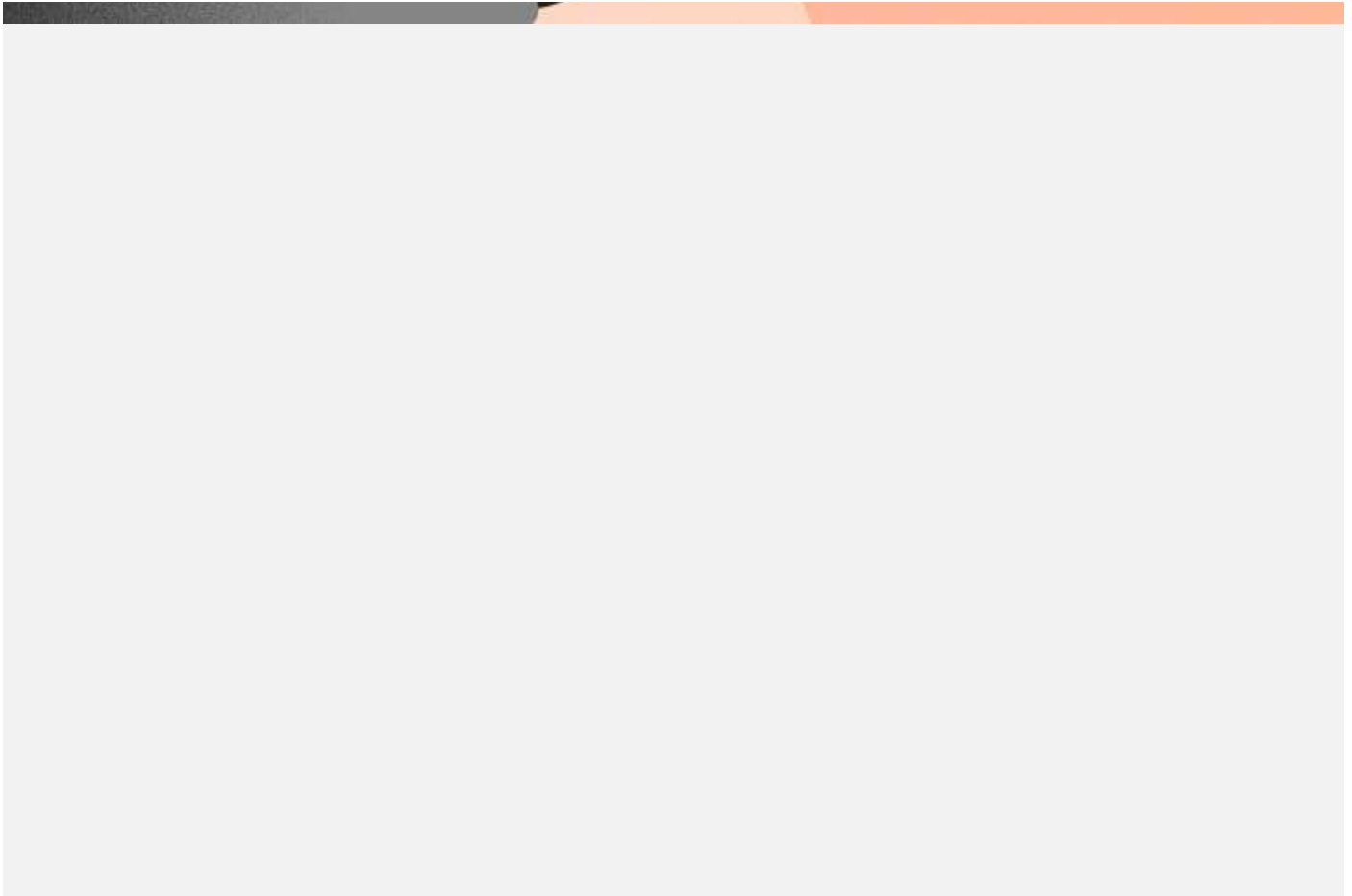




How These 4 Companies Are Fighting Climate Change at Home

by BRITTANY ANAS





(Image credit: Photo: Alive studios; Design: Apartment Therapy)

We'll give it to you straight: Climate change poses a major threat to the housing industry, experts and research studies warn. If sea levels rise as much as climate scientists are predicting, three dozen U.S. cities could be wiped off the map entirely and at least half the homes in 300 more cities could sink underwater by the turn of the century, according to a [Zillow analysis](#) of data from the National Oceanic and Atmospheric Administration. [Large wildfires](#) are increasing in frequency and scope and climate change is causing shifting rain patterns, translating to [heavier inland flooding](#).

The bottom line? When it comes to our homes and climate change, hurricane shutters and [prescribed burns](#) only go so far in mitigating risks. Forward-thinking companies and nonprofits are reimagining the housing industry—from design to building materials to how we manage energy—to better protect our homes, and our shared home against the effects of climate change.

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(Image credit: Apartment Therapy)

“The climate emergency is altering our collective consciousness,” says [Dr. Paul Zeitz](#), the senior policy advisor with the [Healthy Climate Alliance](#), an advocacy group that works to reverse the effects of global warming. “It’s in our faces now, with the fires in California and the devastating hurricanes and floods. We all need to reduce our carbon

footprint as fast as possible. We needed to do this yesterday. And we need to do it every day going forward.”

