COOKTOPS, RANGES, AND MICROWAVES

The energy-related differences between the various ways to cook and bake food usually have very little to do with either the device or its fuel. Although there may be incremental energy savings between different devices, the overall energy used to cook and bake food in most homes is relatively small—$50 to $75 per year on average. There are presently no ENERGY STAR® standards for these appliances.

Shopping tips

The expected life of most ranges and cooktops is 14-20 years; microwaves should last about 10 years. These appliances are usually fairly reliable over their expected life; an estimate for repairs of several hundred dollars might suggest replacement. Many newer models have additional features and approaches to heating food. When buying range or cooktop replacements, ask about:

• **Fuel choice.** Because the difference in energy use is relatively small, this is usually based on the available fuels and connections in your kitchen. Cooking preferences, indoor air quality, safety, and adding to electric loads may also be factors for some people.

• **Burner styles.** Whether coils, smooth-top, enclosed, induction, or halogen, burner styles are largely a matter of personal choice and budget. Some options may heat more quickly; others may leave less residual heat on the cooktop, and thus be safer.

• **Controls.** Controls located on the front are much safer than those that require you to reach over burners and hot pans. Newer models have lock-out features to prevent accidental use by children or pets.

• **Other options.** Features such as dual timers, convection heating, lighting, warming drawers, intelligent cooktops, etc. may all be important to your cooking styles; again, the energy consequences for most home use are relatively small.

Microwaves are slightly more energy efficient for some cooking tasks, but their main advantage is faster cooking time. The higher the wattage, the less time it takes items to be heated. When selecting a microwave consider the intended uses in order to properly size the unit.

Efficient use

There are a few things you can do to make cooktops, ranges, and microwaves work as efficiently and safely as possible:

• Plan your meals to use the heat from your oven to cook multiple items. Baking a squash? Throw in a couple of potatoes for tomorrow’s meal.

• Open oven doors only when necessary; the temperature can drop 30 degrees in just a few seconds.

• Don’t place foil on the bottom of a gas oven; it may interfere with the flow of air to the burners.

• Use pots and pans that are sized to fit the burner size on your cooktop. Pans that are too small for the burner allow heat to escape along the sides. Ones that are too large may not distribute the heat evenly across the bottom of the pan.

• When heating food in a microwave, do it in stages, with frequent stirring or turning. Microwaves may not penetrate into the interior of some foods, and thus not kill food-borne bacteria.