

Energy Profiler *Online*[™]

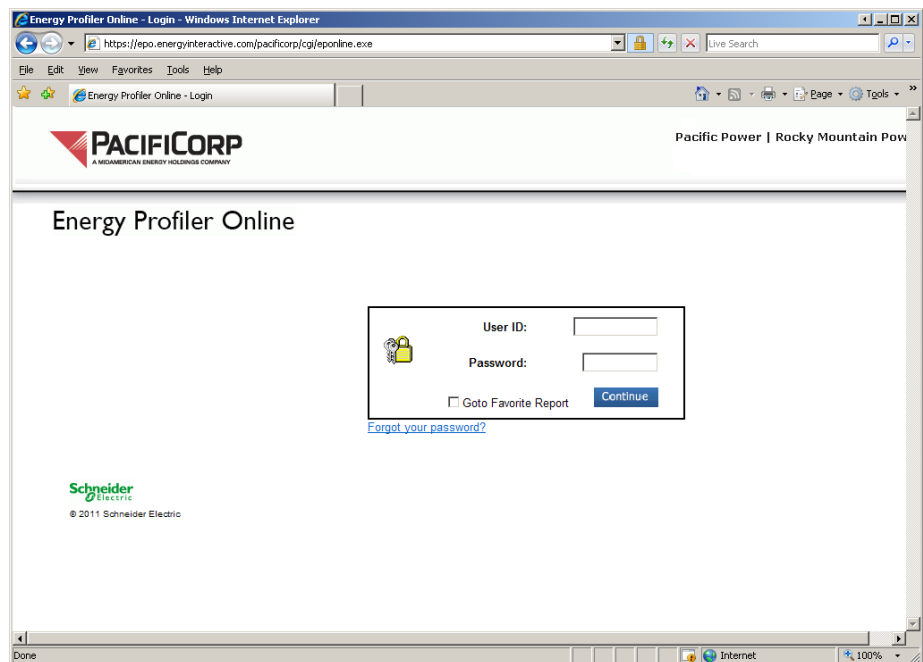
Quick Start Guide (for PacifiCorp Customers)
January, 2011

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Chapter I

Signing On to Energy Profiler Online



Enter your User ID and Password to sign on to Energy profiler Online™ (EPO). Click **Continue** to enter. If you would like to use your pre-defined Preferences, click the **Goto Favorite Report** checkbox.

For more information on editing Preferences, see chapter 13.

Chapter 2

Overview of Analysis Capabilities

EPO's various functions appear as buttons down the left side of the screen. The **Logout** button ends your EPO session and prevents another person from using the Back button on your browser to access previously viewed information. Once you click **Logout**, you must log on with your user ID and password to begin a new session.

The **Print** button appears on all table and graph pages and is used to generate a printer-friendly version (.pdf format) of the given table or graph. The **Help** button provides access to EPO's context-sensitive online help.

Following are descriptions of the various analyses you can perform for the date range and account(s) you select.

Summary Statistics: Generates for each account or group (but not accounts within groups) a separate table of statistics calculated on the selected date range of data. Each of the detailed statistics tables has a **Graph** button which takes you directly to the energy profile graph for the given account's or group's data.

Comparison Statistics: Creates a single table of statistics with a line item for each account or group (but not accounts within groups). These statistics include some of those generated in the Summary Statistics, but appear together to facilitate a direct comparison of accounts or groups.

Average Profiles: Displays average load profiles for the account(s) or group(s) selected (but not accounts within groups) from daily interval data. The default graph shows lines for average weekday, average weekend, and coincident peak day for the selected date range. You can also display on the same graph a profile for any specific day within the selected date range.

Comparison Graph: Displays average load profiles for the account(s) or group(s) selected (but not accounts within groups) as well as an average of all accounts or groups selected.

Load Duration Curve: Displays a graph showing for what percentage of time the load persisted at a given level for the selected account(s). If multiple accounts are selected, an average of the selected accounts is also shown.

Load Profiles: Displays single-day, weekly, or Monthly energy profiles for each channel of data associated with the selected account(s).

