

Five Tips for Reducing Energy Usage and Increasing Resident Satisfaction

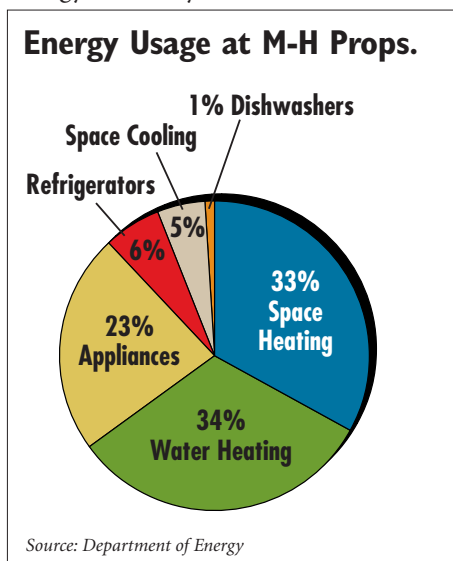
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With electricity and water costs soaring, property managers today are severely challenged. They must reduce consumption or pass the rising costs onto residents, affecting their overall bottom line and competitive edge in the market.

The good news is there are ways to both reduce consumption and costs. The more you know about your energy usage, the more you can adjust, resulting in cost and energy savings.

The Department of Energy's (DOE) Office of Energy Efficiency and Renewable Energy (EERE) has calculated average percentages for energy usage at multifamily residential buildings [see graph]. This breakdown gives managers a good starting point for targeting energy efficiency.



Below are some tips for reducing energy usage in all these areas in your communities. While these solutions require commitments from community owners and staff, the savings are real and substantial.

1. Commit to an Energy Audit

An energy audit, or a detailed walk-through by energy management professionals, is a good source for evaluating potential energy-conservation measures and identifying areas of inefficiencies.

Similar to a doctor performing a CT scan on people to determine what's wrong, an energy audit can help you identify places where energy is escaping or identify processes that are causing equipment to work overtime. The walk-through can be done apartment by apartment, throughout the entire facility or in your common areas and office.

During an audit, the energy-management professional might identify air leaks, ensure insulation is effective, inspect heating and cooling equipment and recommend lighting alternatives.

Be sure to find reputable energy-management professionals with references. Request a cost/benefit analysis from them and an estimated date for your return on investment for each recommendation they make.

2. Look into Lighting Retrofits

While lighting isn't listed separately on the DOE's EERE chart, it can be a significant portion of the electricity bill. Your energy-management professional can provide you with the long-term benefits and possible cost savings. Consider the following example:

A 12-floor, high-end condominium in Phoenix replaced hundreds of 60-watt incandescent bulbs in common areas with more efficient florescent bulbs. They saved energy and money on lighting, and the update also helped reduce the building's air-conditioning costs because the florescent bulbs burn cooler, so less energy is required to cool the common areas.

After replacing the bulbs, managers staggered the timing of the lights to reduce the amount of load placed on the electrical system at one time. In a two-day period over the summer, daily energy usage dropped from 225 kWh to 135 kWh. Costs also dropped dramatically from \$1,000 per month to about \$400.

For some facilities, replacing old fluorescent lighting with new energy-saving florescent bulbs will be key to cost savings. Another option is occupancy sensors, which are designed to shut off or dim the lights when the room or hallway is unoccupied after a programmable period of time, typically five to 15 min-

utes. It may take some time for tenants to get used to, but if you communicate the benefits of the program and can show them the cost savings, their reservations are usually eliminated.

Recommending their own lighting retrofits to your tenants is another way to get them involved.

Compact fluorescent lamps use roughly 75 percent less energy than incandescent bulbs and last 10 times as long. According to TXU Energy in Texas, a 23-watt compact fluorescent lamp used in place of a 90-watt incandescent bulb will produce the same amount of light and save 670 kWh over its lifetime. This amounts to roughly \$58 in savings, at average national electricity prices, from the purchase of a \$15 bulb.

If your tenants pay their own electric bill, they'll appreciate the tip. If your community pays electricity as an add-on, be sure to install florescent bulbs in the permanent-light fixtures.

3. Emphasize Submetering

If you're in a state that allows it, submetering allows managers and tenants to track the individual energy usage for each apartment.

The best explanation with tenants for why you're submetering is that it represents a fair allocation of the building's electricity costs among its residents. The meters install without power interruption, and tenants are only responsible for the electricity they use, not what their neighbors do. They also have better control—the more they conserve, the less they pay.

According to the New York State Energy Research and Development Authority (NYSERDA), a public-benefit corporation which administers the New York Energy Smart program, installing submeters can reduce building-wide electricity consumption by 18 to 26 percent. To date, NYSEDA has helped submeter 520 buildings (43,500 units). The estimated, net-energy-cost reduction is calculated to be worth over \$4.6 million per year.

For communities that already have submetering in place, look into energy-management services that can help truly utilize the metering. At the Phoenix

property mentioned above, facility managers prefer to monitor energy consumption on a daily basis and at a moment's notice.

The process initially was time consuming and inefficient because managers were required to manually read meters and create accurate energy bills for tenants, manually entering data.

So an enterprise-energy-management system, which fed all information into a computer-based tracking and billing software program, was installed. Managers saw how much energy was being consumed on the property, and opportunities for conservation and cost savings were identified.

4. Over-Communicate with Tenants

Don't just reserve conservation information for your welcome packet. Create a list for your tenants on how they can save energy and money. Launch a conservation campaign by making energy savings a monthly topic in your newsletter and posting

appropriate signage in common areas.

Have one number for all maintenance requests, and let tenants know that fixing problems quickly can save them money. This also helps with exacerbated maintenance problems.

Communicate with tenants regarding what you'll be doing for them to improve the energy efficiencies of their units, such as caulking and weather sealing. Offer seasonal tips for them to conserve energy and plan your improvements around these seasons as part of your conservation campaign. If you have decided to install submetering, inform your tenants in writing about the benefits.

5. Research Rebates and Rehabs

Utilities often can provide you with detailed information on energy-efficiency improvements that qualify for rebates. When you ready a unit for leasing, research the costs of updating it with energy-efficient equipment. New appliances, updated cooling and heating systems and energy-efficient windows

and lighting can save serious money.

For example, old refrigerators and freezers use two-to-three times as much electricity as new, energy-efficient models.

In Sum: Significant Savings

The overall benefits of energy-efficient improvements are numerous and noticeable and include lower operating costs; decreased turnover rates; increased occupancy rates; increases in the community's market value; and rebates up to \$100,000 and/or utility savings ranging from 10 to 40 percent.

For more information from EERE on designing, constructing, and renovating multifamily buildings, visit: <http://www.eere.energy.gov/buildings/info/multifamily/design.html>.

More tips for an energy-efficient apartment can be found at <http://www.eere.energy.gov/consumer/info/factsheets/ec1.html>. ■

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