



CustomerConnect V3.0 User Guides



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Revision History

Name	Date	Reason for Changes	Ver./Rev.
Duc Duy Tran	Nov 28 th 2013	First draft	1.0
Duc Duy Tran / Tali Alexander	Dec 2 nd 2013	Consolidated comments for Joe Mahony following R&D technical review	1.1
Martin Cathrae	Jan 6 th 2015	Updating to 3.0	1.2

Glossary

CC	CustomerConnect
NAESB	North American Energy Standards Board
SMS	Short Message Service
TOU	Time Of Use
UOM	Unit Of Measure

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1. *Welcome to CustomerConnect*

Take control of your utility costs and consumption with CustomerConnect. This web portal empowers you to understand your utility consumption and lower your utility bill.

The CustomerConnect portal is composed of **HomeConnect**. It provides access to special tools that help you identify consumption trends, so you can quickly pinpoint opportunities to reduce usage. This module includes a suite of reports to help you understand your consumption patterns better than ever before, as well an Education Library that includes articles about cost savings and programs sponsored by your utility.

1.1. *Scope*

This document covers the operation of the CustomerConnect user portal and will allow you to configure your account and preferences and utilize the user portal to your benefit. It is meant to provide information to end users that are looking to configure and manage their user portal and to help them utilize its features. This document does not cover installation, deployment or upgrade aspects of the CustomerConnect software or any utility specific content such as rate plans or conservation programs details. It neither covers the operation of the administrator guide.

1.2. *Intended audience*

This document is intended primarily for users of the CustomerConnect software as additional information and support to the online help provided in the Library. It is also intended for administrators and system owners of the CustomerConnect application needing to understand software behavior of the user portal and the impact of properties and configurations from the administrator portal. It is meant to provide simple and user-friendly information to help the audience use the CustomerConnect web portal on a daily basis. The audience is expected to have a minimum of software skills that enable them to navigate a web portal and must have in their possession information about their utility that may be required for them to register their web portal account.

2. Getting Started

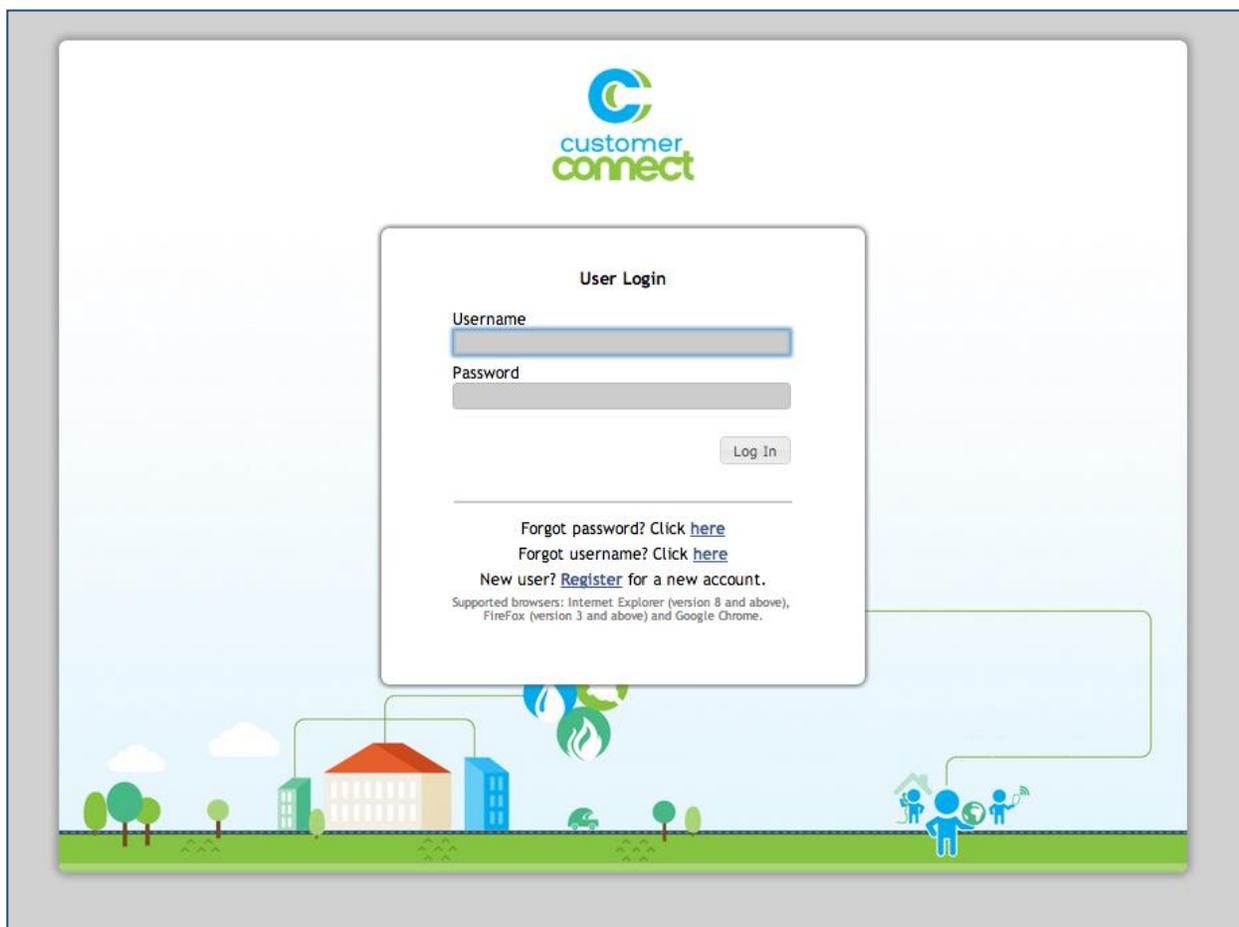


Figure 1 – CustomerConnect User login

To get started you may need to register with CustomerConnect. Some utilities provide you with a link from their customer portal into CustomerConnect. Accessing this link will automatically create your user so you can ignore the following registration instructions.

1. Visit the login/register page and click Register.
2. Fill out the form. Choose a username and a password. Select a security question.
3. Be sure to include all the information required, including your account number and usage and/or billing details.
4. Click Register.

You will receive an email with instructions for completing the registration. Follow the instructions and use CustomerConnect to analyze your usage and access reports to help reduce your costs and consumption.

3. HomeConnect

CustomerConnect's HomeConnect module takes the granular data collected by your smart meter and presents it in an easy-to-understand format. It puts you in touch with your smart meter data and lets you measure, monitor, and manage your resource consumption anytime, online. Visit HomeConnect regularly to view and understand your changing consumption patterns, monitor your utility costs and compare them to past periods and even weather conditions, set notifications that warn you of excessive use or excessive costs, and learn more about smart grid technology both within your utility and within your region.

As you explore HomeConnect's functions, we hope you gain valuable and actionable insight into your consumption patterns, modify your user profiles to include additional account users, and learn how to easily export your usage data to Green Button, PNG and CSV formats.

