

6 Energy Traps to Watch Out For

Key Points

- Energy-wasting traps cost money and reduce the effectiveness of energy management programs.
- Building automation, motors, ductwork and pipes, as well as electronic equipment, are sources of waste.
- You can avoid energy traps using a mix of controls, upgrades and operational best practices.

Is your facility as efficient as it could be? Even if you have an energy management program in place, it's easy for your budget to get waylaid by extra costs from energy waste that you didn't expect. The truth is, there are a number of costly energy traps that are easy to fall into.



1. Relying too heavily on automation. Controls and building automation systems are a great resource for reducing energy costs, but there's often a "set it and forget it" attitude. This can be costly. Over time, manual overrides can circumvent energy-saving schedules, and sensors and controls can become misaligned. Monitor building controls regularly and calibrate them according to the season, as well as your current operating schedule and comfort needs.

2. Falling asleep on computer power management. It's easy for employees to forget to turn off their computers when they leave their desks, but it's a waste of energy that costs up to \$50 a year per computer. That can really add up if your organization has hundreds, or even thousands of computers. Computer power management saves energy by automatically placing computers in low-power sleep mode after a set period of inactivity. These settings can be activated across the entire network using open source or commercial software packages.

3. Keeping motors running on overdrive. Motors in your facility run at a constant speed while the devices they operate, such as fans and pumps, often run at a much lower rate. Letting motors run at a higher speed than necessary wastes energy. Variable frequency drives save energy and money by adjusting motor speed according to the load.

4. Leaving water pipes and ductwork exposed. Ductwork, chilled water pipes and hot water distribution lines are critical for space conditioning, refrigeration and other processes. Left exposed to the surrounding environment, however, these systems can lose a substantial amount of energy. Properly installed, mechanical insulation can save energy, reduce noise, control condensation and improve safety by controlling surface temperatures.

5. Ignoring the server room. They may be housing critical data, but left unchecked, those servers can take an even larger "byte" out of your energy budget. Work with your IT team to find ways to reduce energy use. Cost-effective, energy-saving measures include raising server inlet temperatures and better managing air flow through hot aisle/cold aisle arrangements.

6. Serving up energy waste with kitchen ventilation. Facilities with kitchen operations often leave exhaust hood ventilation units running at full speed, even during idle times. Not only does this waste cooking energy, but it sucks air out of the building, requiring the HVAC system to work harder at supplying and conditioning makeup air. Demand control hood ventilation can save energy by adjusting ventilation fan speed to match cooking activity level.

You're on the right path. Take it a step further and hire a qualified professional to perform an energy assessment of your facility. You'll receive a targeted set of cost-saving recommendations that, when implemented, will help free up your budget for more important matters.