Ashfield News Energy Committee January 2023
Portable Induction Cooktop Coming to Belding Memorial Library

Many people have been cooking a lot recently-special holiday meals and cookies, winter soups. This month the Energy Committee column will focus on cooking with electricity as a way to fight climate change and achieve better health.

I have always loved cooking with gas, disliked the old electric rings, which were hard to control. So I was horrified when I recently learned how bad gas stoves are for both our health and the environment. Gas stoves leak methane even when not in use, emitting up to 2.6 million tons of methane per year. Methane is more than 25 times as potent a greenhouse gas as carbon dioxide, so the climate impact from gas stoves is equal to the carbon dioxide from half a million cars each year! Gas stoves release nitrogen dioxide and carbon monoxide at levels that would be illegal in outdoor air but there are no laws regulating indoor air. For an asthmatic child, growing up in a home with gas stove is about as bad as growing up in a home with a smoker! (The future of cooking is flameless, Veronique Greenwood, Boston Sunday Globe November 20, 2022)

What options are there for electric cooking, and are they any good? Electric stoves are either radiant or induction. Modern radiant electric stoves have the coils many of us are familiar with but covered with a smooth ceramic cooking surface. The electric element gets hot, heats the cooking surface, which heats the pot and the food. While all home appliances have gotten more efficient in recent years radiant electric stoves are still less efficient than gas. (https://homeguides.sfgate.com/radiant-vs-induction-cooktop-82060.html)

Induction stoves heat food using a magnetic field. They look a lot like radiant electric ranges but they are extremely precise and outperform every other kind of range, including gas, in Consumer Reports testing. (https://www.consumerreports.org/electric-induction-ranges/pros-and-cons-of-induction-cooktops-and-ranges-a5854942923/) Induction cooking is considered one of the most efficient cooking technologies. With this technology, **up to 90% of the energy used is transferred to the food, compared to about 74% for traditional electric systems and 40% for gas**. (https://www.aceee.org/files/proceedings/2014/data/papers/9-702.pdf)

Induction stoves start at $1100 but MA utilities are offering $500 rebates to replace gas stoves with induction, thus making the cost comparable to that of gas or radiant electric. (https://www.masssave.com/residential/rebates-and-incentives/inductionstove#:~:text=prior to removal.-,To start the process%2C visit www.masssave.com%2F,online by January 31%2C 2023) At the moment, it costs about the same amount to run an electric stove or a gas stove. Depending on energy prices, an induction stove could save you around $20 a year or cost you around $20 a year.

Under the 2022 Inflation Reduction Act, low-income households will be able to get an induction stove fully reimbursed, up to $840. Middle-income households can get half the price of the stove reimbursed. Individual states still have to set up and apply for funding, so this process will take some time. https://grist.org/article/whats-the-true-cost-of-an-induction-stove/

Every Ashfield resident with an induction stove I spoke with absolutely loved their induction stove. Kate McKenney said “we switched last winter after our propane stove failed, and we got solar. We wanted to make the switch for health reasons. Gas stoves have benefited from an outstanding PR campaign over the years, but in reality, they are bad for our health and force us to invest in dirty fuel sources when we should be making a transition to a fully electrified grid. Because I work in the environmental sector, I also know how important it is to reduce our reliance on gas and electrify as much as possible. I also know that it is tricky to do equitably in communities when there is an

accessibility gap around cost and infrastructure. We like our induction range. It gets water to boil in like 30 seconds which is fantastic with small kids when you need to get food on the table quickly! There are some downsides... We had to buy a lot of new pans because they need to be compatible with the induction stove, basically because they need to be magnetic. I also find that it is a little more difficult to control the temperature like you can with a gas stove. Also, it was expensive to install, in addition to the stove you need to replace the outlet in order to handle the load of the stove. It took a little to get used to the temp control, but in general, we don't have any issues. The one thing that is a little hard is if you need to do a super slow simmer, like rice, it can be tricky to get the right setting, but that might be the model we have. Also we haven't seen a notable increase in our electricity usage with the stove."

In the course of researching this article the Energy Committee learned that the Center for Ecological Technology (CET) has started an induction stove lending library in Springfield, to make this technology available to local residents to try. We thought this was a fabulous idea and, with the help of a generous local donor, we will be purchasing a portable induction cooktop for the Belding Memorial Library to add to their "Library of things." Beginning in February you will be able to borrow the induction cooktop for a week or 2 to try it out.

While many of our Energy Committee columns have featured rather big ticket changes homeowners can make (Solar, EV's, Air Source Heat Pumps), here is a significant change you can make to benefit your family's health and the environment for under a thousand dollars, even potentially for free (depending on income).

As always, feel free to reach out to the Energy Committee with any questions, comments, or ideas for future columns or Energy Committee projects. You can reach us at energy@ashfield.org. Interested in these issues? We welcome community members to attend a meeting and/or consider joining the committee! Meetings are posted on the Ashfield town website and our January meeting will be Thursday January 19 at 4:30 in lower Town Hall.