## Are Ground-Source Heat Pumps So Last Year?

GSHPs have gone mainstream, thanks to the Inflation Reduction Act, and the hippest AEC professionals are so over them.

by Poppy Gasbag



Photo: Damien Ojiryu

"I was specifying ground-source heat pumps before they were popular," recalled Gea Snootfeld, principal at Seattle's Maverick Design. "Most people installing them now don't, like, actually, get it."

Snootfeld is referring, of course, to the recent breakout of ground-source heat pumps (GSHPs) onto the mechanical heating and cooling scene. While the technology has been around for decades, it's been underused due to high upfront costs and lack of consumer awareness.

In other words, it's been indie, alt, arthouse HVAC. But recent federal tax credits have made GSHPs more accessible to all—and therefore far less hott to some.

BuildingGreen spoke about it with avant-garde architects and engineers from boutique firms like Maverick across the U.S. and Canada. Each described how their self-concept is tied to the edginess and risk associated with recommending uncommon, expensive, and misunderstood equipment to clients.

Thanks to the IRA, GSHPs now have very short payback times— and mass appeal. To stay ahead of the trend, cool designers must find new, barely workable applications for the tech that still don't "pencil out."

"Clients seek out my services because they know I'll deliver something totally unexpected—and, ideally, untested," pronounced Chance Looper, P.E., associate principal with Bleeding-Edge Engineers. Although GSHPs no longer check the "untested" box, Looper has been recommending them since they did. "My clients get a thrill from knowing very few people before them have done what they're doing, and that they're spending a ton of money and waiting to see if the project will even work or be worth the investment," he extrapolated from his coworking space in Queens. "With ground-source heat pumps, the thrill is basically gone now."

Peri Luss, associate at architecture firm Mödish\Öffbeat\Fr\end{Beat\Fr\ena\B\end{Beat\Fr\end{Beat\Fr\end{Beat\Fr\end{Be couver, B.C., agreed, explaining that now, to maintain the level of exhilaration she's used to, she's having to specify GSHPs for warmer and warmer climates. In places with no winter to speak of, everyone and their neighbor uses air-to-air heat pumps (because of the tech's accessible cost and demonstrated performance), but for now-and fortunately for M \ Ö \ F and its vogueish ilk many people in sunny climes are still skeptical of the practicality of GSHPs. "So, yeah," she considered, "we're still a bit on the fringe around Death Valley and regions of the Gulf Coast, which is good. But I don't know how long I have until everyone down there totally conforms."

"Once that happens," Luss declared, "I obviously will not be specifying ground-source heat pumps. I cannot be recommending equipment that literally every other building has. That's super uncool."

But many green building professionals are concerned that this reaction will undermine the building industry's transition away from fossil fuels.

"I was excited by the tax credits offered for ground-source heat pumps in the Inflation Reduction Act," reflected Norm Midpointer, Customary Development's director of sustainability. "They've been really effective at driving adoption of the technology. But none of us expected this backlash from the AEC in-crowd. The Biden Administration didn't account for the reputational risk the law posed to designers, developers, and owners who cannot be caught following a trend."

Still others argue that sustainability and coolness don't have to be in conflict. "I think we need to redefine what 'cool' even is," reasoned environmental consultant Prudence Riskless from Generic Planning & Consulting. "To effectively combat climate change, our culture's got to shift." AEC professionals, she fantasized in a subsequent email to BuildingGreen, can work to convince their clients (and themselves) that doing what your neighbors—or competitors if you're commercial—are doing doesn't make you inherently boring or basic. "Like," she continued, "everyone I know bought 40-ounce Stanley tumblers after my friend Rachel got one last year, and we all still feel very fashion-forward."

And yet the question remains: as groundsource heat pumps go mainstream, can they be hot and cold for all while also staying cool?

Published April 1, 2024