Use HomeConnect to:

- *customize your preferences and account settings*
- *understand and monitor your utility costs*
- *analyze your consumption history and patterns*
- *view notifications from your utility and set your own*
- *find information from your utility and online help*

3.1. Customizing your preferences and account settings

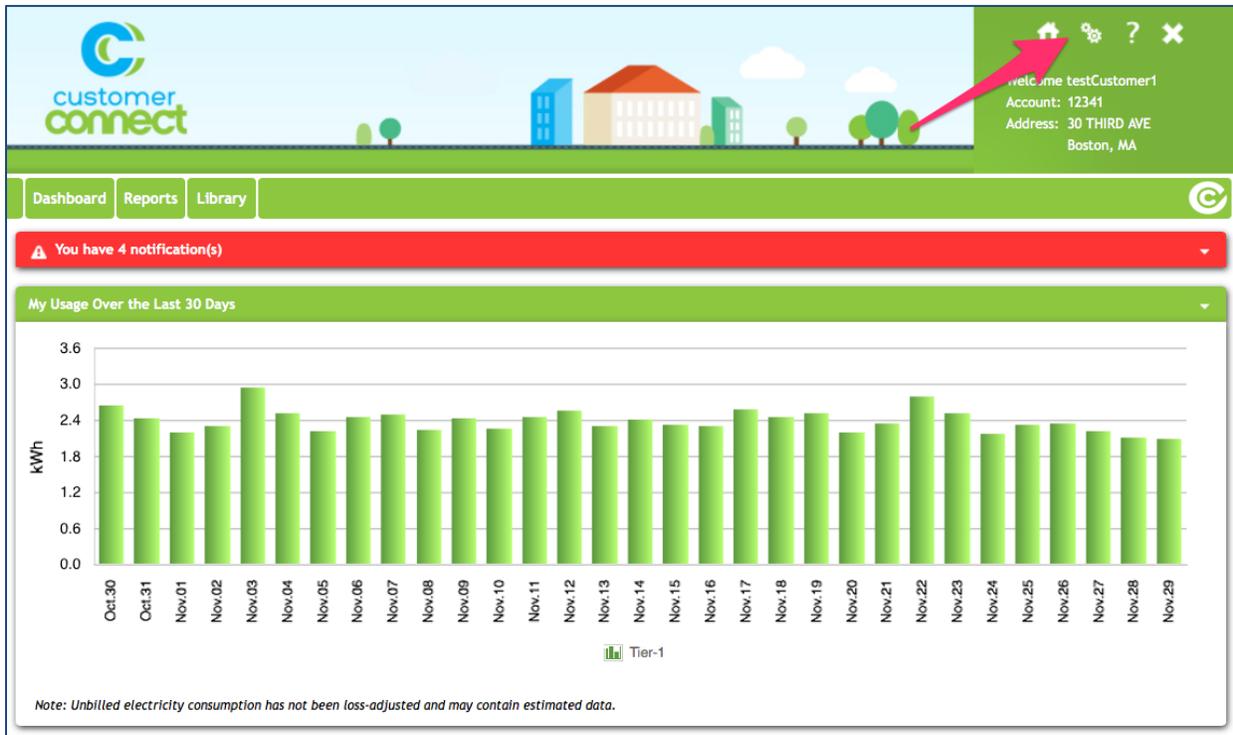
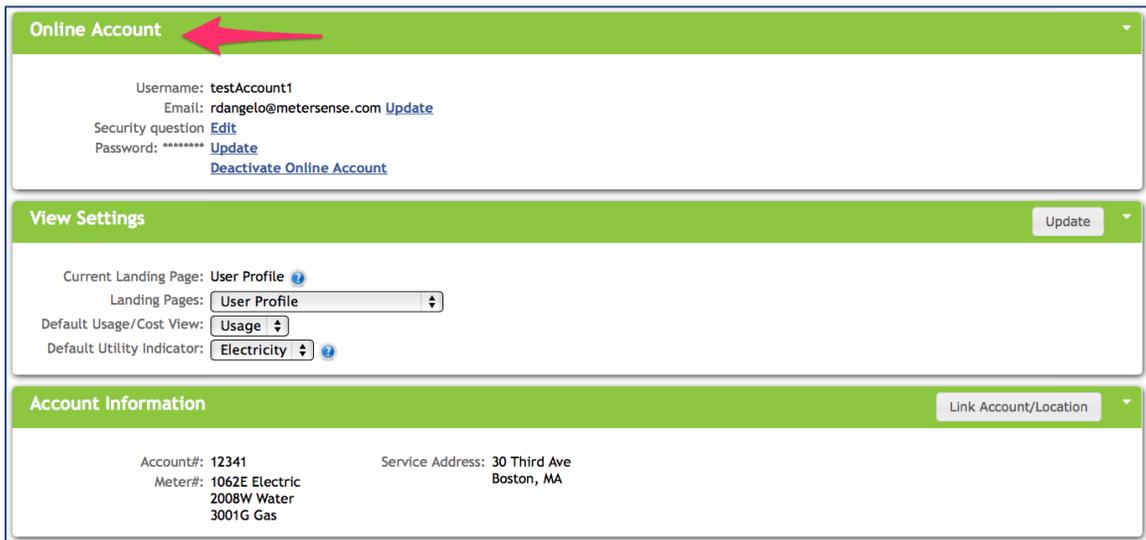


Figure 2 – Landing page, My Account button

You can easily manage your account settings, control and configure various aspects of your user experience via the **My Account** settings window. Here you can modify your **Online Account** data, change your default **View Settings** and adjust the number of users associated with your account.

3.1.1 Changing your Online Account data



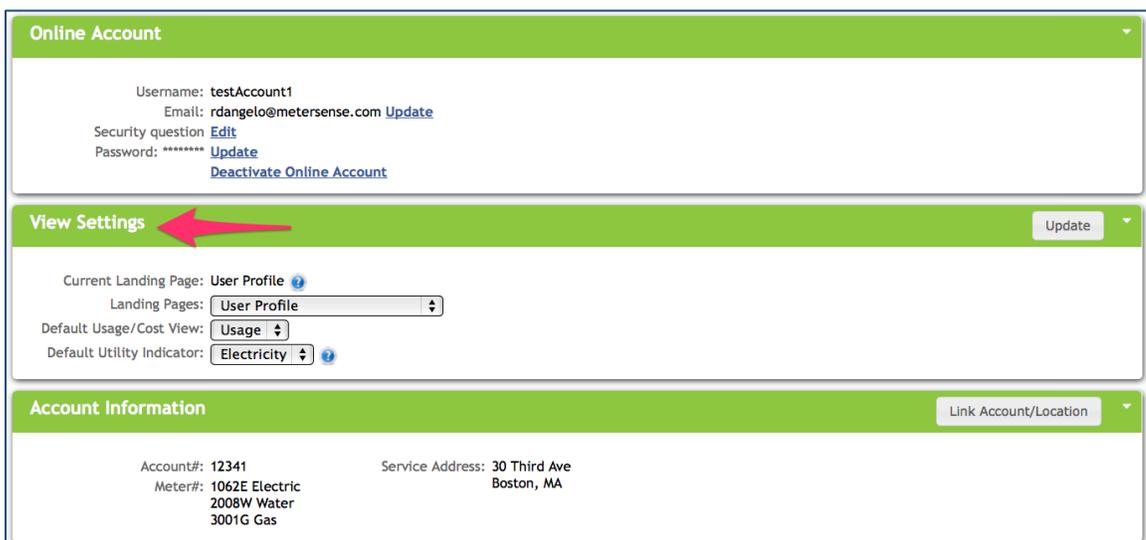
The screenshot shows the 'Online Account' preferences page. The 'Online Account' heading is highlighted in green and has a red arrow pointing to it. Below this heading, the user's account details are listed: Username: testAccount1, Email: rdangelo@metersense.com (with an 'Update' link), Security question: Edit, Password: ***** (with an 'Update' link), and a 'Deactivate Online Account' link. The 'View Settings' section is also highlighted in green and has an 'Update' button. It contains settings for Current Landing Page (User Profile), Landing Pages (User Profile), Default Usage/Cost View (Usage), and Default Utility Indicator (Electricity). The 'Account Information' section is highlighted in green and has a 'Link Account/Location' button. It displays Account#: 12341, Meter#: 1062E Electric, 2008W Water, 3001G Gas, and Service Address: 30 Third Ave, Boston, MA.

