Ten tips for summer energy efficiency

By Erin K. Witt

Heating and cooling costs the average homeowner about $600 a year—nearly half of the average home's total energy costs. And about one-sixth of all the electricity generated in the U.S. is used to air condition buildings.

But wasting energy is not only bad for central Indiana wallets, it is bad for the environment, too. Just one home releases 4,500 pounds of greenhouse gases into the air each year—more emissions than driving a vehicle daily.

However, homeowners should not despair—the following tips from Building Environmental Science and Technology can help make any home more energy efficient this summer, and in turn, more cost effective.

Tip #1: Control the sun, inside and out. If drapes and shades are closed during the brightest and hottest parts of the day, homeowners can reduce air conditioning demands by 25 percent. In addition, planting leafy plants on the southwest side of the house can also help reduce unwanted heat gains that make air conditioning units run overtime.

Tip #2: Change air conditioner filters—especially if the home was vented with outdoor air during the spring. Consider using a pleated media filter for better dust trapping, or for additional savings, a web element filter that can be washed periodically instead of being thrown out.

Tip #3: Check that bathroom and kitchen vent fans are working properly and are not blocked or obstructed. This can impede the intake of fresh air and removal of stale air from the home.

Tip #4: According to Do-it-Yourself Network, a ceiling fan can save up to 40 percent on summer cooling costs. Ceiling fans cool the room by creating a "wind chill effect"— for example, a ceiling fan in a room that is 85 degrees would make the room feel like 78 degrees. These fans work well in major common areas of the home, like a family room, kitchen, den, but can also be effective in upstairs bedrooms that may become overheated.

Tip #5: Opening the windows on cool summer evenings can flush the heat of the day from the house, preventing the need to run an air conditioner 24 hours a day. However, on humid nights it can be better to leave homes closed and continue running the air conditioner to avoid unwanted moisture buildup in carpet and furniture. Humidity levels higher than 60 percent can also lead to mold and dust mite allergen pollution.

Tip #6: Be sure to clear overgrowth and weeds away from outdoor air conditioning units—if the necessary airflow is blocked, the air conditioner will not be able to operate properly and could even suffer an expensive failure.

Tip #7: Digital thermostats—now widely available for less than $100—can help reduce air-conditioning bills by automatically “throttling down” the air-conditioner during the hotter part of the day. By altering temperature settings, homeowners can also take advantage of “time-of-use” utility rates and pre-cool the home, so it can remain comfortable during expensive power times. Set the air-conditioner thermostat at 78 degrees or higher if possible. According to Pacific Gas and Electric, 3 percent to 5 percent more energy is used for each degree the air conditioner is set below 78.

Tip #8: Check to be sure the hot water heater is properly insulated. If the tank surface feels warm to the touch, wrap it with additional insulation, available at most hardware stores. Make sure the airflow of a gas-fired water heater is not blocked, and never wrap this type of unit with combustible materials like old blankets or quilts.

Tip #9: Fix defective plumbing or dripping faucets. A single dripping hot water faucet can waste 212 gallons of water a month, Pacific Gas and Electric reports. That not only increases water bills, but also increases the gas or electric bill for heating the water.

Tip #10: Make sure attics are well insulated and ventilated. Excess heat in the upstairs area of a two-story home, or the sensation of a ranch-style home feeling “hot from above” could indicate insufficient attic insulation and poor ventilation. The age of the home could be a culprit—home inspectors frequently cite poor attic insulation in houses built prior to 1984. In the Midwest, attics should have between 9 inches to 12 inches of insulation.