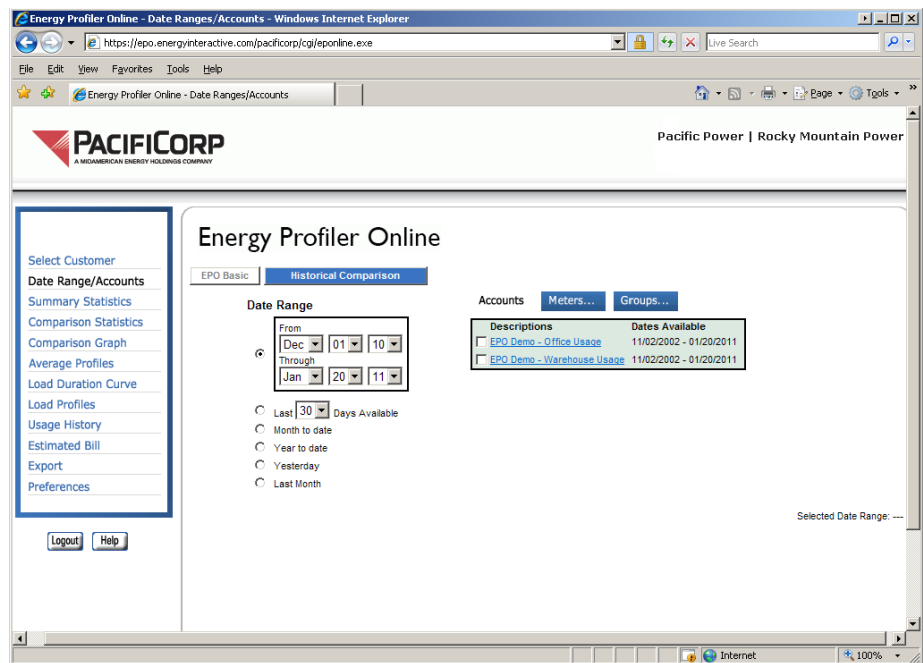
Usage History: Displays a bar chart showing total energy usage and peak demand for the account(s) or group(s) for the selected date range. You can view the energy usage on a weekly or monthly basis. You can also view the usage on a daily basis by week or month by clicking the **Weekly Detail** or **Monthly Detail** buttons respectively.

Estimated Bill: Generates a bill for the selected account(s) based on the specified date range using available billing information.

Export: Allows you to download data in a text file for the selected accounts and date range. The download file is available in CSV, CMEP or Vertical format – a comma separated format compatible with commercially available spreadsheet software packages such as Excel.

Chapter 3

Selecting Accounts & Groups



From this screen you define the data to be used in the various functional sections. You may select accounts individually by clicking the corresponding check boxes. If you choose more than one account, analyses such as average profiles and load duration curves will provide an average of all selected accounts in addition to graphs for the individual account(s).

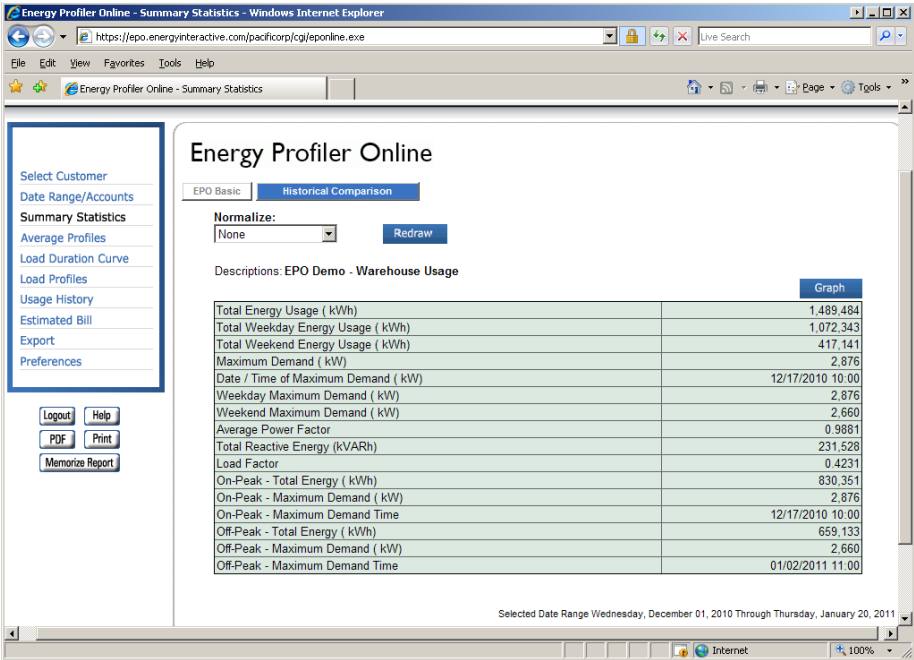
If you have a set of accounts you analyze regularly, you can assign them as elements in a group. Clicking the **Groups** button takes you to another screen where you can indicate which account(s) to include in a given group. Then when you run analyses on the group, data for all of the associated accounts will be included in the table or graph.

