the power OUTLET
The Newsletter for the Groton Electric Light Community
September, 2023

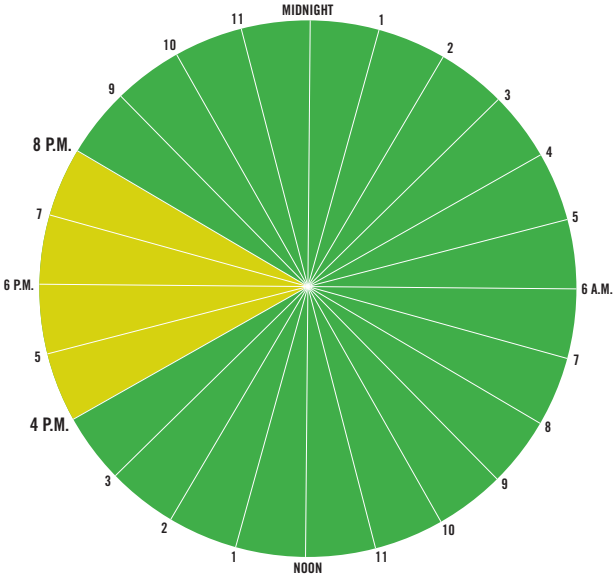
# More Important Information Regarding Time of Use Rates

***Top ways to shift electric use out of the evening peak hours.***

One of the most common questions we get at GELD regarding time of use rates is how to move electric use out of the 4 p.m. to 8 p.m. time period. Here are some suggestions:

1. Program your HVAC system/ thermostat
2. Timers
3. Start appliances after 8 p.m. (or before 4 p.m.)
4. Program EV charging
5. Consider a battery that can discharge from 4 p.m. to 8 p.m.

Programming thermostats for heating and cooling is by far the single most effective way to shift electric use. Many customers have seen that increasing the temperature in your home all day in the summer or decreasing the temperature all day in the winter does NOT move electric use out of the evening hours. That will decrease your overall electric use but to minimize running the compressor between 4 p.m. and 8 p.m. there needs to be a change in the temperature. The customers who have been the most successful in shifting their electric use are pre-cooling their homes in the summer and pre-heating their homes during the winter. Since it is summer, the example will involve air conditioning, but you can reverse the process for heating. If you set the temperature a few degrees below your preferred temperature from 2 p.m. to 4 p.m., your HVAC system will work harder before the peak and bring the temperature in the house down. Then from 4 p.m. to 8 p.m. set the temperature point a few degrees above your preferred temperature. This will result in the compressor NOT working for a period of time after 4 p.m. The circulating fans do NOT use a lot of electricity, so we recommend keeping them on to maximize your comfort.




*This rate will be in effect 24 hours a day, 7 days a week, **including weekends**.*

Timers are the next most effective way to shift electric use. There are now outlet timers that can be hooked up to your Wi-Fi network and controlled by smart phones. Timers are excellent ways to turn off appliances starting at 4 p.m. like dehumidifiers, pool pumps and hot water heaters. Timers for hot water heaters and pool pumps are the most beneficial, but they tend to have higher voltage. It is legal for homeowners to install these timers themselves, but we recommend high quality timers be installed by a licensed electrician for devices that are using 240V. Timers can also control window air conditioners and other appliances in unoccupied rooms during the peak periods.

The simple act of starting your dishwasher, washing machine and dryer, or any other small appliance after 8 p.m. (or before 4 p.m.) can move a substantial amount of your electric use out of the peak hours.

Almost all Electric Vehicles allow you to program the times your EV will be charged. So, if you arrive home during the evening peak and plug in an EV, please make sure it is programmed to begin charging after 8:00 p.m.

Batteries can be expensive, but a battery system that charges 20 hours per day and discharges during the peak hours will maximize your electric use during the low off-peak rate and minimize your use during the high peak rate.

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## Understanding Transmission and Capacity peaks

Almost 20% of GELD's costs on a yearly basis are determined by one hour each month which is called the "transmission peak". At the end of every month, the hour that had the highest amount of electric generation in each region of New England is determined. GELD is billed for our transmission costs based on our contribution to that one hour. Last year GELD's charges for the 12 monthly transmission peaks exceeded $2.3 million. This transmission peak hour is typically between 4 p.m. and 8 p.m. And typically occurs as solar electric production declines. And as expensive as transmission is, we just received notification that it will be increasing 9% for 2024.

The "capacity peak" occurs once per year and will also account for nearly 15% of GELD's costs. Last year our total capacity charges were over $1.6 million. This one peak hour of the year usually occurs on the third day of a heat wave when there is minimal natural cooling the night before. GELD makes a "capacity payment" each month for twelve months based on our contribution to this single highest hour of electric generation in New England.

As over 30% of GELD's costs are determined by an extremely small number of hours each year, you can see why we have a strong preference to postpone high electric use during "peak" hours.

If the town (as a whole) can reduce electric use from 4 p.m. to 8 p.m., our contribution to the transmission and capacity peaks will be greatly reduced. Therefore, the costs associated with those peaks will be greatly reduced—saving hundreds of thousands to millions of dollars for GELD ratepayers.

## Explanation of Billing Terms

***Understanding all charges on your electric bill***

**Customer Charge:** collects some of our costs of providing the basic services, such as meter reading and billing.

**Distribution Charge:** collects our costs to deliver electricity from our substation to homes and businesses.

***Generation Charge:** collects our costs for power purchased on the wholesale energy market. Savings associated with the power received from the New York Power Authority (NYPA) is applied evenly over the time of use rates.

***Transmission Charge:** collects our projected costs of purchasing "delivery of electricity" from the generating plants to our substation.

**With Time of Use Rates, the generation and transmission charges have been combined and shown as generation only on your bill; but as stated in "understanding transmission and capacity peaks", transmission charges are a significant portion of the total overall costs.*

For more savings, don't forget to take advantage of GELD's early pay discount. **To qualify for the early pay discount** payments must be received in our office or at our lock box by 4 p.m. on (or before) the 12th of each month. If the 12th falls on a Saturday, Sunday or holiday the payment is expected the next business day following the 12th (and will be shown on the bill). The cutoff time will remain at 4 p.m. Payments can be made even when the office is closed by using the drop boxes located at 23 Station Avenue—one is located to the right of the main entrance and the other is in the first parking lot (before the GELD Building).

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The 40 Municipal Electric Utilities of Massachusetts

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