

Appalachian Power Residential Peak Reduction Program

Frequently Asked Questions



TAKE CHARGE™

What is peak demand and why is it important?

Peak demand refers to periods of exceptionally high demand, usually during the summer when people use more electricity largely due to air conditioning. Using energy wisely during periods of peak demand reduces stress on the electric grid and makes the electric delivery system more reliable.

Who is eligible for the Residential Peak Reduction Program?

Customers of Appalachian Power Company living in Virginia with central air conditioning/heat pump in good working condition can participate in the program. Window and wall air conditioners do not qualify. Some high efficiency AC units with variable speed compressors or greater than 20 SEER are not compatible with the device. Customers must own their home or have the property owner's permission to participate.

How does the program work?

When you enroll in the Residential Peak Reduction Program, Appalachian Power will install a device (peak reduction load management switch) near your outside central air conditioning unit. There is no additional cost for the device and installation. During a limited number of peak demand periods which occur on the hottest days of summer, Appalachian Power will activate the device to adjust your air conditioner's compressor to run at 50% cycling. This is called a "cycling event." Events will have minimal impact on the temperature of your home, and most participants do not notice a change. Appalachian Power is offering participating customers \$8 per month (May through September) for each central cooling unit enrolled, up to \$40 per year.

What is the Peak Reduction load management switch and how does it work?

The management switch is a radio-controlled device that a technician has or will install near your outside air conditioning unit. The switch is activated by Appalachian Power when needed for a peak demand cycling event and will direct your air conditioner's compressor to run at 50% cycling. When your thermostat calls for AC, the outside unit will run in cycles of on for 15 minutes, off for 15 minutes. During cycling events, your air conditioning system's fan will continue to circulate room temperature air through the ductwork during the off cycles. After the period of peak demand has passed, the switch will trigger your system to automatically resume normal operation.

Do I need to be home for the installation?

No. As long as your outside air conditioning unit is accessible (not behind a locked enclosure, dogs and other animals fenced in another area of yard, etc.), you do not need to be home during installation.

Could my home already have a device installed?

Yes. The Appalachian Power Peak Reduction program first launched in 2015. Many customers are currently enrolled and do not need to re-apply. If you are new to the home, the former resident may have participated and your AC unit(s) could already have a connected device. The program enrollment can easily be transferred to your Appalachian Power account without scheduling an install appointment. This will allow you to receive the benefit of the \$8 per month incentive, up to \$40 per year. Please call 888-261-4567 to transfer enrollment to your account today.

What does the device look like?

The Eaton Cooper LCR-4700 load management switch is a rectangular box with a black cover, which will be mounted either on the AC unit itself or very close to it on the house. The box dimensions are approximately 6 in. High x 9 in. Wide x 3 in. Deep. An LED indicator light is in the bottom left corner. You may see an Appalachian Power sticker on the cover.



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How can I tell if the device is active?

The LED light on the device will indicate its status. Red means the device has been activated for an event. Green indicates it is working normally and no event has been called. If the LED light is blinking, then the device requires service. The LED light will be off if the device has been disconnected. Please call 888-261-4567 and we will have an authorized program representative service or reconnect the device at no charge.

I have multiple AC units. Do all of them need a device?

Yes. To participate in the program, each central AC unit will need a separate load management device installed.

Which type of AC units do NOT qualify?

Window units are not eligible to participate. Mini-split or wall AC units with no ductwork typically use a different electronic controller, which we recommend not altering. Some high-efficiency AC units with variable speed compressors or greater than 20 SEER are not compatible with the device. Geothermal systems do not have the same impact on the electrical grid that a conventional AC system does and also do not qualify.

My AC unit is rather old. Can I still participate?

Yes. The age of the unit is not a factor. As long as it is in good working condition, we can install a device on older units. The technician will verify that your outside AC unit has an electric disconnect (per code) and is in good working condition before completing the install.