Note that data for component accounts are aggregated before any calculation takes place for the group as a whole. Accounts can be assigned to more than one group.

Note that the account(s) and date range you select here will be used in all of the various analyses in EPO. You must return to this screen to change your selections. The data available for selection are restricted to the dates indicated by the **Date Range** field when you first arrive at this screen. If you select a range that is outside that of the available data, you will receive an error message and request that you select a valid date range.

Chapter 4

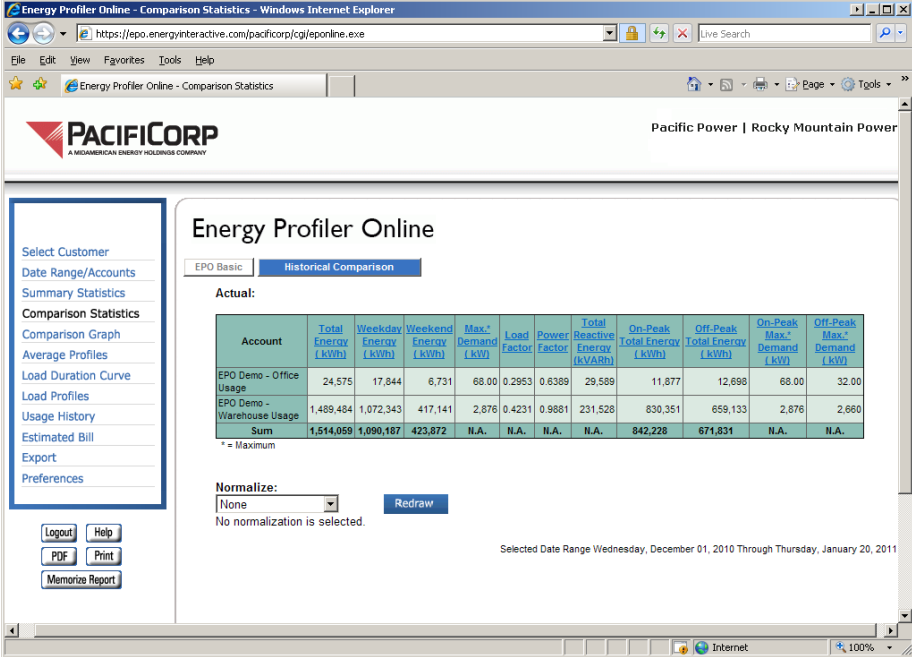
Summary Statistics



This page presents a variety of statistics for the selected accounts or groups (but not accounts within groups) within the selected date range. Each of the detailed statistics tables has a **Graph** button which takes you directly to the energy profile associated with the given account or group. This graph is the same as would be generated from the **Average Profiles** page. For groups, the individual account data (which make up the groups) are aggregated before the statistics are calculated. Thus within a given group, all of the accounts with kWh data would be summed together at an interval level in order to establish an aggregated version of the data. The peak demand is therefore the peak demand coincident across the component accounts within a group. If data are missing in the selected date range, an asterisk will appear in the data table. To change the data that are used to calculate statistics and other results, click the **Date Range/Accounts** button.