Figure 3 – Online Account preferences

Click on the **My Account** icon on the home screen. 

Under the **Online Account** heading, you may modify your email address, security question and password, and deactivate your account.

3.1.2 Switching your View Settings



The screenshot shows the 'View Settings' preferences page. The 'View Settings' heading is highlighted in green and has a red arrow pointing to it. Below this heading, the user's account details are listed: Username: testAccount1, Email: rdangelo@metersense.com (with an 'Update' link), Security question: Edit, Password: ***** (with an 'Update' link), and a 'Deactivate Online Account' link. The 'View Settings' section is also highlighted in green and has an 'Update' button. It contains settings for Current Landing Page (User Profile), Landing Pages (User Profile), Default Usage/Cost View (Usage), and Default Utility Indicator (Electricity). The 'Account Information' section is highlighted in green and has a 'Link Account/Location' button. It displays Account#: 12341, Meter#: 1062E Electric, 2008W Water, 3001G Gas, and Service Address: 30 Third Ave, Boston, MA.

Figure 4 – View Settings preferences

The **View Settings** heading lists the options you have to customize your display in CustomerConnect. You can set your preferred landing page. This is the page that will

appear every time you log in to CustomerConnect or click on the Home icon  appearing the top right of your screen. Modify this by choosing a landing page from the list presented in the **Landing Pages** drop-down menu.

Click **Update** to confirm your revised settings. You may also be able set your default display unit between **Usage** and **Cost**. Your utility may have disabled viewing by cost. In that case, the option will not be available. This will define the default unit for all your consumption reports. Finally, you can also define your preferred commodity via the utility rate indicator in the case your account includes multiple utility commodities such as electricity and gas.

3.1.3 Adding an Account User



Username	Email	Register Date

Page 1 of 1

No records to view

Add user Delete user

Figure 5 – Account Users preferences

HomeConnect enables you to identify a number of users within your household. By doing so, you can give other members of your household access to consumption data and notifications and involve them in your household's overall conservation efforts. Once registered in the system, each user will have the ability to set notifications and view and export reports and account data. They will not be able to view or modify other account users.

1. From the **My Account** page, scroll down to the **Account Users** heading.
2. Click **Add User**.
3. Complete all fields in the **Add User** form and click **Save** to confirm.

3.2. Understanding and monitoring your utility costs

Because HomeConnect presents more meter data than ever before, it enables you to build the most in-depth profile of your consumption patterns possible. Use HomeConnect to track your household commodity-use habits on an hourly, daily, weekly and monthly basis, and to determine almost immediately how changes to your consumption patterns affect the quantity of energy used in your home, and the amount of money you spend each day on your utility bill.

By delivering such a detailed profile of your household energy use patterns into your hands, HomeConnect brings the value and intelligence of your utility's smart metering infrastructure directly into your home.

3.2.1 Dashboard

Appearing as the first option in the HomeConnect navigation menu is the Dashboard, which presents a summary for the user's account. It is also the default landing page of CustomerConnect if no other options have been selected.

3.2.1.1 My Usage

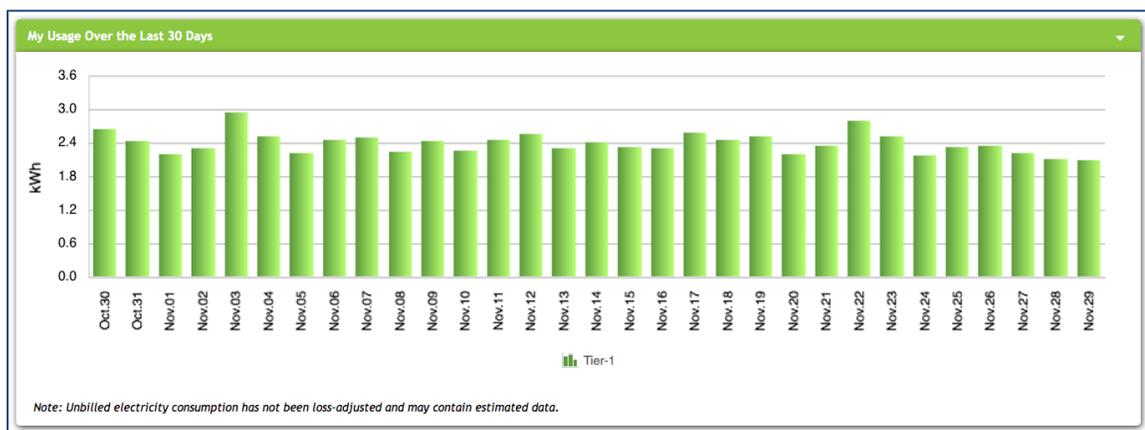
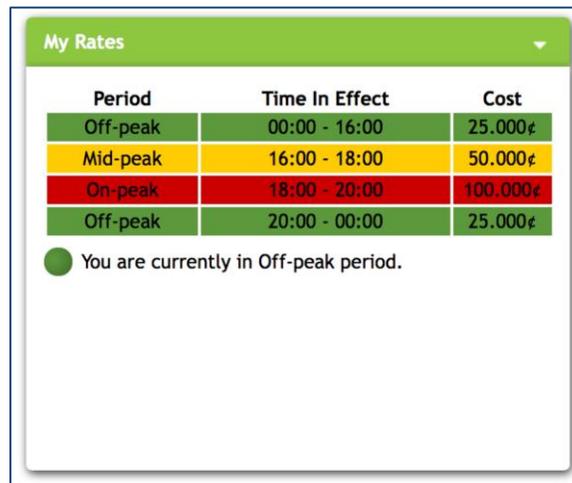


Figure 6 – My Usage widget

Found on the Dashboard screen, the **My Usage** widget is a graphical display of the past 30 days of your commodity consumption as recorded by your smart meter. The commodity shown will depend on your selection regarding your default landing page. Each day is represented by a vertical bar on a graph. Your utility has color-coded segments of each bar to indicate the rate segment during which your consumption occurred.

1. Mouse over any colored section of a daily bar to discover exactly how much electricity, gas or water was consumed during that period of that day.
2. Click on any daily bar to view an hourly profile of consumption during that day.

