## **Heating and Air Conditioning**

Heating and air conditioning account for more than 55% of your home energy dollar. Keep your system running "lean and mean."

HVAC systems should be checked to verify they are moving the correct amount of air. An HVAC technician can tell you if it is. Heat pump and air conditioning systems should be checked annually to verify they are properly charged, strictly in accordance with manufacturers' guidelines. Inside and outside coils should be kept clean and free of debris. Consider replacing your old air conditioner with a new heat pump. A heat pump will cool your home in the summer just like an air conditioner and also heat your home in the winter-reducing your gas heating expenses. Insulate your duct work. Even ducts that do not appear to be leaking are conducting conditioned air and wasting energy. Insulating your duct work can help you save 20–30% on heating and cooling expenses.

## **Heating Efficiently**

It's common to blame holiday lighting for an increase in your electric bill during the winter months, but many other factors, including heating your home, affect your monthly bill. Here are some tips to keep energy use down during the heating season:

Carefully monitor your energy use as you spend more time at home around the holidays and turn off electronics that are not being used. Use an electric heat pump to warm your home when it is as cold as 40? outside. You'll extend the life of your gas furnace and save on gas heating expenses. Insulate your duct work. Even ducts that do not appear to be leaking are conducting conditioned air and wasting energy. Insulating your duct work can help you save 20-30% on heating and cooling expenses.

More cooking and baking around the holidays can increase your electric bill. Use smaller appliances whenever possible. Use small pots on small burners and avoid wasting energy by frequently opening the oven to check your baked goods. In the winter, lighting use increases due to shorter daylight hours. Leaving unnecessary lights on increases energy costs. On sunny days, open blinds and drapes and let the sun warm your rooms. At night, close blinds and drapes to keep the heat in. Hang heavier clothing to dry to avoid longer drying cycles.

## **Cooling Efficiently**

During the hot summer months, your air conditioner can be your main energy user. Here are ways to efficiently keep your home cool and keep energy costs low:

Keep your drapes and shades closed during the day to keep unwanted heat out of your home. Ventilate when it's cool outside. Cut your cooling costs by opening windows when it's cooler outside than inside. Insulate your duct work. Even ducts that do not appear to be leaking are conducting conditioned air and wasting energy. Insulating your duct work can help you save 20-30% on heating and cooling expenses.

Whole house fans help cool your home by pulling cool air through the house and exhausting warm air through the attic. They are effective when operated at night and when the outside air is cooler than the inside. To air condition your home, consider installing a heat pump that will work year-round to cool your home in the summer and heat your home in the winter. Use microwave ovens and gas barbeques to prepare meals. Not only do they use less energy, but they won't warm up the inside of your home, forcing your air conditioner and refrigerator to work over-time.

## **Thermostats & Duct Insulation**

Installing a programmable thermostat and insulating your duct work are two of the best strategies to keep your heating and cooling costs in check.

Un-insulated ducts in unconditioned spaces such as attics and crawl spaces can contribute to a loss of 10-30% of the energy used to heat and cool your home. Save 20-30% on your heating and cooling expenses by insulating your duct work. This is an easy 'do-it-yourself' project that requires little to no carpentry skills. Keep your heat set at 68? in the winter and your air conditioning at 78? in the summer to see significant energy savings. For every 3? that you adjust your thermostat, expect to pay 10% more on your energy bill. By installing a programmable thermostat, energy settings are easier to maintain and the thermostat will automatically turn back the temperature while you're asleep or away. Insulate your ductwork and start saving on your energy bill today.