Chapter 5

Comparison Statistics

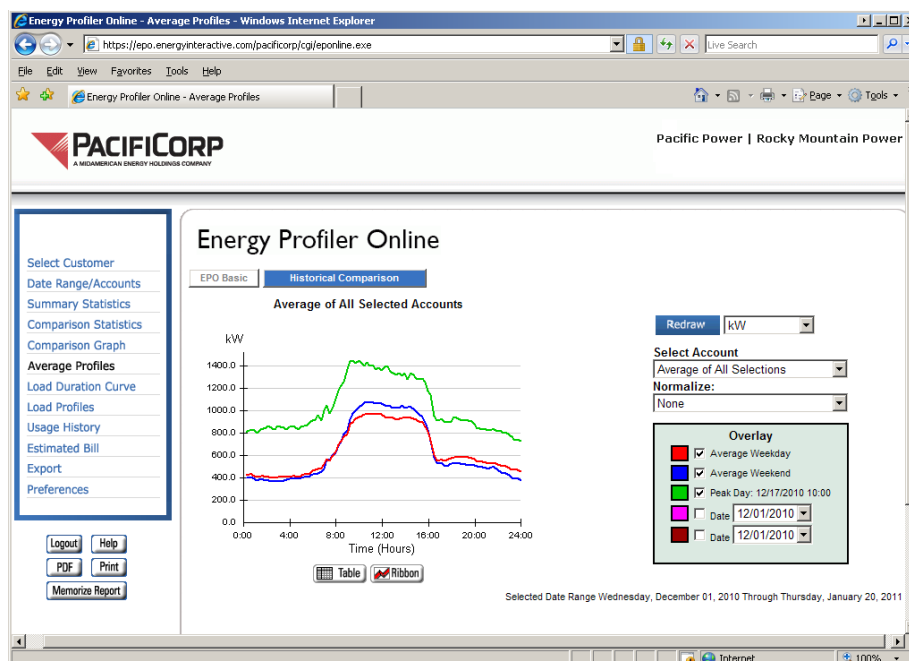


This section presents a single table of statistics for the selected account(s) or group(s) (but not accounts within groups) for the selected date range. For groups, individual account data are aggregated before the statistics are calculated. For example, all of the kWh data for accounts within a given group would be summed together at an interval level in order to establish an aggregated version of the data for the group as a whole.

If data are missing in the selected date range, an asterisk will appear in the data table. To change the data that are used to calculate statistics and other results, click the **Date Range/Accounts** button.

Chapter 6

Average Profiles



This section calculates and displays average load profiles for the account(s) or group(s) selected. The default graph displays lines for average weekday, average weekend, and coincident peak day for the selected date range.

Use the **Overlay** window to specify which items appear on the graph by checking or un-checking the corresponding boxes. The average weekday and average weekend load profiles represent the average of all such day types within the date range selected. The peak day is the day with the greatest peak demand within the date range selected for the group or account being displayed. You can also display a specific date in the selected range. To see the changes made by selecting the check boxes, you must click the **Redraw** button.

If multiple accounts or groups are selected for display, then the first average profile displayed is an average of all those selected accounts or groups. To view profiles for individual accounts or groups, use the

drop down list box labeled either **Select Account** or **Select Group**, and then click on the **Redraw** button.

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

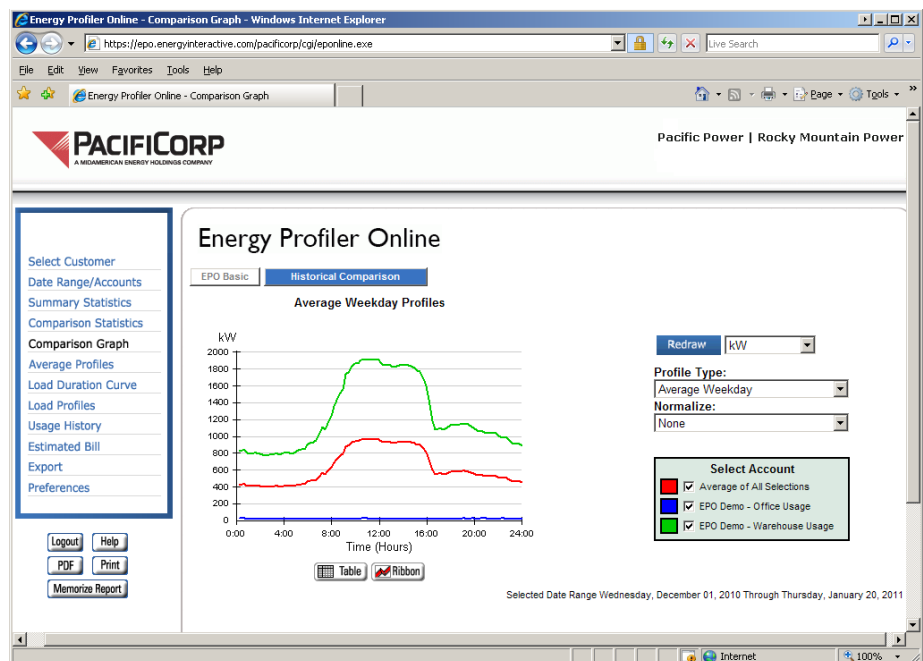
You can use the **View Table** function to display a Tabular Report of Data of the selected information. Selecting **Continue** from this screen allows you to return to the **Average Profiles** page.

