

November 2014 EnergyWiseSM Tip: Kitchen Ranges

What's for dinner? Around most homes, it's the most frequently asked question. If you plan on cooking, you likely have an opportunity to save energy while making the meal!

Webster's Dictionary defines "range" as the combination of a stovetop and an oven into one kitchen appliance. Even if you have a separate cooktop and oven, you still have the same opportunities to make your meal in an energy-efficient manner. Consider the following tips:

Match the amount of food to pan and element size. Using a pan capable of holding much larger quantities of food ends up requiring more energy than necessary to cook the food. Also, using a burner or cooking element larger than the selected pan also wastes energy. As an example, a 6-inch pan on an 8-inch burner will waste over 40 percent of the heat produced.

Select durable, flat-bottomed cookware. The best cookware has a slightly concave bottom, which when heated, expands and the bottom flattens out. An electric element or burner is significantly less efficient if the pan does not have good contact. For instance, boiling water for pasta could use 50 percent more energy on a cheap, warped-bottom pan compared to a flat-bottom pan.

Choose highly conductive materials. Some materials transfer heat more evenly than others and usually result in more evenly cooked food. Note that copper-bottom and stainless steel pans heat up faster than aluminum or tin pans. In the oven, glass or ceramic pans are typically better than metal. This allows the oven temperature to be set about 25°F lower and cook foods just as quickly.

Keep stovetop clean and shiny. When burner pans become blackened or the surface of cooking elements become tarnished, they can absorb a lot of heat and reduce burner efficiency. Clean and shiny reflects more heat up into the cookware.

Reduce cooking time. Defrost frozen foods in the refrigerator before cooking. This will often improve "doneness" consistency in the prepared food.

Minimize preheat time. All too often, cooks turn their ovens on to preheat to a specific temperature, and the oven reaches that temperature long before food is ready to be placed in the oven. This additional "unoccupied – at temperature" time results in wasted energy.

Keep racks clear. Don't lay foil over the top of oven racks as this will restrict air flow and increase cooking time. For the same reason, stagger pans on the racks to improve air flow.

No peeking! There is a logical reason as to why most ovens today have interior lights and a window in the door. Every time the oven door is opened, 25° - 50°F is lost.

Leftovers, please! By cooking double portions, all you have to do is reheat prepared food. If you have a microwave oven available, even greater energy savings can be achieved.

Reduce food size. Preparing individual servings when possible enables you to reduce cooking time. As an example, cooking a meatloaf in a full-sized pan takes 90 minutes, while cooking individually sized meatloaf portions in a muffin tin requires only 30 minutes of cooking time. Note that cutting up foods prepared on the stovetop benefit in the same way if pieces are cut to bite-sized as opposed to whole foods.

Your local utility and Nebraska Public Power District want to help you make the most of the energy they provide you. This includes saving energy while preparing your meals. For more ideas on how you can make your home, business, or farming operation more EnergyWiseSM, contact your local utility or visit www.nppd.com.