FAQ: Energy Saving Tips

It's nice to think that saving money can be helping the planet, and that's exactly what you can do with a few basic pointers.

Changing the HVAC filter *saves you money*. A clogged filter increases the work required of the blower, which simply burns excess electricity. Basic filters cost less than $2 at stores such as Home Depot and Wal-Mart, and you are obligated to obtain filters and change them monthly. Sometimes people think that if a clean filter saves energy, no filter at all will save more. *Wrong*. Running the system without a filter is a huge problem because then the coils inside the unit will get clogged up after a short while and, once more, simply burn electricity by making the blower work harder. But unlike filters that can be changed easily, they're very difficult and expensive to clean. Stay on top of the filter because ultimately it saves you money. In some cases, residents aren't able to access filters, and in those cases we will change the filters for you. In most cases it's as simple as flipping open a wall or ceiling grill and putting in a replacement filter. *Remember that filters are directional*: they'll have an arrow on the side that should point in the direction of airflow (i.e., point *toward* the unit, away from you).

Long Showers burn energy. Heating water is a major utility expense in most houses, and the number one use of hot water is overly long showers. It gets especially expensive in winter. Think about it: when the water coming into the water heater is a lot colder, and requires a lot more energy to heat. Take shorter showers, or shower at the gym and save energy.

The facts on incandescent bulbs. Generally, old style incandescent bulbs convert about 3% of the energy they burn into light, and 97% into heat. Newer fluorescent or LED bulbs achieve much higher conversion factors (about 4x), and can save significant amounts of energy. This is especially true in Summer, because all that heat has to be extracted by the air conditioning system and thus hits you with a double whammy of paying to cool something you paid to heat. Hence, just turning off lights that aren't in use can save a significant amount of energy. Also, if you use incandescent bulbs, don't use bulbs over 60 watts. It has been our policy to change most standard bulbs to fluorescent or LED when they're burned out at turnover, but some specialty/decorative bulbs are still incandescent, and some residents try to save a buck and put in incandescent when a bulb blows.

Plush expensive towels are . . . *VERY Expensive to use*. Those luxurious huge cotton towels feel so great when you get out of the tub or shower, but have you considered that they're massive energy hogs? Think about it: when you wash those towels, they soak up an incredible amount of water. You can feel how heavy they are when you put them in the dryer! And the dryer is going to run, using

massive amounts of energy, for a very long time to dry those heavy towels. Since the dryer blows the moist air outside, in winter time it'll be effectively sucking your expensively heated warm house air outside; in summer time, it'll suck your expensively cooled house air outside. Again, a double whammy. Consider using smaller towels, or ones with somewhat less pile -- they dry you just as effectively, and save a lot of energy.

Listen to your toilet. Just because your water bill isn't as dramatic as electric or gas bills, doesn't mean it doesn't rack up over time. One study found that about 10% of the water usage in the United States was due to leaky toilets. That's completely wasted water! And it consumes energy and other valuable resources to purify, just so it can go down the drain (where it then consumes energy being processed in sewage treatment plants). Conserving water isn't particularly dramatic, but it can make a difference. Listen to your toilet; if you hear water running when it shouldn't be, send in a maintenance ticket. Don't run faucets if you aren't actually using the water for something. Watch your bill for unexplained swings. Most of this is simple, but it beats getting a huge bill and suddenly realizing there's a problem. And remember that even if we could fix the leak instantly there will be some carryover onto your next bill.

The Pain of Thermostat Wars. Most of our heating systems are electric heat pumps, and one of the things to realize about a heat pump is that there are actually two heating systems. (If you have gas heat, skip down a bit.) The first stage is the highly efficient refrigerant based system (the “heat pump”), and the second stage is the lower efficiency backup electric strip heater (which is like a giant version of a plug-in electric heater). The backup is necessary because the ability of the refrigerant based system to extract heat out of the air outside gets pretty weak when the temperature gets below about 25 to 30 degrees, which is also when you’re most in need of heat. The way these systems work is that as the house cools down, the thermostat kicks on stage one (refrigerant based) heating. If the house warms up, fine; the thermostat will kick off when the temperature gets to the set point. If the house continues to cool down, however, the thermostat calls for the more expensive backup heat until the set point is reached and things are cozy. The problem is that if you come in and kick the thermostat up several degrees, it'll roll right into the expensive backup heat (because the house now looks a lot colder than the new set point). Hence, moving the thermostat up and down is the most expensive way to use a heat pump. We recommend setting it at a good temperature and leaving it there. For roommates who have different temperature tastes, adjust the vent registers to direct airflow differently. And remember, electric space heaters operate exactly the same way as the backup strip heater, which is way less efficient than the refrigerant stage of a heat pump. Now, if you have a gas heating system, it pays to set the temperature back at night and when you're away because there's only one stage to the system. Finally, keep in mind that putting on sweat pants, and layering some clothes in winter can save you money. Winter heating bills are naturally going to be higher than Summer cooling bills. Obviously, it costs less to lower the temperature by 20 degrees than to raise it by 45 degrees, so it's best to plan on that. If you’re paying your own utilities, we recommend the utility company's budget plan, which bills you on a 12 month average basis. But keep in mind that there will be an adjustment to actual usage after a while, and you still need to practice common sense usage.

Refrigerator Costs. One common and costly problem we've encountered a lot is overstuffed freezers. What you need to know is that freezer doors must seal *very* well in order to cool correctly and efficiently. If a box or package gets in the way of the door, you may be able to squeeze it shut for the moment, but it's likely either to pop back open later, or simply be left slightly ajar when a roommate gets something out later on. Then the compressor will have to run continuously (burning energy), and/or your food will defrost (which can be very expensive if not caught right away). Just be sure the doors of the freezer and frig can close completely, and don't try to overstuff.