2030 BY THE NUMBERS

The 2022 summary of
the AIA 2030 Commitment

ABOUT THE AMERICAN INSTITUTE OF ARCHITECTS

Founded in 1857, AIA consistently works to create more valuable, healthy, secure, and sustainable buildings, neighborhoods, and communities. Through more than 200 international, state, and local chapters, AIA advocates for public policies that promote economic vitality and public wellbeing.

AIA provides members with tools and resources to assist them in their careers and business as well as engaging civic and government leaders and the public to find solutions to pressing issues facing our communities, institutions, nation, and world. Members adhere to a code of ethics and conduct to ensure the highest professional standards.

ABOUT THIS REPORT

2030 By the Numbers: The 2022 Summary of the AIA 2030 Commitment measures annual performance of the architecture and design community toward its goal of carbon neutral buildings by 2030. It includes data from calendar year 2022 and suggestions for improving performance year to year.

This analysis highlights project-level information pulled on May 18, 2023 for projecs included in RY2022 portfolio submissions.

Cover photo by Corey Gaffer.

Recommended bibliographic listing: The American Institute of Architects (2023 September). *2030 by the numbers: The 2022 Summary of the AIA 2030 Commitment.*

CONTENTS

THE CURRENT MOMENT

We're in a catalyst moment where we are increasingly witnessing that upholding the status quo isn't enough. This is both in regard to climate change and social justice—and buildings bear witness to both. This summer, the U.S. eastern seaboard was cast with a hazy smog from burning Canadian wildfires that spiked air quality to dangerously unhealthy levels. Extreme heat continues to hit cities, causing record high temperatures with research showing links between heat waves and the urban heat island effect compounding each other. Water shortages have slowed construction in places with growing populations and high housing demand, such as Phoenix, Arizona. Climate change is bringing rising sea levels, increasing extreme weather events, and resource scarcity, all of which is directly impacting the built environment—and those who call it home. However, the impacts on the built environment are felt disproportionately across communities. The racist history of redlining has left a legacy where communities of color continue to face higher risk of climate impacts, including higher temperatures and worse air pollution than their white counterparts. Globally, buildings contribute almost 40% to carbon dioxide emissions, a 2022 statistic reported by the UN Environment Programme Global Alliance for Buildings and Construction. The need to mitigate and reduce CO_2 emissions within the building sector—with cascading effects across total global CO_2 emissions—cannot be understated.

The places where we work and live matter. From the air we breathe to the materials that surround us, the built environment—and the ways in which we interact with it—are at the heart of communities. Members of the architecture and design profession are pivotal in shaping that environment.

Photos: Getty Images

THE ARCHITECT'S ROLE

The challenges inherent in the current landscape also bring immense opportunity. To meet the climate target outlined in the Paris Agreement of holding average global temperature increases to 1.5 degrees Celsius, existing buildings must be decarbonized, and future building stock must achieve zero emissions. According to the International Energy Agency, we're expected to amass almost 2 trillion ft[2] of additional global building stock by 2050, signifying the rapid need for the industry to implement net zero emissions as the sector grows.

Notable is its ongoing progress: According to Architecture 2030, since 2005, the CO_2 emissions intensity of the building sector's operations has decreased by 43.7% for commercial buildings and 39.8% for residential buildings. And this translates to direct financial savings for consumers: From 2010 to 2022, residential and commercial building energy consumers saved approximately $530 billion compared to the energy costs initially forecast in 2010. These signs of progress are just the start as decarbonization efforts will continue to ramp up in the coming years.