3.2.1.2 My Rates



The screenshot shows a widget titled "My Rates" with a dropdown arrow. It contains a table with three columns: "Period", "Time In Effect", and "Cost". The table lists four periods: Off-peak (00:00 - 16:00, 25.000€), Mid-peak (16:00 - 18:00, 50.000€), On-peak (18:00 - 20:00, 100.000€), and Off-peak (20:00 - 00:00, 25.000€). Below the table, a green circle indicates the current period: "You are currently in Off-peak period."

Period	Time In Effect	Cost
Off-peak	00:00 - 16:00	25.000€
Mid-peak	16:00 - 18:00	50.000€
On-peak	18:00 - 20:00	100.000€
Off-peak	20:00 - 00:00	25.000€

● You are currently in Off-peak period.

Figure 7 – My Rates widget

Your utility bills for commodities using a variety of rates, including, in some cases, rates based on dynamic pricing periods (time-based). That means that when you consume electricity, gas or water during peak-demand periods, you pay more per unit of consumption than you would during off-peak periods. Depending on your utility's rate structure, this widget may show you the rate structure applicable (determined by your utility) and, in the case of dynamic pricing such as Time of Use (TOU), you will always be able to determine the current cost of the commodity.

The **My Rates**¹ widget shows the structure of the rate you are currently on. This can include the times of day at which your utility's off-peak and on-peak periods begin and end. It also shows the period of the day in which you are currently situated. This information can be used in conjunction with data displayed in the **My Usage** widget to understand how much money your household spends on commodity use during any given day.

¹ When applicable. Your utility may chose to show a different content in this widget.

3.2.1.3 My Progress

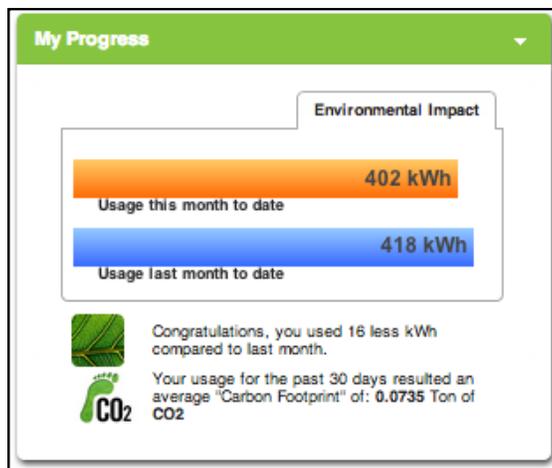


Figure 8 – My Progress widget

The **My Progress** widget gives you a quick snapshot of your Use Profile for the current billing period. It displays two bars:

- usage for this month to date,
- usage for last month to date.

The widget also tells you how your consumption in the month to date compares to that of a month ago and, depending on the utility's configuration, shows what that change means in terms of impact to the environment.

3.2.2 Rate Period icon

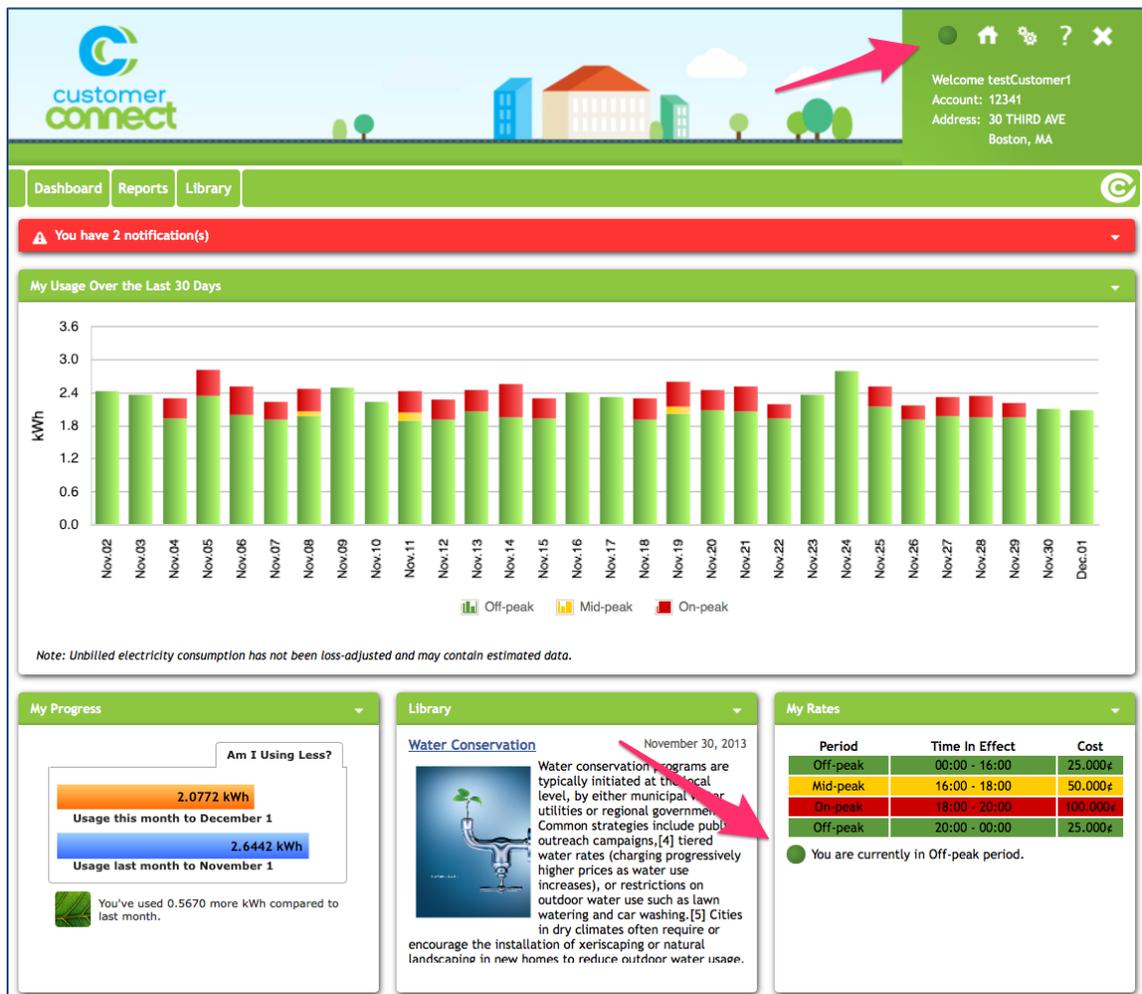


Figure 9 – Rate period icon

The **Rate Period**² indicator [● You are currently in Off-peak period.] may appear in the upper right-hand corner of every HomeConnect screen. It provides you with a quick reference to the period of the day in which you are currently situated. Consult this icon to see whether you are paying on- or off-peak usage rates, and to make informed choices about your commodity use accordingly. Do not be alarmed if you do not see this indicator— it simply means you are not on any dynamic pricing rates and the indicator has been disabled.

² This feature is applicable to utilities providing multiple tiered rates such as peak pricing or TOU.

3.2.3 Choosing the best rate for you

Choosing the best rate for you may allow you to save money on your utility bill. If your utility offers multiple rate plans you will be able to compare those rate plans and how they affect your costs. This is possible through the **Rate Comparison** reports available in CustomerConnect. From the main navigation menu simply select the Rate Comparison for the commodity you wish to evaluate.