To view line graphs as opposed to ribbon graphs or vice versa, click on the **Lines** or **Ribbons** button.

If other units are available, such as kVAR, a button will appear that you can use to switch to a graph that displays this information.

Chapter 7

Comparison Graph

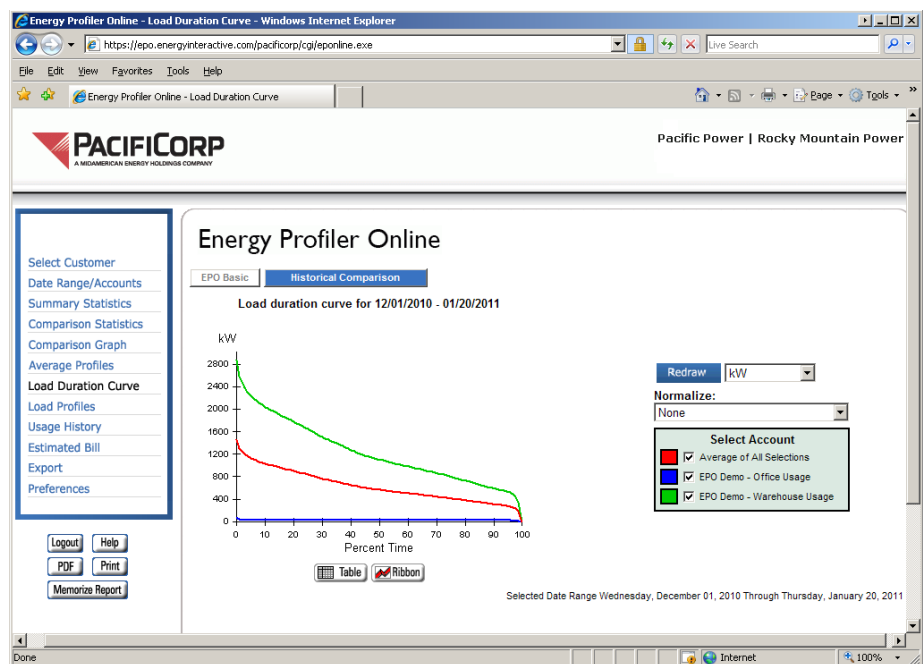


This section displays a graph depicting load profiles for the accounts and date range selected as well as an average of all the selected accounts. You can choose from Average Weekday, Average Weekend and Peak Day graphs by choosing from the **Profile Type** menu. Select which accounts are to appear on the graph using the corresponding checkboxes under **Select Account**. Click the **Redraw** button to view your changes.

You can use the **View Table** button to display a **Tabular Report of Data** for the selected information. Selecting **Continue** from this screen allows you to return to the **Comparison Graph** page. Choose the **Line** button to change the display from a ribbon graph to a line graph. Click the **Ribbon** button to change back to ribbon graphs.

