LIGHTEN YOUR PLUG LOAD, LOWER YOUR ENERGY COSTS

Behind (or beneath) every functioning workstation are a whole lot of plugs. Computers, monitors and printers are the big energy users in offices these days, but there are many other machines throughout your commercial building drawing energy and raising costs. Collectively, these devices that plug into your electricity supply make up your plug load—and they represent one of your best energy saving opportunities.

On average, plug loads account for 15-25 percent of electricity use in offices. If your business has already invested in significant efficiency upgrades to its lighting and HVAC systems, you have reduced your energy load to those functions, so your plug load could equate to as much as 50 percent.

Consider that by implementing low- or no-cost measures and replacing aging electronics equipment with efficient models, you could reduce your plug load by up to 40 percent. Your energy and cost savings could be significant. As energy costs continue to rise and green initiatives become imperative, reducing your plug load makes financial and operational sense.

> "
> A low– to no–cost approach can be the first energy savings action to reduce office plug loads by 19-40 percent, even at buildings already employing green and energy efficient strategies...the absolute savings would be significantly more at office buildings with less efficient equipment or higher densities.
> "
>
> Ecos PIER Plug Load Savings Assessment, December 2011

SIX STEPS FOR MANAGING PLUG LOAD ENERGY USE

1. Review. Identify your needs, inventory your equipment and focus on the devices that use the most energy.

2. Remove. Eliminate or unplug unnecessary equipment and devices.

3. Replace. When it's time to replace, purchase the most energy-efficient devices for the job.

4. Install. Inexpensive hardware controllers like timers and advanced power strips save energy.

5. Reduce. Turn it off or power it down when not in use, such as overnight or on the weekends.

6. Retrain. Engage your staff and make sure they understand why, when and how to power down.

EnergyTrust
of Oregon

Check Your Juice Guzzlers

For the most significant results, focus first on the equipment that uses the most electricity such as computers, monitors, imaging equipment and computer peripherals.

Once you have taken steps to reduce energy use in IT equipment, consider efficiency strategies for other often overlooked areas: task lights, space heaters, projectors, televisions, vending machines, kitchen equipment and cell phone chargers.

There comes a time in every electronic device's life when it simply must be replaced. That's when you can take advantage of the new highly efficient models out there. Select ENERGY STAR® desktops/workstations, monitors and computer servers for the best results, and make sure they are the right size for your needs. Contact Energy Trust of Oregon for resources and recommendations.

A Plug for Efficiency

No matter what the industry, rising energy costs are taking their toll on the bottom line. Simply put, saving energy by reducing your plug load saves money. But there are other benefits to conserving energy through electrical efficiency. You'll trim greenhouse gas emissions and support carbon neutral or other green initiatives. As a leaner and more competitive organization, your efforts may invigorate customer, investor and public relations.

Internally, reducing plug load is one of the least expensive and most straightforward efficiency measures you can undertake. Because the plug load is spread throughout the facility, you can make improvements in small batches with very little interruption or cost, and with a much shorter payback than major upgrades. Plus, there are secondary benefits: by turning equipment off, it lasts longer and lengthens your procurement cycle, plus it generates less heat and could help lower cooling bills.
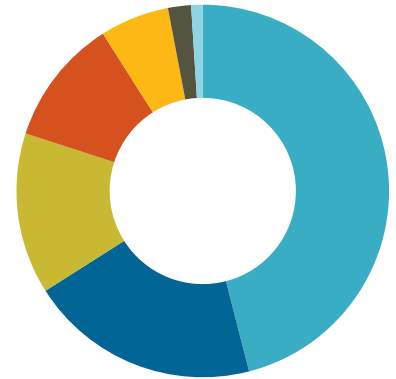
Breakdown of Plugload Use

- 46% Computers
- 20% Monitors
- 14% Business equipment
- 11% Imaging
- 6% Peripherals
- 2% Telephony
- 1% A/V

Recent research in California indicates that plug loads account for 23 percent of total electricity consumption in commercial office buildings; office equipment alone accounts for 74 percent of this plug load energy (Itron Inc., 2006).

✚

Take control of your energy costs. Here are resources for more information:

www.energytrust.org or **1.866.368.7878**—for information, referrals and resources to get started on a plug load management plan

www.advancedbuildings.net—download the Plug Load Best Practices Guide under Tools + Guidance

www.plugloadsolutions.com/yoursolution_consumer.aspx— calculate money and energy savings, find efficient products and software and information on donating/recycling electronics

www.energystar.gov—information about power management and procurement