the power OUTLET
The Newsletter for the Groton Electric Light Community
June, 2022

A NEW AMI system is on its way to Groton

Our previous AMI (Advanced Meter Reading) system through Mueller Systems is reaching the end of its useful life. Last year, the Board of Light Commissioners accepted the manager's recommendation to install a new AMI network using Itron meters through Eaton Corporation. The new system will allow us to maintain the current features we offer as well as expand upon new features. Shortly after the new AMI system has been completely deployed, we will be able to analyze and pursue time-of-use (TOU) rates to maximize savings for everyone in town as TOU rates help to lower GELD's transmission and capacity costs.

The AMI system will also allow us to offer programs to help everyone save money. Because wholesale electric costs can vary each hour, incentives for customers to shift their electric use to times when electricity is less expensive helps to lower our cost to purchase power.

For example, the lowest price for electricity typically occurs between midnight and 5 a.m. The highest prices are typically between 4 and 8 p.m. The average wholesale price for electricity in the early evening is twice the price of the early morning hours.

This meter reading/communication system requires that every meter socket in town receive a new, solid-state meter installed by the Light Department. It will take several months to switch over all meters, and we plan to do this starting in June. Our goal is to complete the deployment by late fall.

We will be notifying you via REVERSE 9-1-1 when your area of town will be affected, so please be sure we have a valid phone or cell number on file.

During the changeout process, you will lose power for less than one minute. We are working with the town's REVERSE 9-1-1 system to schedule notifications to your area of town within a couple of weeks of your meter swap. To help ensure a smooth process, always remember to save documents regularly when working from home or performing important tasks on the computer and to use a UPS (uninterruptible power supply)—see the "protect your valuable and expensive electronic equipment" article on the back.

We are excited about our new AMI system and want the transition to be as smooth as possible. Please feel free to contact us with any questions or concerns.

Follow-up Customer Survey

To better understand the impact of the 2021 4/40 summer trial, GELD has designed a follow-up survey alongside a university research team.

The results of the survey will help us analyze the pilot program. **As thanks for your participation, survey respondents will go into a draw to win one of ten $100 Amazon Gift cards**. You can answer the survey regardless of your participation in other programs or whether you answered the previous survey. In the survey, you will need to provide your account number or other identifying information like your address. Your account number is in the top right corner of your bill, third line down.

To participate in the survey please scan the QR code on the right with your phone or go to the following web address: **https://tinyurl.com/4xctecch**

Scan this QR code to answer the survey!

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Protect your valuable and expensive electronic equipment

Since both Mother Nature and electricity are unpredictable, take steps to keep your expensive equipment safe from power surges

Due to the unpredictable nature of electricity, no utility can guarantee an unconditionally stable and consistent power supply. Several elements combine to offer the most effective protection for your home's electronics and electrical systems. **The most important component is a functional service ground**—see "a good ground helps to protect your home" at the end of this article.

Although Groton Electric strives to provide reliable power at the lowest price every day, there will be inconsistencies in the power supply that we have no control over. Because of this, we recommend you protect your valuable equipment with an adequate ground, surge protection, and a UPS (uninterruptible power supply).

A surge protector is a standard piece of equipment that should be included when purchasing computers and high-end electronic equipment. Surge Protectors as the name suggests, protect valuable equipment from sudden surges or spikes in voltage. A surge is a sudden, temporary increase in the normal current or voltage. Normal current in the U.S. is 120 volts, with an acceptable range between 114 and 126 volts. If the voltage rises above 120 volts, there is a problem, and a surge protector helps to prevent that problem from destroying your equipment.

Surge protectors send the surplus voltage to your service ground, diverting it from your equipment. It is important to regularly check your surge protectors because one large surge or a number of smaller surges can destroy the surge protector and then it is no longer protecting your equipment.

There are many types and price ranges of surge protectors, but we recommend purchasing a surge protecting power strip with a UL rating of at least 1449, a good warranty, and an audible alarm. An audible alarm warns you that the surge protector is no longer working and **needs to be replaced**.

Consider a back-up battery source when purchasing expensive equipment

A UPS (uninterruptible power supply) is a battery that maintains a continuous supply of electric power to connected equipment, by supplying power if utility power is not available or a voltage dip occurs.

A UPS is inserted between the source of power and the equipment it is protecting. When a power failure or dip in voltage occurs, the UPS will effectively switch from utility power to its own power source almost instantaneously. This is especially important in the summer with the increased frequency of lightning and the increased use of air conditioners.

There are two common types of UPS devices: stand-by UPS and continuous UPS. A **stand-by UPS** runs the computer off of the normal utility power until it detects a problem. At that point, it very quickly switches to the UPS's battery. The battery "back-up" gives you time to save your work and shutdown your computer safely.

In a **continuous UPS**, the computer is always running off of battery power and the battery is continuously being recharged. If the power fails, there is no switchover time. This setup provides a very stable source of power.

Standby UPS systems are far more common for home or small-business use because they tend to cost about half as much as a continuous system. Continuous systems provide extremely clean, stable power, so they tend to be used in server rooms and critical applications. As prices drop, continuous UPSs are becoming more commonly used.

We recommend doing some research to determine the best protective equipment for your needs. There are two key ratings to be aware of when choosing a UPS unit. The first is load rating—expressed as both volt amps and watts; the load typically should not exceed 80% of the load rating. The second is runtime: do you want enough time to safely turn everything off if an outage occurs or do want to be able to operate your electronic equipment during an extended outage?

A good "ground" helps to protect your home

The most important component to protect your valuable equipment is your home's "service ground."

Without it, excess voltage can damage appliances or in extreme cases, cause a fire. The service ground wire connects directly from the electric service box to the ground via a "ground rod" or, in older homes, the water pipe. Be sure that your ground has not been removed or become loosened. A licensed electrician can determine the adequacy of your ground by measuring its resistance and by making any necessary adjustments.

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The 40 Municipal Electric Utilities of Massachusetts

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