Reducing power flickers

We've mounted a major effort to reduce those brief, yet frustrating, power outages that can momentarily shut off electricity to your electronic devices and appliances.

Although Florida Power & Light Company (FPL) continues to make good progress in reducing power outages – improving overall reliability by 45% since 2011 while providing customers with more than 99.99% service reliability – we remain dedicated to further minimizing brief outages and enhancing the reliability of our service. That's why FPL has launched a major initiative to reduce power "flickers" (outages lasting less than 60 seconds) and their impact on our customers.

The following is an overview of power flickers and what we're doing about them.

Why they occur

Flickers may occur at any time – even on a sunny day – and can be caused by a number of factors, including:

- Lightning strikes
- Damaged electrical equipment
- Vegetation – tree branches, palm fronds or other debris – making contact with power lines
- Animals interfering with electrical equipment
- Salt spray affecting equipment in coastal areas

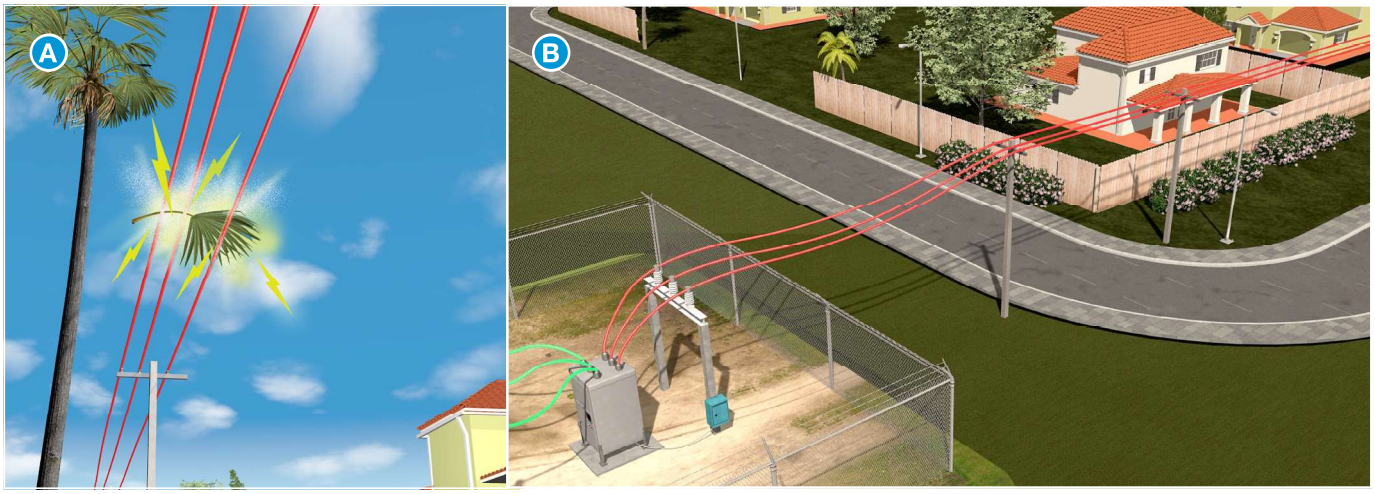
What happens

Let's look at one example. One of the most common causes of power flickers is when a tree branch or palm frond is blown into overhead power lines. See the illustration below. When the branch makes contact with our lines (A), the system detects the interference and shuts off electricity to that section of the line for a brief period – usually a few seconds (B). The tree branch or palm frond typically falls to the ground, allowing service to be restored quickly.

This process allows the system to determine if there is a break in the line or other electrical difficulty. Briefly shutting off power and isolating the problem area helps prevent damage to the electric system, which could result in a longer outage and affect many more customers.

For example, a flicker on your local power line could affect electric service for you and 200 of your neighbors. Without this brief interruption, the outage could last several hours, spread to other power lines and affect service for thousands of customers.

Additional information is included on the reverse side of this fact sheet. Also see our video at **FPL.com/flickers**.



