Heat pump can cut your bills as well as greenhouse gases

By Todd Woody
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Dreamstime/TNS
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Whether you want to reduce the greenhouse gases your home produces or lower the cost of your utilities, a heat pump might seem like a good idea. Here are some important factors to consider before you make a purchase.

IT'S A HEATER AND AN AIR CONDITIONER

The most commonly installed are air-source heat pumps, which resemble air conditioner units that sit outside your house. During winter, a liquid refrigerant in a copper coil extracts heat from the atmosphere as warm air naturally moves toward the cold. The heat transforms the refrigerant into a cold gas and a compressor then pressurizes the gas, raising its temperature and heating the air inside the house. The reverse happens in hot months, when heat inside the house is absorbed and transferred outside. That's increasingly useful in temperate areas of the U.S., where people typically don't have air conditioners but are being hit with climate-change-fueled heat waves.

KNOW WHAT TYPE OF HEAT PUMP YOU NEED

In the U.S., air-source heat pumps are especially well-suited to the Southeast and the West, where winters tend to be mild. Claire McKenna, a senior associate at the nonprofit Rocky Mountain Institute, says technology improvements now allow heat pumps to operate effectively even in cold climates. But in regions where temperatures routinely drop below zero degrees Celsius, they'll need to be equipped with a heated coil to provide extra warmth on frigid days. That would consume more electricity. One alternative is a geothermal heat pump, which extracts heat from the Earth. Geothermal heat pumps cost $10,000 to $25,000 — a lot of that is the expense of digging trenches for the necessary underground pipe system — but they can reduce energy costs by 70%. Regardless of the type, you'll need to decide whether you want to use your home's existing air ducts or install a so-called ductless system, in which heater units are placed in individual rooms. A heat pump will warm your house as well as a fossil fuel furnace, though its efficiency decreases in colder climates.

AN ENERGY-SIPPING MONEY SAVER

Since heat pumps transfer heat from one place to another rather than generate it through the combustion of fossil fuels, they're up to four times more efficient than a natural gas furnace, depending on the local climate, according to a Rocky Mountain Institute analysis. Equipment and installation costs typically run from $4,000 to $12,000 for an air-source heat pump, depending on the size of the pump, the brand, and whether you use a ductless system. That compares with $2,000 to $6,000 for a gas furnace, but the U.S. Department of Energy estimates that a heat pump can lower a homeowner's energy costs by hundreds of dollars a year. Meanwhile, a study published in October in the journal Nature Energy found that houses with heat pumps get a premium of as much as $17,000 on average when they sell. The environment also benefits: A 2018 paper published in the Electricity Journal found that air-source heat pumps could reduce household greenhouse gas emissions from heating in California by as much as 54%.

DO ENERGY AUDIT FIRST

The cost savings from a heat pump will go out the window if your windows and doors are leaky and your walls aren't well insulated; the same goes for your ducts. Before installing a pump, hire an energy auditor to detect and plug leaks. The size of the pump depends on a home's energy demand — you don't want to spend more money on a bigger unit just to keep a drafty house warm.

MAKE SURE YOU'RE GETTING YOUR TAX BREAKS AND REBATES

The federal government offers a tax credit of up to $300 for Energy Star-rated air-source heat pumps, but it expires on Dec. 31, 2020. Qualifying geothermal heat pumps are eligible for a 26% tax credit if they're installed before Jan. 1, 2021. The tax credit declines to 22% for systems that come online between Dec. 31, 2020, and Jan. 1, 2022. Some states also offer incentives for air-source heat pumps, such as a rebate of as much as $1,500 in Maine, 0% financing and rebates in Massachusetts, and a $1,000 rebate in New York.

CHOOSE A CONTRACTOR CAREFULLY

"The biggest barrier right now to adoption of heat pumps is contractor readiness," McKenna says. "I hear time and time again from people who have talked to five contractors and only one is willing to install a heat pump. The lack of competition drives up costs." Shop around, and check to see if your utility or state rebate program lists recommended installers. Northeast Energy Efficiency Partnerships publishes a guide to choosing a contractor and the questions you should ask.