Photos (from left to right): Scott Web on Unsplash; Red Zeppelin on Unsplash

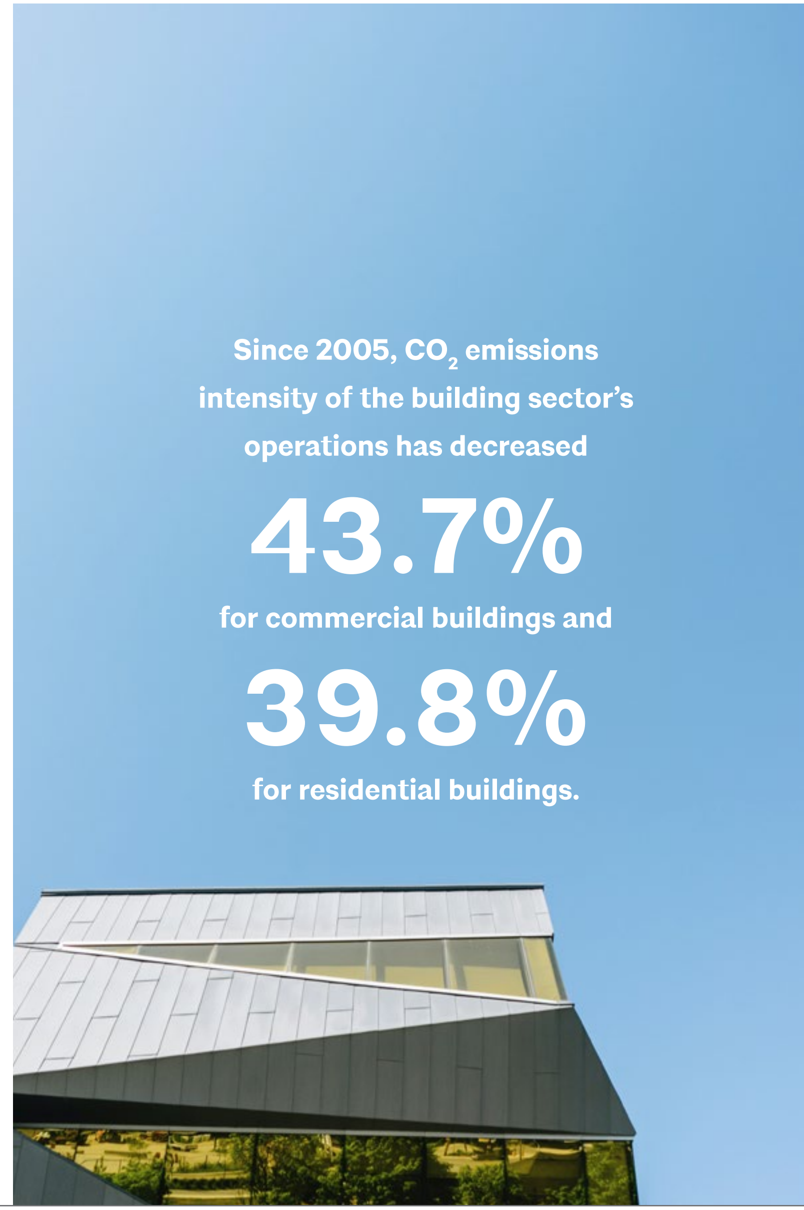


Photo by Casey Dunn

Politically, there is momentum within the Biden administration, including the ambitious plan to achieve net zero emissions in all federal buildings by 2045. The Infrastructure Investment and Jobs Act (2021) initiated several opportunities for architects related to energy efficiency grants, grid integration funding, and incentives for updating energy codes. Recently, the U.S. Department of Energy announced $90 million in awards to cities, states, tribes, and partnering organizations to implement updated building codes as a result of the Bipartisan Infrastructure Law. This investment is projected to save Americans $138 billion on their utility bills and reduce 900 million metric tons of CO_2 emissions by 2040. Additionally, the Inflation Reduction Act (2022) includes a wealth of energy efficiency tax incentives for building owners and architects to take into consideration as they're designing new and existing buildings. Socially, the architect's role has never been more important. As their roles extend past project scope to engagement, advocacy, and urban planning, architects and designers have an even greater impact on the communities they build in—and they can deliver outcomes that further social equity. To address both climate change and historic social injustices, design excellence becomes the gold standard for architects and designers. Success means building a resilient, equitable, zero-carbon, and healthy built environment for everyone.

