

# From Desktop to Data Center

# PROTECT THE PLANET AND SAVE MONEY WITH TRIPP LITE

## Make Your Data Center Cooler and Greener

A data center consumes up to 40 times more energy per square foot than a typical office building, and that number is increasing every year (Source: Lawrence Berkeley National Laboratory). IT devices like servers and routers actually consume less than one-third of the electricity required by a data center; the other two-thirds is required for cooling and power distribution, including UPS systems (Source: The Green Grid). All UPS systems are less than 100% efficient, which means that a percentage of the electricity drawn by the UPS is wasted as radiated heat. This heat requires cooling systems to work harder, using even more electricity—an additional watt for each two watts lost by the UPS (Sources: IBM and Intel).

UPS efficiency is best at full load and decreases as the load decreases, so an inherently inefficient UPS operating with a light load becomes even more inefficient. Advanced UPS systems have better overall efficiency and offer an “economy mode” setting that delivers excellent efficiency even at lighter load levels. You can achieve tremendous energy savings by using high-efficiency UPS systems and hitting the efficiency “sweet spot” by right-sizing UPS system load levels to balance fault-tolerance and economy.

Continued on next page.



SU8000RT3U

*Over a five-year period, you can conserve more than 250 megawatt-hours of electricity—enough to power an average single-family home for more than 20 years—and you can save \$27,095 on your electric bill!*



SU40K

## Tripp Lite Protects the Environment



Tripp Lite was an early supporter of the European Union's RoHS (Restriction of Hazardous Substances) directive. All Tripp Lite products are RoHS compliant, which means they adhere to strict standards in the reduction of six hazardous substances: lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBBs) and polybrominated diphenyl ether (PBDE). We're industry leaders in RoHS compliance, and continuing that trend is essential to our design and manufacturing philosophy.

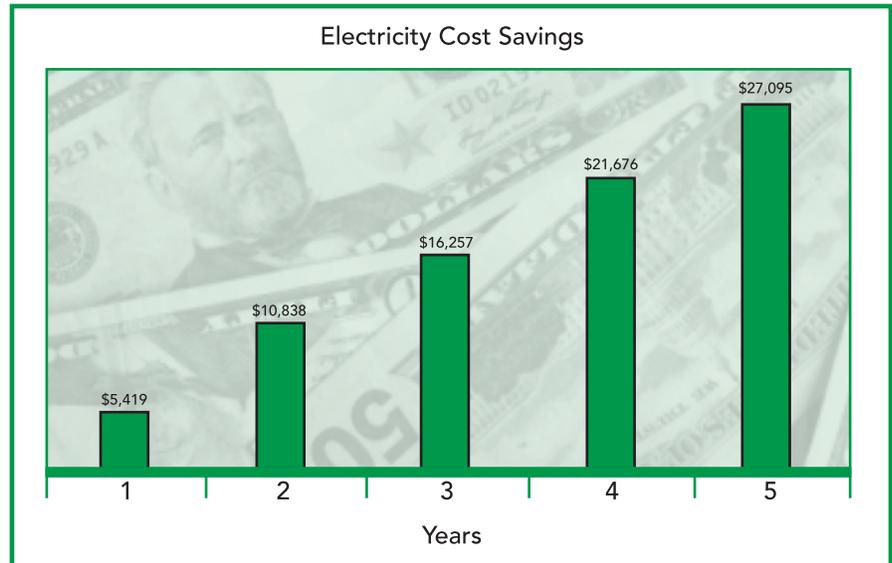
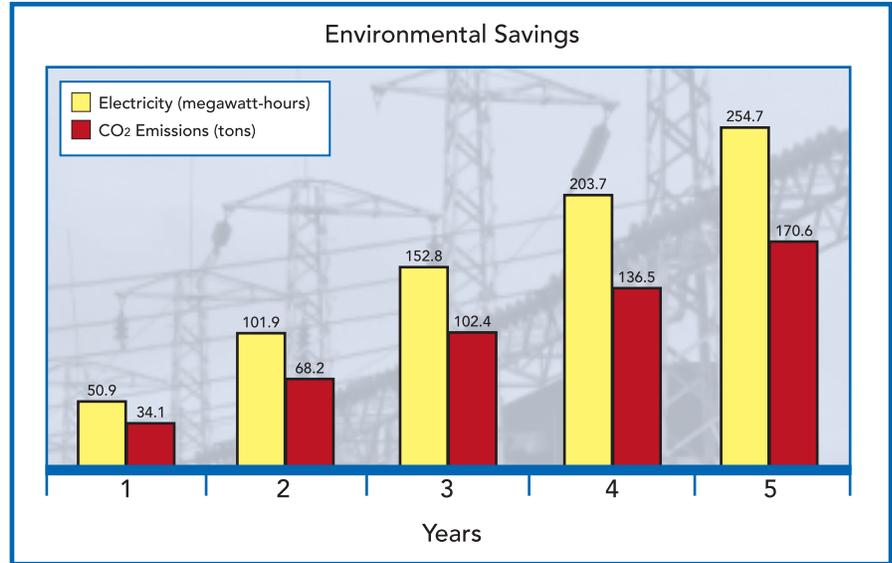
UPS batteries fall outside the scope of RoHS, but the success of extensive recycling efforts ensure that they reenter the supply chain instead of landfills. Lead-acid batteries are recycled at a higher rate than any other consumer product—more than 97%, compared to 55% of aluminum cans and 45% of newspapers (Source: Battery Council International). Tripp Lite also uses recyclable, CFC-free packaging designed to minimize waste and offers easy battery replacement options to extend the useful lifespan of UPS systems. We believe that environmental responsibility ultimately leads to better products and happier customers.

