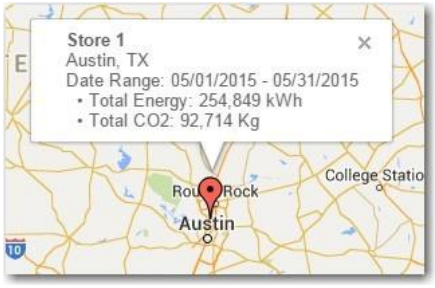
View account locations on the map

To view account locations on the map:

1. Click the **Reports** tab and click **Date Ranges/Accounts**.
2. Select the date range and the accounts, meters, or groups you want to view.
3. In the side menu, click **Map**. The map screen appears with the selected entities.



4. Click a pin indicator to see summary energy consumption and CO_2 emissions data.



Export

Export interval load data for further analysis and transfer to downstream systems. Data can be exported into the following formats:

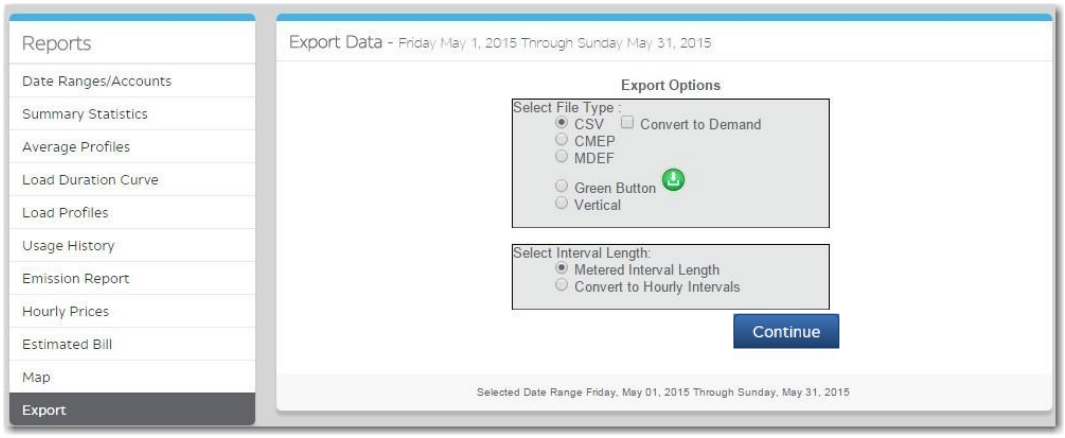
Button	Description
CSV or EPC	This is a generic, comma-separated file format that can be opened by most spreadsheet software applications. Data is displayed in rows. In this format, values for points in time are used instead of values for amounts of energy. For example, kWh are converted to kW.
Convert to Demand	This option can be selected with this format. Please note that this conversion makes straight demand conversions. These are not rolling demand values. When exported, the file extension is labeled either .CSV or .EPC, depending on your utility's preferences. Files with the .EPC extension can be opened from within a spreadsheet program but not by double-clicking on the file. To open the file by double-clicking on it, manually change the file extension to .CSV.
CMEP	This is a comma-separated text file format frequently used in deregulated markets to exchange data between entities. When exported, the file extension is labeled .CMEP. The Convert to Demand option can not be selected with this format.
PRN	This is a comma-separated format which can be opened by most spreadsheet software applications. Data is displayed in columns. The Convert to Demand option cannot be selected with this format.
MDEF	This is a binary file used to store detailed metering information. This file format includes more information about certain account and time zone fields than either CSV or CMEP files, but is less straightforward. When exported, the file extension is labeled .MDEF. The Convert to Demand option cannot be selected with this format.
Green Button	The Green Button format is based on the Energy Services Provider Interface (ESPI) data standard released by the North American Energy Standards Board (NAESB) in 2011. This data format allows a customer to view data stored by the utility. This XML based format can be viewed by XML editors, web browsers, and imported into other systems.

NOTE: File export functionality is set according to each utility's requirements. Some file types shown below may not be available.

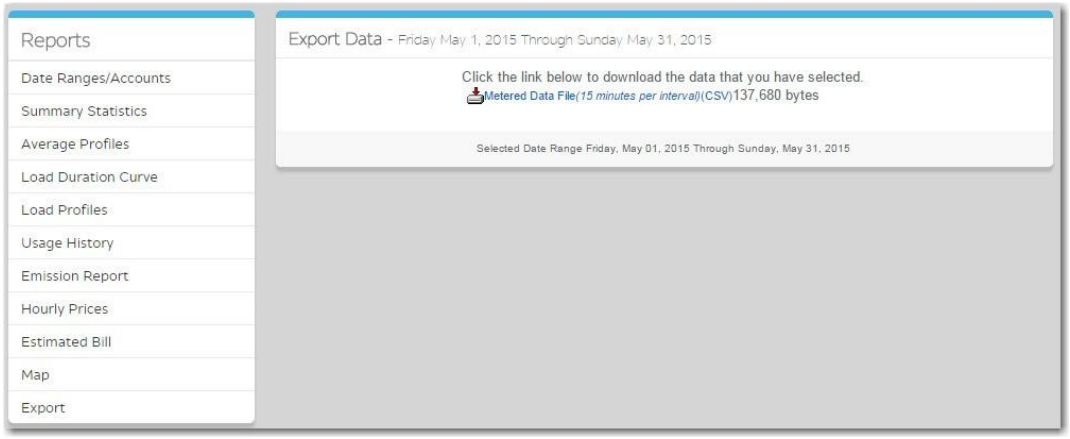
To export data follow these steps:

1. Click the **Reports** tab and click **Date Ranges/Accounts**.
2. Select the date range and the accounts, meters, or groups for the report.

3. In the side menu, click **Export**.



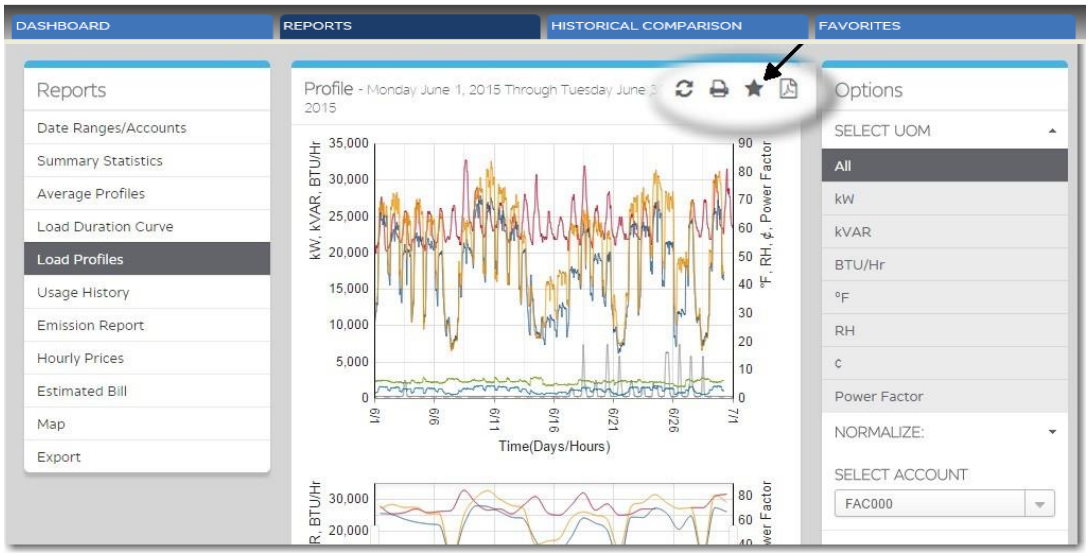
4. Select the file type.
5. Select the time:
   - **Metered Interval Length** - Time intervals that are specified in the database are used.
   - **Convert to Hourly Intervals** - Values are converted to hourly intervals.
6. Click **Continue**. The following screen displays a link to the file selected for export.



7. Click the file link to download the file. The file name reflects the file and interval formats, and the file size.

Create Report Favorites

You can save any of the Energy Online Profiler reports to view, edit, and maintain without having to set them up every time.



Creating a Memorized Report

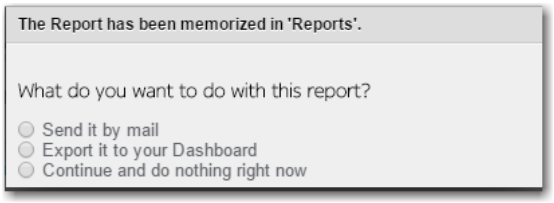
Memorized Reports are created when you elect to save any graph, chart, or table as a report by clicking the Memorize Report button under the left navigation menu. You can select a Memorized Report to be the default report that appears when you login to Energy Profiler Online.

Memorized Reports can also be added to the Dashboard. Refer to “Dashboard” on page 57 for more information about the Dashboard.

To create a Memorized Report:

1. Click the **Reports** tab and click **Date Ranges/Accounts**.
2. Select the date range and the accounts, meters, or groups for the report.
3. In the side menu, click the report you want to display, such as **Load Profiles**.
4. Click the **Favorites** icon (star)**.**

   The report screen dims and the options menu appears.



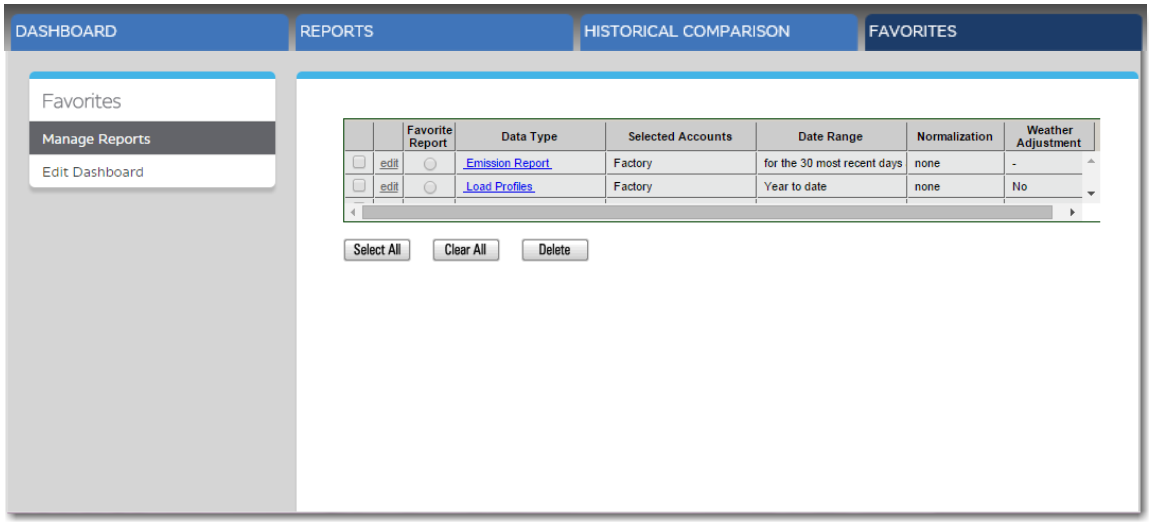
5. Click an option to perform an additional task or leave the report as is.
   - **Send it by email** - The report is sent to the email address associated with your login ID. You can set up additional email recipients as described in “Set up email routing for Memorized Reports” on page 55.
   - **Export it to your Dashboard** - The Edit Dashboard screen appears where you can configure the report for your Dashboard. Refer to “Add reports to the dashboard” on page 57 for more information.
   - **Continue and do nothing right now** - The current report view remains active.