To take full advantage of this catalyst moment, we must transform architectural practice and the way we think about sustainable design. This transformation starts at the very beginning of design ideation and continues across all design phases. By measuring this journey and each stage's metrics, we can see how far we've come and how far we need to go. To this end lies the AIA 2030 Commitment and the Design Data Exchange (DDx).

To address both climate change and historic social injustices, design excellence becomes the gold standard for architects and designers. Success means building a resilient, equitable, zero-carbon, and healthy built environment for everyone.

2022 AT A GLANCE

48%
overall pEUI reduction.

428
companies reported data.

19
companies met the 80% predicted EUI (pEUI) reduction target across their entire portfolio.

23,276
projects reported.

346
whole-building projects are predicted to be zero net energy.

4%
of reported whole-building GSF meets the 80% pEUI reduction target.

72%
of reported interior-only GSF meets the 25% predicted lighting power density (pLPD) reduction target.

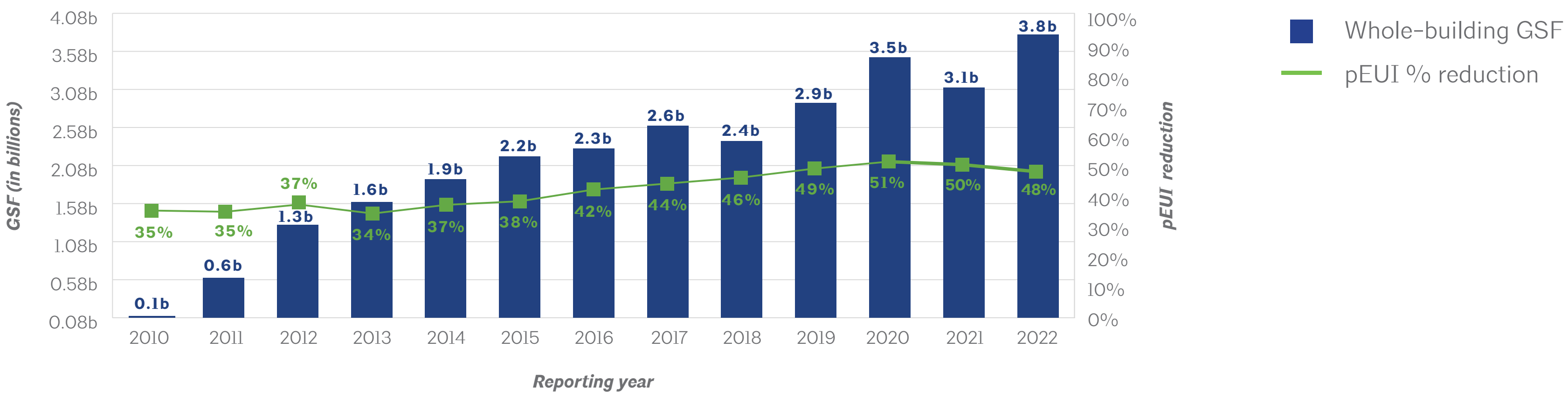
107
countries represented.

62%
of reported whole-building GSF has been energy modeled.