In honor of Earth Day, we’re taking a look at a few innovative players that are working to protect our homes, and planet, against climate change. To help, Zeitz is weighing in on the solutions being brought forward and their effectiveness in helping to restore a healthy climate.

Rodwin Architecture and SkyCastle Construction: Net-zero energy homes

Integrating sustainable design into newly-built homes is becoming an expectation, which is a good thing. Going beyond that though, are firms like Boulder, Colorado-based [Rodwin Architecture and SkyCastle Construction](#), a design-build team that creates net-zero energy homes, meaning the homes can produce as much renewable



The firm has even designed and built regenerative homes that produce more energy than they use.

“What I’m most proud of is that our homes are designed like Teslas,” says Scott Rodwin, president of Skycastle Construction and Principal of Rodwin Architecture. “They look and function beautifully, and there are no utility bills.”

The decision to operate a green firm arose from Rodwin’s personal values rather than a shrewd market analysis, he says. “I just got lucky that lots of other people felt the same way,” he says. “Because we started doing this so long ago, it has allowed us to stay on the forefront of the industry.”

His original “ah-ha” moment came when he learned about [EcoVillage](#), a co-housing community in Ithaca, New York, that began in 1991 with a strong focus on sustainability. For Rodwin, it was proof people could live in greater harmony with the environment. His team’s first project was an off-grid straw bale house made with a structural insulated panel roof and solar photovoltaics.

“The only real issue in making money is that true green design requires more thought, research, and time in general,” Rodwin acknowledges. “The market doesn’t always support the increased fees necessary to pay for that effort.”

What our expert says

“I salute this trend,” Zeitz says. “I think we will all have to transition to net-zero energy homes. Having models exist is really important.”

But, rather than just focusing on luxury homes, Zeitz says net-zero homes should become the gold standard across housing at all income levels, and existing homes will need to be retrofitted to move towards zero energy efficiency.

In the meantime, some immediate ways to reduce your carbon footprint, according to Zeitz, include [home solar programs](#), upgrading your [HVAC systems](#), and by living in a walkable community to scale back your driving.

OhmConnect



like an energy-saving game for users.

OhmConnect tracks when utilities need additional power to meet demand spikes and are going to crank up older, greenhouse gas emitting plants. When that happens, OhmConnect mobilizes users to move as a group to shut down their individual power use for a specified hour to lessen the load, keeping plants from coming online and polluting. The company incentivizes participation in the free service: Users earn dollars for the time when their homes are powered down.

“We realized there was a gap for us to fill when we didn’t find any other service that actually rewarded people for taking action on climate change,” says OhmConnect co-founder Curtis Tongue. “We found a model that allowed us to pay people real money. Not kudos, pats on the back, or participation trophies, but cold, hard cash for reducing their home’s carbon footprint.”

Subscribers do need to have smart meter installed, and by using a smart thermostat and smart power plugs the process can be automated.

The program is currently available in markets in California, Texas, and Toronto, and users can earn up to \$10 to \$1,500 per year. (You can still participate in [other markets](#), but won’t earn money).

What our expert says

“I think it’s clever,” Zeitz says. “I’m excited about this. I like the collective action component and that, with awareness and data, people can change their behaviors.”

James Hardie: Fiber cement siding to protect against disasters

When it comes to wildfires, your roof is the most vulnerable part of your home and wood and shingles can especially spell trouble. Also, while wood products are common siding materials, they are combustible and aren’t a good choice for areas that are prone to wildfires, according to the [Department of Forestry and Fire Protection in California](#). Vinyl can also be problematic because it can instantly melt.

Instead, ignition-resistant building materials, including fiber cement, are gaining more



shingles. The company claims its siding won't ignite when exposed to a direct flame. At this year's International Builders' Show, James Hardie debuted new products including fiber cement shingles that look like natural cedar shingles.

What our expert says

As far as building materials go, Zeitz's focus is more on the potential of carbon-negative products. There's a new method that pulls CO₂ from the air or industrial exhaust pipes, turning it into a synthetic limestone, which could not just curb climate change, but work to reverse its effects. He points to [Blue Planet](#), a company that's using this carbon mineralization process and has made concrete for the San Francisco International Airport.

Arbor Day Foundation

Admittedly, some of the best sustainable approaches happen to be big projects, whether that's having solar panels installed or building a customized sustainable home. But an easy-to-do approach? Plant some trees. The [Arbor Day Foundation](#), a nonprofit dedicated to planting trees, wants to help homeowners do just that. Environment experts with the nonprofit say a single tree can absorb as much as 48 pounds of carbon dioxide each year.

The foundation launched [Time for Trees](#), an initiative aiming to plant 100 million trees in communities and forests by 2022. Homeowners can get involved by becoming a member of the Arbor Day Foundation (it costs \$10) and receive 10 free trees based on which species grow best in your area.

"It can be easy to take trees for granted," says Dan Lambe, president of the Arbor Day Foundation. But, he says, an estimated 18 million acres of forests are lost globally every year because of development, natural disasters and disease.

"Trees are one of the simplest, most affordable, and most powerful tools we have to protect our planet," he says. Trees clean the air and purify our drinking water, Lambe says, which has become increasingly important as climate change intensifies.



Zeitz agrees that trees are critical, especially in areas that are susceptible to flooding as trees can help reduce the impact by absorbing excess water. In fact, he points to [research](#) that shows planting 1.2 trillion trees could be a key defense against climate change.

“We need to raise our ambition,” he says.

What ways are you protecting your own home from climate change?

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