Manage Reports

With the **Manage Reports** screen you can edit, configure, or delete Memorized Reports. All Memorized Reports appear in the table.

To view the current Memorized Reports:

1. Click the **Favorites** tab.
2. In the side menu, click **Manage Reports**. The screen displays the table of existing Memorized Reports.



The following table describes the columns for the report table:

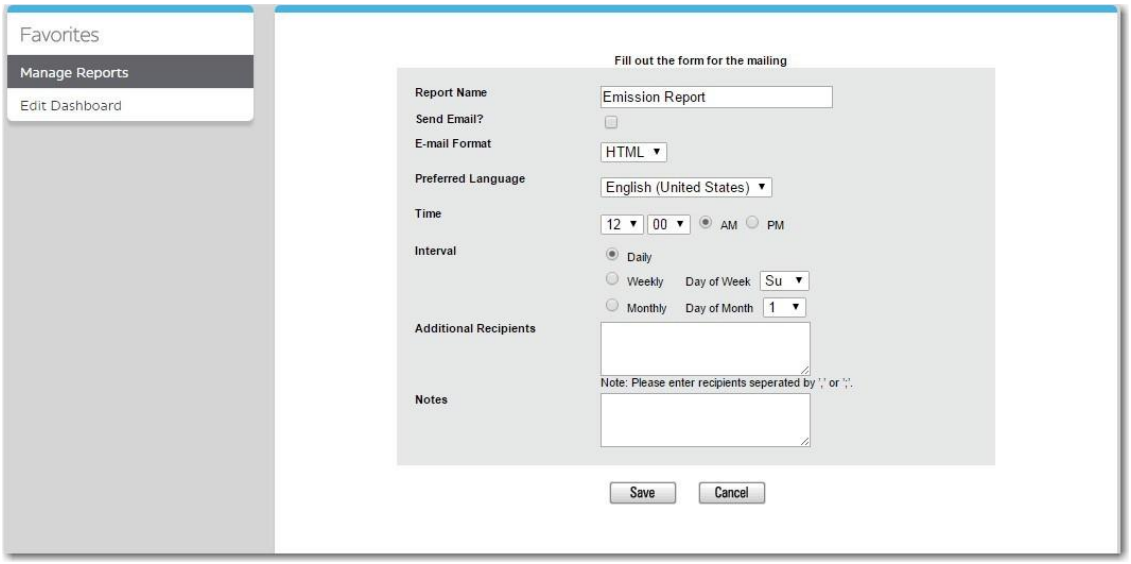
Column Heading	Description
(check box)	Select reports for deleting.
(edit)	Click this to set up the report for emailing to one or more recipients.
Favorite Report	Select the radio button for the report you would like to set as the default when you log in to Energy Profiler Online. When you log in, also check the **Goto favorite report** option on the login screen.
Data Type	Displays the type of report. Click on the link to view the report.
Selected Accounts	Displays the accounts included in the report.
Date Range	Displays the date range assigned to the report.
Normalization	Displays the normalization factor defined for the report.
Weather Adjustment	Displays the weather adjustment defined for the report.

Set up email routing for Memorized Reports

You can define email recipients for your Memorized Reports. You can define the message format, preferred language, time and frequency for sending the report.

1. Click the **Favorites** tab.
2. In the side menu, click **Manage Reports**.

3. Click the **edit** link for the report you want to email. The email parameters screen is displayed. Note that you can change the value in the **Report Name** field to something more descriptive. This value is used as the subject line in the email.



4. Check the **Send Email?** box to send yourself the report.
5. Select other options as desired for the email message.
6. If you want others to receive the report, enter their email addresses in the **Additional Recipients** box.
7. In the **Notes** box, enter additional information to be included as a message in the email.
8. Click **Save** to save the changes and return to the **Manage Reports** screen.

At the scheduled time and interval, the system will generate and send an email message and include the report.

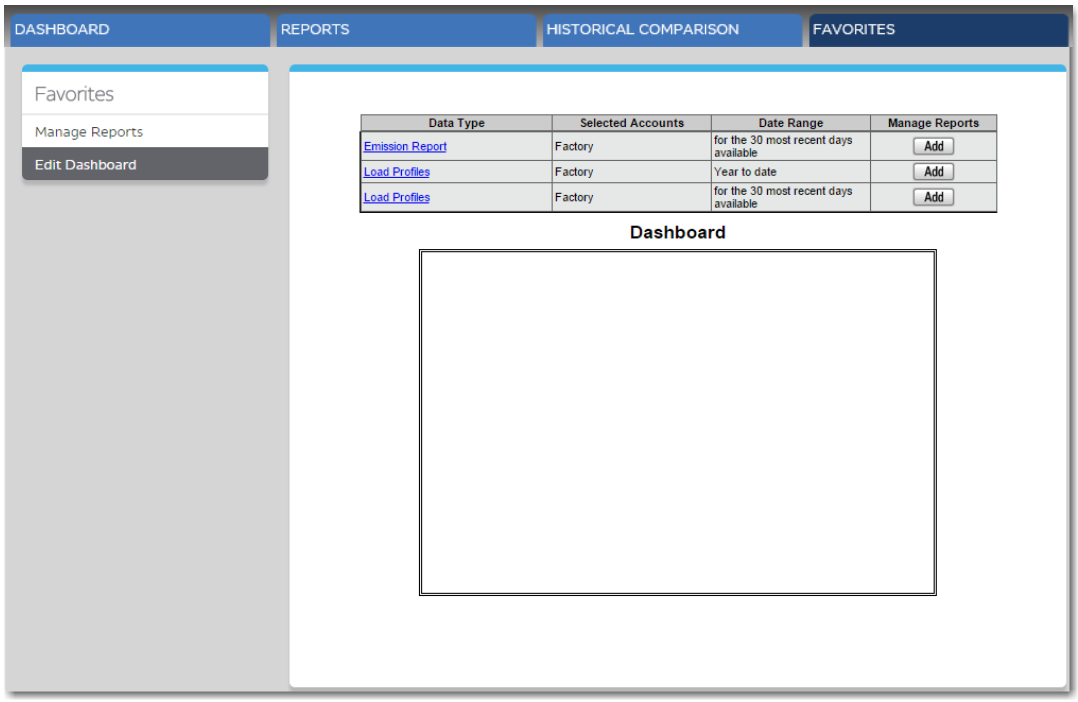
Dashboard

The Dashboard in Energy Profiler Online is a convenient way to display your saved reports to a single screen for quick viewing. The Dashboard displays a condensed version of a report. Any report you save as a Memorized Report can be added to the dashboard. Refer to “Creating a Memorized Report” on page 54 for more information about Memorized Reports.

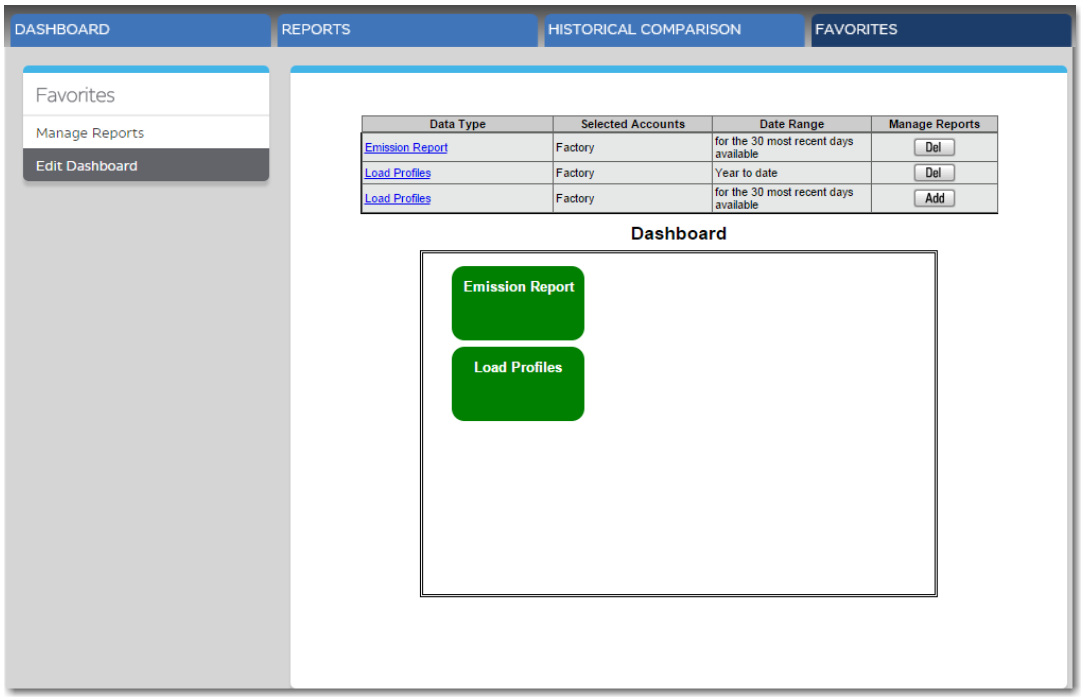
You can set preferences to show your Dashboard first after you login, rather than the Energy Profiler Online Basic tab. Refer to “Preferences” on page 61 for more information.

Add reports to the dashboard

1. Click the **Favorites** tab.
2. In the side menu, click **Edit Dashboard**. All of your Memorized Reports appear in the table.



