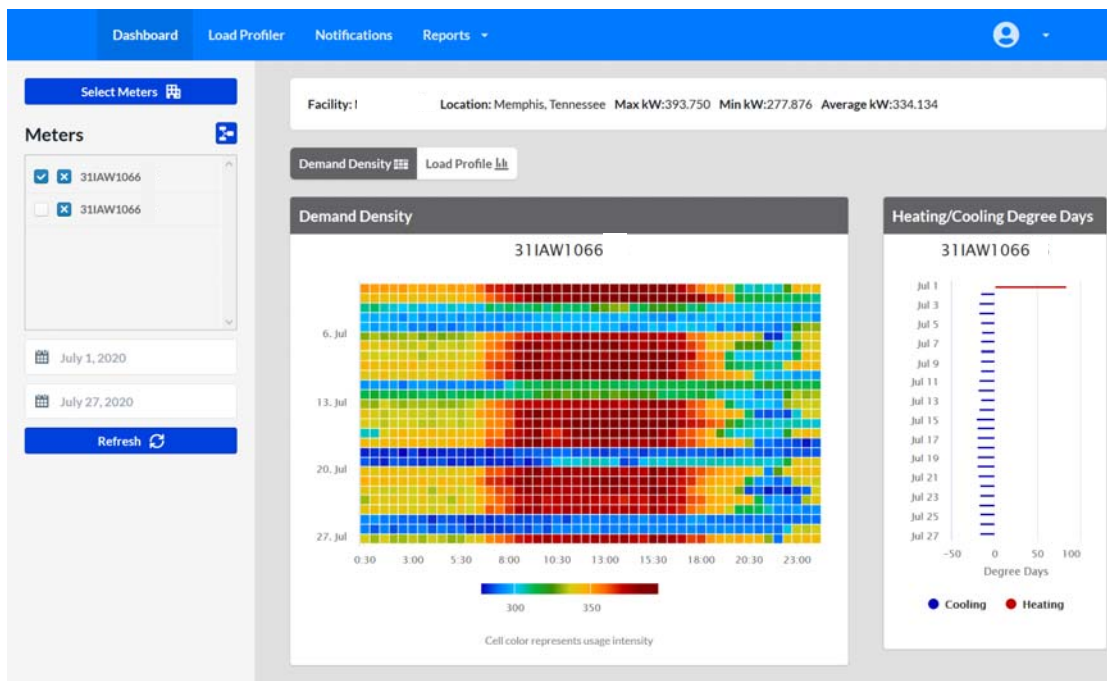# Meter Intelligence:
Turning Your Meter Data
into Energy Management Information

Quick Guide for Users

Meter Intelligence

Introduction

Meter Intelligence is a web-based interval meter data service that enables energy management professionals to examine and track their facility's electric and/or natural gas load profiles. Meter Intelligence is updated each morning, using smart meter interval data obtained during MLGW's overnight meter reading process. The website is powered by Automated Energy Inc.

It is important to understand that interval data is not the same as billing data. Interval data reflects consumption values during designated periods—every 30 minutes for electric meters and every 60 minutes for gas meters. Interval data may contain gaps if a meter does not report its data on the designated schedule. MLGW bills from meter readings, subtracting the end reading for your previous billing cycle from the end reading of your current billing cycle to calculate consumption and obtain demand. While interval data is normally the same or very close to billed values, it should not be a considered a replacement for actual billing data.   When differences occur, the MLGW bill is the authoritative source.

Meter Intelligence offers four tabs, containing:
- **Dashboard**—See a quick snapshot of energy consumption every time you login. View month-to-date information for selected meters as well as a Demand Density graph. This is a new feature.
- **Load Profiler**—View, graph and analyze load profiles for enrolled meters, turning your meter data into energy management information. This feature operates much the same as it did in the earlier Java-based version of Meter Intelligence.
- **Notifications**—Select alert parameters for specific meters. Each morning, the previous day's data is compared to the selected parameters and an email or text message is sent to the designated individual(s) if conditions were met, eliminating the need to monitor Meter Intelligence on a daily basis without hampering access to timely information. This is a new feature.
- **Reports**—Download data in a CSV file, create ad hoc Load Profiles for the meter(s) in your current view and set rules for generating and sending automated reports. This feature operates much the same as it did in the earlier Java-based version of Meter Intelligence.

Who Do I Call for…?

