



LOAD MANAGEMENT

THE IMPORTANCE OF beating the peak

Reducing the demand for electricity benefits us all

What is peak demand?

Peak demand is when electric use is higher than normal. Increased demand for electricity from individual electric co-ops and investor-owned utilities, the state of Ohio as a whole, or even the 13-state PJM Interconnection (the electric transmission territory that serves Ohio), can create peak demand.

Why is peak demand important?

During peak demand, Firelands Electric Cooperative's power supplier, Buckeye Power, Inc., runs its large baseload power plants at full capacity. If the need arises, Buckeye Power can also fire up its supplemental gas-fired peaking plants or purchase power from additional sources, which all affect the wholesale power adjustment (WPA) portion of members' electric rates.

In addition, environmental regulations have resulted in the retirement of numerous coal- and natural gas-fired power plants over the past decade. While renewables have replaced some of these plants, the generation capacity of these facilities is much lower than those that have been shut down. During extreme weather conditions, this can create an alarming burden on the electric grid — so much so that rolling blackouts could become necessary.

How does this impact load management participants?

Members who participate in Firelands Electric's voluntary load management program help the cooperative lower the demand for electricity and reduce the risk of higher WPA costs and rolling blackouts. Rebates and incentives are also available to members who choose to participate in these programs.

Buckeye Power may issue a peak alert during these periods of high demand. These alerts are often implemented when extreme weather conditions and temperatures occur — the hottest days during the summer and the coldest days in the winter. During a peak alert, load management devices installed on electric water heaters and HVAC systems in participating members'

homes may be activated, temporarily disconnecting the appliance from the power supply.

Summer load management efforts typically take place on very hot and humid days between 2 and 6 p.m. Winter load management may occur on bitter cold days between 6 and 10 a.m. and/or from 5 to 9 p.m. Depending upon weather conditions and power loads, the time and duration of load management efforts may be adjusted.

For details on how each type of load management device operates, check out the next page. If you have questions regarding your load management device, or wish to become enrolled in one of Firelands' programs, please visit www.firelandsec.com/load-management or contact the member services department at 1-800-533-8658. Additional information on how you can help reduce electric load during a peak alert can also be found on this webpage.

Load management participants may also sign up for peak alert email and/or text notifications by enrolling in SmartHub. Visit www.firelandsec.com/smarthub-101 for details on how to register for SmartHub so you always know when a peak alert and load management are taking place.



How does load management work?

General load management information:

- A load management device, like the gray box shown below, is typically installed near the water heater or HVAC system, at the outside HVAC disconnect, or next to the service panel or breaker box.
- A green light on the device is normal and indicates that electricity is flowing to the water heater or HVAC system.
- A red or amber light indicates that load management is taking place and that the water heater or HVAC system is not receiving any power.
- The device receives a satellite signal about every 10 minutes, so if the circuit breaker is flipped off and on, or the entire home loses power, you will need to wait up to 15 minutes for the device to reset and the green light to reappear.

Water heater

- During load management, the device shuts off power to a member's water heater for the duration of the peak alert period, which may last several hours. To conserve hot water during this time, avoid laundry, dishwashing, and bathing until the peak alert has ended.

Heating system

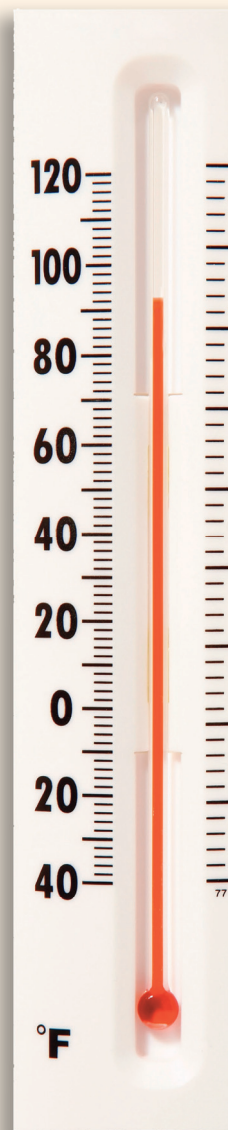
- Load management may be installed on electric furnaces, heat pumps, geothermal systems, electric baseboard, and Electric Thermal Storage (ETS) units.
- It's important to note that load management devices are no longer being installed on heating systems. Only homes with existing operational devices installed qualify for any incentives.
- During load management, the device shuts off power to a member's heating system for the duration of the load management. However, there is a temperature override in place to prevent your home from getting too cold. This sensor, which is a small white box, will stop load management and return your heating system

to normal operation if the temperature of the home gets below 60 degrees.

- If a green light, or combination of red and green appears on the white box, the temperature sensor is working correctly.
- Members receive a \$5.00 bill credit each month from November to June (for service in October through May) for having this device installed.

Central air-conditioning

- This style of load management device is installed on central air-conditioning systems, geothermal units, and heat pumps.
- Devices on air-conditioning systems are only controlled for 8 to 10 minutes during each 30-minute period of a peak alert. As a result, your system will cycle off and on during summer load management, helping maintain the comfort level of your home.
- Air-conditioning controls are only connected to the system's compressor and will not affect the blower or fan on the air handler. Essentially, your air conditioner turns off and on like normal, but it is just timed to prevent too many systems on the co-op's lines from running at the same time.
- Members receive a \$10.00 bill credit each month from July to October (for service in June through September) for having this device installed.



At left: This gray box is a load management device. Firelands Electric members who are voluntarily enrolled in the cooperative's Cool Returns or PeakBusters programs have one of these devices installed near their service panel, HVAC system, central air-conditioner, and/or water heater. The box has a green light displayed during normal operation, indicating that electricity is flowing to your system. If a red or amber light is displayed (as shown in the enlarged circle), a peak alert has been issued. This indicates that load management is taking place and that your system is temporarily not receiving any electric power.

Find additional ways you can help reduce load during a peak alert at:

www.firelandsec.com/load-management

