

The School Board of Alachua County

ENERGY MYTH BUSTERS

Energy myths have persisted over the decades. Here are a few myths that are busted!

MYTH #1 - Turning lights off-and-on uses as much or more energy than it saves!

Depending on the frequency of switching, this may have been true 15 or 20 years ago, but not today. It is true that there is a temporary spike in the power use at the moment that the light switch is turned on. However, with today's electrical metering technology that extremely short spike is barely noticeable and has nearly no discernable affect on consumption, demand, or the resulting cost of electricity. The savings from turning off the lights far out-weighs the negligible amount of increased power.

MYTH #2 - Turning lights off and on shortens the life of the bulb!

Technically, this may be true, however, bulb life is not the real issue. The real issue is how soon you have to replace the bulb. A light that is left on 24/7 will have a longer burn time than one that is turned off when not needed. But, because the light is being turned off, the burn time is spread out over a longer period. Which means that the replacement time is greatly extended.

MYTH #3 - In the larger scheme of energy conservation one person can't make that much of a difference!

As with many other myths this one too has some truth to it. If you look at how much you can save as one individual in your office or classroom it may not add up to one dollar per day. However, if every one also did that little amount, by time you multiply it by the total number of employees, or number of offices/classrooms, and by the number of operating days in a year, you will be easily into the tens of thousands of dollars saved annually.

MYTH #4 - If saving energy produced that much revenue, then everyone would already be doing it!

There are a number of reasons why this is not true in spite of the fact that a systematic energy management program can produce significant operational cost reductions.

- a. It's a matter of "perspective." Most building operators and maintainers are trained to focus on customer satisfaction. Since they work in a backlog environment, there is little time to act on perceived "nice to have" things like efficiency. As long as there is money in the budget to pay the electric bill, then there is no pressure to worry about it.
- b. The largest savings can be attained in the very beginning when the building is designed. However, there is pressure to keep "first costs" to a minimum resulting in the elimination of some technologies that could significantly reduce future operating costs (technologies with 2 to 8 year paybacks).
- c. Some buildings where we work or study do not make it easy to conserve. In some cases light switches require special keys, no options for partial lighting, or the temperature setting for the room is not controllable by occupants.
- d. For most people conservation is a work ethic or habit. They just don't think about it, especially when no body else seems to care (even the boss). Habits are hard to adopt or change.
- e. Very few people ever know how much their organization or school actually spends on energy because they never get to see the bill. In most organizations it is an overhead cost not attributable to any department or office. Neither the building operators, the occupants, or the administrators know how much they are spending on energy or how much of a difference conservation initiatives will make.

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MYTH #5 - Energy conservation means I'm going to be uncomfortable!

Many people have the idea that energy conservation means doing without. They're going to be cold in the winter, hot in the summer, and have to squint to read in a dimly lit office or classroom. Unfortunately this belief has been reinforced by experience over the years in ill-conceived practices to reduce energy cost. However, a more thoughtful approach focuses on reducing energy waste. Industry experts estimate that as much as 10-15% of energy used in a facility is wasted. A good energy management plan focuses on optimizing energy use when it is needed and eliminating wasteful practices. This can be done through retrofitting to better technology and operating the systems more effectively. There is a lot to be saved just by reducing waste behind the scenes without having to make people uncomfortable.

MYTH #6 - Turning computers off-and-on shortens the life of the computer!

When you think about it, the "life of a computer" has nothing to do with how long it will operate. It has to do with when it becomes obsolete. How many old computers do you see that still work, but nobody will use them because they don't run the programs we need them to run. What if switching the computer on-and-off will reduce the operational life of a computer from 12 years to 10 years? How many people are even able to use a computer today that is 10 years old? The answer to Myth #2 applies here as well. Turning off computers at the end of the day vs. leaving them on 24/7 will actually extend the time when replacement will be operationally required (10 years of "on" time spread out over 15 years or more).

MYTH #7 - The lower the thermostat setting the faster it will cool! The higher the faster it will heat!

In spite of this popular practice heating and air-conditioning (HVAC) equipment works at the same rate regardless of the setting. All it sees is "on." The problem with this practice is that over-cooling or over-heating will occur until the extreme temperature setting is satisfied. The best practice is to set it at the desired temperature for the space and activity. It will cool down or heat up just as fast as if you set it to the extremes, relieving you of the need to readjust later.

MYTH #8 - You can dehumidify a room by turning down the air-conditioning to 60 degrees!

Unfortunately this is also true, but, the moisture in the air will be deposited as condensation on your office equipment, walls, windows, and anywhere else in the room that has reached the dew point. This sometimes happens in hot and humid climates where wet carpet cleaning is occurring. The water from the cleaning evaporates into the air increasing the humidity in the room. If the room temperature is set above the dew point of the air in the room (usually 72 degrees or higher), then the condensation will occur in the HVAC equipment and drain to the outdoors. Otherwise, it occurs on the walls, computers, desks, etc., leaving a huge mess and potential for microbial growth if left unattended.