Your designated MLGW Account Manager serves as your primary contact for all MLGW interactions. He or she can assist you in interpreting the meter data, requesting re-exports of your meter data if gaps exist (although some data may not be retrievable), training users, determining meter enrollment eligibility and handling billing questions. Please continue to use your MLGW Account Manager as your primary contact, so he or she is aware of all questions and concerns regarding your organization's utility account.

Getting Started

Meter Intelligence is now an HTML-based application, so the Java applet is no longer needed to utilize the service. You simply need a computer, tablet or smartphone with Internet access and a modern browser. Chrome, Firefox or Safari are compatible currently.

Accessing Meter Intelligence

1. Open a modern Internet browser. (Chrome, Firefox and Safari are recommended.)

2. Bookmark this URL to access Meter Intelligence: https://lp.automatedenergy.com/mlgw/login/ You also may access Meter Intelligence from MLGW's website, www.mlgw.com, by selecting Commercial/Industrial, then select Meter Intelligence from the pull down navigation panel, then click "Enter Here." (See image at right.)

3. Click inside the fields to enter your username and password.
   a. Username: (your email address)
   b. Password: _____
4. **It is recommended that you change your password after you've logged in the first time.** Click the drop down button next to the User menu icon   👤 ▾   in the upper right corner of window, then click Change Password. Password must be at least eight alphanumeric characters; special characters are optional. Password is case-sensitive. Previous passwords may be reused.
5. Forgotten password can be retrieved using the link below the login fields.

NOTES:
- Your Internet connection speed will determine how quickly the application loads.
- As you navigate Meter Intelligence, you will build a cache of online views. You can improve the speed and performance of the application by clearing your Internet browser's cache file periodically.
- Multiple users can be enrolled at no extra cost and each will receive a separate login, so we do not recommend sharing your personal login. Each user can view the data simultaneously. To request additional users, contact your MLGW Account Manager.
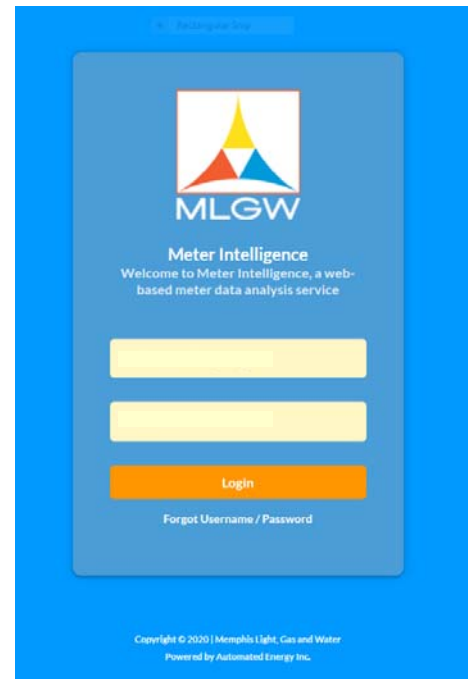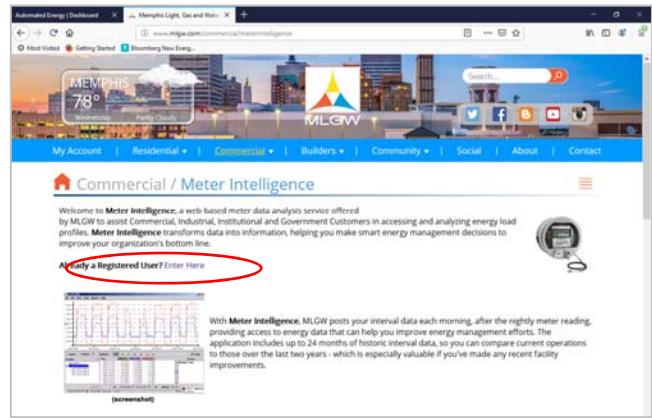
## *How Do I …?* Quick Tips and Shortcuts for Using Meter Intelligence

Although Meter Intelligence is very user-friendly, you may desire help to get started.