3. In the **Manage Reports** column, click the **Add** button for a report to add it to the dashboard preview area. The button changes to **Del** when you add a report.

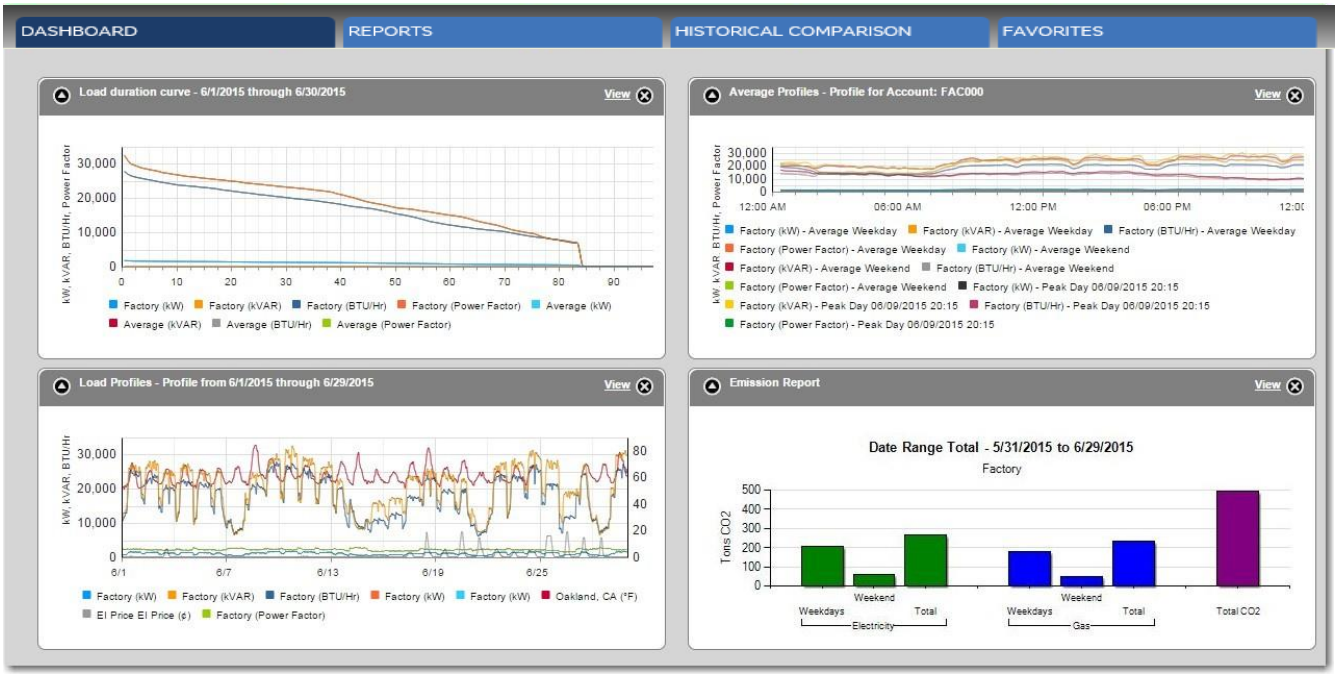


4. In the preview area, you can arrange the report bubbles by clicking and dragging them within the area.
5. If necessary, click the **Del** button in the table to remove a report from the preview area.

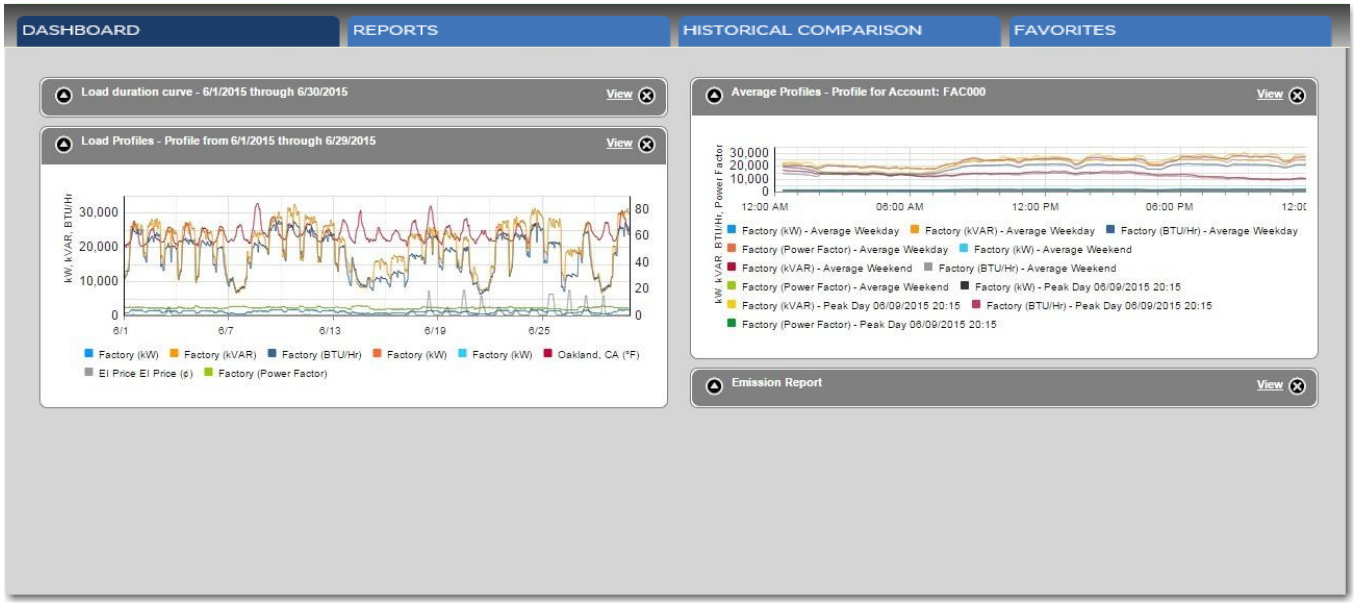
View the reports in the dashboard

After one or more reports are added in the Manage Reports screen, you can view the reports in the dashboard.

1. Click the **Dashboard** tab. For each report you added, a condensed version appears on the Dashboard screen.



2. In the dashboard, you can modify the view in several ways:
   - Collapse a report by clicking the arrow button in the report title bar.

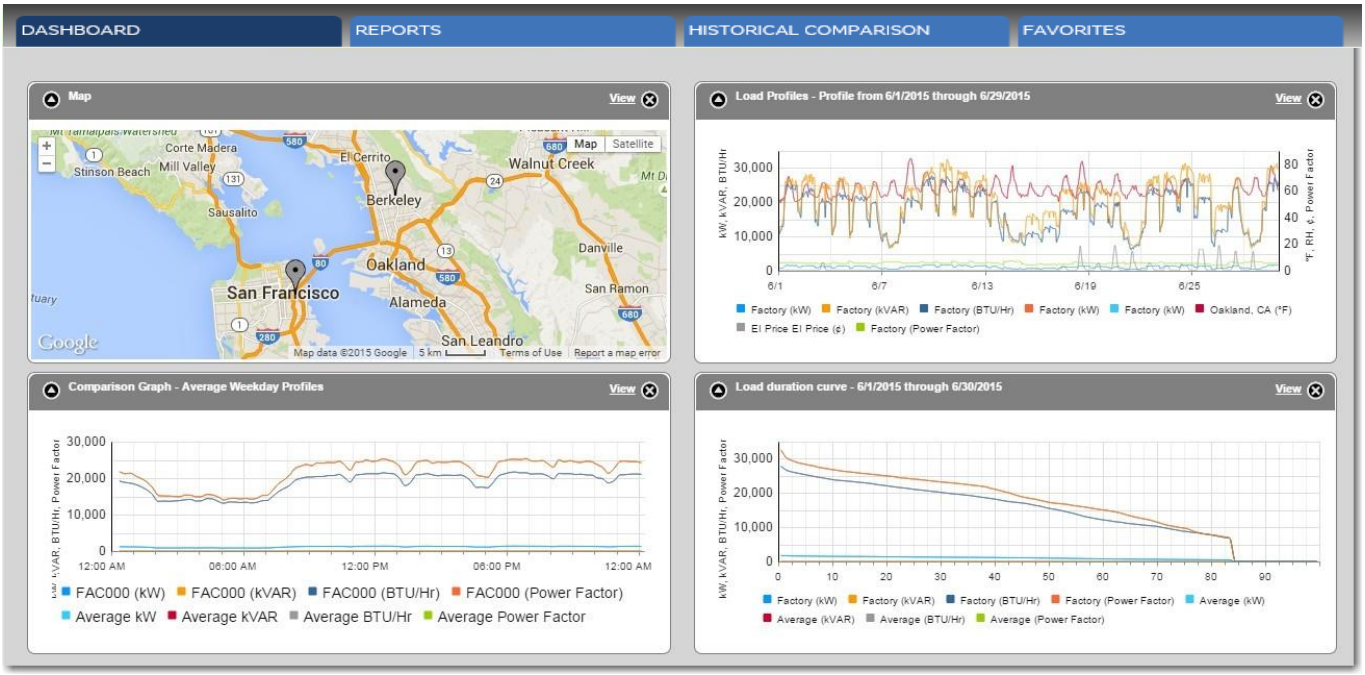


   - Move a report to another location in the dashboard area.
   - View the full report by clicking the View link.
   - Remove the report by clicking the **X** button in the report title bar.

The changes you make will be saved when you close the Dashboard screen and return to it later.

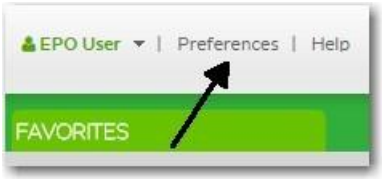
You can also click the **Admin** link to open the Edit Dashboard screen for adjusting the dashboard.