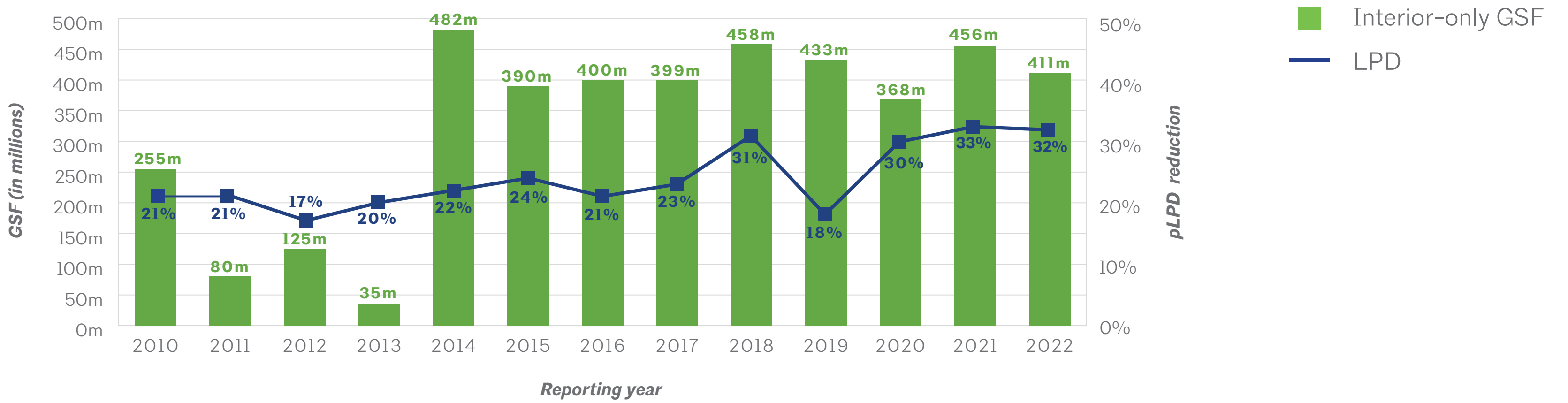
41.8 million
metric tons of CO_2 emissions were avoided relative to 2030 baseline-equivalent buildings.

Photo by Igor Karimov on Unsplash

WHOLE-BUILDING GSF & pEUI % REDUCTION BY YEAR 2010-2022



INTERIOR-ONLY GSF & pLPD % REDUCTION BY YEAR, 2010-2022



OUR PATHS FORWARD

Entering its 14th year, the AIA 2030 Commitment is a key climate action program that drives progress toward a net zero carbon built environment. In its preliminary years, the program was focused on reducing operational carbon—both in design and in firm practice. Since then, the AIA 2030 Commitment has expanded its scope, utilizing the Design Data Exchange (DDx) platform to track core metrics beyond operational energy and carbon. Key metrics now include tracking energy by fuel source, renewable energy, post-occupancy energy use, and embodied carbon. To fully understand the carbon impact of buildings architects are designing, the 2030 Commitment is expanding to measuring total carbon. The number of firms reporting projects with embodied carbon data continues to grow, and the program strongly encourages participating firms to include embodied carbon data from at least one project in the coming reporting years. By bringing embodied carbon data to the forefront, 2030 Commitment signatories will be able to understand their portfolio's energy savings progress for both operational and embodied carbon and tell the whole story of their progress.