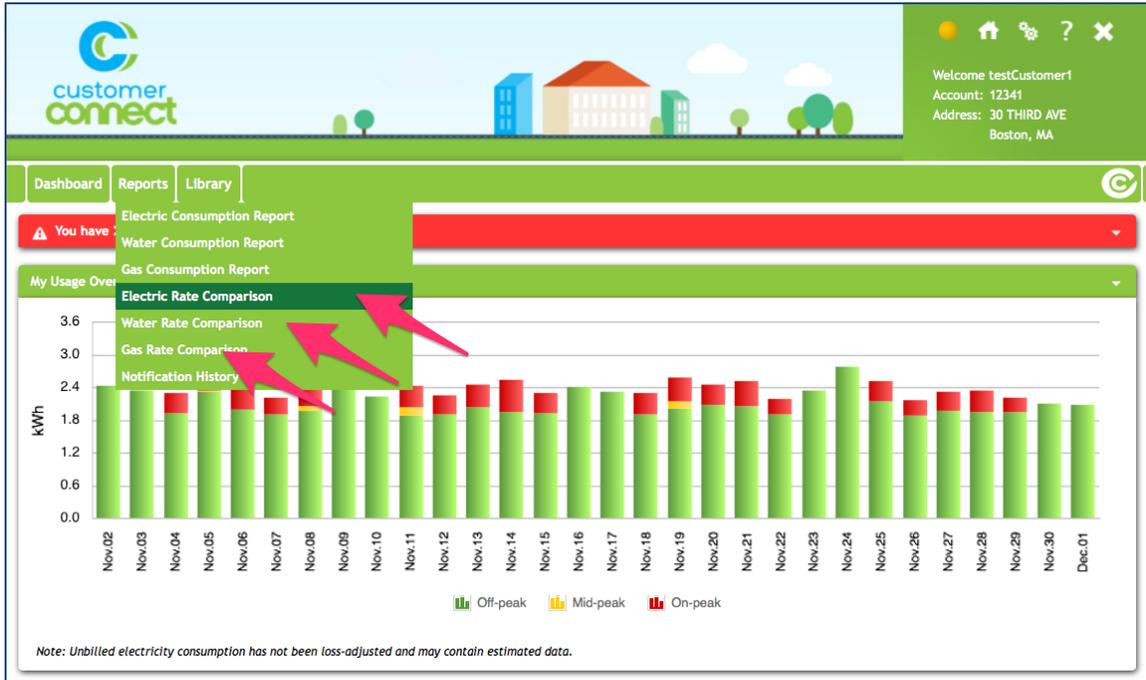


Figure 10 - Rate Comparison Report

The Rate Comparison Engine automatically analyzes your consumption and your current rates, so you can quickly determine the best rate structure for you.

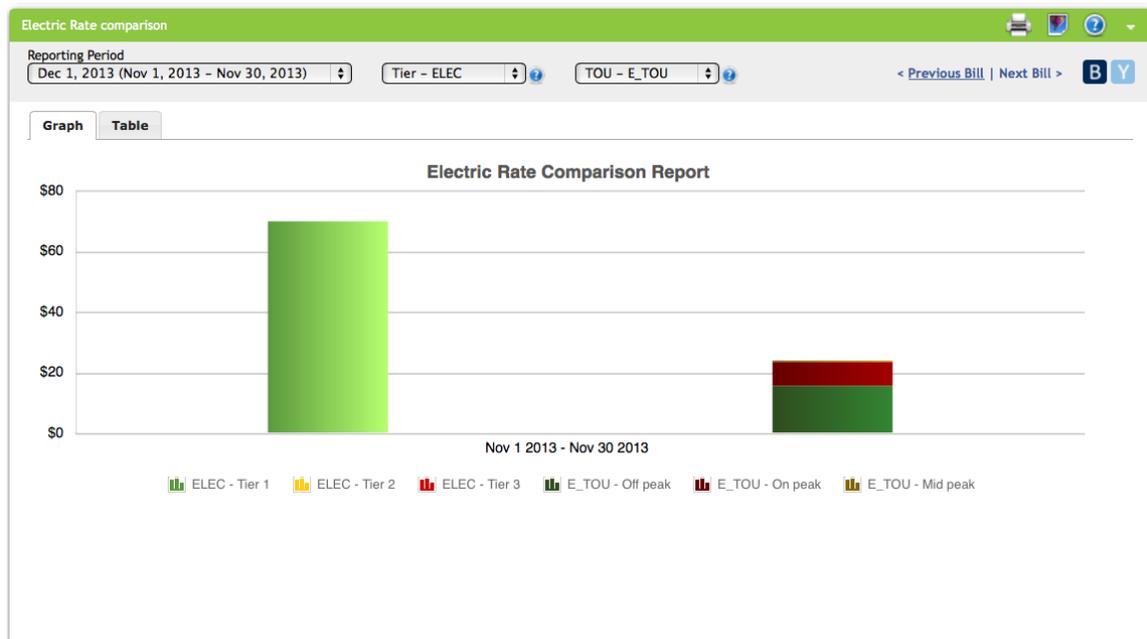


Figure 11 – Rate Comparison Report

You can compare the available rates based on your past consumption records by selecting a period (billing cycle or year), as well as the rate plan you want to compare—CustomerConnect will then display the resulting costs under each rate plan. Determining which one is best for you becomes much clearer. You can also switch between the default graph display and a table format display by clicking on the available tabs.

3.3. Analyzing your consumption history and patterns

HomeConnect’s **Consumption Report** provides a detailed profile of your household consumption. You can refer to this tool regularly for insight into your ongoing usage profile. At its most basic level, the tool can be configured to display data on daily, weekly and monthly basis. For further study of consumption patterns, you may introduce overlays that show consumption as it relates not only to previous months and years, but also to your monthly average and even as it relates to local weather patterns. Finally, you may use the Consumption Report to download usage data to your computer in graphical or tabular formats for future study.

3.3.1 Viewing your consumption

Access your **Electric, Gas** or **Water Consumption Report** via the **Reports** tab from the HomeConnect navigation menu.



Figure 12 – Electric Consumption Report

The system displays a vertical bar graph of your daily usage for the current month as well as a horizontal bar that details your consumption history for the period to date.

Hover the mouse over each bar to view the amount consumed during each daily rate segment and click on any daily bar to view an hour-by-hour consumption history for that day.