Others may also be affected

In addition to affecting customers served directly by the power line impacted by the tree branch, other customers in the area who receive electric service from adjacent lines may also experience a flicker. The tree branch or other interference often produces a brief drop in electricity – called a "voltage sag" – on adjacent power lines that affects customers served by those wires. Conversely, a lightning strike could cause a power "surge" – a brief, but noticeable increase in electricity in your home or business that may cause a flicker.

Power flickers can even affect your service if you receive electricity from an *underground* power line. Underground wires ultimately connect with overhead lines and equipment located elsewhere on the power grid, away from your immediate area.

How flickers affect you

You may notice the lights flicker or experience a brief outage lasting several seconds. There also could be a series of flickers over a period of a few minutes. Although these outages are brief, we understand how frustrating they can be for you. Your appliances and electronic devices may shut off and need to be reset.

What we're doing about it

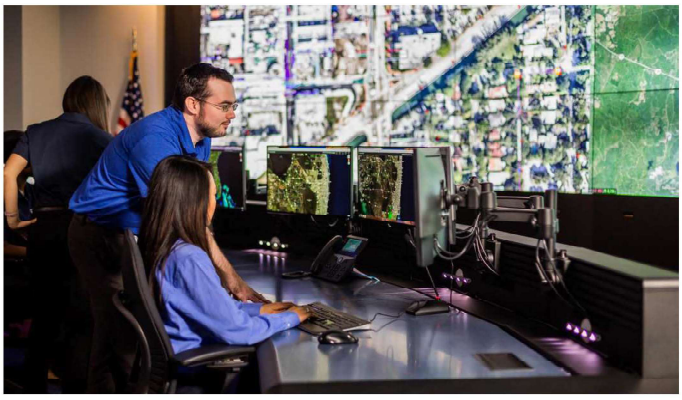
If you've experienced a problem with power flickers, we apologize – and want you to know we're working to reduce both their frequency and impact.

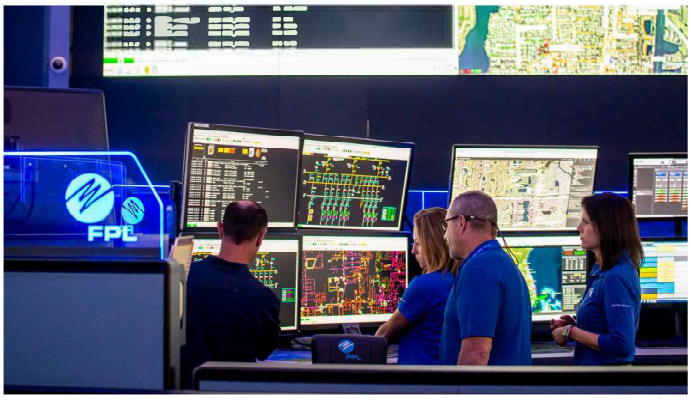
Smart grid technology– including smart meters – are helping us better understand what our customers experience when flickers occur and help us avoid them all together. FPL's smart grid includes about six million smart meters and more than 217,000 other intelligent devices that help us know when interruptions occur. Before, we could only measure the number of homes and businesses affected directly by the brief outage on their local power line. Today, thanks to smart grid technology, we're able to gauge the outage's impact more accurately on customers in nearby areas whose electric service is affected indirectly – primarily due to a voltage sag or power surge. FPL is working aggressively on several fronts to reduce the frequency of flickers, including:

- Targeting power lines that experience the highest number of flickers for improvements
- Analyzing all technology options to prevent the initial flicker on a power line, and reduce its impact on adjacent lines
- Clearing vegetation from tens of thousands of miles of lines annually
- Inspecting 100% of our poles per inspection cycle

What you can do

As we focus on our program to reduce flickers, you can take steps to minimize their effect on your home or business. Devices such as surge protectors can help maintain the flow of electricity and prevent possible damage to your appliances and equipment. Surge protectors act like electrical sponges, absorbing excess energy and preventing most of it from reaching your electronic devices.





Reporting an outage

To report a power outage please contact FPL at 1-800-4OUTAGE (1-800-468-8243) or report it online at FPL.com/outage.