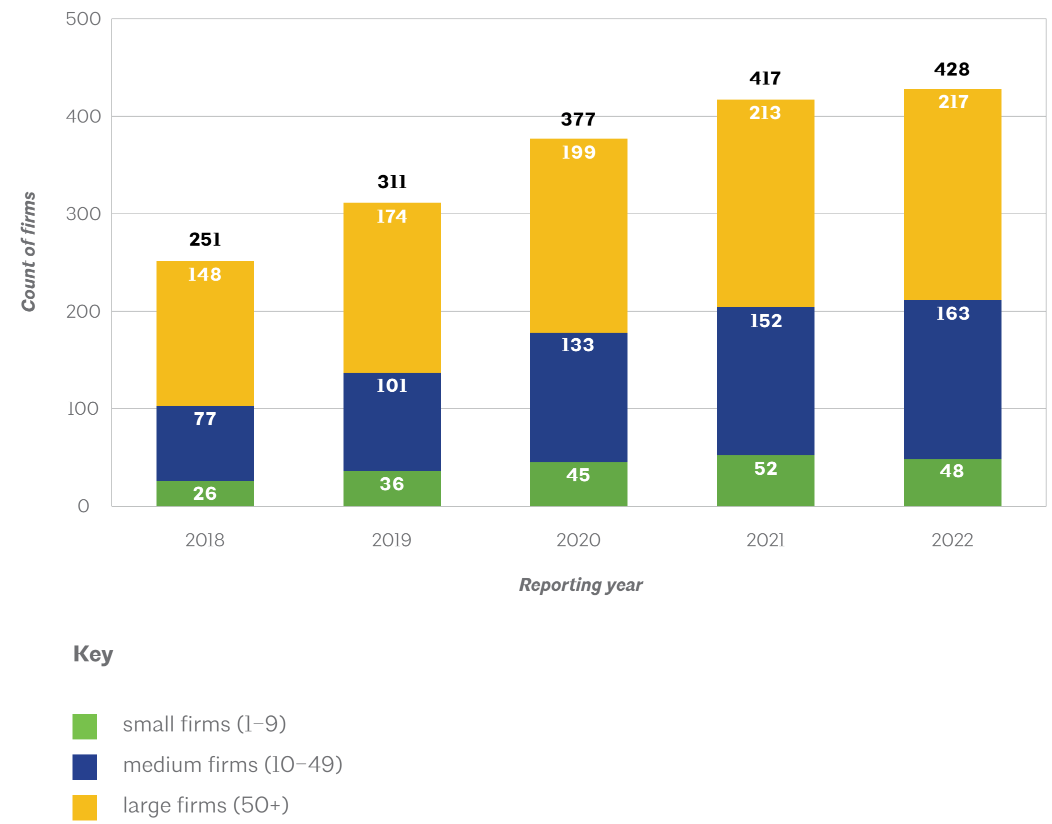
The 2030 Commitment community has continued to grow—from 170 signatories and 56 reporting firms in 2010 to now over 1,200 signatories and 428 reporting firms this past reporting year. The program's growth is a testament both to the increasing network of architects dedicated to sustainability and how a collective set of energy benchmarks and goals can propel progress.

In 2022, 428 companies reported a little over 3.8 billion gross square footage across 23,276 projects and 107 countries through the DDx. These projects accounted for an overall 48% predicted energy usage intensity (pEUI) reduction among whole-building projects and an overall 32% predicted lighting power density (pLPD) reduction among interior-only projects. This year's reported projects also include a notable increase in projects reporting embodied carbon data, growing to almost 4,000 projects. Projects including renewable energy continue to steadily increase, this year reaching just over 7% of projects, and regarding building electrification, there are almost double the amount of all-electric buildings reported compared to just two years ago. While historically, pEUI reduction has been at the forefront of the program, the breadth of 2030 Commitment data tells a deeper story. 2030 signatories are transforming their practice by utilizing the following key strategies:

