

# ENERGY WISE

for your Business

## DEMAND CHARGE - LARGE POWER

### Understanding Demand & Demand Charges

#### What is demand charge?

Demand charge is based on each customer's maximum "demand" on the cooperative's distribution system. "Demand" is the total amount of electricity being used at any one time and is measured in kilowatts.

Runestone Electric monitors this demand in 15-minute intervals on a monthly basis. That means the 15 minutes that your business is consuming (or "demanding") the most electricity in a given month establishes your demand for the month. You are then billed accordingly.

To illustrate how demand charge can affect your bill, let's look at two simple examples:

- **Load #1** If you run a 1 kW load for 10 hours, you would use 10 kWh, but would only accrue a demand of 1 kW  
**1 kW x 10 hours = 10 kWh Demand = 1 kW**
- **Load #2** If you run a 10kW (kilowatt) load for one hour, you would use 10 kWh (kilowatt hours) and accrue a demand charge of 10kW  
**10 kW x 1hour = 10 kWh Demand = 10 kW**

**kW** = kilowatt (demand)  
**kWh** = kilowatt-hour (energy)

**Large Power Energy Charge:**  
\$.079/kWh (year round)

**Demand Charges:**  
June, July, August - \$10/kW  
Non-Summer - \$6.50/kW

Using the Load #1 and Load #2 above, let's apply the summer and non-summer demand charge and an energy charge of \$.079 per kWh to both examples.

#### Load #1 – 1 kW Load

Non-Summer Deman Rate - \$6.50/kW

1 kW x \$6.50 = \$6.50

10 kWh x \$.079 = .79

**Total \$7.29**

Summer Demand Rate - \$10.00/kW

1 kW x \$10.00 = \$10.00

10 kWh x \$.079 = .79

**Total \$10.79**

#### Load #2 – 10 kW Load

Non-Summer Deman Rate - \$6.50/kW

10 kW x \$6.50 = \$65.00

10 kWh x \$.079 = .79

**Total \$72.29**

Summer Demand Rate - \$10.00/kW

10 kW x \$10.00 = \$100.00

10 kWh x \$.079 = .79

**Total \$100.79**

### Why so different?

The energy used, 10 kWhs, is the same for both loads. The difference between the electric bills is entirely in the demand. The bigger the load, the higher the demand.

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# Why are Demand Charges used?

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Demand charges are the way your co-op pays for generation and distribution capacity it needs to meet peak loads that occur from time to time.

The demand charge your co-op pays is calculated on the basis of the highest demand or load over a period of 15 minutes during the month. We use the same method to bill demand to our demand rate customers.

## How can demand charges be reduced?

It's important to examine your operation. Does all of the equipment need to be running at the same time? If not, what can be turned off when other equipment is running? What energy efficiency improvements can be made?

Often there is equipment that is operated infrequently. If this is the case, can some other equipment be turned off while this equipment is running? The result may be a significant savings in your monthly demand charge.

## Who is charged a demand charge?

Basically, larger customers who have a high demand for electricity at any given period during a month are charged demand.

This would include:

- Three phase customers requiring a transformer over 50 KVA
- Single phase customers requiring a transformer over 75 KVA
- Irrigators

## What more can you do to reduce your demand charge?

Consult the energy experts at Runestone Electric to help you evaluate your load factor. We are happy to help you evaluate ways to improve the energy efficiency of your operation.



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