

“Energy costs can’t be controlled”

## A Mythbuster Bulletin

by the Building Advisor™

*Energy Mythbuster Bulletins shed truth on commonly held misconceptions within the Commercial Real Estate Industry with supporting facts, data, and insightful energy information that can be used to educate building owners and operators.*

Many HVAC and mechanical contractors enabled by BuildingAdvice – the industry proven energy services delivery platform, approach building owners and managers with the compelling value proposition that their services can save 10-20% on annual energy spend just by performing a fast, non-disruptive building diagnostic as part of the preventive maintenance process followed by adjustments to building controls. However, many building owners don’t grasp the magnitude of these potential savings.

“Energy costs can’t be controlled.”

It’s a prevalent belief that utilities represent either fixed or insignificant costs in building operation budgets, but that doesn’t make it true. In fact, energy costs can be controlled by optimizing building operations and controls. While there are opportunities to improve performance through retrofit projects, in the majority of buildings, the way that building equipment is being operated or programmed is often what wastes the greatest amount of money. The key to dispelling the myth is providing owners with measurement and hard data to quantify the waste and, ultimately, the savings that can be generated.

### Energy Facts from BOMA

- Energy is a building’s single largest operating expense, represents 30% of the typical building’s costs
- Reducing energy use 30% is equivalent to increasing NOI and building asset value by 5%
- Businesses that are leaders in energy efficiency use about 30% less energy than their competitors

Certain patterns of easily controllable energy waste are very common in commercial buildings, even those with LEED Certifications. A few of the most common causes of controllable energy waste diagnosed by BuildingAdvice contractors are:

- **Overventilation**

Industry studies show that the amount of outside air that most commercial buildings supply exceeds ASHRAE requirements and local codes. This wastes energy as that outside air has to be conditioned, which can be very costly in certain climates. In the majority of cases, ventilation can be reduced while maintaining tenant comfort. A simple fix is to reduce the building's overall ventilation rate through improved control and positioning of dampers, ensure the building's economizer system is working properly, or by installing a demand control ventilation system. These adjustments alone can reduce energy waste by up to 11%.

- **Temperature Setpoints**

Another source of energy waste is inefficient temperature control, where the actual temperature is significantly above or below the optimum heating and cooling setpoints. Two opportunities typically exist in most buildings. First, making sure temperature sensors and thermostats are calibrated and providing the right inputs to the control system can eliminate tenant comfort complaints and reduce energy waste by up to 3%. In addition, simply raising cooling setpoints and lowering heating setpoints by one or two degrees can reduce waste by an additional 6% with no impact to tenant comfort.

**Energy Facts from  
Today's Facility Manager/  
ASHRAE**

- Of the 94.6 quadrillion btu of energy consumed in the United States in 2009, 42% was used by commercial and residential buildings
- Over the next 24 years, national electric consumption is expected to grow by over 22% and natural gas consumption by 16%

- **Coordination with Tenant Schedules**

BuildingAdvice contractors almost always find systems running on early mornings, evenings and weekends. Many building operators are stunned to learn this. Alternately, the HVAC systems frequently run hours before and after tenants arrive and depart. Tailoring the building's HVAC systems accurately to its occupants' schedules can reduce consumption by up to 7%.

These are just a few of the most common ways to control energy costs without making any capital investments. Learn more low and no-cost energy efficiency tactics for commercial buildings in upcoming Energy Mythbuster Bulletins.