Examples of Dashboard Layouts

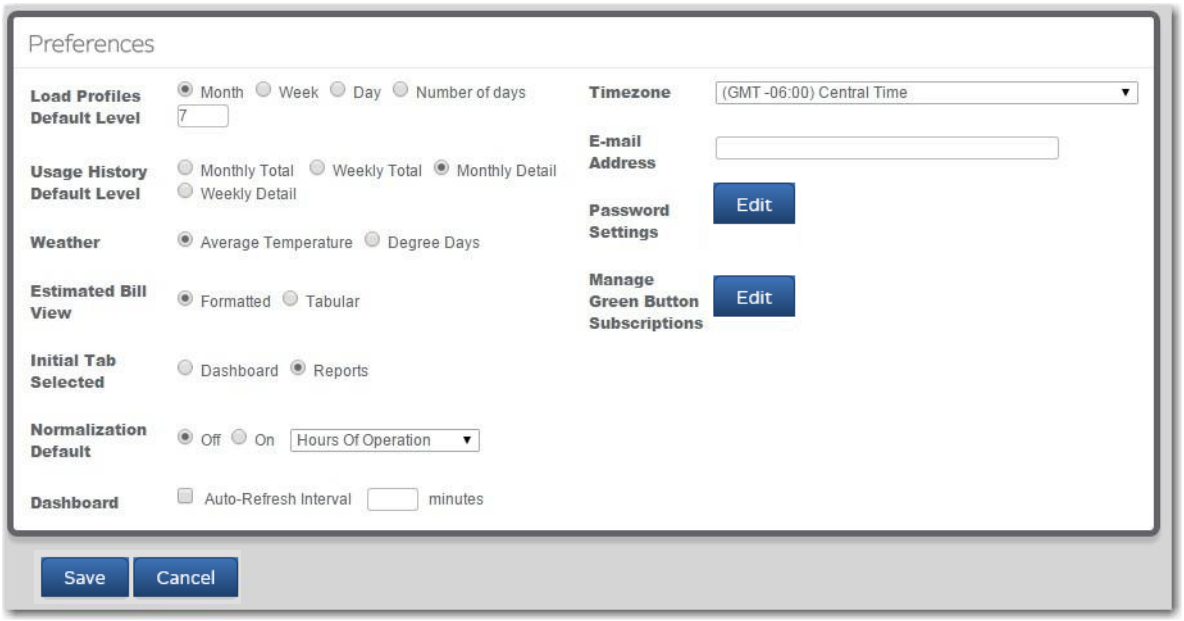


Preferences

You access the Preferences page from the upper right corner of the Energy Profiler Online screen.



The Preferences page is where you can set default preferences for Energy Profiler Online reports. You can also select your time zone, enter your email address, manage your password settings, and manage Green Button subscriptions.



The following table describes each option on this page.

Field	Description
Load Profiles Default Level	Click the radio button to indicate the Load Default Level view using the preferred intervals.
Usage History Default Level	Click the radio button to indicate the Usage History Default Level using the preferred intervals.
Weather	Click the radio button to indicate the Weather Sensitivity point of reference.
Estimated Bill View	Click the radio button to toggle between a formatted view that resembles a bill, or a tabular view that displays the data in tables.
Initial Tab Selected	Click the radio button to select which page to view after you first login to Energy Profiler Online.
Normalization Default	Click the radio button to indicate whether the application displays normalization features for each Energy Profiler Online report analysis page. If you select On, also select the preferred normalization factor.

Field	Description
Dashboard	Click the check box to turn on a refresh rate for your Dashboard reports. Enter the frequency in minutes.
Time zone	Click the arrow to indicate the desired default time zone. Energy Profiler Online uses the specified time zone to compute the current date and time when you select options on the Date Range/Account page and to specify when a predefined report generates. The time for report generation reflects the customer's time zone. If you do not select a time zone, Energy Profiler Online uses the utility company's time zone.
E-mail Address	Indicates the default address the application uses as the recipient for a saved report.
Password Settings	Select this option to change your password or to add the secondary password question and answer that help to further identify you, and only you know.
Manage Green Button Subscriptions	Add and manage subscriptions for Green Button data access.

Setting Report Preferences

Save time by setting the default preferences before creating your reports so that the system can automatically recall the formatting you specify.

To set default preferences for a report:

1. Click **Preferences** in the top right corner of the Energy Profiler Online screen.
2. Select the options for each preference as desired.
3. Click the **Save** button.

Normalization

Normalization allows you to edit attributes of data and information to compare different accounts/meters/groups in ways that are more logical for their characteristics.

For example, a manufacturing company monitors energy usage in their warehouse, manufacturing plant, and sales outlet. Comparing the total kW energy usage among each facility would not provide useful information about the real energy usage.

To remedy this, Energy Profiler Online allows you to quantify the usage data by a normalization factor, such as amount per square feet, for each building/account. Thus, you can compare the energy usage of a very large building with that of a very small building in terms of a common factor to determine relative energy efficiency of different facilities.

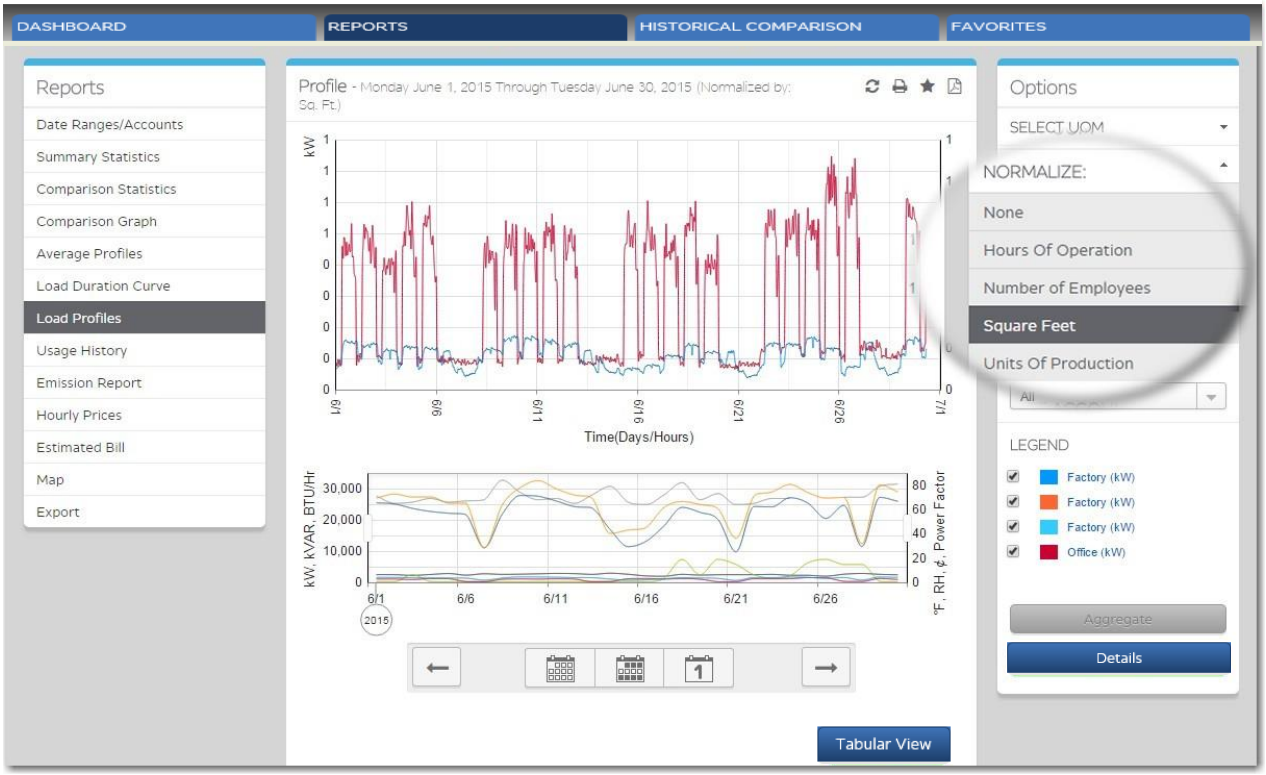
To enable the normalization factor default for all reports, set the Normalization Default option to On and select the factor to use, such as square feet or number of employees.

Also, you can set different normalization factors on individual reports on the report's template page, as explained next.

Specify the Normalization Factor on a Report

Follow these steps to define a specific normalization factor for a report. This setting will override the general normalization factor defined on the Preferences page.

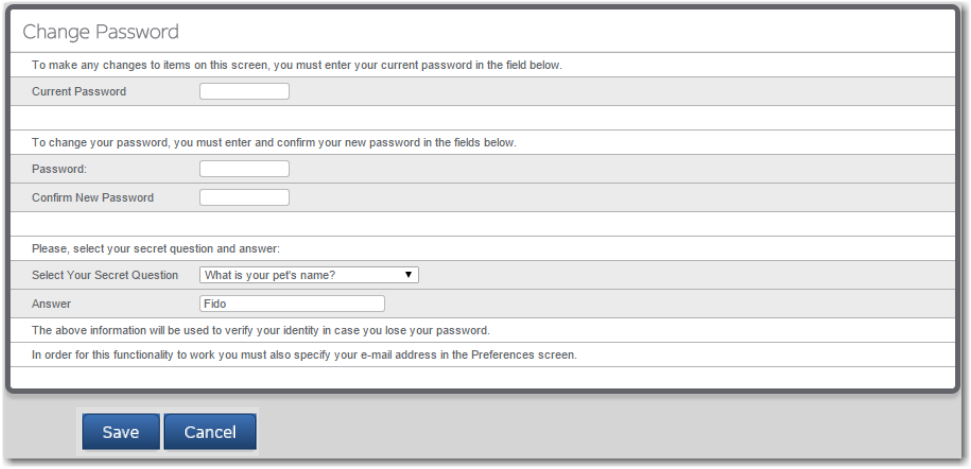
1. Generate the desired report, such as Average Profiles.
2. In the **Normalization** field, select the desired normalization factor.



The unit of measure on the graph changes based on the selected factor.

Manage Passwords

Click **Manage Passwords** on the **Preferences** screen to change your password. You can also select from a series of questions and provide an answer to the question that only you know. This question and answer is used as another level of security should you lose your password.