Chapter 8

Load Duration Curve

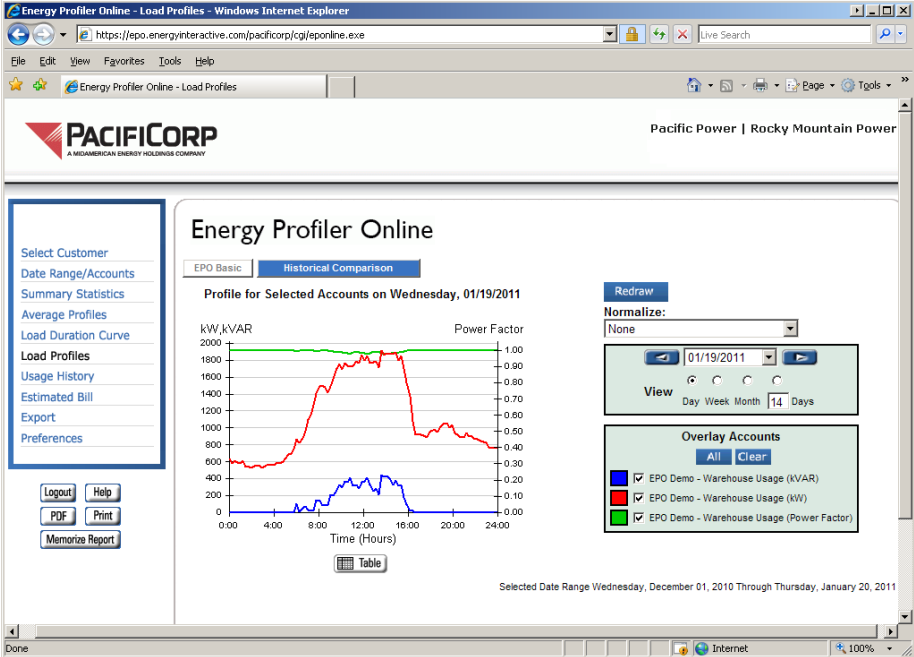


This section displays a graph for each account or group selected depicting the percentage of time the load persisted at a given level during the selected date range. If multiple accounts were selected, an average of those accounts is also provided. You can choose which lines to display by checking the corresponding checkboxes in the **Select Account** window. Click the **Redraw** button to view your changes.

You can use the **View Table** button to display a **Tabular Report of Data** for the selected information. Selecting **Continue** from this screen allows you to return to the **Load Duration Curve** page. Choose the **Line** button to change the display from a ribbon graph to a line graph. Click the **Ribbon** button to change back to ribbon graphs.

Chapter 9

Load Profiles



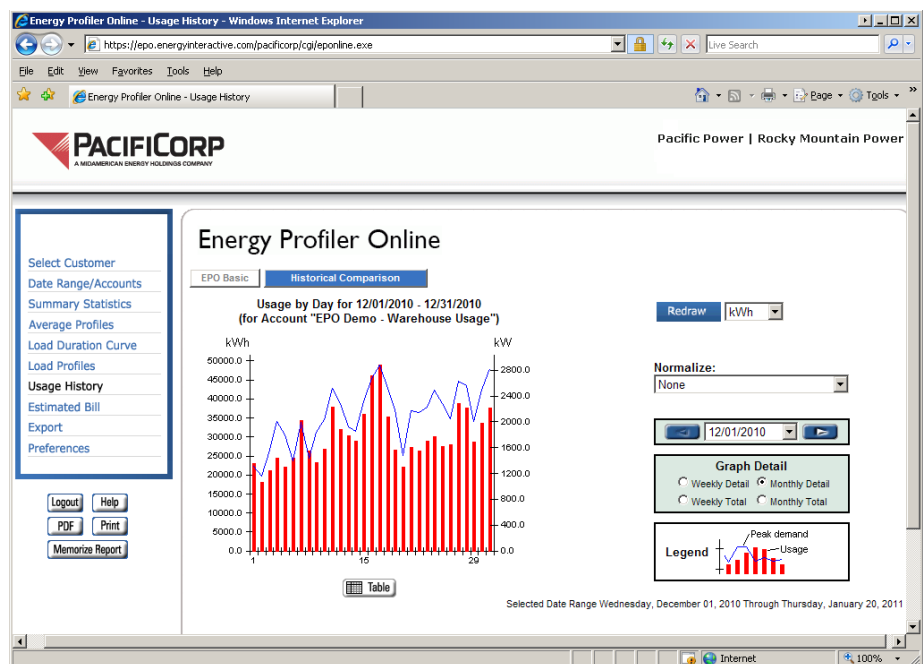
This section displays a single day, week, or month interval data on a 24-hour X-axis. If there are multiple channels of data for a given account and date, they can be individually selected for display using the corresponding checkboxes in the **Overlay Accounts** window. Note that if multiple data types are shown, there may be multiple labels on the Y-axis.