# Make Your Data Center Cooler and Greener *continued*

Tripp Lite's SmartOnline™ UPS Systems are up to 97% efficient in economy mode (available on select models), which can mean an efficiency increase of 10% or more versus comparable on-line double-conversion UPS systems from competing vendors. You can achieve even greater efficiency gains by right-sizing load levels. You can't manage loads properly if you can't measure them, but Tripp Lite offers several tools to make that job easier. Metered PDUs include digital load meters that allow you to monitor load levels on-site in real time. Switched PDUs add a network interface that allows you to monitor load levels remotely via SNMP, Web or Telnet. You can enable the same capability for any SmartOnline UPS System by adding the optional SNMPWEBCARD. Tripp Lite's free PowerAlert software also provides remote monitoring, allowing you to access up to 250 UPS systems and PDUs from a single console. Using these tools, you can adjust load levels safely and optimize the efficiency of any UPS system.

By increasing UPS efficiency 10%, you can save tremendous amounts of electricity and reduce your data center's carbon footprint substantially. For a modest 32kW load, you can reduce CO<sub>2</sub> emissions by 34 tons per year. Over a five-year period, you can conserve more than 250 megawatt-hours of electricity—enough to power an average single-family home for more than 20 years—and you can save \$27,095 on your electric bill!

## Benefits of Increasing Data Center UPS Efficiency by 10% (32kW Load)



# Eco-Friendly Home and Office UPS Systems Pay You Back

Everyone can benefit from greener UPS technology. Even if you're only using a single UPS system to protect your desktop computer system, a high-efficiency UPS will reduce your environmental impact and fatten your wallet. Tripp Lite has developed super-efficient UPS systems for smaller applications—as high as 99% efficient. Compared with a legacy UPS system running at 94% efficiency, a super-efficient Tripp Lite UPS supporting a 500-watt load can reduce your carbon footprint by nearly 1,000 pounds and save you \$125 in 5 years—enough to pay for the UPS system! The 1,177 kilowatt-hours of electricity you'll save can power a compact fluorescent light bulb (100-watt equivalent) for almost 6 years. For even greater savings, Tripp Lite has developed intelligent outlet technology that cuts power to your peripheral devices after you power down your computer. This eliminates wasteful "phantom loads" that consume electricity even when a device appears to be turned off.



## Benefits of Increasing Small Office UPS Efficiency by 5% (500W Load)

