

UNDERSTANDING DEMAND CHARGES



For commercial and industrial members, electric demand is measured in kilowatts (kW). Demand represents the highest measured rate of using electricity for each billing period and the electrical capacity required to ensure energy is available when needed. The demand charge on a bill is a member's proportional share of capacity within their rate class.

WHAT IS DEMAND?

Simply put, energy (kWh) is the amount of power you consume, while demand (kW) measures how much power you need at a given time.

For Example: Think of your electric usage in terms of your automobile. Energy charges are recorded in the same way as your odometer, but instead of distance in miles, your meter measures how many Kilowatt-hours (kWh) you use.

On the other hand, demand is measured by the 'speed' you are using electricity similar to your speedometer. Demand is recorded by measuring the amount of electricity called on at a given time. Instead of miles-per-hour, demand is measured in kilowatts (kW).

A scooter and a racecar might travel the same distance (energy--kWh), but the speed at which they are traveling (demand--kW) requires a different motor, transmission, and tires (substations, transformers, wires) to achieve those speeds.

WHY HAVE A DEMAND CHARGE?

If Western blended the demand charges into the energy charge, some members would pay more than they should, and some would not pay enough. With Advanced Metering Infrastructure (AMI), Western accurately measures how much electricity each member uses and the 'speed' they use that power.

We use the recorded information to bill members fairly based on the two largest drivers of electric consumption: your impact on the electric system (demand) and the amount of power you consume (kilowatt-hours).

Having separate charges allows us to adequately and fairly collect enough money through our rates to deliver power and maintain the needed capacity for our electric system.

HOW AM I BILLED FOR DEMAND?

The demand charge on your monthly bill represents the 15-minute interval with the highest energy consumption over that billing period—this amount is measured in kilowatts (kW). You are billed a per kW rate multiplied by the total kW of the highest interval. The amount billed for demand per kW depends on your rate class and the time of year (summer or winter). To view all Western tariffs, visit www.westerncoop.com.

Understanding Demand

The more equipment you run simultaneously, the more your demand for power increases. In this example, both members use the same amount of energy (kWh) to run their grain bin drying fans, but each member puts a different demand (kW) on the electric grid.



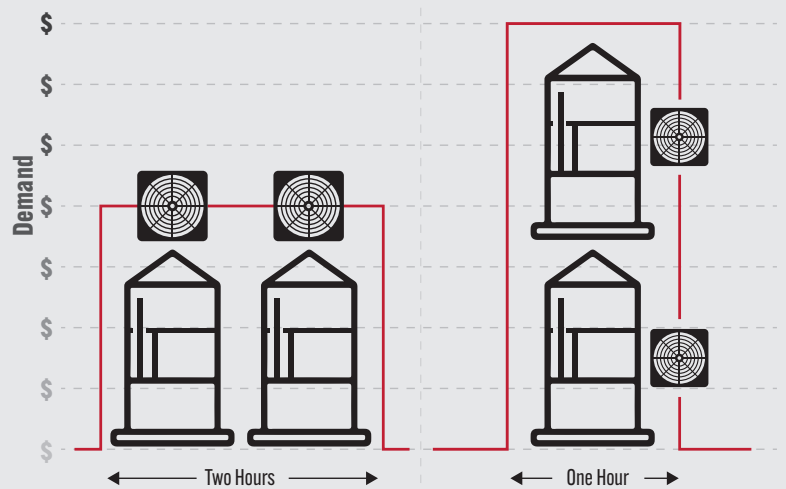
Joe

Joe has two grain bins. He runs a fan on 'Bin A' for one hour, shuts down, and then runs the fan on 'Bin B' for the next hour.



Bill

Likewise, Bill has two grain bins with a fan on each, and he decides to run both fans simultaneously for one hour.



Joe:
Energy 29.8 kWh
Demand 14.92 kW

20 horsepower fan x 0.746 = 14.92 kW
0.746 converts HP to kW
for electric motors.
14.92 kW x 1 hour = 14.92 kWh

Bill:
Energy 29.8 kWh
Demand 29.80 kW