Change Passwords

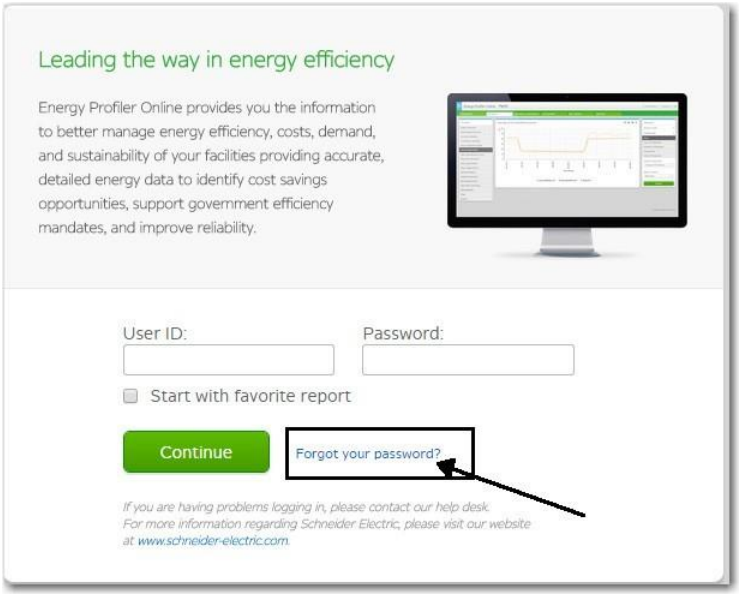
To change any values on the screen shown above, you must first enter your current password in the **Current Password** field..

To change a password, type in the new password in the **Password** field, and then re-enter that same password in the **Confirm New Password** field.

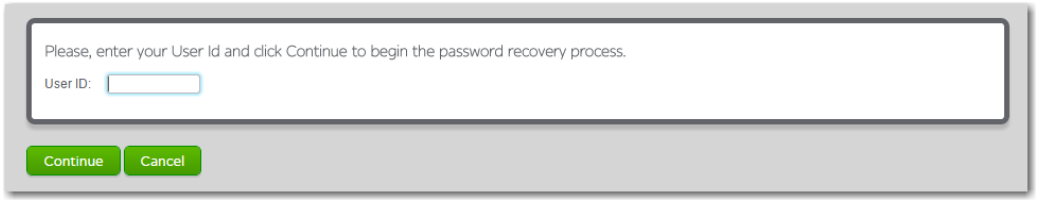
To set up your secret question and answer, select a question from the **Select Your Secret Question** dropdown, and then type the answer in the **Answer** field. This information will be used to help verify your identity if you lose your password.

Recover Passwords

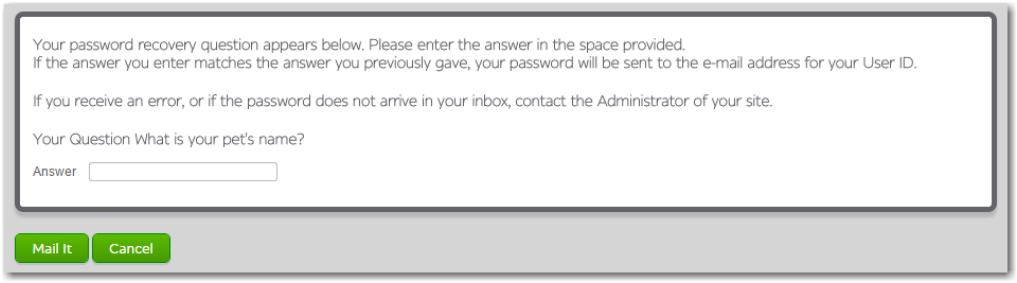
To recover your password, click **Forgot your password?** on the **Login** screen.



Enter your User ID on the next screen.



Enter the answer to your selected question on the next screen.



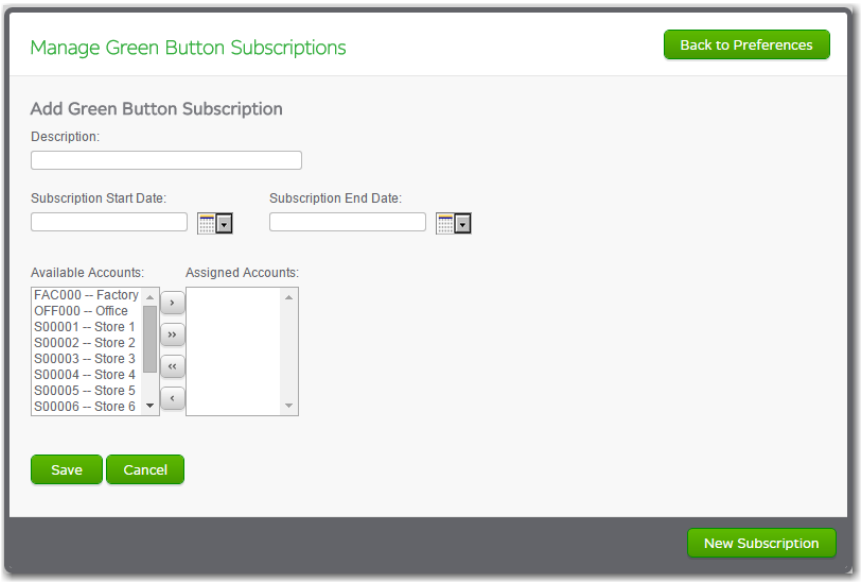
Click **Mail It** to have your new password sent to you.

NOTE: The email will be sent to the email address you previously set up on the **Preferences** screen.

Manage Green Button Subscriptions

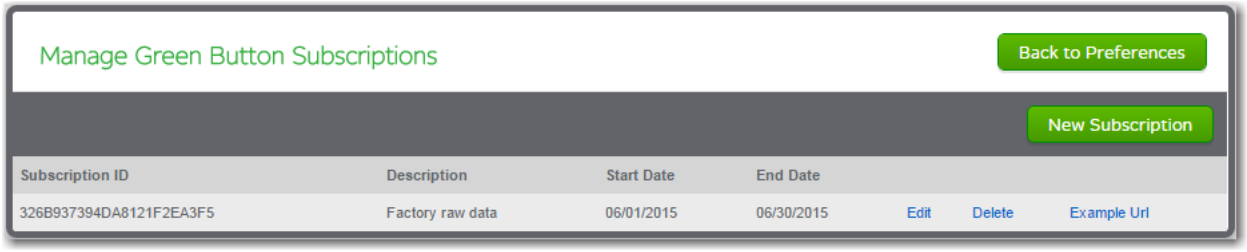
Energy Profiler Online has the ability to provide energy data in Green Button format to Users or authorized third parties.

You can add and manage subscriptions for Green Button data access from the **Preferences** screen. Click **Edit** next to the **Manage Green Button Subscriptions** option, then click **New Subscription** to display the screen below.



Here you can enter a description of the subscription, select accounts to make available for this subscription, and set up a date range for the subscription.

Setting up a subscription creates a SubscriptionID. This SubscriptionID can be provided to third party applications to securely access data for the specified date ranges for the specified accounts. Once the information for the subscription has been entered, click **Next**.



This screen shows the Subscription ID that was generated by the system for this subscription. It also shows the description and date range covered. You can edit or delete the subscription using the respective links. Any new subscriptions you create are added to this list and have their own unique SubscriptionID.

Click **Example URL** to see a generated URL that includes the required information in the required format needed to access the Green Button data. You need to replace the "<SiteName>" portion with the name of your EPO site. You should also specify "https" instead of "http" to preserve the security of your data.

Historical Comparison

The Historical Comparison tab in Energy Profiler Online compares usage between different date ranges for one account only. You can create reports to illustrate usage trends for an account for different days using a 24 time period for each day selected.

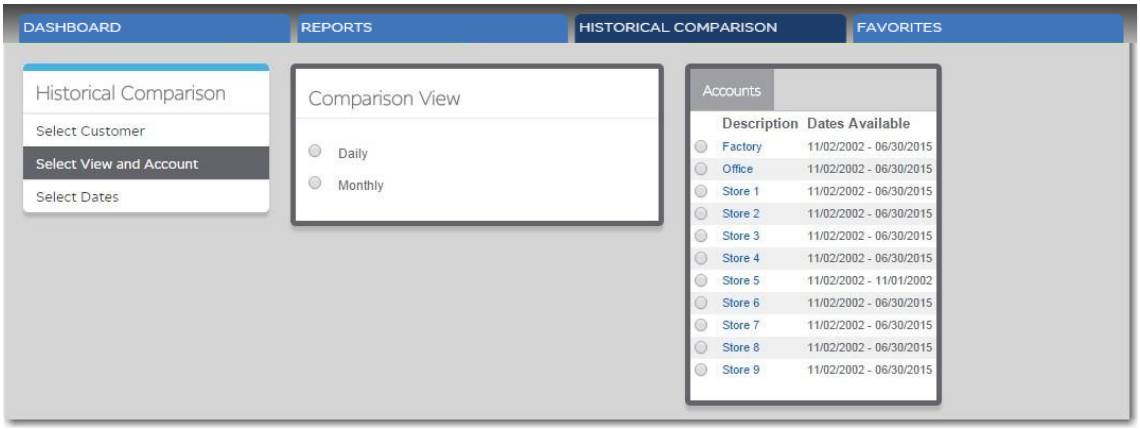
For example, you could compare the energy usage for all of the Mondays in a two month time span. The data will show the differences in usage for each Monday over the 24 hour period day. Or, you could compare specific dates, i.e. Friday January 1st vs. Thursday January 7th.

Select Account and View

Choose whether you want to work with days, months, or customized date ranges. This screen is similar to the Date Ranges/Accounts screen in Energy Profiler Online basic except that Historical Comparison works with one account at a time.

To navigate to the Select Account and View module follow these steps:

1. Click the **Historical Comparison** tab.
2. Select an account and a comparison range.
3. In the side menu, click **Select Dates**.



Date Ranges

The date selection buttons on this screen represent which unit of time interval you will be using for analysis.

- **Daily Comparison -** Compare different days via 24 hour time sets for the selected account.
- **Select Monthly Comparison** - Compare usage for full month time frames i.e. January 2008 vs. January 2009.
- **Comparison by Date Range** - Compare using a customized date range.

Accounts

Choose one of the available accounts listed in the box at the right-hand side. As with the Date Ranges/Accounts screen in the Energy Profiler Online Basic tab this box will list the accounts by description with the corresponding date range available for each account.