You can move between dates in sequence by clicking on the arrow buttons, or you can choose a specific date from the drop-down list. You must click the **Redraw** button to view your changes.

The **View Table** button allows you to view the displayed data in tabular format. To return to the graph, click the **Continue** button. The **Line** button will change the graph from a ribbon graph to a line graph, and the **Ribbon** button will change the display back.

Chapter 10

Usage History



The Usage History section displays two types of information for the selected account(s) or group(s) within the selected date range: the total energy usage (bar chart) and the peak demand (line graph).

Graph Detail

You can choose to view usage data in one of five formats:

Weekly Detail – shows a week of usage data by day.

Monthly Detail – shows a month of usage data by day (see figure above).

Weekly Total – shows usage data totaled by week; one bar on the chart represents one week's total usage.

Monthly Total – shows usage data totaled by month; one bar on the chart represents one month's total usage.

After selecting one of these options, click the **Redraw** button to generate the chart based on your selection.

Date

The date shown in the drop down list acts as the starting point for the data shown in the chart. You can select a date directly from the drop down list, or you can use the arrow buttons to advance the date forward or back by one increment. The increment is determined by what option you have chosen under **Graph Detail**. For example, the arrow buttons on a *Weekly Detail* chart will advance the date by one week, and so on.

Chapter 11

Estimated Bill

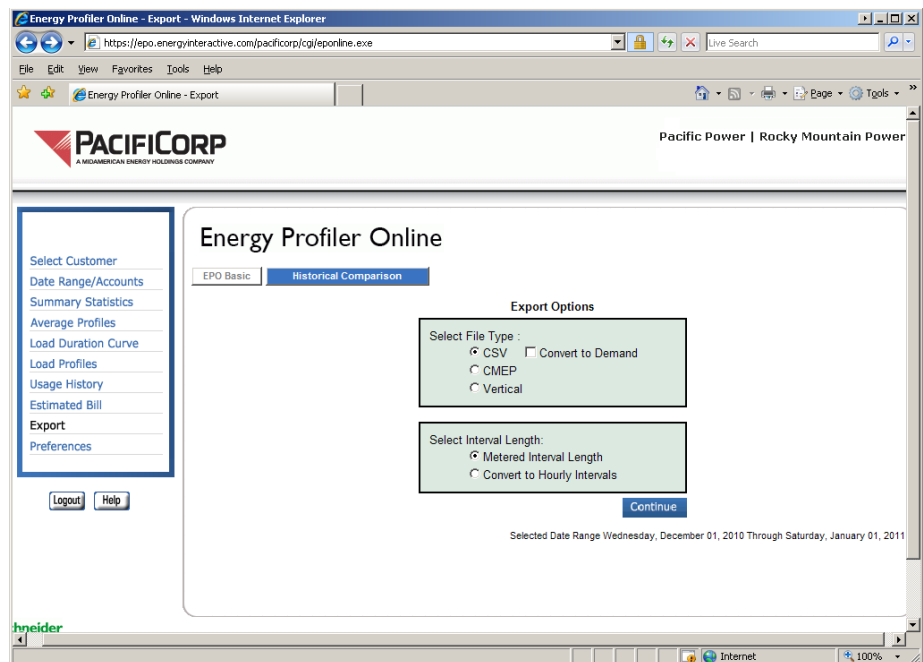
Charges	Quantity	Price	Total
All			
Demand			
Cycle Peak Demand @ 12/17/2010 10:00	2,876 kW		
On-Peak @ 12/17/2010 10:00	2,876 kW	\$0.00000000	\$0.00
Off-Peak @ 12/18/2010 10:30	2,516 kW	\$0.00000000	\$0.00
Demand Charge	2,876 kW		\$0.00
Energy			
On-Peak	537,181 kWh	\$0.00000000	\$0.00
Off-Peak	430,675 kWh	\$0.00000000	\$0.00
Energy Charge	967,856 kWh	\$0.00000000	\$0.00
Reactive Energy	185,190 kVARh		
Reactive Adjustment	185,190 kVARh	\$1.00000000	\$185,190.00
Bundled Electric Service			\$185,190.00

This option generates an estimated bill for the account(s) and date range selected. The bill includes a summary at the top and detailed information for each account below. Clicking the account numbers in the summary section will take you directly to the detail section of the bill for that account.