The following quick tips will familiarize you with the primary functions of the Meter Intelligence application. Your MLGW Account Manager can provide user training and assist you in getting the most from your Meter Intelligence subscription.
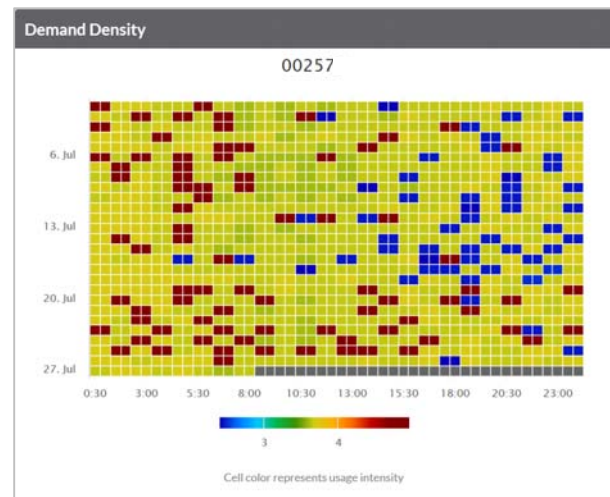
DASHBOARD

This is a new feature in Meter Intelligence, providing a quick glance at your energy in two views—Demand Density and Load Profile. After setup, you may find that the Dashboard page serves your daily needs, while other features will be used when you really need to dig into the details.

To setup this section initially, you'll need to select the meter(s) of interest.

1. Click the Select Meters box in upper left corner, which will open a Dashboard Settings window containing your available meters on the right side of screen.
2. Select meter(s) of interest from the Dashboard Settings list. If you have multiple meters, it's best to select all meters now and then toggle between them as you work.
3. Click the X to close the Dashboard Settings window.
4. View the meter(s) you just selected, which are now shown in the Meters list on left side of window. Click the little blue open box to switch between multiple meters. If you wish to aggregate meters, click the Aggregate Meters symbol ⬛ and then make your selections. If you click the X box to remove a meter from the list, you'll need to repeat steps 1-3 above to add it back later.
5. Click on the Demand Density button ⬛ Demand Density ⬛ Load Profile ⬛ to populate the demand density heat map for the current month-to-date. Rows represent days and columns represent 30-minute intervals. The first day of the month is displayed in the top row.
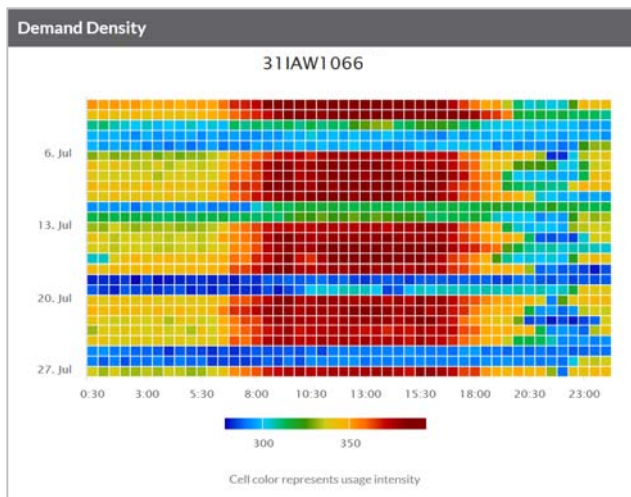
Electric Demand Density Map displays each 30-minute MLGW interval in a cell. The color scale changes automatically to reflect the data.	Gas Demand Density Map displays in 30-minute intervals so MLGW's hourly interval value is divided in half and placed in each cell. The color scale changes automatically to reflect the data.