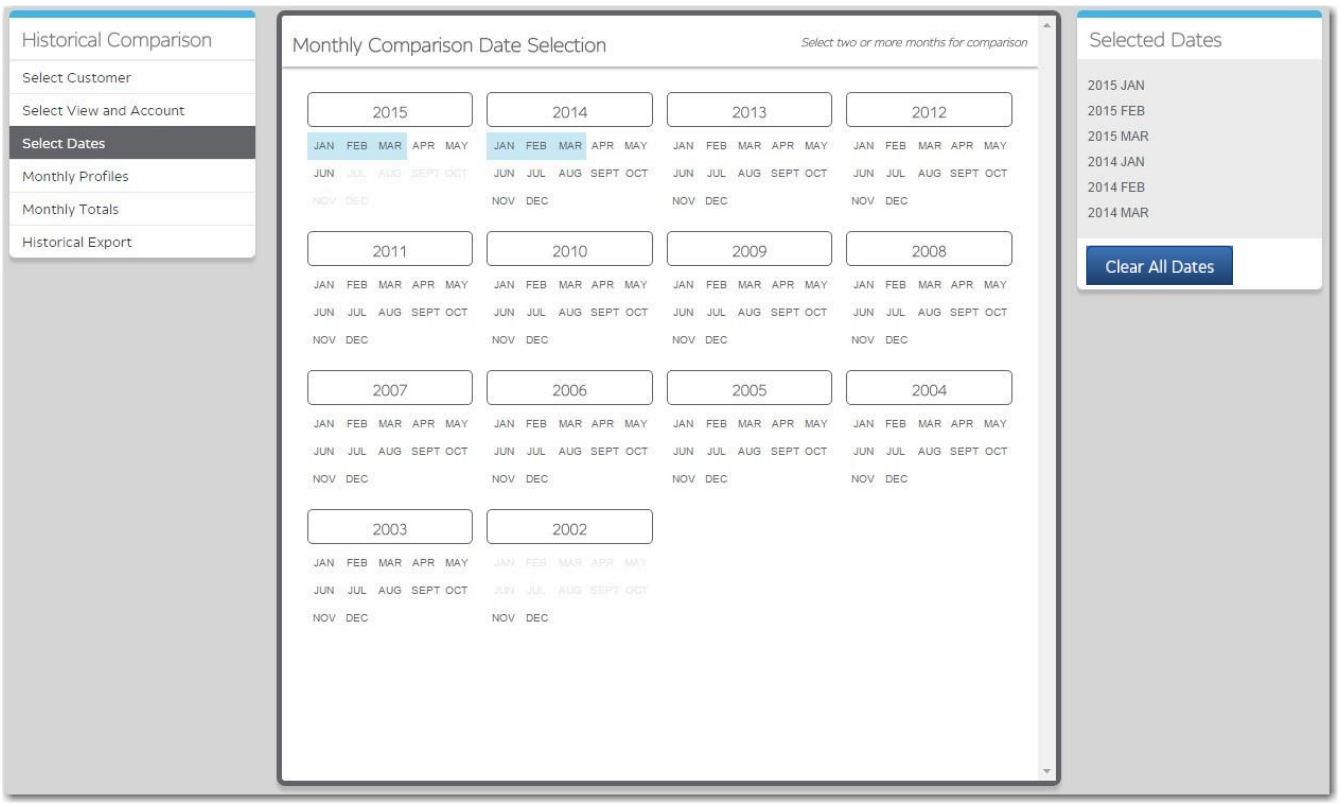
Select Dates

Create a list of dates to use for analysis by moving the desired dates to the **Selected** box on the Select Dates screen. These dates are used to run the Profiles report, Totals report, and Export function.

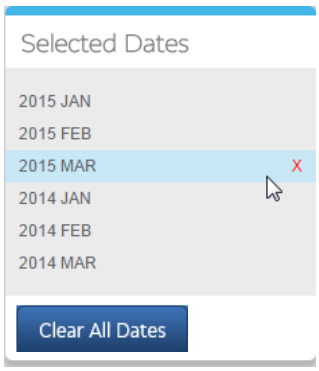
The details available depend upon which comparison range is selected on the Select Account and View screen. The available dates for the account are listed at the top of the screen.

Monthly Comparison

The example below shows the **Monthly Comparison** option is selected on the Select Account and View screen. The **Available** box shows the months containing data for the selected account.



Note that you can easily delete dates from the Selected Dates list using your mouse. Hover over the dates and observe that an “X” appears to the right of the date. Click on the X to delete the date.



Daily Comparison

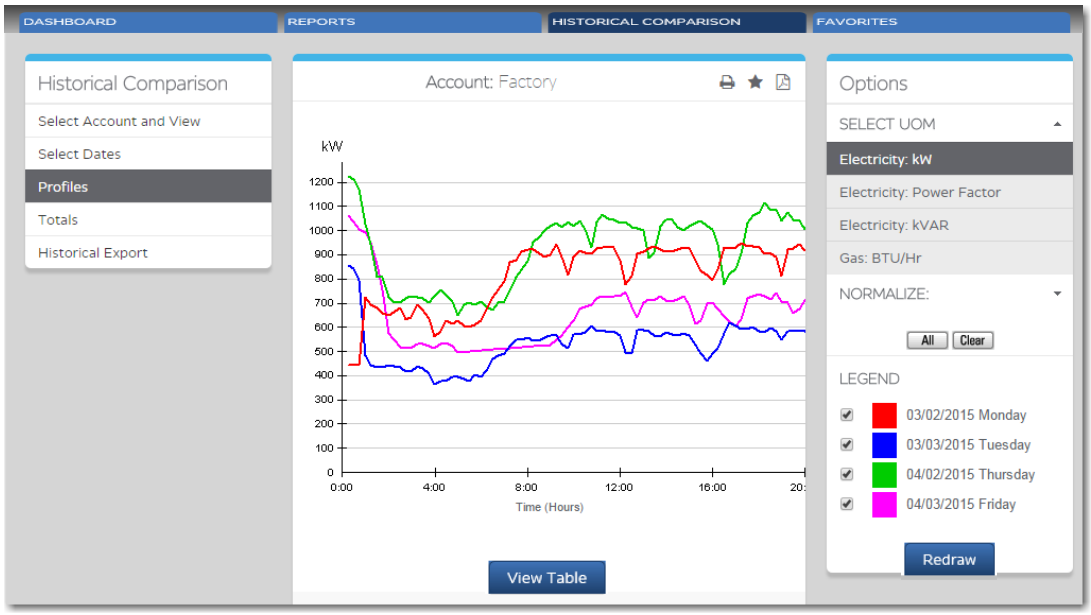
If Daily Comparison was selected, the Available box shows the available days for the account, as shown next.

Select Dates and Date Ranges

Based on your comparison selection, click on the days or months you want to compare.Note that all the dates you select are displayed in the right pane under Selected Dates. Once the dates are selected, and choose whether to see Profiles or Totals.

Profiles

This report displays a graph showing energy load profiles for the account. The name of this feature changes slightly depending on the comparison range (daily or monthly) that you have selected on the Select Account and View Screen.



Using This Screen

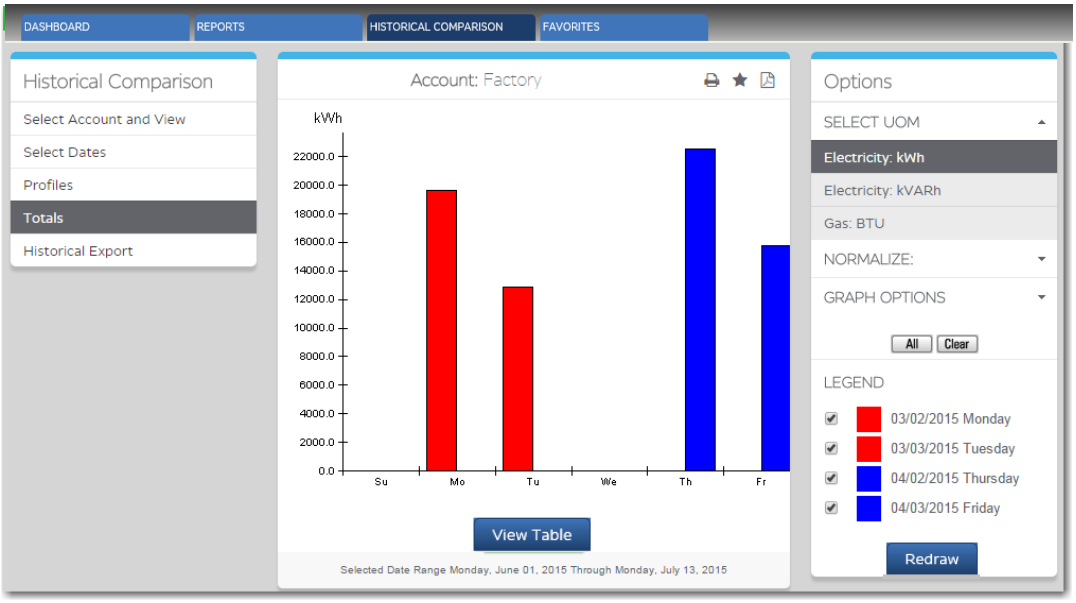
You can choose which channels to display by using the report controls described below. Remember to click the Redraw button in order to see the revised graph after making changes.

Button	Description
Formatting	Each date range's profile is displayed with a different color.
Redraw	Refresh the graph if any changes for the information display have been selected.
Unit of Measure	For more than one unit of measure, a drop-down box appears. After selecting a unit of measure click the Redraw button. When a normalized value is used, the report will also reflect the normalized value..
Normalize	Normalization attribute can be selected from the drop-down menu. After normalization, note that the unit of measure on the graph has changed to also divide by the normalization factor.
Table	View data in tabular form. From the table report, click the Continue button to return to the graph. The tabular view displays a list of the individual values used to produce the corresponding graph.

Totals

This report displays a bar chart of daily total energy usage for the account.

4.



Using This Screen

Use the on screen report controls to adjust the data:

Button	Description
Sorting (located under Graph Options in the right panel)	Sort by day (or month) type, chronologically, or by totals. Dates in the Legend box are resorted to match the order in which the bars are presented on the graph.
Formatting	Each date range's profile is displayed with a different color.
Redraw	Refresh the graph if any changes for the information display have been selected.
Unit of Measure	For more than one unit of measure, a drop-down box appears. After selecting a unit of measure click the Redraw button. When a normalized value is used, the report will also reflect the normalized value.
Normalize	Normalization attribute can be selected from the drop-down menu. After normalization, note that the unit of measure on the graph has changed to also divide by the normalization factor.
Table	View data in tabular form. From the table report, click the Continue button to return to the graph. The tabular view displays a list of the individual values used to produce the corresponding graph.

NOTE: If data is missing in the selected date range, an asterisk will appear in the table and a blank segment will appear on the graph.

Historical Export

Use the Historical Export function to export historical interval load data for further analysis and transfer data to downstream systems.

