

On a path to total carbon neutrality

By: Josh Kulla ■ in Scrolling Box ○ March 25, 2019 7:36 am



The Ankeny Apartments, a net-zero-energy project in Southeast Portland, is part of Yost Grube Hall's portfolio tied to the 2030 Commitment. (courtesy of Yost Grube Hall Architecture)

In 2006, the **2030 Challenge** was issued. It asked the global architecture and building community to commit to using carbon-neutral designs for all new buildings, developments and major renovations by 2030.

The **American Institute of Architects** took action to support the challenge by offering its **2030 Commitment** while aiming to "transform the practice of architecture in a way that is holistic, firm-wide, project-based and data driven," according to its mission statement.

More than a dozen years later, many firms in the Pacific Northwest are on board. As of last year, 25 firms in Oregon are official signatories. That is a significant number compared to the worldwide number of slightly more than 500.

Members of local firms that have adopted the 2030 Commitment say it has not only helped the industry evolve, but also changed how its businesses operate.

"It's really focused a goal for the industry," said Yukari Kubo, a project architect with Portland firm **Yost Grube Hall Architecture**. "It's always been deeply entrenched in our projects, but it was nice to have it laid out. I think it helped the whole industry move in that direction and have an overarching goal."

Since 2009, participating firms have reported annually their portfolios' performances. Data collected includes building type, area, baseline energy performance, and predicted energy performance. It's hard to quantify the results. But the AIA suggests that in the past year, 2030 Commitment participants reported energy savings equivalent to the carbon that would be sequestered by 21 million acres of forest.

Meanwhile, firms are constantly engaged in the effort to improve energy efficiency using data, expertise and best practices provided by fellow participants. This is done mainly via the Design Data Exchange, a national database in which participating firms can enter their own project data each year. But how firms pursue the 2030 Challenge goals is up to them.

"They don't tell you how to do it; they just say 'do it,'" said Erica Dunn, an architect and design team manager with design-build firm **Green Hammer**, which signed onto the 2030 Commitment in 2017.

Yost Grube Hall and Seattle-based **Mahlum Architects**, which has an office in Portland, both became signatories in 2009. Members of both firms have since found adoption of the 2030 Commitment leading to fundamental changes.

"I want to say most of it is around understanding about what the metrics are in every project and what the impact of design decisions will do to your energy use," said Jesse Walton, a Mahlum associate who works out of the firm's Seattle office.

Kubo agreed.

"For now, it's a place where we put our inputs," she said. "We don't use it for design; we use it to see how our buildings perform."

Total carbon neutrality may be the end goal, but participants at this point are striving to simply increase their numbers of such projects. Currently, the 2030 Challenge target is for 70 percent of projects to be carbon-neutral. That target will rise to 80 percent in 2020 and 90 percent in 2025. In 2017, just 10 firms in the U.S. reached the 70 percent mark.

That might seem like a low number, but the idea is for the 2030 Commitment to serve as a motivational tool. Some architects liken it to the introduction of the U.S. Green Building Council's **Leadership in Energy and Environmental Design** ratings system.

"The first time they rolled out LEED in '97, the first thing (founder) Rob Watson said is that this is not a measure of sustainability, it's about performance and getting better," said Logan Cravens, an architect with **Carleton Hart Architecture**, which signed onto the 2030 Commitment last year.



Woody Guthrie Place, under construction in Southeast Portland, will feature a rooftop solar array and electric-car charging stations. The multifamily project is part of Carleton Hart's portfolio tied to the 2030 Commitment. (Carleton Hart Architecture)

Signatories also say the 2030 Commitment helps shape their clientele, as well as the types of projects they take on.

"With the client piece, I strongly think that even though we're competing for a lot of these projects, a lot of times we'll have follow-up projects with clients," said Ericka Colvin, an architect with Yost Grube Hall. "It's evident and appealing to clients, and it's something that we've been part of for a decade."

That appeal tends to stand the test of time, she added.

"I think even though it's not talked about in every single project or competition for a project," she said, "once they know about it, it's important in our future relationship with them."


Walton said Mahlum has had a similar experience.

"I think it has definitely attracted clients who appreciate energy-efficient design to us," he said. "We work with a lot of big school districts, and some are more green-leaning one way or another, and it has definitely affected some things we do."

It also has helped build a strong internal vocabulary, Walton added.

"It can be presented to clients when we go out for interviews and proposals," he said. "I think the devil is in the details, though. Maybe it doesn't affect bigger-picture design moves, but it definitely affects siting."

Other firms are adjusting to the workload tied to reporting associated with the 2030 Commitment.

Carleton Hart Architecture's sustainability committee is compiling the first batch of project data it plans to submit this month to the Design Data Exchange. The firm is receiving some help from an intern hired with money from an  **Energy Trust of Oregon** grant.

"It's our first year, so we were looking to get a wider spread of projects," said Carleton Hart architect Julia Mollner. "We were looking at how we were doing over the past eight years, and it is daunting. But at the same time it's really reassuring when we realize we're right on par with national averages and we're working at the same level other firms are. It's about keeping up on reporting."

Although Green Hammer has just one year's worth of projects under its belt, Dunn said the firm is already striving to set an example for others.

"While we know this is the focus for our company, we hope the 2030 Commitment really encourages other companies to see that it is possible to do this work across your entire portfolio and not just a single project at a time," she said. "Hopefully it will encourage everyone else to rise to the challenge and meet the commitment."

The 2030 Commitment in Oregon:

Ankrom Moisan Architects, 2015

Bassetti Architects, 2017

Bora Architects, 2012

Carleton Hart Architecture, 2018

DLR Group, 2009

Dominek Architecture, 2018

FFA Architecture and Interiors, 2017

GBD Architects, 2016

Green Hammer, 2017

Hacker, 2013

Hennebery Eddy Architects, 2015

Holst Architecture, 2017

Interface Engineering, 2016

KMD Architects, 2009

Mahlum Architects, 2009

Mazzetti, 2009

Opsis Architecture, 2013

Otak, 2011

PATH Architecture, 2018

SERA Architects, 2010

SRG Partnership, 2015

Studio-E Architecture, 2018

Waterleaf Architecture, 2017

Yost Grube Hall, 2009

ZGF Architects, 2009

Source: American Institute of Architects



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