

Why does the power blink?

At one time or another, we've all returned home or woken up late for work to see a blinking "12:00" on our digital alarm clock. You then have to reset every digital clock in your household that doesn't have a battery backup, from the microwave oven to the answering machine. Usually, this state of "eternal midnight" was caused by a "blink" in the electrical system.

While blinks can be annoying, they show that an electrical system is working exactly as designed. And while Itasca-Mantrap has taken steps to reduce the number of blinks across its power system, there are measures you can take as well.

Let's look at blinks. These momentary power interruptions can occur anywhere along a power system—from the time electrons are generated at a power plant to being shipped across transmission line to substations, or during distribution from a substation to your home.

Why blinks?

Blinks are created when a breaker, or switch, opens along any portion of the power system. The breaker usually opens because of a large, quick rise of electrical current. This large rise, called a fault condition, can occur when a tree branch touches a line, lightning strikes, or a wire breaks.

When this happens, a relay senses the fault and tells the breaker to open, preventing the flow of power to the problem site. After opening, the breaker quickly closes. The brief delay, which allows the fault to clear, usually lasts less than two seconds.

If the fault clears, every home or business that receives electricity off that power line has just experienced a blink. This could include thousands of accounts if the breaker protects a transmission line or a substation.

Reducing the blink's effects

Your co-op employs methods to reduce blink frequency. Tree trimming is probably the easiest and most common way, and one area where you can help. Make sure your co-op knows of any trees or limbs located close to a power line.

Meanwhile, you can reduce the frustration of blinks by purchasing an alarm clock equipped with a battery backup. This type of digital clock offers “ride through” ability for momentary outages. It will also keep the correct time and sound an alarm in case of a long-duration outage, provided a charged battery is in place. As an added benefit, these devices only use the battery in the event of a power interruption.

Blinks affect all electrical equipment, not just digital clocks. If there is a blink while you are operating a computer, your computer may crash and you will have to reboot, hoping all the while that there will be few corrupted files.

An uninterruptible power supply (UPS) on your computer can help prevent information loss. The UPS incorporates surge suppression technology with a battery backup and provides you some time to save whatever you were working on and exit your computer properly.

The future of blinks

Itasca-Mantrap operates an active system maintenance program and works hard to identify and fix sources of service interruptions. Even though blinks will never disappear from our electrical energy delivery system, by working together with we can minimize effects of the interruptions and the frequency with which they occur.

Source: Scott Turner, P.E.