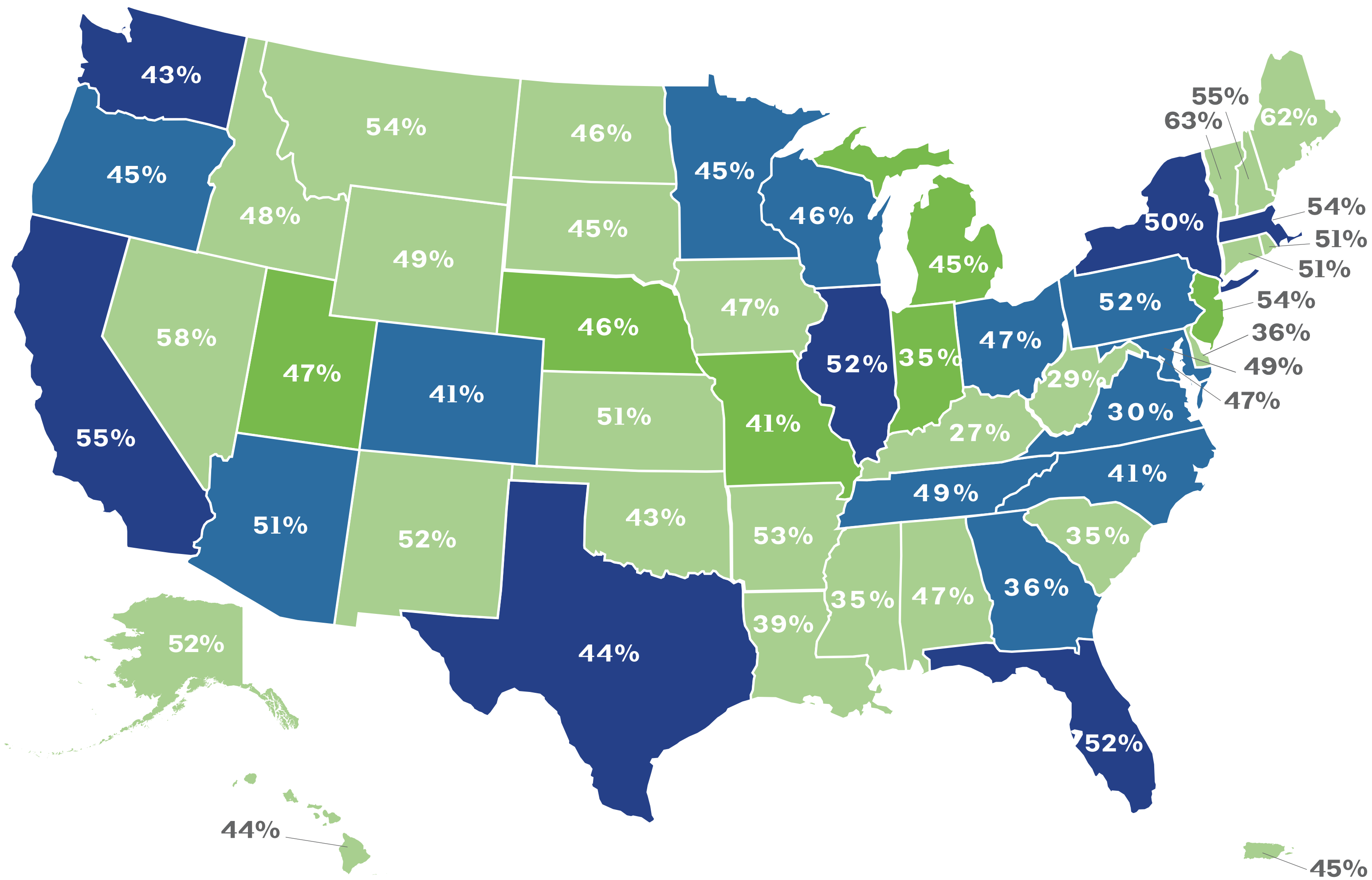
- Modeling building energy use at multiple design stages to keep the team focused throughout the process on passive design strategies and other energy-efficiency measures
- Transitioning away from fossil fuels through building electrification
- Using either on-site and/or off-site renewable energy
- Reducing the embodied carbon of buildings to help mitigate the upfront emissions caused by the manufacture of building materials

This year's 2030 By the Numbers (RY22) shows a growing community developing the tools and networks to successfully mobilize their firm's practice on the journey to net zero carbon buildings. The data further demonstrates that while net zero total carbon is the goal, the implementation process across a diverse set of firms working to reach that goal has been and remains the focal point of the 2030 Commitment. In other words, the tracking of a firm's energy and carbon data across its portfolio is the key way to drive progress.