Export Formats

The following file formats are available:

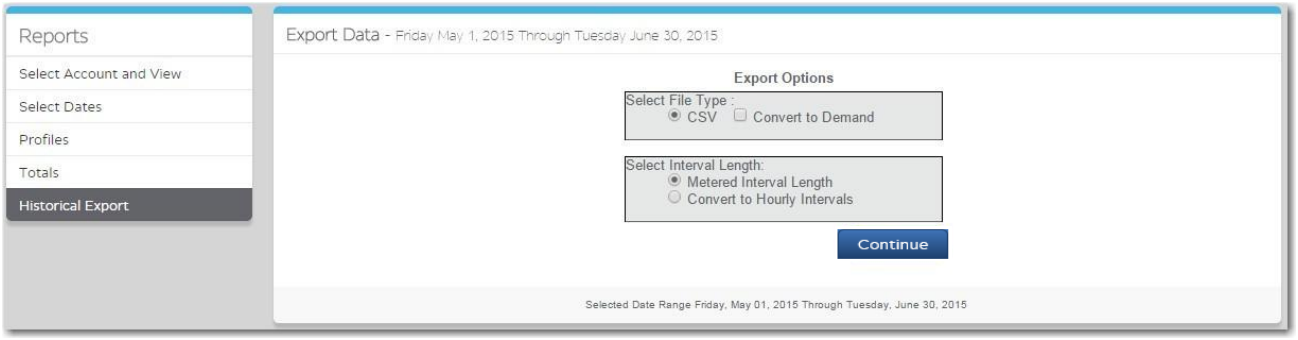
Format	Description
CSV or EPC	This is a generic, comma-separated file format that can be opened by most spreadsheet software applications. Data is displayed in rows. In this format, values for points in time are used instead of values for amounts of energy (e.g., kWh are converted to kW etc).
Convert to Demand	This option can be selected with this format. Please note that this conversion makes straight demand conversions. These are not rolling demand values. When exported, the file extension is labeled either .CSV or .EPC, depending on a user's utility's preferences. Files with the .EPC extension can be opened from within a spreadsheet program but not by double-clicking on the file. To open the file by double-clicking on it, manually change the file extension to .CSV.
CMEP	This is a comma-separated text file format frequently used in deregulated markets to exchange data between entities. When exported, the file extension is labeled .CMEP. The Convert to Demand option can not be selected with this format.
PRN	This is a comma-separated format which can be opened by most spreadsheet software applications. Data is displayed in columns. The Convert to Demand option cannot be selected with this format.
MDEF	This is a binary file used to store detailed metering information. This file format includes more information about certain account and time zone fields than either CSV or CMEP files, but is less straightforward. When exported, the file extension is labeled .MDEF. The Convert to Demand option cannot be selected with this format.

NOTE: Not all file types listed in this document may be available, since file export functionality is set according to each utility's requirements.

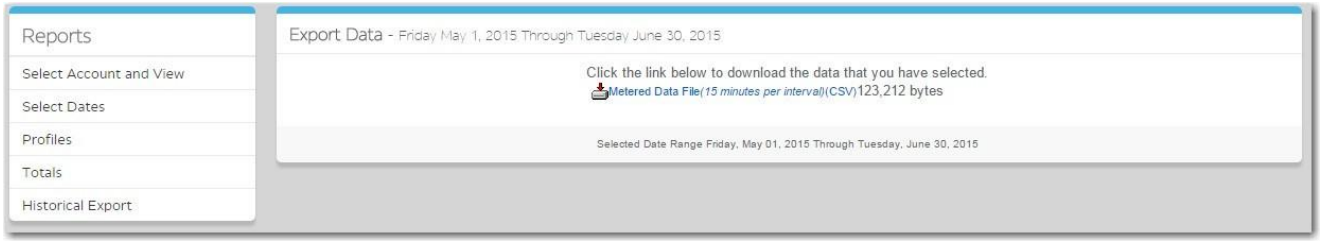
To export historical comparison information, follow these steps:

1. Click the **Historical Comparison** tab.
2. Select an account and a comparison range.

3. In the side menu, click **Historical Export**.



4. Select the file type.
5. Select the time interval.
   - **Metered Interval Length** - If this option is selected, time intervals that are specified in the database are used.
   - **Convert to Hourly Intervals** - If this option is selected, values are converted to hourly intervals.
6. Click **Continue**. The system generates the export file and displays a link to the file, as shown next. The file name reflects the file and interval formats, and the file size.



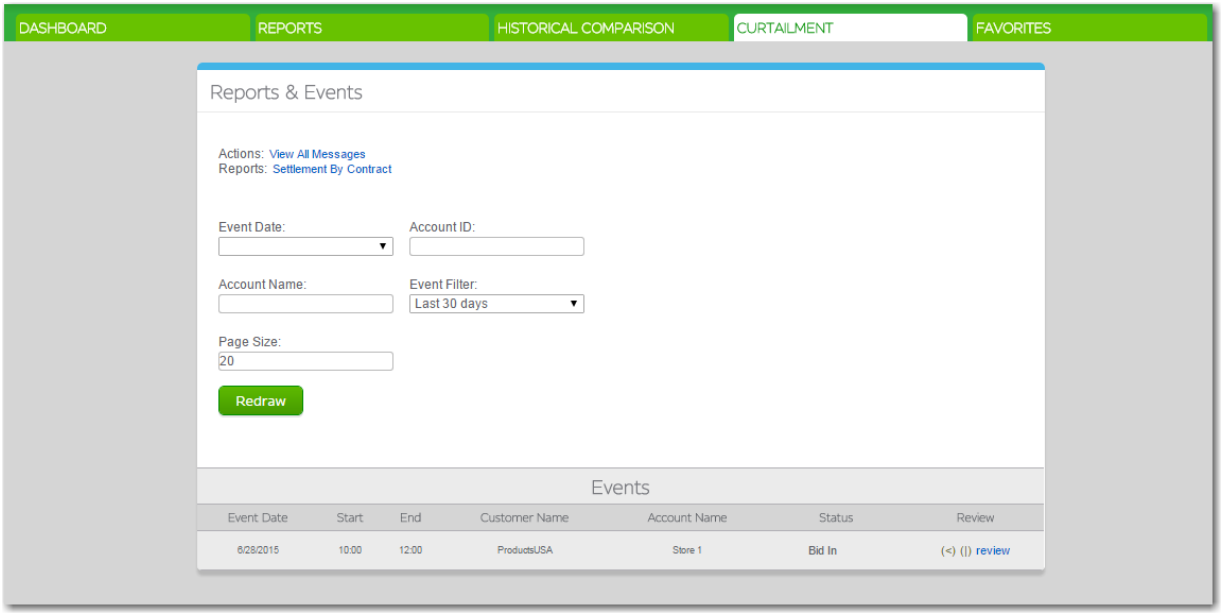
7. Click the file link to download the file.

Curtailment

Review and respond to curtailment events using the Curtailment tab. Notifications will be generated and sent to you when the utility initiates a curtailment event. You will also be able to review previous events and view settlement information.

Reports & Events

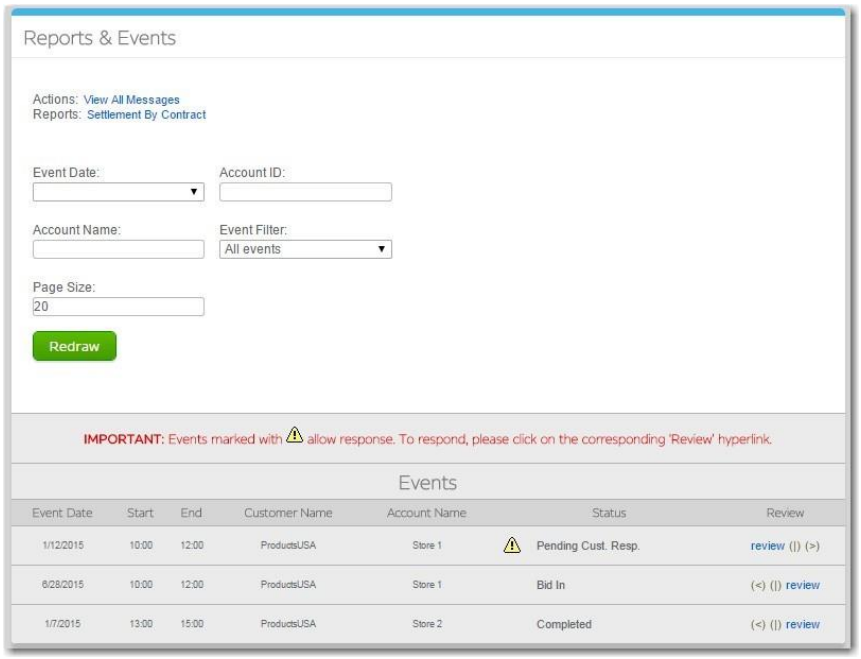
The Reports & Events screen is the first screen to appear when you click the Curtailment tab. This screen lists all events available within a designated time range.



To filter for events for a time range other than the default:

1. Select the event in the **Event Filter** field.
2. Click **Redraw**.

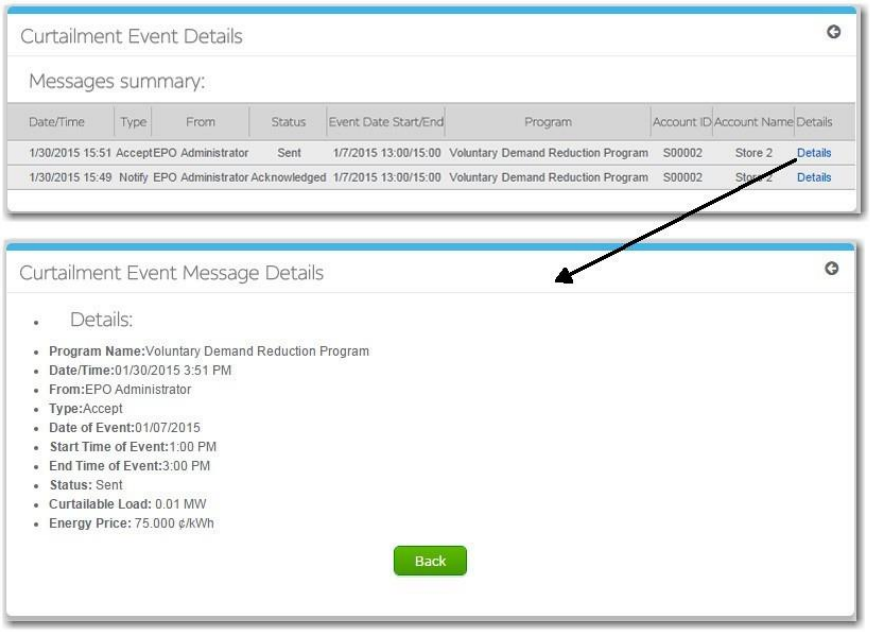
Matching data appears in the table for the selected time range. Events that require a response show a warning icon and an action in the Status column.