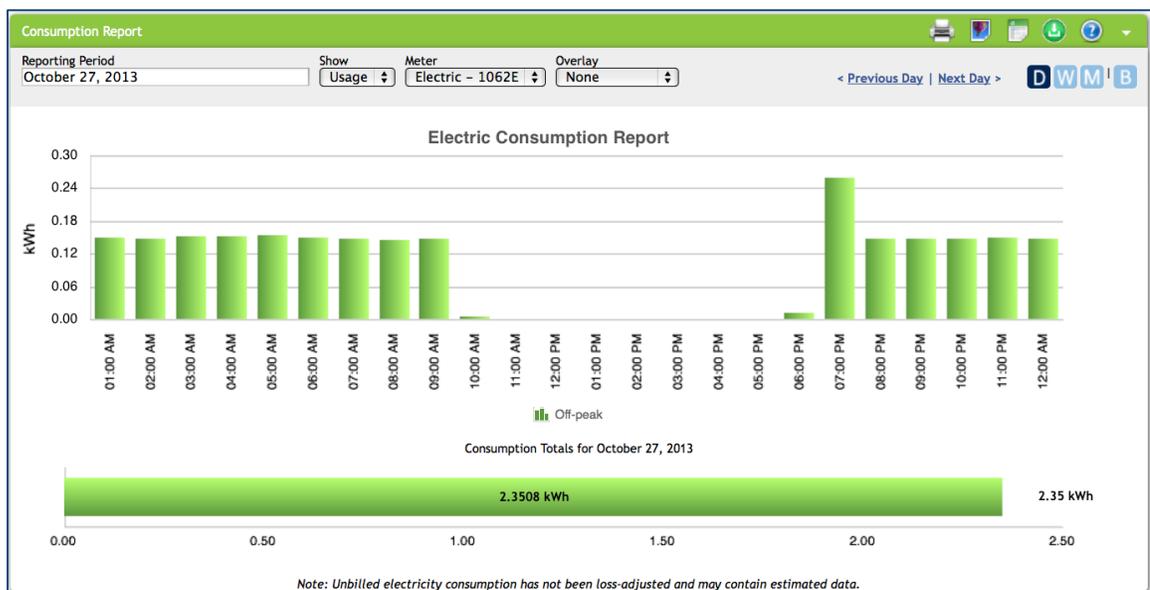


Figure 13 – Consumption Report, hourly view

Modify the **Reporting Period** by entering a new date range in the **Reporting Period** field or by toggling the **Previous Month** and **Next Month** buttons. Narrow the display further by clicking the **D**, **W**, **M** or **B**³ buttons to view consumption by day, week, month or billing period.

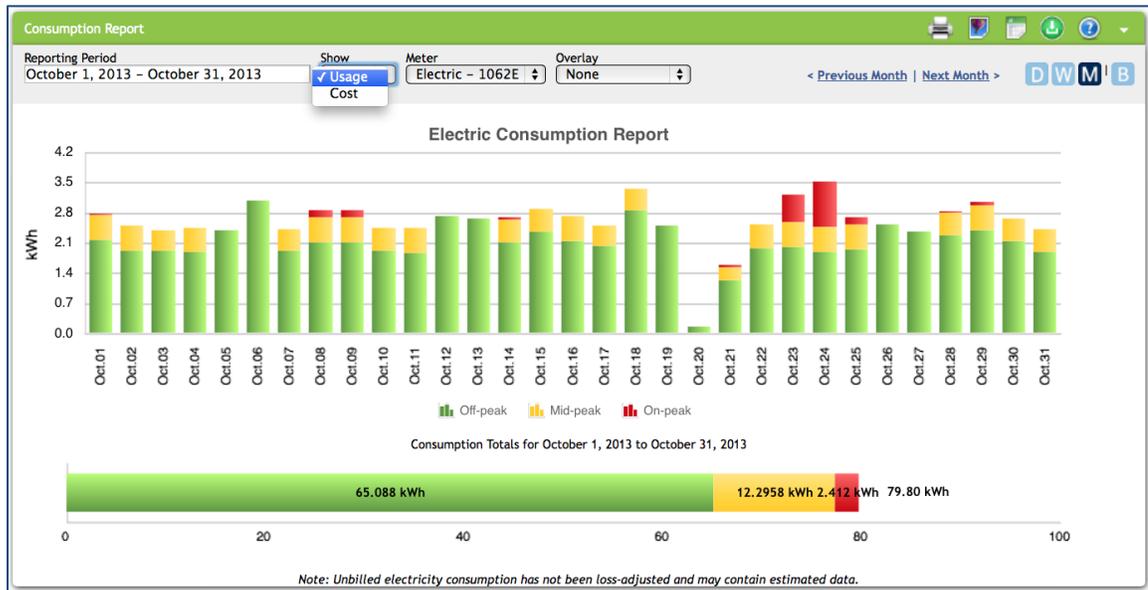


Figure 14 – Consumption Report, show menu

HomeConnect by default displays your consumption in usage units. You may change the system to display cost units via the **Show** menu. **Usage** displays in metric units; **Cost** in dollars. You can also set your preferred unit in your **Account Settings** as describe at section 3.1.2-Switching your View Settings.

3.3.2 Adding overlays

³ The Billing Period option may not be available depending on your utility's settings.

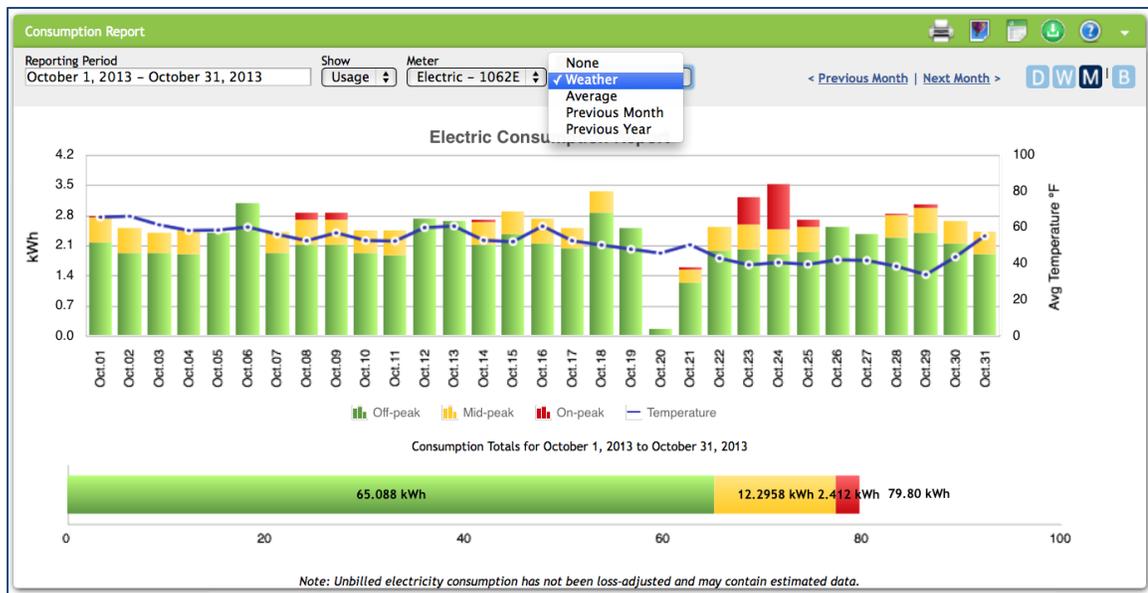


Figure 15 – Consumption Report, overlays

Overlay filters can offer additional insight into your use habits. For example, overlays can compare your consumption against your average for the month, against that of a month ago, against that of a year ago, and against the daily temperature.

Access the filters via the **Overlay** drop-down menu. Choose from four options:

- weather (which maps the average daily temperature onto your consumption graph),
- previous day, week or month (which compares your daily, weekly or monthly usage to that of the previous day week or month),
- previous year (compares your daily, weekly or monthly consumption of this year to that of a year ago), and
- average consumption (which shows your average daily, weekly or monthly consumption for the period to date).

