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ConservationWise

Energy Conservation: You CAN Make a Difference!

Saving Energy in Your Home: Home Office and Home Electronics

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EXPERT REVIEWED

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Introduction

Electronic equipment is common and considered indispensable by many people. Electronic devices account for 10–15% of the electricity used in the average home. You can reduce your energy costs by choosing and using electronic equipment wisely.

What Should I Do?

Current Equipment

- **Unplug battery chargers** when not in use or when batteries are fully charged to avoid drawing unnecessary energy.
- **Use rechargeable batteries** for electronic devices rather than disposable batteries.
- **Turn off and unplug electronic equipment** when not in use. Unplug appliances (e.g., DVDs, televisions, stereos, computers) to avoid "phantom loads"—electrical power consumed by a device when turned off to power clocks and "instant on" features. The average U.S. household consumes 50 watts of standby and off-mode power constantly amounting to about 440 kWh per year. Using a power strip can cut power to multiple devices with the flip of a switch. This may not be feasible for cable or satellite boxes that need to download large amounts of data when powered up, if used on a daily basis.
- **Run machines or equipment in lower power modes**. For example, turn on the power management activators on computers to utilize energy efficiency.

New Purchases

- **Choose ENERGY STAR devices** when purchasing new home entertainment equipment. Overall, ENERGY STAR labeled office products consume about half the electricity of the standard equipment and some ENERGY STAR labeled equipment can save as much as 90% in electricity costs.
- **Laptop computers use less energy than desktop computers**. Consider purchasing an energy-efficient desktop if required power can only be attained by a desktop computer.
- **Consider energy use when purchasing a television:**

Television *(average annual energy use)*

LCD screen	77 kWh
CRT Screen	123 kWh
Plasma screen	441 kWh
Rear projection	447 kWh

- **Consider energy use when purchasing TV peripherals:**

  TV peripheral *(average annual energy use)*

DVR/TiVo	363 kWh
Digital cable box	239 kWh
Satellite receiver	124 kWh
Analog cable box	89 kWh
VCR	34 kWh
Video game console	16 kWh
DVD	13 kWh

- **Consider energy use when purchasing audio equipment:**

  Audio Equipment *(average annual energy use)*

Audio receiver	143 kWh
Audio mini-system	58 kWh
Portable stereo	18 kWh
Radio	18 kWh
Audio amplifier	13 kWh
CD player	12 kWh

- **Consider energy use when purchasing computers:**

  Computer *(average annual energy use)*

Desktop computer	255 kWh
CRT computer monitor	83 kWh
LCD computer monitor	70 kWh
Laptop computer	83 kWh

- **Consider energy usage when purchasing computer peripherals:**

  Computer peripheral *(average annual energy use)*

Multi-function device	55 kWh
Modem	50 kWh
Wireless router	48 kWh
Fax machine	26 kWh
Computer speakers	20 kWh
USB hub	18 kWh
Inkjet printer	15 kWh
Laser printer	15 kWh
Copier	11 kWh
Scanner	9 kWh

Where Can I Learn More?

- Energy Savers website, U.S. Department of Energy, www.energysavers.gov
- ENERGY STAR website, U.S. Department of Energy, www.energystar.gov
- Energy Efficiency and Renewable Energy website, U.S. Department of Energy, www.eere.energy.gov
- Consumer Resources website, American Council for an Energy-Efficient Economy, www.aceee.org/consumer/

References

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Appliances and Home Electronics, Energy Savers website, U.S. Department of Energy, www.energysavers.gov/your_home/appliances/ (accessed 07/24/2010).

Energy Savers Booklet: Tips on Saving Energy and Money at Home, U.S. Department of Energy, www1.eere.energy.gov/consumer/tips/ (accessed 07/22/2010).

Wilson, Alex et al., *Consumer Guide to Home Energy Savings*, 9th ed., 2007. Washington, D.C.: American Council for an Energy-Efficient Economy.

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