A HEAT PUMP CAN ALSO REPLACE A GAS WATER HEATER

There are air-source heat pump water heaters. Another option is a device called a desuperheater, which can funnel excess energy from a geothermal system to a water tank. A 50-gallon heat pump water heater costs about $1,300, vs. $500 for a conventional water heater. Heat pump water heaters qualify for a $300 federal tax credit, and the U.S. Environmental Protection Agency estimates that a typical household will save $330 in annual energy costs. States and utilities also offer rebates for heat pump water heaters — California utility Pacific Gas & Electric Co. gives customers a $300 rebate. The state this year approved a $44.7 million program to promote the adoption of heat pump water heaters, which could reduce residential greenhouse gas emissions from heating water as much as 70%, according to the 2018 Electricity Journal study.

SOUP

Continued from Page 2B

Add the vegetable broth and bring to a simmer. Lower heat to medium, cover with a lid and simmer 15 minutes. The squash should be soft. Cook a few more minutes, if needed.

Meanwhile toast the pecans and baguette. When soup is ready, add the nutmeg and salt to taste. Remove soup to a blender and process until smooth. Divide between two large soup bowls and swirl cream onto the soup. Sprinkle pecans and apples on top and serve with the toasted baguette.

Yield 2 servings.

Per serving: 542 calories (47% from fat), 28.2 g fat (4.5 g saturated, 14.3 g monounsaturated), 10 mg cholesterol, 11.4 g protein, 72.6 g carbohydrates, 11.1 g fiber, 362 mg sodium.

Coping with COVID-19 and the holidays

By Martha Quillin
The News & Observer (Raleigh, N.C.)

Home cooks finishing up Thanksgiving shopping lists and rearranging patio chairs for an outdoor feast got a word from the U.S. Centers for Disease Control that landed like an off-color joke at the holiday table.

"As (COVID-19) cases continue to increase rapidly across the United States," the CDC warned, "the safest way to celebrate Thanksgiving is to celebrate at home."

For those trying to adhere to federal and state guidance on preventing the spread of the novel coronavirus — and still enjoy a small, safe Thanksgiving dinner with friends or family — the CDC's admonishment was heartbreaking. And forecasts for rising case counts well into December suggest it's starting to look like a socially distanced Christmas, as well.

But just as people have found ways to honor other milestones throughout the pandemic, faith leaders and mental health professionals say it's possible to sacrifice some of the intimacy of traditional gatherings and still have a meaningful holiday season.

After months of mostly staying home, it's natural to feel deflated at the prospect of curtailing Christmas festivities too, said Lisa Ficker, a clinical health psychologist with Breyta Psychological Services in Raleigh. She co-authored a blog post in December 2019 titled "Coping with the Holiday Blues" about how hard it is when idealized holiday visions don't get realized.

> *"What I'm seeing is a lot of emotional burnout."*
> — Lisa Ficker, clinical health psychologist

That's likely to happen to many people this year.

"What I'm seeing is a lot of emotional burnout," Ficker said — people who over the past eight months have stress-eaten too much food, binge-watched too much TV and become alienated from people they once loved over the politics of the coronavirus response or the outcome of the election.

Normally, the holidays might provide an emotional salve at such a time, through the renewal of familiar traditions that include get-togethers with family, friends and coworkers.

"That's the challenging thing," Ficker said. "We want familiarity. But the familiar way of doing things doesn't come without a great deal of risk, and it's risk to society as well as one another.

"That's where we need to remind ourselves that one of the skills of being human is learning to adapt to new ways of doing things."

Some of the Facebook followers of Raleigh's Highland United Methodist Church tried something new for Thanksgiving. The church bought an online devotional package called "30 Days Thankful" that launched Nov. 1 and offers a daily Bible verse or a quote from a hymn and asks participants a question about what they're thankful for.

