York, Maine Is Ready for Climate Action with the Help of Energy Coaches

York Ready for Climate Action

Every time we take a hot shower, turn up the thermostat or drive our car, we may feel a pang of guilt, knowing that we are contributing to climate change. We know that burning fossil fuels to heat and cool our homes and power our cars is a prime contributor to global heating. Solving a problem as huge as climate change will require many systemic changes, but there are steps we can take at home to lower our impact and be a part of the green energy transformation.

Retrofitting your home with electric heating and cooling, driving an electric car, and even powering your home with solar energy are important parts of reducing our reliance on fossil fuels. The benefits of retrofitting our homes are many – not only can we cut our emissions, but we can save on our energy costs and make our homes more comfortable.

The process of retrofitting a home is complex, however, and the effort required can be daunting. Consumers must choose among a dazzling array of equipment options and installers. Complicating things further, the uneven levels of experience among installers often result in conflicting recommendations to consumers. It is critical that the different aspects of retrofitting a home be integrated (for example, insulating and weatherizing a building will affect the right-sizing of heat pumps and solar)., This coordination is often overlooked because a consumer must consult with one installer for insulation and a different one for heat pumps or solar. This can leave the consumer to decide if it all works well together.

So, it is not surprising that people do not know where to start, or they give up when the process becomes challenging. There is a lot of information on websites, but it is not reaching everyone. The typical resident needs help understanding their options and managing the process. Help on a website is good. Bringing help to a resident's door is better.

This is why York Ready for Climate Action, a grassroots non-profit in York, Maine, has developed an Energy Coaching Program.

In York, single family homes account for 46% of the community's carbon emissions. Cutting emissions from single family homes is a key priority of York's Climate Action Plan, which was approved by 70% of York voters in 2022.

Energy Coaches, who are volunteers from the community, are working in people's homes, helping residents develop a personalized plan that will make a real difference in the energy efficiency of their home. Energy Coaches guide residents through the process of determining and prioritizing needed improvements, identifying vendors and contractors, and supporting them throughout the process. Coaching services are free of charge.

Energy Coaches were trained by experts in energy efficiency strategies like insulation, heat pump technology and solar options. A coach starts by visiting a resident in their home and working with them to determine their home energy goals. They document the current energy systems and look for areas where residents may be losing heat and energy. Together, coaches and clients develop a plan to address these goals through insulation, heat pumps, efficient water heaters, solar and other steps. Coaches can also help residents take advantage of the available rebates and incentives through Efficiency Maine and the Inflation Reduction Act.

This program is in a pilot stage, currently only serving residents of York, Maine with plans to expand in the years to come. The pilot has been operating since April 2023 and has helped York residents identify available contractors, interpret home energy audits, prioritize retrofit projects and understand options for electrifying heat and hot water.

York Ready for Climate Action is developing a Household Equity Fund to help low- and moderate-income residents who may require additional assistance to complete a retrofit. The group is partnering with local organizations to identify and connect with eligible residents. Be sure to visit their website to learn more: (yorkreadyforclimateaction.org)

York Ready for Climate Action was formed in May 2018. It is a non-profit organization consisting of volunteers dedicated to increasing awareness about climate. ♻

Energy Coach Pam Casey helps a client evaluate her options for electrified heating. (Rozanna Patane)

Networked Geothermal – *Cont'd from p.22*

between buildings that have varying heating and cooling needs.

This is one reason networked geothermal is so efficient. The most efficient gas furnaces have a coefficient of performance (COP) of less than 1—meaning for every unit of fuel burned, less than one unit of heat is generated. Networked geothermal systems have been documented to range *between 6 and 9 times that efficiency*—meaning they significantly reduce greenhouse gas emissions. In addition, once our buildings are fully electrified, these systems will also greatly reduce peak demand on the electric grid when compared to other sources of electric heat, such as baseboards.

Increased safety and air quality

Because there is no fuel and no combustion with networked geothermal, there is no risk of explosions (remember the 2018 Merrimack Valley tragedy in Massachusetts), no outdoor gas leaks (which kill trees), and no indoor air pollutants (which can cause or worsen health problems).

Gas utilities in Massachusetts are leading the way

The two largest gas utilities in Massachusetts are front-runners in pioneering the "gas to geo" approach, which is being explored or legislated in states across the country. Eversource Gas has the first-in-the-nation utility networked geothermal installation going in the ground right now in Framingham, which will serve about 140 customers in nearly 40 buildings. National Grid also has an installation in progress in Lowell.

Networked geothermal moves heat into and out of buildings. The primary source of heat is the ambient temperature underground, though the systems also transfer "waste" heat between buildings with different heating and cooling needs, increasing efficiency. (HEET)

Building in equity and environmental justice

A phased transition from gas to networked geothermal led by the utilities can, and must, ensure that underserved and low-income communities are included equitably and with adequate financial support for the necessary home efficiency and appliance upgrades that accompany the shift from natural gas.

The smart alternative to costly gas pipe replacement

Massachusetts ratepayers are on a course to spend an estimated $40 billion over the next 20 years replacing hazardous, old, leaking gas pipes. Similar expenditures are underway wherever natural gas is delivered to homes and businesses. Redirecting our energy investment dollars away from natural gas infrastructure to networked geothermal will help us build the utility of the future—one that delivers safe, renewable, non-combusting, affordable heating and cooling, along with good paying jobs and local economic benefits.

You can learn more about networked geothermal on the open-source Wiki main page link here. Go to www.gastogeo.wiki/ and at HEET.org, a nonprofit climate-solutions incubator working to advance an equitable transition from natural gas to utility networked geothermal. To register your interest in networked geothermal service for your neighborhood, enter your name on the map at https://bit.ly/NetworkGeothermalSurvey.

Laurel Kayne is the director of communications at HEET (Home Energy Efficiency Team). An ardent green enthusiast, Laurel is delighted to apply her energy and skills to helping HEET increase its impact nationwide and accelerate the transition off of fossil fuels. ♻