

Gas vs. Induction

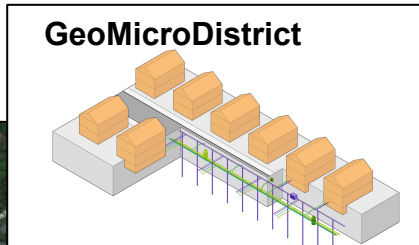
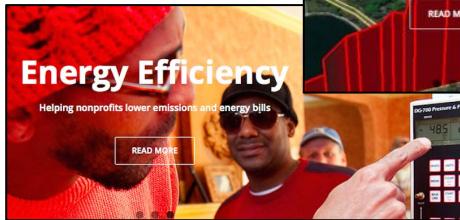


Putnam
Foundation



HEET

To cut carbon emissions NOW
by driving systems change.



HEET is what a fan called a “spunky nonprofit that punches above its weight.”

Our mission is to cut carbon now through systems change, so everything we have done and will do, from energy efficiency to reducing gas leaks to designing a transition off gas... Is to that aim.

So in today’s battle - between combustion and induction - we will try to answer the question:

Is ‘cooking with gas’ a thing of the past?

Cook-off Competition: 3 tests

1. Fastest to boil 2 cups of water
2. Fastest to make lunch
3. Doesn't burn the chocolate sauce



Three tests.

The first tests pure power and speed.

The second will demonstrate versatility.

The third test will demonstrate precision and control.

Winner of two takes all.

Contender #1: Gas



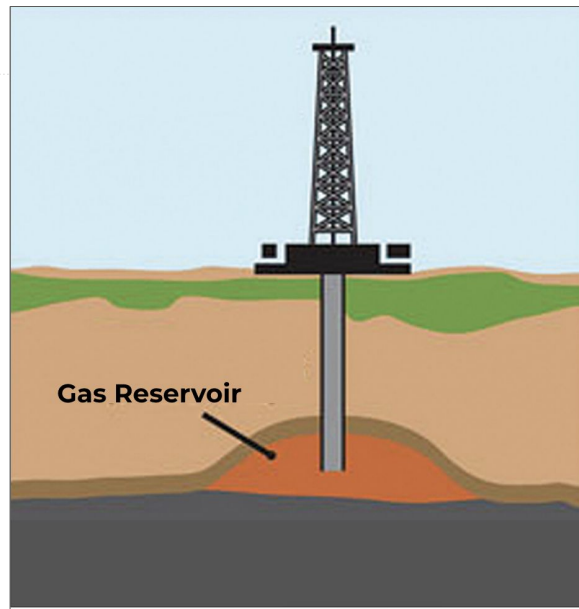
Longtime Reigning champion in American homes...

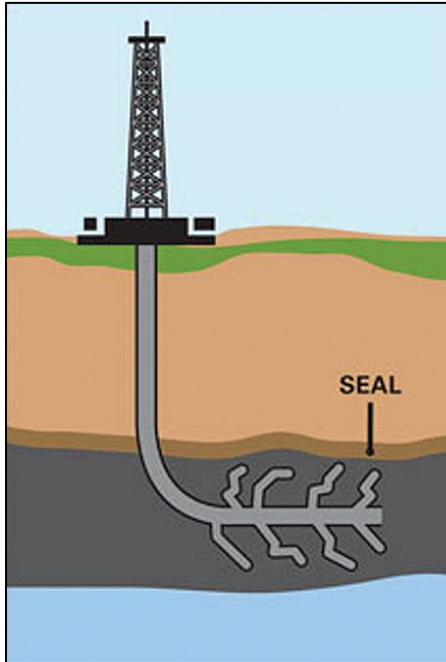


Conventional Gas

Gas Deposit: 1 big “bubble” of gas.

Method: Drill down into deposit & release gas.

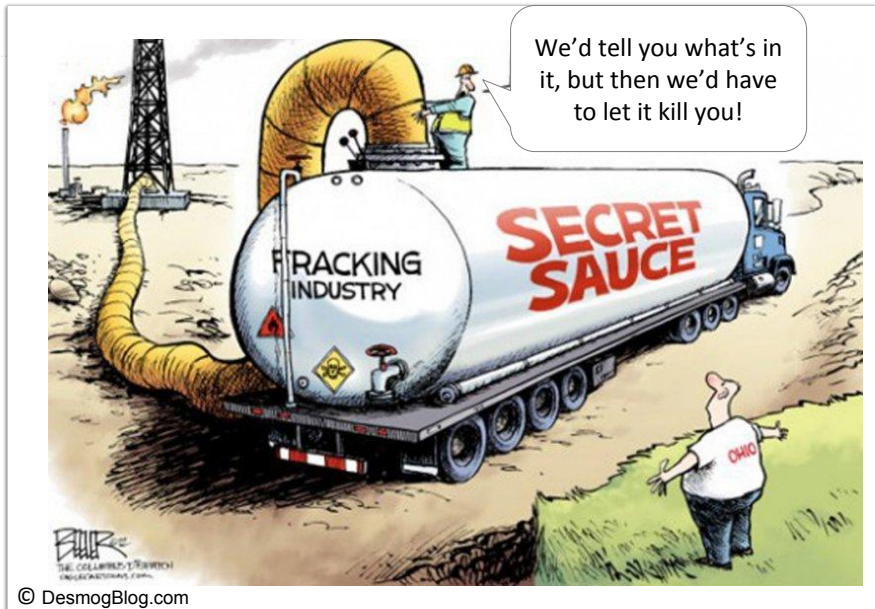




Fracked Gas

Gas Deposit: Small bubbles throughout shale rock.