Janet Baucom, minister of communications and spiritual formation for the church, said the effort is based on the body of psychological research that has found that intentionally practicing gratitude is beneficial for mental health and emotional resilience.

For those who are struggling with the sense of isolation imposed by the pandemic, Baucom said, "It may help to know they are not alone in feeling alone."

Ficker agrees, and says many people have become more aware of the value of their friendships and family connections because not being able to see others has made it clear how important they are to our lives.

"COVID has given a chance as a society to realize that love is what is keeping us alive," Ficker said. "It's not just avoiding sickness. We need one another emotionally."

Another way to stay upbeat through the holidays is to help others, which takes the focus off whatever is troubling a person and also serves as an antidote to feelings of helplessness and powerlessness in the face of something as pervasive as a worldwide pandemic, Ficker said.

SHERRY'S

Continued from Page 1B

The local Harris Furniture Co. proudly advertised that they had furnished the new hotel with "fine 25-year guaranteed springs."

All of this was accomplished at a cost of $3,000.

Just who were the Kapellas brothers and how did they fit into the picture?

It is not known when these bachelor brothers arrived in La Grande. We do know that they were born in Greece. Thomas was born in December 1887 and James Konstantine was born in March 1894. We know that Greek immigrants began arriving in Portland in the early 1900s with many of them coming to work on the railroads. They were willing to work hard and we know that many of them later became entrepreneurs. This was the case with our brothers. Thomas was working for the railroad in Sherman County in 1910. James would have been only 16 at this time and we don't know where he was or what he was doing. But by early November 1914 James was the proprietor of Kapellas' Cigar Store and Shining parlor. And we know that just two years later both brothers were living in and running the Imperial Hotel at 1106 1/2 Adams.

After establishing the hotel there was not much local information about the brothers — only bits and pieces. For example it was reported in February 1917 that "Tom subscribes to twelve newspapers. He reads them all. He sends the Evening Observer away every day to friends in Greek army."

In July we learn that James was drafted. The brothers put the hotel up for sale. By August 1917 a Mr. and Mrs. A. H. Daubenberger who were visiting relatives in La Grande purchased the hotel. They were not new to the business as they had just recently sold the Wilson Hotel in Centralia.

Then on Oct. 3, 1917, it was reported that "James and Tom were leaving tonight for Chicago and New York ... James will join the aviation corps."

But this still didn't feel like the end of the story of either the Imperial Hotel or the Kapellas. So I dug a bit deeper.

The hotel over the years had a real problem in keeping owners.

By May 1918, the Daubenbergers were ready to sell and advertised "furniture, bedding, linen, carpets, all complete ... priced cheap to sell." It was purchased by a Mrs. Elsie Cox. I am not exactly sure what kind of an establishment that Elsie ran, but the Oct. 2, 1919, Observer had the following notice: "Mrs. Elsie Cox, who was arrested several days ago for running a disorderly house at the Imperial hotel, forfeited her $50 bail Tuesday evening and left for part unknown. She disposed of the Imperial hotel a few days ago."

The new owners were Mr. and Mrs. John Frawley who planned to make it a very comfortable hotel and one of the best of the smaller rooming places. By May 1929 the hotel was for sale again priced at $1,400 on terms, $900 down or $1,200 cash.

The Kapellas brothers fared much better than the Imperial. They both married and settled in Gary, Indiana, 30 miles south of Chicago, where they operated Kapellas Bros. Real Estate, Contractors, Loans and Insurance. They turned their $3,000 investment in La Grande into much larger ones. One of their deals of $400,000 for a 99-year lease was one of the largest leasehold transactions ever recorded in Gary as of May 16, 1924.

Two years earlier they had made one of the largest real estate deals in Gary for selling a large commercial building with three five-room flats on the second floor for $60,000. This was just the beginning and they were still both in their 30s.

Keep looking up! Enjoy!