

# Electric Line Newsletter

## UNDERSTANDING POWER SURGES AND BLINKS

Have you ever noticed your lights blink during a thunderstorm? Or perhaps you've noticed a blinking microwave clock when you arrive home. When this happens, you've likely experienced a brief disruption to your electric service, which could result from a power surge or blink. While the symptoms of surges and blinks can appear similar, what's happening behind the scenes can be quite different.

### What's a power surge?

Power surges are brief overvoltage spikes or disturbances of a power waveform that can damage, degrade or destroy electronic equipment within your home or business. Most electronics are designed to handle small variations in voltage; however, power surges can reach amplitudes of tens of thousands of volts—this can be extremely damaging to your electronic equipment.

Surges can be caused by internal sources, like HVAC systems with variable frequency drives, or external sources, like lightning and damage to power lines and transformers.

Central Wisconsin Electric Cooperative (CWEC) encourages all members to install surge protective devices (such as surge protector power strips) to safeguard your sensitive electronics. If you're experiencing frequent surges in your home or business and you believe the cause is internal, contact a qualified electrician to inspect your electrical system.

### What's a power blink?

Power blinks are also brief service interruptions, but they're typically caused by a fault (short circuit) on a power line or a protective device that's working in reaction to the fault. Faults can occur through a variety of instances, like squirrels, birds or other small animals contacting an energized power line; tree branches touching a power line; or lightning and other



**CWEC will be closed on  
Monday, July 5,  
in recognition of the  
Independence Day holiday.**

**From everyone at CWEC, we  
wish you a safe and enjoyable  
Fourth of July holiday.**

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Office Hours: Monday thru  
Friday; 7:30 a.m.—4 p.m.

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similar events. In fact, when it comes to power disruptions caused by critters, squirrels reign supreme. In 2019 alone, squirrels were responsible for more than 1,200 outages.

Any of the events noted above can cause your power to blink, but you may also experience a brief interruption when protective devices that act like circuit breakers are working to detect the fault. Believe it or not, these brief power blinks caused by protective devices are actually good because that means the equipment is working as it should to prevent a prolonged outage.

Regardless of the cause, CWEC crews will be on their way to inspect the damage and make necessary repairs after a power outage. And you can help too! Any time you experience repeated disruptions to your electric service, please let us know by calling 1-800-377-2932.

## HOME CHARGING OPTIONS FOR ELECTRIC VEHICLES

Electric vehicle (EV) owners have multiple options for charging their vehicle at home. There are three common EV charging levels: Level One, Level Two and DC Fast Charge.

### Level One Charging

Level One is the most basic charging level. If you choose this option, your EV will typically include an adapter that plugs into a typical 120-volt outlet. This is the easiest and cheapest charging solution, but it will take much longer to charge your EV.

### Level Two Charging

Level Two is about three to five times faster than Level One, but this level of charging often requires separate purchases and installation. The EV is plugged into a 240-volt outlet, which is used for larger appliances, like a clothes dryer. Most homes do not include a 240-volt outlet in garages, so the outlet must be installed by a licensed professional. You typically see Level Two charging sta-

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## SIGN UP FOR FREE OUTAGE NOTIFICATIONS

Did you know that you can sign up for a service provided by Central Wisconsin Electric Cooperative that will alert you via text when a power outage is affecting your meter?

The service lets you know CWEC is aware of the outage at your location. You will be notified when CWEC's outage management system predicts an outage based on reports from other members on your same line. It also notifies you when the power is back on. You will also receive an estimated time of power restoration and outage cause, whenever possible.

The text message will appear to come from the number 550-50, which is "short code" for CWEC's text messaging service. It may be changed on your phone by saving it in your contacts and renaming it "CWEC Outage Notification" or any other desired name.

If you sign up for the Outage Notification service and you receive a text stating the power is out, but you do have power, the message will ask you to call the number provided to let us know that you do have power.

You can always call CWEC's 24-hour outage line at 800-377-2932 to report a power outage.





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tions at shopping malls, office buildings and multi-family community spaces.

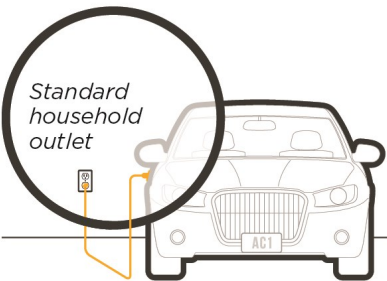
## DC Fast Charging

DC Fast Charge stations are typically seen near high-traffic public areas, like gas stations, rather than in homes. This is the fastest charging level, with the ability to charge an EV at 80% in under 30 minutes. As EVs continue to become more popular, you can expect to see more DC Fast Charge stations throughout Wisconsin.

If you're charging an EV at home, please contact Central Wisconsin Electric Cooperative at 715-677-2211. EV charging creates additional energy demand. The time of day you charge your EV can have an impact on the grid *and* your monthly energy costs. By letting us know about your EV charging levels, we can help ensure your home is prepared for the additional energy consumption.

## Electric Vehicle Charging Levels

### AC Level One



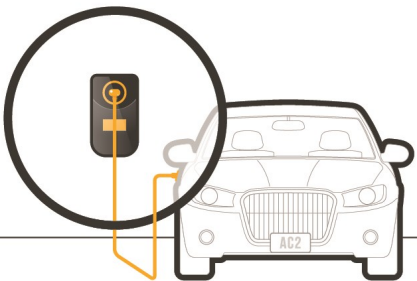
**VOLTAGE:**  
120V 1-Phase AC

**AMPS:**  
12-16 Amps

**CHARGING LOADS:**  
1.4 to 1.9 kW

**VEHICLE CHARGE TIME:**  
3-5 Miles per Hour

### AC Level Two



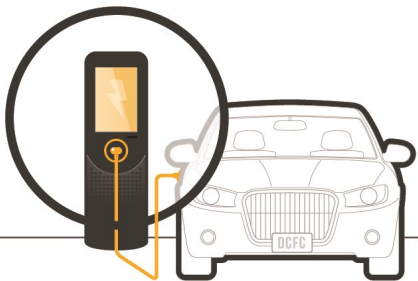
**VOLTAGE:**  
208V or 240V 1-Phase AC

**AMPS:**  
12-80 Amps (typ. 32 Amps)

**CHARGING LOADS:**  
2.5 to 19.2 kW (typ. 6.6kW)

**VEHICLE CHARGE TIME:**  
10-20 Miles per Hour  
20+ for some EV models

### DC Fast Charge



**VOLTAGE:**  
208V or 480V 3-Phase AC

**AMPS:**  
<100 Amps

**CHARGING LOADS:**  
50-350 kW

**VEHICLE CHARGE TIME:**  
60-80 Miles in 20 Minutes

Sources: Advanced Energy and EPA