When and how often do cycling events occur?

Cycling events can occur Monday through Friday between noon and 8 p.m. on the hottest days of summer from May through September. No events will take place on weekends or holidays. The average cycling event lasts 2-3 hours and will not exceed 6 hours. There is a maximum of 15 non-emergency cycling events in a summer season.

Will I notice any change?

The temperature inside your home may increase by 1-3 °F temporarily and then return to normal. When the device is activated during an event and your thermostat calls for AC, the outside unit will run in cycles (on for 15 minutes, off for 15 minutes). During cycling events, your air conditioning system's fan will continue to circulate room temperature air through the ductwork during the off cycles. After the period of peak demand has passed, the switch will trigger your system to automatically resume normal operation.

Some of my home's occupants are sensitive to hot weather. Should I still participate?

We do not recommend any person with a medical condition (such as heart disease, COPD, or needing supplemental oxygen) that is affected by increased temperatures to participate in the program. The elderly and young children can be especially sensitive to temperature increases. Your comfort is our main concern.

What if my home becomes uncomfortable?

Air conditioning units have a design operating temperature of around 90 degrees in this climate zone. When the outside temperature is above 90 degrees, many AC units will normally struggle to achieve the thermostat set point, even when there is no cycling event. In addition, if you raise the thermostat temperature while you are gone for the day, the AC may have difficulty lowering the inside temperature while the outside air is still above the design temperature.

Potential temperature changes during cycling events depends on a variety of factors, including the temperature outside and your home's insulation. If you are interested in improving the efficiency and comfort level of your home, please consider an energy assessment from Appalachian Power's Home Performance Program. Visit TakeChargeVA.com or call 855-422-5510 for more information.

Program participants may opt out of one non-emergency event per year by calling 888-261-4567. Our staff can remotely deactivate the device during an event without ending your participation. Your system will then automatically resume normal operation.

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What is the difference between an “emergency” and “non-emergency” event?

Emergency Event: When regional demand for electricity is close to surpassing regional supply, Appalachian Power is required to activate a cycling event. Program participants may not opt out of an emergency event. **Non-Emergency Event:** When local demand for electricity is very high, yet demand may not be close to surpassing regional supply, Appalachian Power may activate a cycling event. Program participants may choose to opt out from this type of event one time per year.

Will the device hurt or damage my unit?

No. The device will not hurt or damage your unit or void any warranties. The device is a relay switch connected to the thermostat circuit using a low voltage wire. During an event, it simply turns the outside unit on and off in 15-minute cycles. The indoor unit’s fan will continue to circulate room temperature air through the ductwork during the off cycles.

My AC is not working properly. Could that be caused by the switch?

No. The device is not capable of stopping the AC unit from working. Even when a switch is broken, the electric circuit defaults to closed so that the outside compressor will still function normally. There is no way for it to cause a complete power disconnect. If you suspect a problem with your AC, we recommend calling your preferred HVAC company to service the unit.

If my central air conditioner compressor is replaced, do I need to notify Appalachian Power?

Please call us at 888-261-4567 if your compressor is replaced. We will have an authorized program representative reconnect the Residential Peak Reduction device at no charge.

When will I receive the \$40?

You will receive your check shortly after the event season concludes (event season runs May–September). If the device is installed between May and September, your check may be prorated based on the installation date.

What other energy efficiency programs might I qualify for?

Appalachian Power offers several ways to earn and save money through our energy efficiency programs!

If you are interested in improving the efficiency and comfort level of your home, please consider an energy assessment from Appalachian Power’s Home Performance Program. Visit TakeChargeVA.com or call 855-422-5510 for more information.

For a limited time, rebates are also available for certain ENERGY STAR® certified appliances and LEDs. Visit TakeChargeVA.com or call 888-261-4567 for more information.

Have additional questions? Ready to enroll?

Call us at 888-261-4567 or visit TakeChargeVA.com/Peak.