Click the **Actions** and **Reports** links at the top of the form to view associated information for the event.

View Messages

Click the **View All Messages** link to view a table that lists all message notifications that have been received.

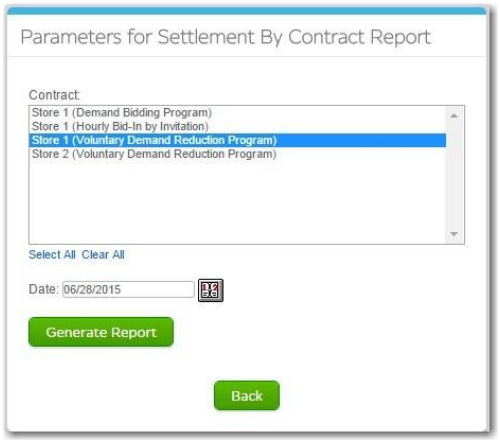


Click the **Details** link to view more information about a message. The details table appears at the bottom of the Curtailment Event Details report.

Click **Back** to return to the Message Summary table.

Settlement Reports

Next to **Reports**, click the **Settlement By Date** and **Settlement By Contract** links to find events at a specific date in the past.



You can display settlement reports for multiple accounts simultaneously by holding down the <Ctrl> key and clicking multiple items in the **Contracts** box.

Select a date range or a specific date by settlement contract. Click **Generate Report** to view the reports. The Reports & Events screen appears.

Curtailment Event Details

To review details for the event, click the **review** link in the **Review** column.

The Curtailment Event Details report appears for that event, as shown next.

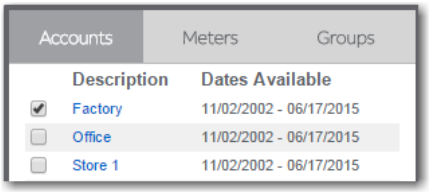
On this screen you can view a summary of the event details with a chart of the load amounts used over the 24 hour period of the event.

Appendix A— View and Edit Account Information

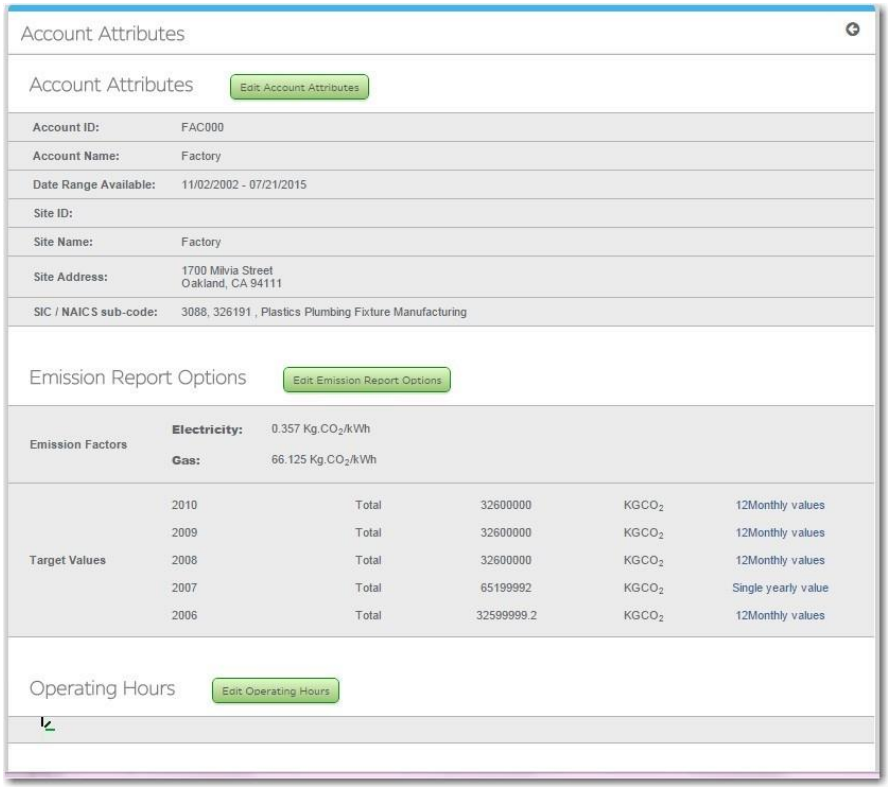
View Account Information

If the items in the account description column are displayed in blue type, you can view or edit them. This is an optional feature only available with permission from your administrator.

1. On the **Date Ranges/Accounts** screen, click **Accounts**.
2. Click the link in the entities box to view or edit its attributes.



The attributes screen for the type of entity appears.



Edit Account Information

On the Account Attributes screen you can perform the following functions:

- View and enter additional account or site contact information.
- Review attributes of accounts, such as rate, price stream, and meters.
- Maintain information for benchmarking, such as SIC code, size of the facility, and operating hours.
- Manage site contact information.

- Set target values for CO_2 emissions.
- Create alarms for notification of consumption levels exceeding specified ranges.

If the **Edit** button is not shown, you do not have access to the section.

The following table describes the attributes:

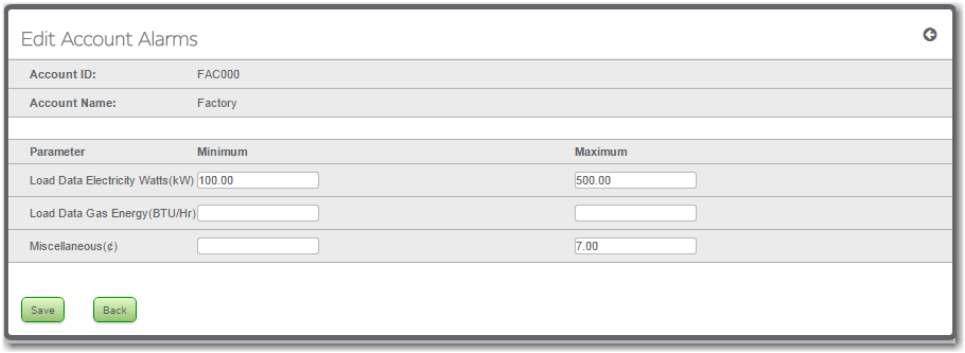
Account Attributes	Description
Account ID	Primary account identifier in the service provided by the utility.
Account Name	Descriptive name identifier.
Date Range Available	Range between the first interval data point and the last interval data point stored by the service.
Site ID	Typically, a unique alphanumeric identifier created by the utility to designate the account's physical location.
Site Name	Name for the building or site that is designated by the user.
Site Address	Postal address for a customer site.
SIC/NAICS Sub Code	Standard industrial Classification code, used by industry to classify businesses.
Emission Report Options	**Description**
Emission Factors	Average CO_2 emission rate of a given pollutant for a given source, relative to the intensity of a specific activity. The user can add CO_2 emission factors for each commodity with varying date ranges.
Target Values	Target values for total CO_2 emission as designated by the user for monthly or yearly time frames.
Operating Hours	**Description**
Operating Hours	Number of operating hours per week used for benchmarking/normalizing statistics."Hours of Operation" can be selected as a normalizing factor when the reports are displayed.
Rates	**Description**
Service	Usually designates the commodity type in the service, which is a more generic designation than the rate. There can be several services per account (e.g., an account could have an electric transmission and distribution service, electric generation service, and gas service).
Rate	Actual rate or tariff name or designation used by the commodity provider, usually the local utility. There can only be one rate per service type (e.g., the customer could only have one rate for the electricity generation service, but there could be a different rate associated with the electricity distribution service).
Comparison Rate	Additional rate on the estimated bill, provided for comparison purposes.

Normalization Factors	Description
Number Of Employees	Enter the number of employees for a location to use as a normalizing factor.
Square Feet	Enter a value for normalization by square feet area and a date range. For more information view “Normalization” on page 62.
Units Of Production	Enter a value for normalization units of production and a date range. For more information view “Normalization” on page 62.
Meters	**Description**
Meter ID	Meter number(s) that will correspond to the meters within an account.
Alarms	**Description**
Parameter	Stream of data that is evaluated for alarms.For more information see “Account Alarms” on page 82.
Minimum	If the imported data falls below this level, an alarm notification is issued. This value should be numeric and positive. If you enter text values or negative values, an error message will be displayed indicating that the values are not valid.
Maximum	If the imported data rises above this level, an alarm notification is issued.This value should be numeric and positive. If you enter text values or negative values, an error message will be displayed indicating that the values are not valid.
Account Managers	**Description**
Name	Individual that has been specified from the electric utility to be the contact person for this account.
Site Contacts	**Description**
Contact	Designate whether a user will appear in the *Site Contacts* list in the View Account Information screen.
Notify	Signify whether a user will receive alarms, when triggered. Note that only users designated as a site contact can receive alarms.
Name	Enter or edit the name of the contact, click the EDIT button.
Description	Usually contains the person’s job title or area of responsibility.
EMail	E-mail address for contact person shown here will be used for any alarms or reports that are issued.
EMail pager	E-mail pager information for contact person shown here will be used for any alarms or reports that are issued.
Phone	Enter or edit the telephone number of the contact person.
Fax	Enter or edit the fax number of the contact person.

Account Alarms

Use the Alarms feature to better manage a target for consumption. An alarm for an account will cross reference your most recent usage data with criteria you specify and will notify you via e-mail if you have exceeded the parameters.

This field displays the alarms associated with the account. Alarm limits are user defined and designated as minimums and maximums. When imported data is outside of this range, the alarm notification is sent to the site or account managers, depending on the configuration.



When your daily usage information downloads to your utility every night, the system will detect if an account has fallen below the minimum or surpassed its maximum as specified in the Alarms settings.

If the upload data indicates an account is out of range, the designated contact person will receive a system generated e-mail. The contact person can then make the necessary adjustments so consumption amounts remain within the desired parameters.

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