Note that the rate used to calculate the estimated bill is determined by your EPO administrator.

Chapter 12

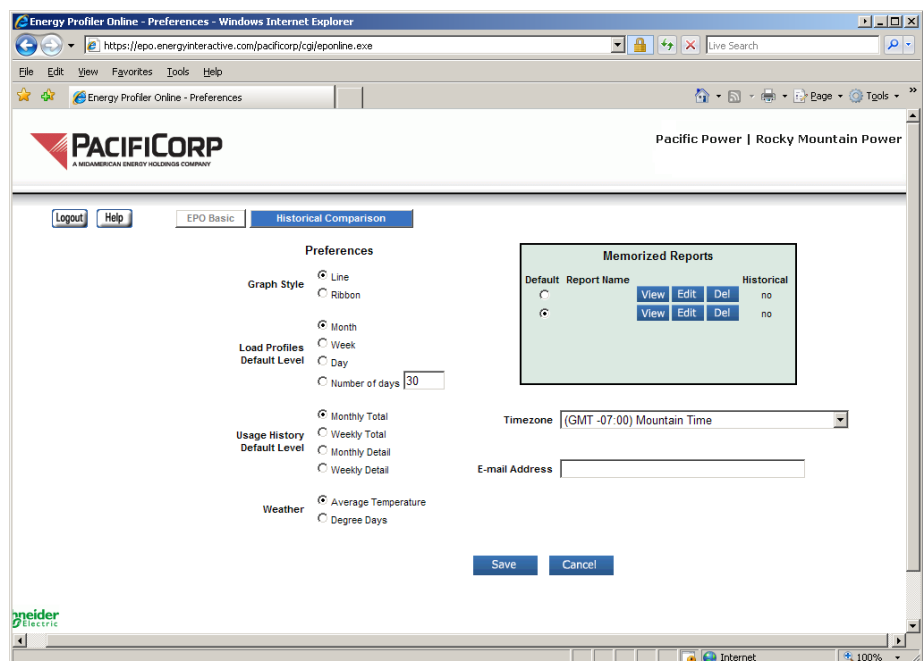
Download Data



By clicking the applicable data file link, you can download interval data in a text file for the selected account(s) or group(s) for the selected date range. The download file is provided in CSV, CMEP, or Vertical format, a comma separated format compatible with commercially available spreadsheets and other software packages such as Excel.

Chapter 13

Preferences



The **Preferences** screen gives you the ability to pre-define date ranges, account selections, and initial report options. When checked, the **Go to Favorite Report** option on the login screen allows the user to see a given report immediately upon logging in. This function is especially useful for users who regularly check the same information.

Chapter 14

Definitions of Statistics

Total Energy Usage

The total energy consumed by the Account or Group during the selected date range.

Total Weekday Energy Usage

The total energy consumed by the Account or Group on weekdays during the given date range.

Total Weekend Energy Usage

The total energy consumed by the Account or Group on weekend days during the given date range. Weekends are defined as Saturdays and Sundays.

Total On-Peak Energy Usage

The total energy consumed by the Account or Group during on-peak hours during selected date range. On-peak and off-peak periods are defined by your utility.

Total Off-Peak Energy Usage

The total energy consumed by the Account or Group during off-peak hours during selected date range. On-peak and off-peak periods are defined by your utility.

Peak Weekday Demand

The greatest observed demand value for the Account or Group in one interval on a weekday (Mondays through Fridays).

Peak Weekend Demand

The greatest observed demand value for the Account or Group in one interval on a weekend (Saturdays and Sundays).

On-Peak Demand

The interval having the highest demand value during on-peak hours. For Accounts, all Channels are aggregated to determine 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 your utility.

Off-Peak Demand

The interval having the highest demand value during off-peak hours. For Accounts, all Channels are aggregated to determine 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 your utility.

Date/Time of On-Peak Demand

This is the date and time of the peak indicated in the On-Peak Demand row.

Date/Time of Off-Peak Demand

This is the date and time of the peak indicated in the Off-Peak Demand row.

Maximum Reactive Demand

The greatest observed reactive demand value (kVAR) for the Account or Group in one interval. 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 a system peak or any 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

Load Factor is a 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.