

Understanding Demand Charges for General Secondary Rates

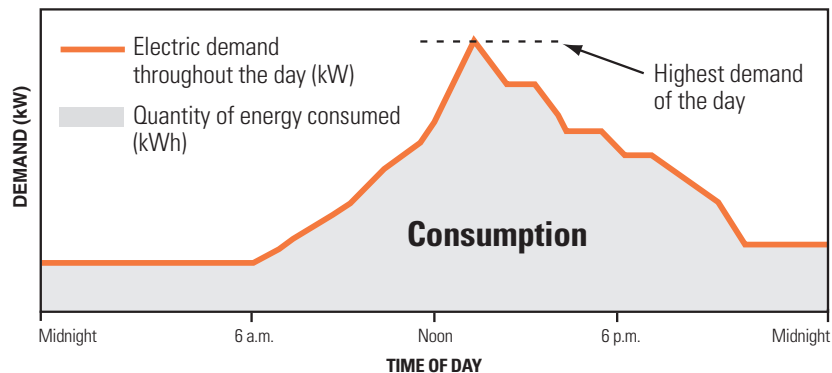
Important pricing information for Michigan business customers



Knowing how your electric use is billed and how your demand and energy charges are calculated will help you understand and manage your total energy costs.

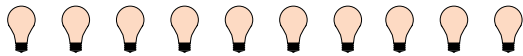
The electricity use diagram below shows the difference between **energy** and **demand**:

Electricity Use Profile (sample)



Understanding the energy charge

Energy charge is the calculation of the amount of electricity kilowatt-hours (kWh) consumed during the billing period.



Each of the ten light bulbs above uses 100 watts of electricity. If all ten are lit for one hour, they will have consumed one kWh of electricity:

$10 \text{ light bulbs} \times 100 \text{ watts} \times \text{one hour} = 1,000 \text{ watt-hours (1 kWh)}$

Your meter records the amount of energy used on-peak and off-peak.

Understanding the energy charges on your bill

Your bill will indicate how much energy was used on-peak (between 9 a.m. and 9 p.m. Monday – Friday) and off-peak (between 9 p.m. and 9 a.m. Monday – Friday), weekends and designated holidays (New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Christmas Day). Customers billed on the Cg3 or Cg5 rate will notice that the kWh energy charge is more during on-peak hours than for energy used during off-peak hours.

Understanding the demand charge

Demand is the rate at which you consume electricity – or the amount needed to power your business at any given point in time. Your demand charges are based on the highest level of electricity you demand at one time during the billing period and at the time of day it's needed by your business.

A single light bulb *demand*s 100 watts of electricity at any given moment. In the energy charge example, the ten light bulbs demanded 1,000 watts (1 kW) of electricity to operate.

Rate Cg3:

Understanding the demand charges on your bill

You will see demand charges appear as two separate charges on your bill.

Power supply on-peak demand charge – This charge is for the 15-minute interval when you use the most electric power to run your equipment, lights, etc. during the on-peak time period (9 a.m. to 9 p.m. weekdays) for the current bill.

Delivery customer maximum demand charge – This charge is for the 15-minute interval when you use the most electric power to run your equipment, lights, etc. during any time of the day for the current or previous 11 months of bills.

The reason for separate charges

Utility companies invest in generation and distribution equipment to meet the maximum demand that all customers may require at one time. Utilities use peak demand to properly size electric service for their customers and to ensure that there is sufficient generating capacity available. Separate charges for energy consumption and demand more fairly distribute the costs of providing service to customers who use large amounts of energy.

Your energy charges are based only on the total amount of energy you consume. Your demand charges are based on the highest level of electricity you demand at one time during the billing period and at the time of day it's needed by your business.

Total energy consumption and demand are not necessarily related

In the example below, the total electric consumption, measured in kilowatt-hours, by Company B was actually less than Company A. But because B's on-peak demand (measured in kilowatts) was much higher, Company B's total charges were higher.

	Company A	Company B
<i>Energy Consumption</i>	<i>19,000 kWh</i>	<i>15,000 kWh</i>
Power Supply		
On-Peak Energy Charge	12,000 kWh x \$0.06 = \$ 720.00	10,000 kWh x \$0.06 = \$ 600.00
Off-Peak Energy Charge	7,000 kWh x \$0.04 = \$ 280.00	5,000 kWh x \$0.04 = \$ 200.00
On-Peak Demand	60 kW	100 kW
Demand Charge	60 kW x \$11.75 = \$ 705.00	100 kW x \$11.75 = \$1,175.00
Delivery		
On-Peak Energy Charge	12,000 kWh x \$0.02 = \$ 240.00	10,000 kWh x \$0.02 = \$ 200.00
Off-Peak Energy Charge	7,000 kWh x \$0.02 = \$ 140.00	5,000 kWh x \$0.02 = \$ 100.00
Customer Maximum Demand	80 kW	140 kW
Demand Charge	80 kW x \$6.75 = \$ 540.00	140 kW x \$6.75 = \$ 945.00
TOTAL CHARGES	\$2,625.00	\$3,220.00

Actual prices are not used in this example.

Managing your demand charges

Here are a few tips:

- Shift some use to off-peak hours (9 p.m. – 9 a.m., weekends and holidays).
- Be aware of your on-peak use. Starting large motors or processes during on-peak hours can cause demand spikes that may increase your demand charges.
- Use energy at a steady pace especially during on-peak hours; a steady load will help control demand charges.
- Evaluate all your pricing options. Call our business division at 800-714-7777, ext. 7700 for assistance.