6. Click on the Load Profile button ⬛ Demand Density ⬛ Load Profile ⬛ to access these features, seen in the image on the next page:
    a. Load Profile graph, which shows daily view for month-to-date. (Use the handy "open in Load Profiler" link at the bottom of this graph to navigate to the Load Profiler section for more options.)
    b. Load Profile graph, which shows yesterday's data
    c. Demand Profile graph, which shows yesterday's data
7. Use the options on the left side of the screen to select different meters and/or different dates.
8. Click Refresh to load your changes.
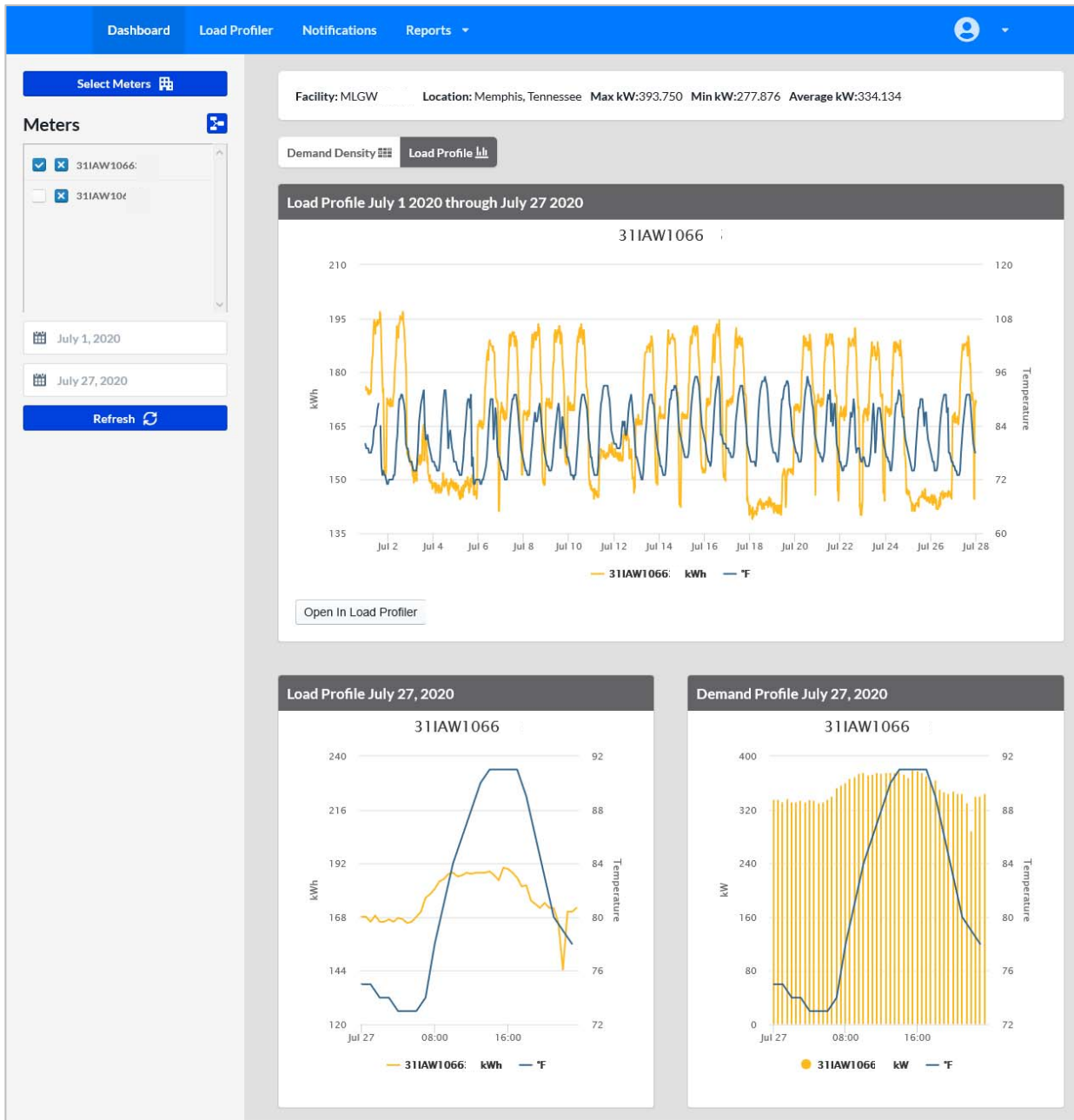
Dashboard's Load Profile view of selected electric meter. Use options in the left side of screen to select different meters and/or dates, then click Refresh to load.

LOAD PROFILER

The Load Profiler section has an updated look but works much like the former version. All available meters automatically populate into the Meter list on left side. If you enrolled multiple meters, you will see a line labeled *Your Business/Facility Name (#)*. Click on that link to expand the list.