3.3.3 Downloading your data

Use the icons in the upper right-hand corner of the page to print the displayed chart or save it to your computer in PNG, Green Button⁴ or CSV formats.

⁴ Data format defined by the North American Energy Standards Board (NAESB)

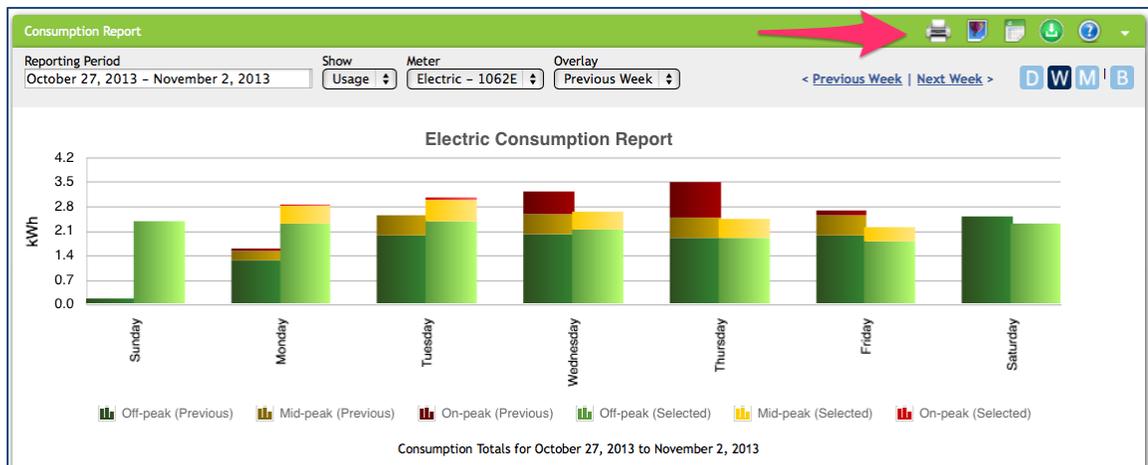


Figure 16 – Consumption Report, export options

3.3.3.1 Green Button data exports

The Green Button initiative is a standard defined by the government for energy consumption data formats to allow consumers to take ownership of their data and utilize it on all technologies compliant with the standard. If enabled by your utility, you can export and save their energy consumption data in Green Button format simply by using the new Green Button option  that now appears in the export options of the consumption reports. You can then use the saved data on any other household appliance or technology that are also Green Button compliant.

3.4. View notifications from your utility and set your own

All of your web portal notifications within CustomerConnect will appear in the Notification Widget just below the navigation menu for your acknowledgement. To acknowledge a notification simply click on the **X** on its right hand-side.



Figure 17 – Landing page, notifications

HomeConnect’s Notifications function is a useful tool for staying informed about your household’s commodity consumption and important messages from your utility. You can quickly and easily configure the tool to issue notices via the HomeConnect landing screen as well as by email, SMS message or voice call (depending on availability from your utility) when your daily, weekly or monthly unit consumption exceeds a threshold that you define. The system can also be configured to issue notices when your household consumption exceeds a given dollar value for the day, week or month.

If you are particularly concerned with reducing household consumption to preserve precious resources, or are interested in better managing energy costs, HomeConnect’s notification function will help you take control of your energy use.

3.4.1 Setting your own notifications

Put the power of CustomerConnect at work to help you reduce your utility costs. Once you understand your consumption patterns set yourself reminders and alerts to help you lower them when they reach a certain threshold.

Figure 18 – Notification Settings

Click on the **My Account**  button in the upper right hand corner of the HomeConnect landing screen. Scroll down to the **Notification Settings** title.

Choose either the **Electrical**, **Water** or **Gas** tab, according to the commodity for which you wish to set a notification, then choose the consumption period for which you would like to receive an alert (daily, weekly, monthly) and enter a value in the consumption field. (By default, HomeConnect will ask you to enter a consumption value in usage units. To receive a consumption notification based on a cost threshold, simply click the blue dollar sign and enter a value in dollars and cents.)

Finalize your notification under **My Notification Contact Methods** by choosing from among four message-delivery options. To simply receive a message on your CustomerConnect portal the next time you log into the system, check the **Web Portal** check box. You may also enter a valid email address, SMS number or conventional voice telephone number into the system to receive notifications via such media. For SMS and voice messages⁵ you can also define a period of the day you wish to receive them by selecting a **Time From** and **Time To** in the drop-down menus.

Click **Save** to confirm your choices.

Your selection of notification methods will let you choose how you receive not only threshold notifications but also General and Emergency notifications from your utility. General notifications will be sent to you through your selected delivery methods when you have checked the **I want to receive general notifications about utility programs**.

⁵ If available from your utility

As for Emergency notifications, they will always be sent to your CustomerConnect portal and your account registered email address and to any delivery methods you have selected.

3.4.2 Viewing notifications

In addition to delivering notifications via email, SMS message or telephone call⁶, HomeConnect can present notifications in two other ways: via the HomeConnect **Notifications** widget, and in the **Notification History** within the **Reports** menu.

3.4.2.1 Notifications widget



Figure 19 – Landing page - notifications

The **Notifications** widget appears just below the main navigation menu of CustomerConnect. Notifications appearing there are color coded for quick reference.

- **Green notifications** are issued by your utility for your general information.
- **Orange notifications** are issued by HomeConnect when your consumption exceeds your defined threshold.

⁶ If available from your utility

- **Red notifications** are issued by your utility to announce emergencies such as service interruptions.

HomeConnect's notifications are sticky. They remain appended to the **Notifications** widget throughout HomeConnect until such time as you acknowledge them. Do so by clicking the **X** at the far right edge of each notification.

3.4.2.2 Notification History report

A full history of your notifications is stored within HomeConnect for your future reference.

