

Home Entertainment & Electronics

According to the American Council for an Energy Efficient Economy (ACEEE), an estimated 10% to 15% of all electricity used in American homes can be attributed to electronic devices. The majority of this energy use is for home entertainment systems and home office equipment. But even small energy users, including portable devices with battery chargers, make up a significant share, simply because we use so many of them.



Standby Power

To save energy with home electronics, it is important to understand a little about how these devices work. Unlike lights or small household appliances that are either on or off, many electronics products operate in several modes, continuing to draw power when turned “off”. It is this standby power draw that allows devices like televisions to turn on instantaneously without needing to “warm up”.

The table below shows typical standby and active power ratings and average annual electric consumption for various home entertainment and electronic devices.

Device	Standby Watts	Active Watts	Avg. Annual kWh
Plasma TV	3	250	450
DVR/TiVo	37	37	365
Digital Cable Converter	26	26	240
Satellite Cable Converter	11	11	125
CRT TV (< 40")	1	75	125
LCD TV (< 40")	3	70	78
DVD	1	25	13
Video Game Console	1	10	16

Energy Saving Tips

- If you're not using it - unplug it - the simplest and most obvious way to eliminate power losses is to unplug unconnected chargers and other devices that aren't being used. When you disconnect your cell phone or other electronic device from its charger, unplug the charger too.



- Use a power strip - connect home electronics and office equipment to a single power strip with an on/off switch. Note: home entertainment equipment like TVs, cable and satellite boxes, and DVRs will need to be reprogrammed or given time to reboot when turned back on. You can plug these devices into a separate strip and only turn them off when you plan to be away for more than a few days.

- Look for the Energy Star label when purchasing home entertainment and electronics products. Energy Star qualifying products have been demonstrated to have low standby power use - in many cases only 1 watt or less. The

Energy Star label for TVs also indicates low active-mode power use – about 30% less energy than standard units.

- If you're shopping for a High Definition TV, avoid plasma TV's – they use much more energy than LCD models. A 52" LCD TV can actually use less electricity than a much smaller 42" plasma model.
- New HDTV's feature improvements like light sensors to reduce the screen's brightness for use in dim environments, and motion sensors that turn off the TV if it doesn't detect any movement in the viewing area for a specified amount of time.



- Look for high-efficiency power supplies for devices that use external adapters. These power supplies use electricity whenever they're plugged in, even if the device they're connected to is off. You can tell one of these adapters is using electricity if it is warm to the touch after being plugged in for awhile. Standard power supplies/adapters are typically less than 40% efficient while new high-efficiency ones can be 90% efficient or better.

- If you have a surround-sound audio system for your TV, consider only using it when watching movies or other programs where three-dimensional sound is beneficial. For watching news or other basic programming, use your TV's speakers.