

# UNDERSTANDING ELECTRICITY SUPPLY AND DEMAND



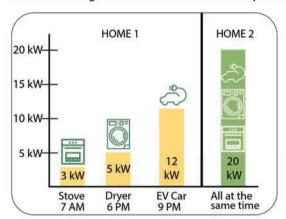
every aspect of daily life—so essential that we rarely think about how it's produced and delivered to our homes. You might be surprised to learn that behind the scenes, a network of experts is working daily to anticipate how much electricity you need before you even use it. We're all connected to the electric grid, so ensuring the right amount of electricity for all involves a complex process of forecasting energy demand, planning for capacity and securing enough supply to meet Americans' needs.

Before PEC can send electricity to your home, that electricity needs to be generated by Dairyland Power Cooperative (DPC), your Generation and Transmission cooperative (G&T), as well as other G&Ts. Once the electricity has been generated, it travels over high-voltage transmission lines to substations, where the voltage is reduced to distribution levels. The electricity then travels over distribution power lines and is delivered to your home. So, while you pay your bill to PEC— your electric distribution cooperative — we don't generate the electricity you use.

Consumption of electricity is measured in kilowatt hours (kWh), while your demand of electricity is measured in kilowatts (kW). A lightbulb "consumes" a certain number of watts, let's

#### WHAT IS DEMAND?

Demand is the amount of power needed to supply every electrical device that is running in a home or business at a specific point in time.



HOME 1 spread out their electric usage, which caused their overall demand to be lower.

HOME 2 stacked their electric use all at the same time, which caused their overall demand to be higher.

\*Diagram is for example purposes only. Actual kW usage will vary.

say 100 watts. If that lightbulb stays on for 10 hours, it "demands" a certain number of kilowatts (in this case, 1 kW) from the generation station producing electricity. Now, if you turn on 10, 100-watt lightbulbs in your home for one hour, you are still consuming the same number of kWh. However, you are placing a demand on the utility to have those kW available to you over the course of one hour, instead of ten. This requires the generation and transmission

to provide more power in less time to meet your demand.

Peak demand refers to the time of day when the demand for electricity is highest. This is typically during the evening when families return home from work or school, cook dinner, and use appliances the most. Generating and distributing power can be a complicated business, but PEC will continue to provide safe, reliable, and affordable electricity for your family.

#### SMART SENSE MEMBER GIVEAWAY

Through PEC's Smart Sense Rebate Program, members may receive one free smart strip with surge protection. The smart strips may be picked up at the PEC office, with a limit of one per membership.

A smart strip is a power strip that works to prevent energy waste. There is a sensor in the strip that monitors the flow of electricity to the control outlet and when there is a significant drop, it switches off the power to the switched outlets. When your control device goes into sleep mode or is shut off, the smart strip saves energy from flowing to the devices plugged into the switched outlets. More information and instructions are included with the devices upon pickup.

### **Rooted in Value** — The C

#### Join us for PEC's 13th annual Breakfast in the Northland

### Saturday, October 11

7 a.m. to 10 a.m. at the PEC Office W6803 Springs Drive, Phillips, WI

#### **Breakfast**

Your PEC board of directors and staff will be cooking and serving your breakfast. The menu includes biscuits and gravy, pancakes, sausage, applesauce, juice, coffee, milk, and water. Gluten-free pancakes will be available upon request.



Your PEC board, staff, and their guests are ready and excited to prepare and serve your breakfast.

#### **Food Drive**

We will be collecting unexpired, nonperishable food items and personal care items for the St. Vincent de Paul Food Pantry located in Phillips.





Help us fill the table again this year. Last year we collected over 300 items.

## ooperative Membership

#### **Recycling Event**

Northcentral Recyclers will be onsite collecting your electronics.

#### Accepted Items (free)

- White good appliances (washer, dryer, stove, water heater)
- Monitor, laptop, server, printer, keyboard, mouse, speaker/stereo equipment
- Router, modem, switch, UPS unit, power strip, wire
- Telephone, cellphone, computer board, hard drive
- Small household appliances (coffee maker, toaster, curling iron, fan)
- Vacuum, filing cabinet, exercise equipment
- Dish receiver, microwave, grill

#### Accepted Items, \$25 each, limit 2 per membership

- Refrigerator (rebate available)
- Room A/C Unit (rebate available)
- Freezer (rebate available)
- Dehumidifier

available, too.

#### Items that will NOT be accepted

- · Ni-Cad, Ni-Mh, alkaline batteries
- Tires, furniture, bath tubs
- Chemicals, plastic, cardboard, paint, paint cans, smoke detectors
- Ballasts, light bulbs, fluorescent lights, mercury thermometers



Northcentral Recyclers of Glen Flora will be onsite to collect, sort, and recycle your electronics.

#### **Pumpkin Decorating**

Bring your kids over to our pumpkin table for a fun-filled decorating experience. They can personalize their pumpkin using stickers and paint markers. Once their masterpiece is complete, they can proudly take their decorated pumpkin home.

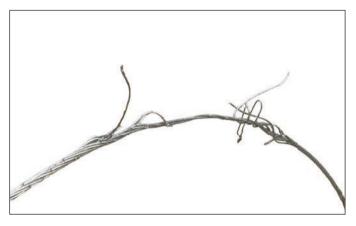
We will have coloring pages

#### **Flu Shot Clinic**

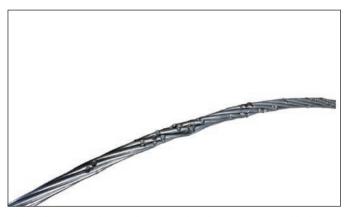
Get your flu vaccine courtesy of the Price County Health Department.
They will be onsite from 8:30–9:30 a.m.

# **SAFETY ALERT:**PROTECTING POWER LINES

Power lines are vital components of our electrical grid, ensuring that homes, farms, and businesses receive reliable and safe electricity. One important safety concern is the temptation to shoot at birds perched on these lines. Shooting at the lines can cause significant damage, as pellets can penetrate the outer layer of wires, leading to fraying or other damage. Always be mindful of your surroundings and be on the lookout for power lines.



This frayed electric wire shows visible indentations on both sides—likely caused by shotgun pellets.



The indentation shown above on this electric wire was likely caused by a spray of shotgun pellets.

### DEVELOPING YOUTH LEADERS AT YLC



Student group photo before clean-up of the dorms and farewell.

The 2025 Youth Leadership Conference (YLC) took place July 15-17 at UW-Stout in Menomonie, Wis., and hosted over 80 students. The annual conference gives students the opportunity to enhance their leadership skills, hear from motivational speakers, participate in team-building activities, and understand the cooperative business model.

Participants heard from engaging speakers such as Hunter Gillett, who shared his journey of navigating life after surviving a plane crash, and Craig Hillier, who delivered an upbeat presentation on breakthrough leadership.

Among the attendees was Bella Mattke, who was sponsored by PEC. The conference is led by students, with a youth board elected during the event to lead the planning for next year.

If you have a student entering their sophomore, junior, or senior year in fall 2026, watch for communication from PEC in early 2026 on the registration process.



Attendees engage in a team-building activity.

#### Jeff Olson, President/CEO

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Office Hours: Monday–Friday, 7:30 a.m.–4 p.m.

**Amy Jordahl, Editor** 



The PEC office will be closed on Monday, September 1 in observance of Labor Day.