

The Joy and Existential Dread of Living with Radiators

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Weathered

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As the afternoon sky turns gold and the sunlight shining through the windows dims, a gentle psssss sound fills the air of my early-1900s home. The radiators are turning on, bringing heat and a tactile warmth with them.

Admittedly when I brought my home six years ago, I overlooked the radiators. Their existence didn't even register during my initial tours of the house. In the years since, I've become caught in a tumultuous, love-hate relationship with them. There's something charmingly nostalgic about radiators; their old-timey cast iron curtains, the soft hiss and clunks while they're hard at work. Yet they're also a constant reminder of the climate crisis and the challenges of avoiding doom.

As an independent journalist focused on climate reporting, I've spent the past six years of first-time homeownership staring at the different parts of my home, imagining and researching ways to make it more sustainable: occasionally achieving success with the addition of insulation, a garden, and the conversion to renewable electricity. Yet the heat source—heating oil—has remained an impossible challenge to make sustainable.

All the rooms in my house have a radiator, except two of the three bathrooms, including the only one with a tub. Winter toddler bath time involves a type of *Goldilocks and the Three Bears* game of heating up the water to tolerable warmth for my three-year-old and wrapping myself in a blanket while she scrubs and dubs, and then we retreat to warmth. On chilly mornings I'll sit on a radiator to warm myself up, scrolling through news on my phone while I wait for my coffee to brew, either enjoying the warmth and how quickly the radiator heats up or, depending on the headlines, cursing its use of fossil fuels.

Compared to today's ever-evolving technology, radiators are old. Franz San Galli invented them in the 1850s and the way they work has remained mostly unchanged: steam or water flows through pipes from a water heater which, years ago, was heated by a coal-powered boiler to the accordion-shaped radiator from which heat diffuses. Today, most radiators get their heat from heating oil or a natural gas-fueled boiler. Much of my house, from the washer and dryer to the stove and oven, runs on electricity, so solar panels have been an easy way to lower my house's carbon footprint. While technology is slowly making it possible and even somewhat affordable to divest heating sources from fossil fuels, radiators have proven more daunting.

Home geothermal is a growing industry in efficient home heating and cooling; Dandelion Energy, one such company, can replace existing air conditioning and heating equipment while promising a 60-80 percent reduction in a home's carbon emissions with their underground heat pump system. However, while some geothermal does work with radiators, Dandelion—which would be the most cost-efficient for me—doesn't currently work with radiators. To switch from oil to electric heat, while possible, has proven so expensive it would likely cost half of my home's value. While I can't—not to mention, the U.S. can't—avert climate disaster without stopping the burning of fossil fuels, it is possible to improve the efficiency of existing radiator systems.

Steam radiators can be retrofitted to become hot water radiators, which are more efficient and effective at evenly heating the house. And that's often a more cost-effective solution than installing an entirely new HVAC system. It's also possible

to retrofit them for zone control so you can control the temperature in different rooms, floors, or areas of your home.

"My house is set up well for zone control, and I knew that it would be an efficient way to save hot water and energy," says South Carolina-based Kristen Bolig who retrofitted her 20-year old home after living in it for two years.

According to Bolig it took about a week and a half for the job of retrofitting the radiators in her three-level home to be completed.

"What really makes it well suited from zone control is how wide it is," said Bolig. "There are a handful of rooms that get used much less frequently than others, so those areas can be controlled in a way that helps us save on our energy bill."

Because radiators have no controls beyond "open" and "closed," it's often difficult to control the heat in individual rooms. The farther you get from a radiator, the chillier you're going to be, so people tend to retrofit them to set up zone control or other ways to make them more efficient.

"Retrofitting our radiator was one of the best decisions we've ever made," says Chicago-based Andre Kazimierski who retrofitted his 1837 historic home after living in it for three years. "Because steam radiator systems are so difficult to control in individual rooms, we found ourselves in a cycle of overheating to the point of opening a window, then being too cold, then repeating the cycle. After retrofitting, we no longer have this problem and are paying far less in heat costs."

Radiators are more than a heating object, though; they've developed into something that's part of my home's decor and how we function. They're the place we drop wet hats, gloves, and scarves after time in the snow, even the occasional blanket if we want to warm it up before watching a movie on the couch. I've even considered buying drying racks for them to cut back more on our electricity use, although I've heard you're not supposed to dry clothes on them as it interferes with the airflow.

They are the place I can often find missing puzzle pieces or crayons behind, carefully digging those objects out while reminding my daughter not to touch them when they're on and hot. I repainted them white recently, even though I'm sure there will be a day my daughter asks to have the one in her room painted to fit whatever style she's currently living. Radiators can adapt to reflect our personality while also being a gentle reminder of the necessary work we need to do to protect the planet.

Bridget Shirvell is a New England-based writer for publications including *Civil Eats*, *Martha Stewart*, *Parents*, and more. You can subscribe to her newsletter, "[Parenting in the Climate Crisis](#)."

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