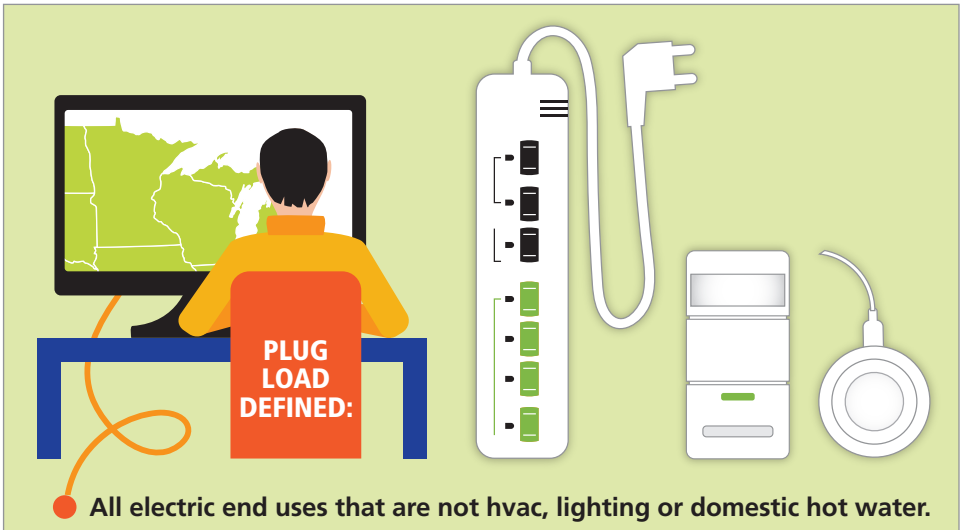
# Advanced power strips

## DESCRIPTION

Equipment plugged into wall sockets in homes and offices contributes significantly to our energy use. Many of these devices use energy even when they are not actively being used, analogous to leaving the lights on in a vacant room. Advanced power strips completely turn off these devices when they're not in use, saving energy.

Two levels of power management are available with advanced power strips: Tier 1 power strips manage standby load in peripherals and Tier 2 power strips manage all loads. Different strategies can be used to control each type of strip as well. Time-based power strips shut off on a pre-set schedule and sensor-based power strips shut off if no activity is detected.

Advanced power strips also are generally dedicated to one of two space types. Managing plug load from audio visual equipment is a good use for residential advanced power strips. And in offices, large or small, corporate or home, commercial advanced power strips can be used to obtain significant savings.




**ADVANCED POWER STRIPS (APS) SAVE ENERGY** from peripheral loads that are left on when not in use. **APS combined with occupancy sensors** that are set to turn off controlled outlets after 10 minutes of inactivity **CAN REDUCE PLUG LOAD ENERGY USE BY ~22%. APS combined with a foot pedal switch** that can be used to manually turn off the controlled outlets, but also equipped with a timer to turn everything off at the end of a workday, **CAN REDUCE PLUG LOAD ENERGY USE BY 19%.**

| CRITERIA | VALUE |
|---|---|
| Electricity savings | 0.12 kWh/ft$^2$ |
| Cost savings | \$0.01/ft$^2$ |
| Measure life | 4 years |
| 2017 simple payback | 3 years |
| Carbon emissions avoided | 8.4E-05 MT equivalent $CO_2$ |
| How it saves energy | Turns off plugged in devices that are not being used |
| Non-energy benefits | Some strips have demand response capabilities; surge suppression |
| Barriers to adoption | IT manager pushback; user acceptance |

## DEMONSTRATING THE TECHNOLOGY

Tier 2 power strips are less established in the market and in much need of field testing. Tier 1 power strips could still benefit from additional demonstration through pilot programs. Demonstration sites could be recruited through direct install programs targeting small businesses or homes, or as a free give-away to consumers. The commercial Tier 2 products could also use additional dedicated field studies in medium and large offices.

**FOR MORE INFORMATION**

Scott Hackel | 608-210-7129 | **seventhwave.org**
Hardik Shah | 847-275-1201 | **gastechnology.org**

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