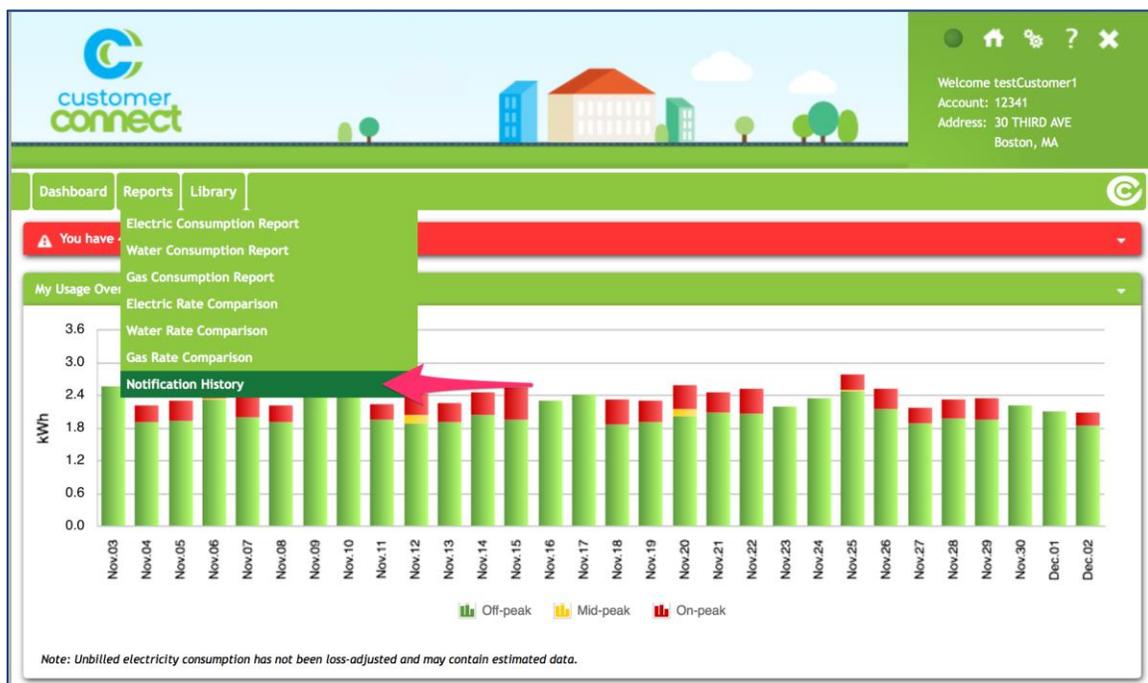


Figure 20 – Reports - Notification History

- Access your **Notification History** under HomeConnect's **Reports** menu.

Notification Type	Notification Date	Message
User Defined	2013-11-30	Water - On 2013-11-29, Target:2.00 ft3 - Estimated:25.00 ft3 - 30 THIRD AVE.
User Defined	2013-11-30	Electric - On 2013-11-29, Target:1.00 kWh - Estimated:2.08 kWh - 30 THIRD AVE
User Defined	2013-11-29	Water 30 THIRD AVE 30 THIRD AVE BOSTON 2013-11-29 2013-11-28 _PH-END-DATE_ Nov 2013
User Defined	2013-11-29	Water - On 2013-11-28, Target:2.00 ft3 - Estimated:25.00 ft3 - 30 THIRD AVE.
User Defined	2013-11-29	Electric 30 THIRD AVE 30 THIRD AVE BOSTON 2013-11-29 2013-11-28 _PH-END-DATE_ Nov 2013
User Defined	2013-11-29	Electric - On 2013-11-28, Target:1.00 kWh - Estimated:2.08 kWh - 30 THIRD AVE

Figure 21 – Notification History report

- The system displays a table of the notifications delivered to you on a monthly basis. Change the display either by entering a date range into the **Reporting Period** field or by clicking the **Previous Month** or **Next Month** buttons.
- Print the report by clicking on the printer icon in the upper right hand corner of the page.

3.5. Find information from your utility and online help

HomeConnect’s Education Library is where your utility stores articles on topics like smart metering, resource conservation and information about how to maximize your use of HomeConnect. Access this content for more information about programs initiated by your utility, as well as news and developments relating to smart grid technology in your region. Check back regularly. This dynamic industry is always changing, and your utility will be eager to share news with you as it develops.

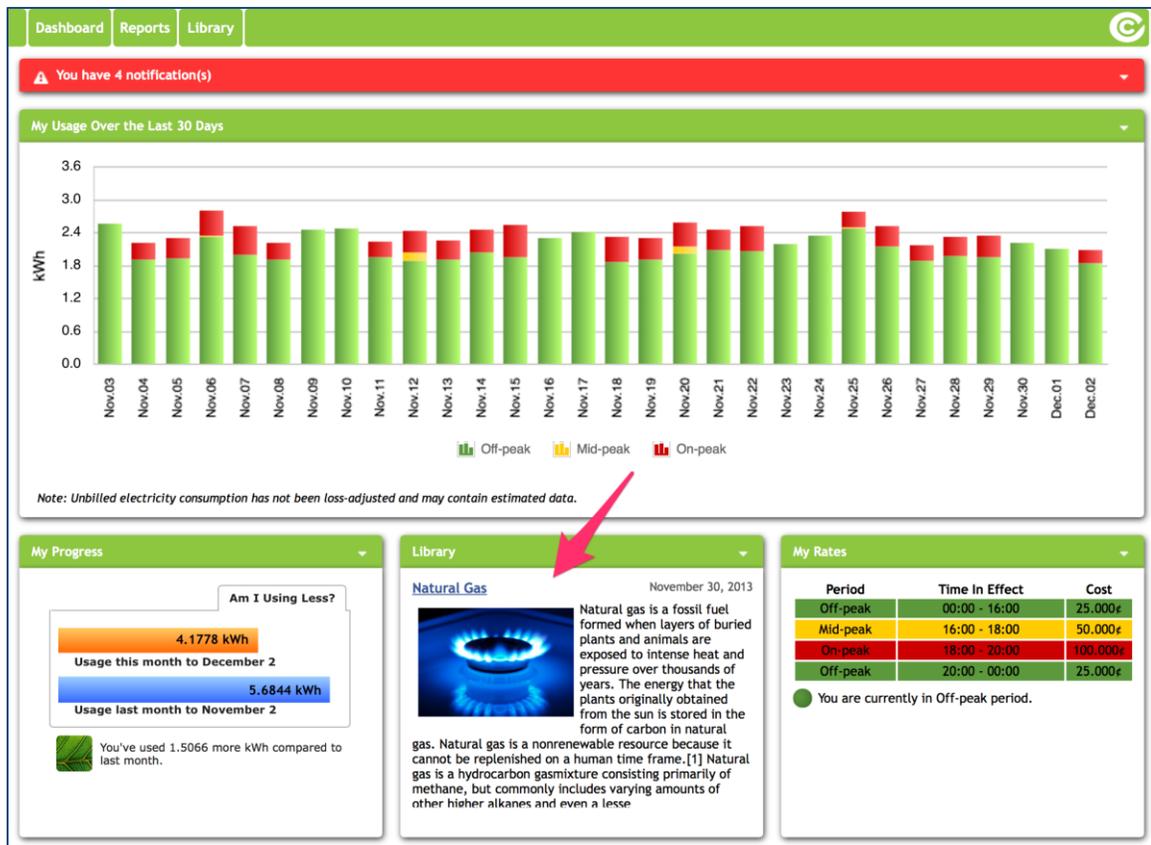


Figure 22 – Dashboard - Library option and article

From the **Dashboard**, access the complete **Library** from the main navigation menu or access the featured article simply by clicking on it. The Dashboard screen always presents one article from the library that may be of interest to you.

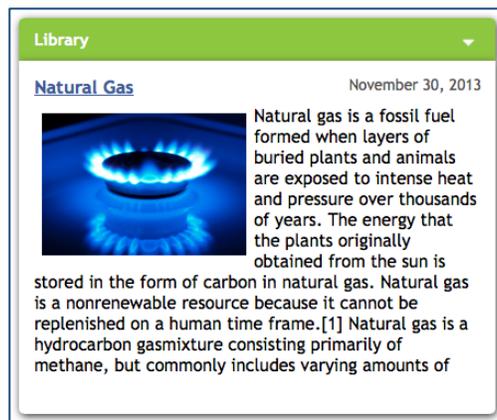


Figure 23 – Dashboard - Library widget

Figure 24 – Library

Access the **Education Library** by clicking **Library**. HomeConnect displays a page of all articles appended to the library and highlights one article as a Featured article.

Filter the displayed articles by clicking any of the tag clouds in the Categories box.

Enjoy the CustomerConnect experience...



The CustomerConnect team

.....