









# ENERGY VS. DEMAND: WHAT'S THE DIFFERENCE?



Kenneth Ceaglske, President/CEO

s the winter winds swirl outside, it is also time to think summer thoughts. June will be upon us soon enough, and that means annual meeting time. This year, we have two seats open for election, currently held by Brian Hallgren and Cheri Klussendorf. If you're interested in running for either of these positions, please reach out to a member of the nominating committee listed below or give me a call at the office.

Also, as announced in the last issue, there is a rate adjustment scheduled for this month that will appear on the bill that arrives in February. The adjustment is only on the fixed charge; there will be no adjustment to the energy charge. Based on our average bill of about \$200, the \$5 increase is about 2.5%.

	2023	2024	Energy
Single phase	44.95	49.95	No Change
Single phase Time of day	46.45	51.45	No Change
Three phase	71.85	76.85	No Change
Three phase peak alert	134.85	139.85	No Change

By September, we will be splitting the energy charge into demand and energy components, with the intent to have a near zero effect on the average member. The energy listed on your bill is made up of two components: demand and energy. There are various examples of demand—one of them I'd like to use is comparing a home kitchen to a banquet hall. For this example, we need to set some assumptions. For the home kitchen, let's assume a family of four, three home-cooked meals per day, or roughly 360 meals in a month.

In a slow month, the banquet hall anticipates just one event

with approximately 360 expected guests. Now, let's compare the kitchens:

The home kitchen has all the typical household appliances such as a stove, refrigerator, and microwave, which are readily available at the local appliance store. There are probably about a dozen place settings and small quantities of pots, pans, and bakeware. In this scenario, it's likely that only one or two individuals are cooking, three times a day for an hour or two during each meal.

The banquet hall is filled with (potentially a few) commercial-grade ovens and stovetops, walk-in coolers, carts to move larger quantities of food, hundreds of plates, many large-sized pots, pans, and bakeware. This type of kitchen probably has a small group of people prepping and cooking for a few hours, but only one time in the month.

In both scenarios, 360 plates of food were created. The plates of food are the equivalent of energy consumed by the people who ate them. The demand or capacity to cook is substantially different for each scenario. As portrayed, the amount of equipment and supplies to support the one banquet event a single time are much greater than what is needed for the basics of a home kitchen spread across time in smaller portions.

This example highlights the difference between steady home use vs. single-use high demand. To bring this back to the power system, the more and larger items that are run at the same time create a need for larger equipment, from wires to power generation. With half of our power bill based on demand, it is important to look at spreading that load across time as much as is practical.

This kitchen example is extreme in the difference of the loads, and likely not a realistic example since I would hope the banquet hall would get more than one event per month. That concept strays into load factor, which is another concept for another article.



Members interested in serving on the board of directors should contact CEO Kenny Ceaglske or one of the nominating committee members:

JoAnn Smith, 715-748-2506 Patricia Waldhart, 715-678-2385 Kathy Jochimsen, 715-785-8049

Interested candidates will need to fill out a form and be willing to submit a brief questionnaire for publication in the annual report candidate section. Please contact one of the committee members by February 23, 2024, if interested.

# WINTER STORMS:

Extreme winter weather can lead to closed roads and power outages.

Are you prepared?



xtreme winter weather can immobilize an entire region. Even areas that normally experience mild winters can suddenly be hit with heavy snowfall or intense cold. Winter storms can result in closed streets and highways, power outages, and flooding. Take action now to ensure the safety and comfort of your family in the event of extreme winter weather.

#### Before a Storm

- Have snow removal equipment on hand, as well as rock salt to melt ice and sand to improve traction.
- Regular fuel sources may be cut
   off during a storm, so make sure
   an alternative source is available to
   heat your home. For example, store
   a good supply of dry, seasoned
   wood for your fireplace or wood burning stove.
- Keep fire extinguishers on hand and make sure everyone knows how to use them. Fires pose an additional risk when alternate heating sources are in use.
- Locate your main water supply and valves; make sure you know how to shut them off in case a pipe bursts.
- Repair roof leaks and keep gutters clear. Trim any tree branches that could fall during a storm.
- Winterize your home by caulking and weatherstripping doors and windows, sealing the attic area, and installing storm windows. This will help to keep your family safe and comfortable during a storm.

#### **During a Storm**

- Listen to your radio, television, or NOAA Weather Radio for weather reports and emergency information.
- Eat regularly and drink ample fluids, but avoid caffeine and alcohol.
- To conserve fuel, keep your home cooler than normal. Temporarily close off heat to some rooms.
- Stay dry. Change wet clothing frequently to prevent the loss of body heat.
- Watch for signs of frostbite; these include loss of feeling and white or pale appearance in extremities such as fingers and toes. If symptoms are detected, get medical help immediately.
- Drive only when necessary. If you must drive, travel on main roads during daylight hours. Keep others informed of your whereabouts.

#### After a Storm

- Avoid overexertion when shoveling snow. Overexertion can bring on a heart attack, a major cause of death in the winter. If you must shovel snow, stretch before going outside.
- Help neighbors who may require special assistance including infants, the elderly, and people with disabilities.
- If the pipes freeze, remove any insulation and open all faucets; pour hot water over the pipes, starting where they were most exposed to the cold. Do not try to thaw them with a blow torch or other open flame.
- Follow forecasts and be prepared when venturing outside. Major winter storms are often followed by extremely cold conditions.