<u>To view your data in both graph and tabular form:</u>

1. Select your meter(s) in the upper left corner. If more than one meter is enrolled, click on your business or facility name to reveal the list and then check the meter(s) of interest. You will see meter numbers, unless you provided meter aliases (more recognizable descriptions, such as Office, West dock, Warehouse, etc).
2. Select the date period of interest. Yesterday's date will always appear in the start and end fields. You can use the calendar icon to select dates or use the green arrows to go back and forward one day at a time.
    a. Natural gas interval data is based on a "gas day" of 9:01am to 9:00am the following day. To determine consumption for a "gas day", rather than a calendar day, sum the hourly-interval readings of 10:00am through 9:00am the following day. (For example, daily gas use for June 1 would be determined by adding values from the June 1, 10:00am reading through the June 2, 9:00am reading.)
    b. As a result of the gas day time period, when viewing natural gas meter data, yesterday's 24-hour data period will appear incomplete. This is not an error; it is a difference in the way electric and natural gas meter interval data is collected and posted to the Meter Intelligence application.
3. Scroll down (as needed) and click Refresh. The Refresh button activates all the selections you make in Load Profiler so remember to click Refresh *every time* you complete a selection in order to see the resulting data.
4. Zoom in by clicking in the graph area and holding down your mouse button, then drag left or right to encase the timeframe and release the mouse button. Click the Reset Zoom button in upper right of zoomed graph to revert to previous view.
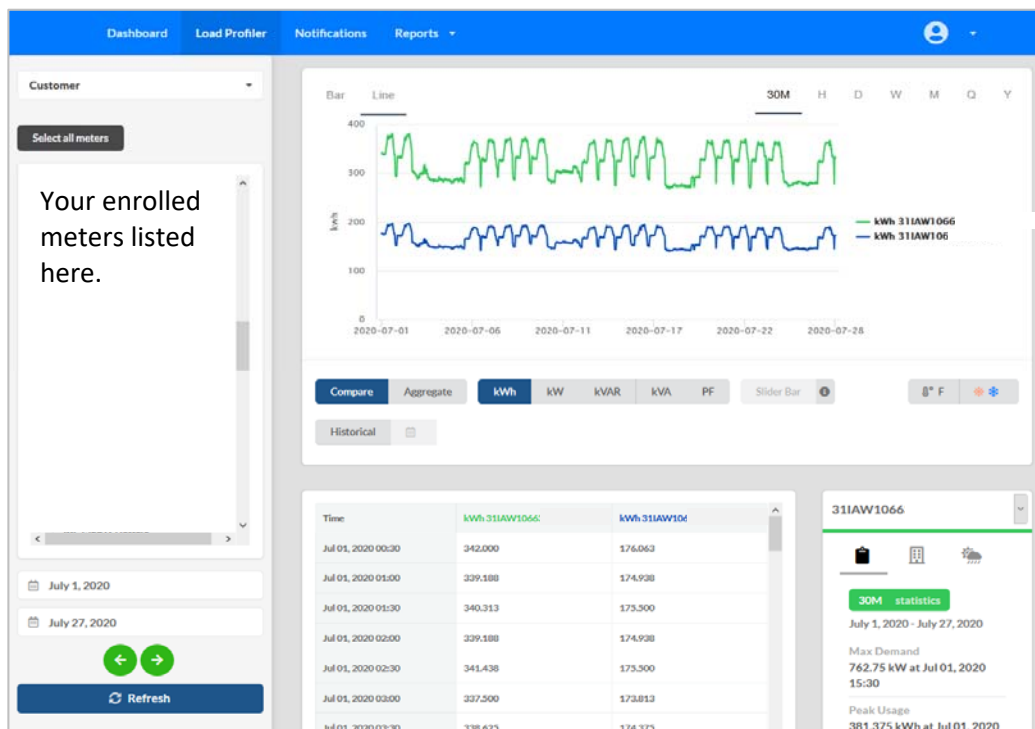
Units of Measurement
- Electric consumption data is presented in kilowatt hours (kWh)
- Electric demand data is presented in kilowatts (kW)
- Natural gas data is presented in thousand cubic feet (MCF), rather than the hundred cubic feet (CCF) unit of measurement shown on the utility bill. Multiple MCF by 10 to convert to CCF.

Viewing Meter Data
The Load Profiler tab offers several modes in which to view data. These options appear in the toolbar above the Load Profiler graph:

Bar Line		30M H D W M Q Y

- Select between Bar or Line to change your graph type. Line is the default.
- Select a bin (interval length). The tool defaults to 30-minute intervals, but you can select hourly, daily, weekly, monthly, quarterly and yearly. MLGW measures electric data in 30-minute intervals and gas data in hourly intervals. While you can select any bin size you choose, it is important to realize that the application simply performs a mathematical calculation to convert the MLGW interval data from its official length to the chosen bin size.