Extraction: Water, sand & chemicals pumped in at high pressure to fracture the rock & release the gas.



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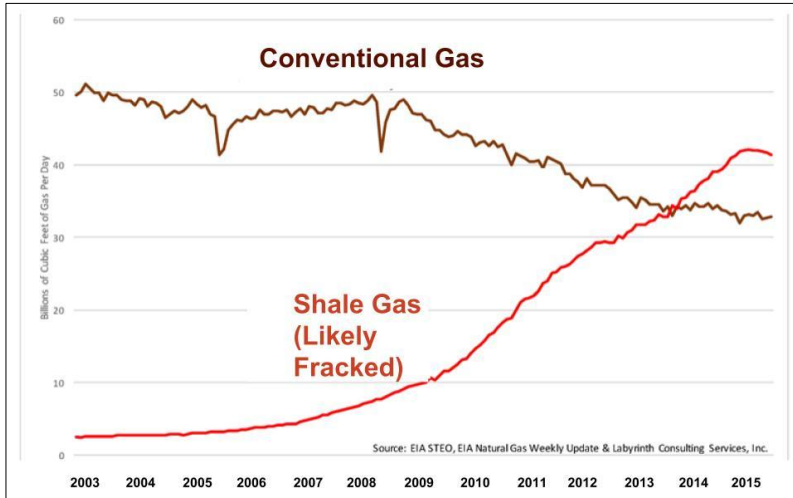
Strangely, we don't actually know what we're getting. Most industries have to report the chemicals they use. But not fracking. Because Vice President Cheney was part of Halliburton and Halliburton wanted fracking, he created the "Cheney loophole." Currently, roughly 20% of fracking chemicals remain undisclosed because they are considered proprietary.

EXTRA INFO

<http://www.nytimes.com/2009/11/03/opinion/03tue3.html>

<https://www.foodandwaterwatch.org/news/ten-years-later-halliburton-loophole-and-american-dirty-fracking-boom>

Gas is Changing Across America





Gas stoves can generate unsafe levels of indoor air pollution

An accumulating body of research suggests gas stoves are a health risk.

By David Roberts | @drvox | david@vox.com | May 7, 2020, 10:30am EDT

Since the early 2000s, there have been over 900 peer reviewed articles on the health effects.

When using gas, please ventilate.



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To be clear, we have no intention of panicking anyone. Just, remember you are, by code, required to ventilate when you're using a gas stove. Even if the food isn't burning... PLEASE do. The code is there for a reason.

BUT if you don't like noisy fans or freezing in the winter, then there is a 3rd option.

Contender #2: Induction



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Photo Credit: Colleen Brannen

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Induction is the newcomer... the first consumer model in the US was released in 1973.

Ming Tsai

Blue Dragon

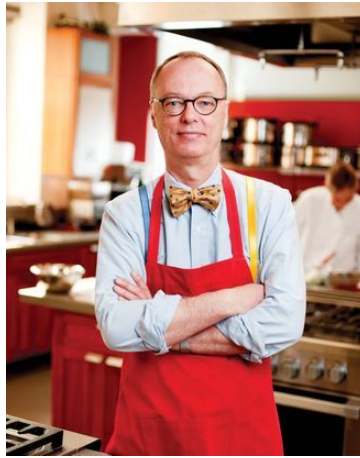


"I've been using it for 20 years."

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Chris Kimball

America's Test Kitchen



"Don't consider it, just buy."

Dominique Crenn

Atelier Crenn and Petit Crenn



"It's better and cleaner than gas."

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While it took off in Europe in recent decades, it really hasn't been as available in the US until recently. However, some of the coolest chefs have been increasingly using this method.

How it works

Electromagnet in stove moves iron atoms in your pan to create **heat**.

The pan itself becomes the burner.



What IS induction? Well, an electromagnet agitates the iron atoms in the pan, flipping them rapidly, creating heat from all that movement. The pan itself gets hot, not the stove. **The pan** is the burner!

Benefits

- SAFER! Turns off when pan is pulled away
- No explosive gas
- No combustion fumes



This technological innovation results in real benefits to you, in your home.

**Create
Your Transition
Plan Now**

My Future-Ready Wish List

- Heat/AC**
Cold-temperature Heat Pump
Model: _____
- Hot Water**
Heat Pump Electric Water Heater
Model: _____
- Cooking**
Induction Range
Model: _____
- Dryer**
Electric Dryer (Heat Pump)
Model: _____
- Fireplace**
Wood or electric insert
Model: _____

Remember the terms "Heat Pump" and "Induction" are your secrets to efficiency.

But there's more. Cooking with induction also benefits society.

We know we must get off of fossil fuels, move to electricity and make our electric grid renewable. So, really, if your gas appliance kicks it, why would you invest in more gas? Gas is the past. You'll see.

The competition begins...

1. Fastest to boil 2 cups of water
2. Fastest to make lunch
3. Doesn't burn the chocolate sauce

We completed the competition described above in a demonstration on 5/20/2020, and induction beat gas in all three categories!