A little forethought and attention to detail will help to ensure that you and your family stay warm, dry, and safe this winter, no matter what the weather is outside.—Source: Touchstone Energy

# **SUBSTATION SAFETY**

### Please report suspicious activity in or near substations, other electrical equipment

ubstations are part of the electrical generation, transmission, and distribution system. Transformers are contained inside many of them; their job is to transform voltage from high to low or vice versa, depending on their location within the distribution path.

Besides transformers, substations usually house switches, protective devices, and control equipment. In large substations, circuit breakers are used to interrupt any short circuits or overloads that may occur.

No one should approach a substation, touch the fence, or enter the gate unless they are authorized to do so. Paying attention to activity around substations and other utility equipment helps keep everyone safe. Things to look for include:

- Take notice of individuals in street clothes working near or on utility equipment; if you see this, please report it immediately.
- Notice if individuals are dressed in proper personal protective gear or have utility identification badges.
- Check vehicles or work trucks in the area for utility branded logos.
- Report any suspicious behavior you see, including non-utility employees tampering with utility poles, meters, or padmount transformers.
- If you notice anything unusual at a substation, please report it to the utility. Examples include:
  - ° An open or unlocked gate.
  - ° A damaged fence.
  - Obvious damage to equipment inside the fence.
- Call 911 and then Taylor Electric Cooperative if you see the following:
  - ° Smoke or fire.
  - Non-utility workers inside the substation fence.

Never try to address an issue yourself.

#### First Responder Safety

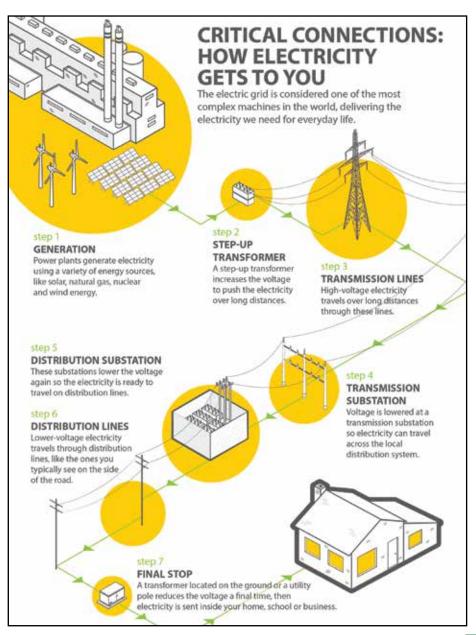
First responders should always wait for the go-ahead from the electric utility before addressing a fire or vandalism at a substation, power plant, or solar farm. They should also communicate with and wait for the utility before approaching a downed power line or damaged padmount transformer.

#### General Substation Safety

Taylor Electric and Safe Electricity remind you to:

- Never go near a substation.
- Teach children to never go near a substation or climb its fence to retrieve a ball or pet. Let them

- know they should tell a parent or adult, who should call us to report the incident at 715-678-2411.
- Never try to extinguish a transformer that is on fire since water and electricity do not mix. Call 911 to report the fire.
- If you see an issue with or notice something unusual about a substation, transformer, power line, or other utility equipment, contact Taylor Electric at 715-678-2411.





### **COMFORT CONFLICT:**

### HOW TO END THE THERMOSTAT WAR

oes this scenario sound familiar? One person cranks the thermostat up a few degrees. Soon, another overheated household member inches it back down. Later, somebody else comes along and adjusts the temperature to their liking.

The thermostat is the source of many domestic disputes. In this situation, nobody is comfortable and nobody is happy. The debate over what the right temperature setting should be can really get heated.

If the fight over the thermostat is starting to heat up, here's how to bring comfort and peace to your household.

#### Come to an Agreement

Hold an old-fashioned family meeting and decide what the right temperature settings should be. For comfort and energy savings, ENERGY STAR® recommends 70°F in winter (62°F when sleeping or not home) and 78°F in summer (85°F when not home). Everyone has their own comfort level. The point is to compromise and find the best settings for your family.

#### Get with the Program

Install a programmable thermostat and set it to automatically adjust temperatures based on your agreed-

upon settings. If you have a programmable thermostat and haven't been using it, now is the time to start. Today's smart thermostats offer advanced features, such as remote control and self-programming.

#### Stick to Your Settings

It's easy to override the program, especially if you have a smart thermostat with remote control. Make sure everyone sticks to the agreement. If someone is too hot, they can dress lightly and use a fan. If somebody is too cold, suggest that they put on an extra layer and crawl under a blanket.

#### Weatherize Your Home

Drafty rooms can reduce comfort and add to the conflict. Check for gaps in windows and exterior doors and seal them with caulk or weatherstripping. If you suspect a more serious problem, contact a qualified insulation contractor to inspect your home and ensure that it's properly insulated according to recommended levels.

Make sure that your heating and cooling systems are cleaned and inspected annually by a qualified professional. By following these measures, you'll enjoy the extra comfort, and some peace and quiet.—Source: Touchstone Energy

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