These options appear in a toolbar below the Load Profiler graph. The blue background indicates that the option is selected.

| Compare	Aggregate	MCF	kWh	kW	kVAR	kVA	PF		8° F	☀ ❄
Slider Bar ⓘ	Historical 🗓									

- **Compare** mode enables you to view consumption data in electric kWh or gas MCF from multiple individual meters simultaneously, so you can see differences. This is the default mode. Click to add kW, kVAR, kVA and PF, as well as temperature (°F), Heating Degree Days and Cooling Degree Days to the graph. Click again to remove these added variables.
- **Aggregate** mode enables you to view total consumption data in electric kWh or gas MCF for all meters, provided you have more than one meter of the same service type enrolled. The other view options noted above are also available in Aggregate mode. In addition, when viewing electric demand (kW), the Aggregate mode activates the **Slider Bar** option. Slider bar is a vertical slider on the left of the graph that allows you to quickly calculate how much a percentage reduction would mean in electric demand and operating time (ie, a 5% reduction would equal 58 kW and affect 117 hours).
- **Weather** data is provided for an additional level of analysis as needed. Heating and Cooling Degree Days are calculated based on the Certified Energy Manager standard of 65°F. Temperature data is imported from Accuweather for the Memphis area.
- **Historical mode** enables you to compare one time period to another, including week-to-week and month-to-month. This is especially useful if you have completed energy improvements and want to compare before-and-after profiles. Select the first (most recent) time period using the date range buttons. Click on the History button and select the start date for the historic comparison period. (There is no end date field as that will be automatically reflected based on the duration of the more recent time period.) Historical data is noted with an (H) in the graph legend and column headings.

Statistics

The Statistics section appears in the lower right corner of the Load Profiler screen.

- The left icon (default) shows statistics for the individual or aggregated meter(s) and date range shown in the graph, including maximum demand, peak usage, minimum usage, total usage, average daily usage and power factor.
- The middle icon contains information about your facility. Update this information by clicking the User icon in upper right corner of screen and selecting Facility Information. In the resulting list, click View or Update in the Actions column, update the fields and then click Save at bottom of the page.
- The right icon contains weather data.
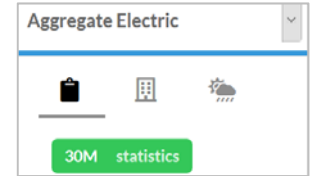
NOTIFICATIONS

This new features enables to you establish thresholds that trigger email and/or text alerts to designated recipient(s). Notifications are sent shortly after MLGW's morning datafile uploads, when a threshold has been met.

To create Notification and view history:
1. Click on Notifications in the blue header bar.
2. Click on Configure notification button.
3. Make selections in the fields provided. It is best to start with one meter and one condition per Notification. The conditions you select must be met by all meters selected before the Notification will trigger. Likewise, all conditions selected must occur in order for the Notification to trigger.
4. Click Save.

Notifications can be edited or deleted, as your interests change.

To view previous Notifications, click on Notifications in the blue header bar and then click View History. The screen will show a list of the 25 most recent Notifications. Click any Notification to open.

REPORTS

Meter Intelligence enables you to create, download and save several types of reports.

1. Select the meter(s) and dates you wish to see, using the Load Profiler tab.
2. Click on the Reports tab in the header bar.
3. Select your report option:
    a. **Load Profile**, which creates a PDF showing the graph and meter statistics based on your selections.
    b. **CSV**, which creates a spreadsheet of interval data that you can open or save on your computer.
        i. Electric data displays appropriately using the default 30-minute bin size, as MLGW measures electricity in 30-minute intervals.
        ii. Gas data is measured in hourly intervals, so change the bin size on the Load Profiler page before you select the CSV option for gas data. Otherwise, the application simply divides the hourly data in to two 30-minute intervals (the default bin size).
        iii. Note that this report does not follow the unique "gas day" time period so you'll need to adjust the dates and edit the resulting spreadsheet if you prefer to view data in that timeframe.
    c. **Load Duration Report**, which creates a PDF showing the five highest demand intervals and corresponding graph.

d. Rate Calculation Report, which is not available to MLGW customers.
e. Automated Reports, which enables users to create standardized reports that will be emailed to designated recipients. Make your selections using the guidance on the screen.

Give us your feedback!

Meter Intelligence has changed tremendously in the last few months, with new features to better meet your energy management needs. If you have an idea for a feature that could make Meter Intelligence more effective, email details/thoughts to your MLGW Account Manager. We'll share with Automated Energy, who will evaluate ideas for programming enhancements based on user interest.