

# Understanding Demand and Demand Charges For Commercial Customers

Demand is the speed at which energy is consumed by a customer at any time. Demand varies from hour to hour, day to day and season to season. This consumption, which is expressed in kilowatts (not kilowatt-hours) is called the “demand” on the system. Farmers Electric monitors demand over 15-minute intervals. The customer is charged for the highest 15 minute kW recorded on the demand meter. After Farmers Electric reads the meter each month, demand is reset to zero and the meter starts over, recording the highest 15-minute kW for the next billing period.

## What is Demand Charge?

Demand charge is based on each consumer’s maximum 15-minute demand on the cooperative’s distribution system each month. Demand is measured in kilowatts (kW). Consumers are billed by their rate according to the kW demand capacity.

To illustrate how demand charge can affect an electric bill, let’s look at two simple examples:

### [Example 1](#)

Running a 60kW load for one hour would result in usage of 60 kilowatt hours (kWh) and accrue a demand charge of 60 kW.

60 kW X 1 hour = 60 kWh Demand  
= 60 kW

### [Example 2](#)

Running a 6 kW load for 10 hours would also result in usage of 60 kWh but would only accrue a demand of 6 kW.

6 kW X 10 hours = 60 kWh  
Demand = 6 kW

Both examples use the exact same amount of energy (60 kWh) and perform the same amount of work. However, the resulting bills will be very different.

Applying Farmers EC’s Rate 7 demand charge of \$5.60 per kW and an energy charge of .083957 (which does not include the current month’s Power Cost Recover Factor (PCRF)) per kWh to both examples produces the following results:

### [Bill for Example 1](#)

60 kW X \$5.60 = \$336.60 + 60 kWh X .083957 = \$5.04  
Total = \$341.04

### [Bill for Example 2](#)

$6\text{kW} \times \$5.60 = \$33.60 + 60\text{ kWh} \times .083957 = \$5.04$

Total = \$38.64

## Why Are The Bills So Different?

It all depends on how fast your energy was delivered. The actual energy (kWh) used is the same, and the work done is the same. The difference between the bills is based entirely on speed and the highest demand recorded during any given 15-minute interval that month.

## Why Are Demand Charges Used?

The demand charge Farmers EC pays to our wholesale power supplier is also calculated on the basis of the highest demand during the month. Farmers EC uses the same method to bill demand to its demand-rate customers. Demand charges are the way Farmers EC pays for the generation and distribution volume we need to meet peak demand that occurs from time to time.

## Who Incurs a Demand Charge?

All customers who exceed 50 kW during any billing month will be billed for demand the following month. This includes:

**Three-phase customers requiring a transformer over 50 kilovolt amp (KVA) Single-phase customers requiring a transformer over 50 KVA.**

## Are Demand Charges Unique to Farmers Electric?

No. Demand charge billing is used consistently in the electric utility industry.

## How Can Demand Charges Be Reduced

To reduce demand charge, simply examine your operation.

- What energy-efficiency improvements can be made?
- Does all of the equipment need to be running at the same time?
- If not, what can be turned off while other equipment is running

Find out how to reduce demand charges by consulting the Energy Experts at Farmers EC. We can help evaluate ways to improve the energy efficiency of your operation.

For more information, contact [Farmers Electric Cooperative](#).