



## How can Demand Charges be reduced?

To reduce the demand charge, simply examine your operation to see:

- What energy-efficiency improvements can be made?
- Does all the equipment need to be running (or start up) at the same time? If not, what can be shut down as another piece of equipment is running?

Often there is equipment that is operated infrequently. If this is the case, it would be a benefit to run this when other equipment can be shut down or run idle. The result may be a significant savings on your electric bill.

For example, if you wanted to test your air conditioner, it would be best to test it on an off day in April, rather than on a hot day in May when the draw in kW would be greater.

For ways to improve your electric load,

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## Understanding Demand and the Demand Charge For Commercial Customers



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## What Is Demand?

“Demand” is the total amount of electricity being used by a consumer at any one time. Demand varies from hour to hour, day to day, and season to season. The usage, which is expressed in kilowatts (not kilowatt –hours) is called the “demand” on the system. Great Lakes Energy monitors demand over a 15-minute period. The customer is charged for the highest 15-minute average recorded on the demand meter for the billing period. After Great Lakes Energy reads the meter each month, the demand is reset to zero and the meter starts over, recording the highest 15-minute average for the next billing period.



## What is a Demand Charge?

The Demand charge is based on each customer’s maximum 15-minute demand on the cooperative’s distribution system each month. Demand is measured in kilowatts (kW). Customers are billed according to kW of demand for their rate.

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

*Running a 20 kW load for one hour would result in usage of 20-kilowatt hours (kWh) and accrue a demand charge on 20 kW.*

$$20\text{kW} \times 1 \text{ hour} = 20 \text{ kWh} \quad \text{Demand} = 20 \text{ kW}$$

*Running a 2 kW load for 10 hours would also result in usage of 20 kWh, but only accrue a demand charge on 2 kW.*

$$2\text{kW} \times 10 \text{ hour} = 20 \text{ kWh} \quad \text{Demand} = 2 \text{ kW}$$

*Both examples use exactly the same amount of energy (20kWh) and perform the same amount of work. However, the resulting bills will be very different.*

*Applying Great lakes Energy’s LP rate demand charge of \$7.00 per kW and an energy charge of \$0.06519 per kWh to both examples produces the following results:*

### Bill Number 1:

$$20\text{kW} \times \$7.00 = \$140.00$$

$$20 \text{ kWh} \times \$0.06519 = \$1.30$$

$$\text{Total: } \$141.30$$

### Bill Number 2:

$$2\text{kW} \times \$7.00 = \$14.00$$

$$20 \text{ kWh} \times \$0.06519 = \$1.30$$

$$\text{Total: } \$15.30$$



## Why so Different?

The actual energy (kWh) used is the same, and the work done is the same. The difference between the bills is based entirely on the highest demand recorded during any given 15-minute period for that month.

## Why are Demand Charges Used?

Demand charges are the way your co-op pays for generation and distribution capacity it needs to meet peak demand that occurs from time to time. The demand charge your co-op pays to its wholesale power supplier is also calculated on the basis of the highest demand during the month.