POLK COUNTY RURAL PUBLIC POWER DISTRICT

'The Livewire'

"Committed to enhancing the lives of our customers by providing safe, reliable and economical energy through excellence in customer service and innovation"



Induction Cooking

By Cory Fuehrer - NPPD Energy Efficiency Program Manager

Induction cooking provides the responsiveness and power of natural gas or propane burners combined with the control of electric appliances. Induction cooktops and ranges look similar to radiant or ceramic cooktops and free-standing ranges with three to six burners or cooking zones. Single-zone countertop models that plug into standard outlets are also available.

Under each cooking zone, an alternating electric current passes through a coil of copper wire. As the control switch is turned "up," an oscillating magnetic field steadily increases an eddy current surrounding the pot or pan. The result is resistive heat that is only created in the pan itself. The cooking surface can only become as hot as the pan sitting on top!

So why else are induction cooktops and ranges superior to traditional electric, propane, and natural gas technologies?

Speed – If you think gas is fast, watch induction rival! Since induction works by transferring energy straight to the pan's metal rather than heating an element and transferring that heat to the pan, many professional chefs find induction as fast as gas.

Power through Efficiency – As much as 84% of the energy delivered through the cooking zone is transferred into the food. The Department of Energy finds that around 40 percent of a burner's heat is transferred using gas. Induction

nduction cooking provides the responsiveness and power of in less than five minutes. A gas stove will take more than eight minutes, and an electric range with coils will take pliances. Induction cooktops and nearly 10 minutes.

As with all cooking, exhaust hood ventilation is recommended, if not necessary, especially with gas

appliances. Electric cooking technologies do not have the same requirements since they do not rely on combustion to create heat. Kitchen range hoods exhaust air containing heat, smoke, fumes, and other pollutants out of the home. To replace

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Watt Matters

By Barb Fowler - General Manager

J ustin Sunday, Polk County RPPD's Engineering and Safety/ Compliance Manager, has completed an intensive program in electric utility safety and loss control. The Certified Loss Control Program is a series of workshops offered by the National Rural Electric Cooperative Association in conjunction with the National Utility Training and Safety Education Association. The program is designed to instruct participants in many areas related to electric utility industry safety.

According to the Occupational Safety and Health Administration, nearly 4 million injuries occur annually in the workplace. One of the goals of a Certified Loss Control Professional is to help ensure a safe work environment for utility workers and the public in general. PCRPPD is committed to avoiding workplace accidents so all employees safely return home at the end of the workday.

We are proud of this commitment Justin has made to ensuring the continued safety of his teammates and our customer-owners. Justin is one of only a few electric utility professionals in the country that will receive this certification this year. The program requires participants to complete a rigorous series of training, tests, a 30-hour OSHA course, and a detailed final course project. Justin has been with PCRPPD for 22 years having started his career at PCRPPD as a lineman. Well done, Justin!





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Induction Cooking

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it, an equivalent amount of outdoor air must be drawn into the home. That new outdoor air will likely need to be heated or cooled by the HVAC system, which requires more energy. Not only does induction put energy into food more efficiently, but it also puts less heat in the kitchen!

Cleaning – Induction cooktops and ranges are simple to clean because their flat glass or ceramic surfaces have no gaps or grills to collect spilled food. When spills are caught right away, pick up the pan, swipe the cooking zone with a damp dishcloth, and return the pan to the cooktop for no delay in cooking. Since cooking zones can only become as hot as the pan, spilled food seldom becomes baked on the enamel.

Control – Changes in temperature setting occur precisely and immediately. Traditional burners take time to cool down or heat up, and chefs must continually adjust the setting to achieve the perfect simmer or sauté. With induction, the ideal cooking level is achieved almost instantly with one setting change.

No hot spots – Because the previously-mentioned eddy currents create heat, the entire pot or pan heats

in an even, uniform pattern when centered over the cooking zone. Cooks do not have to rotate food around the pan to achieve cooking consistency.

Safety – One of the most important attributes induction cooking brings is safety. No flames. No extremely hot burners or coils. Most induction cooktops and ranges sense when a pot or pan is on top.

Auto shut-off features eliminate the chance of "accidentally" leaving the cooking zone on. Others offer additional safety features such as child safety locks, automatic adjustment as food heats up, boil-over protection, and residual heat indicators. A smartphone can even control some. Most are compliant with the requirements of the Americans with Disabilities Act.

Yes, there are some drawbacks to induction cooking. First, the purchase price. Though prices have decreased over the last 20 years, expect to pay a few hundred or more dollars for induction cooktops and ranges compared to gas or other conventional electric types. Second, magnetic



cookware must be used for the induction process to work. That usually means stainless steel or castiron cookware. However, you can use an induction plate under your favorite glass, ceramic or aluminum pan to get by. Finally, as with other glass cooktop surfaces, they can be scratched or broken.

PCRPPD wants to help you cook efficiently! Contact them at (402) 764-4381 or visit www.pcrppd.com if you want information on other ways to make the most of the energy that powers your life. In addition, you may be eligible for an EnergyWiseSM incentive of up to 20% of the cost of an induction cooktop or other incentives for energy-saving improvements.



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