IMPACT OF REPORTING FIRMS BY SIZE, 2018-2022



PEUI % REDUCTION BY STATE

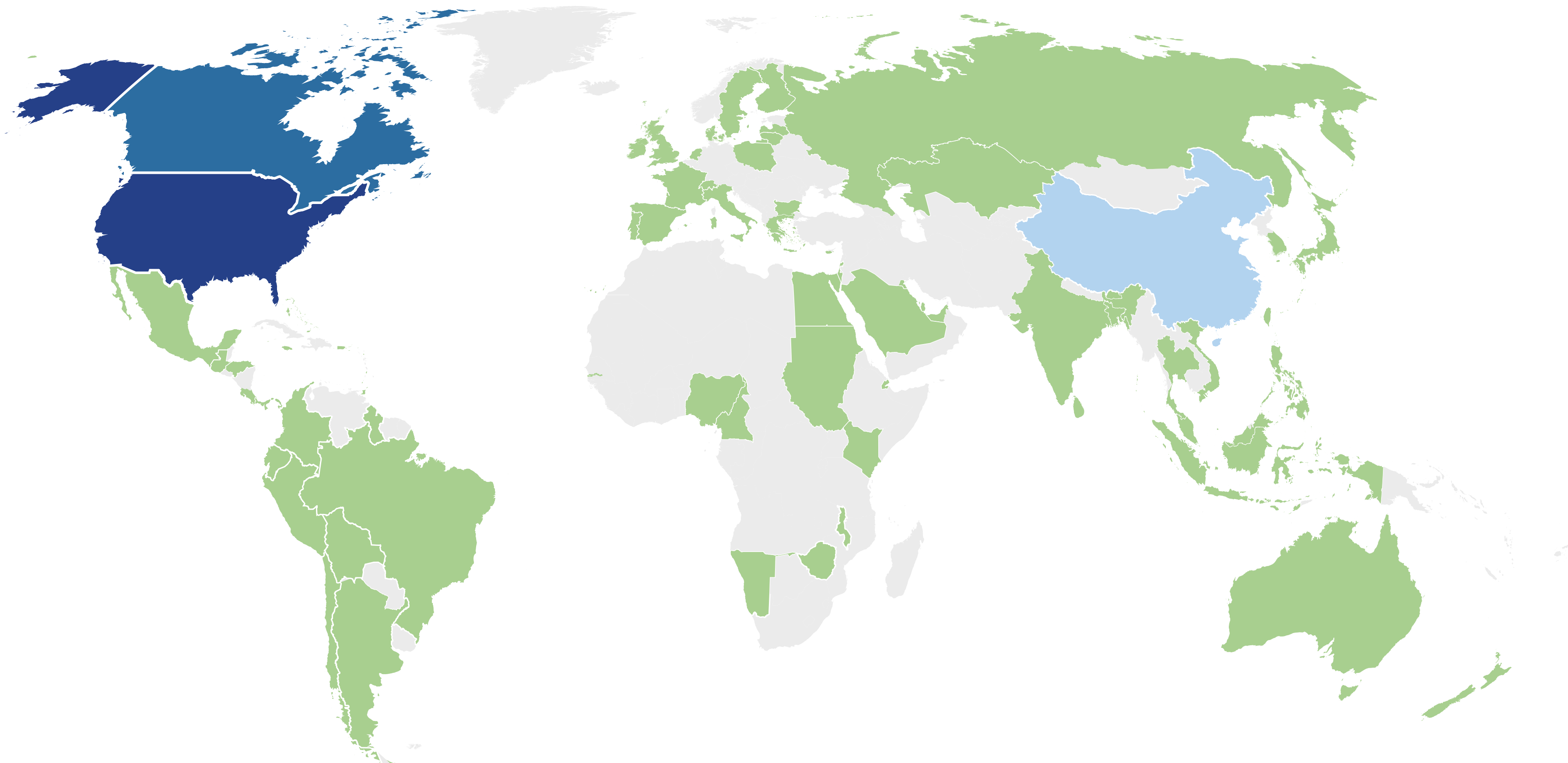


In the U.S. alone, signatory firms reported 13,073 whole-building projects totaling 2.2 billion gross square feet. The U.S. national weighted average pEUI reduction was 46%.

Number of whole-building projects

- 1–99
- 100–199
- 200–499
- 500+

GLOBAL FOOTPRINT



Outside of the U.S., signatory firms reported 2,925 projects totaling 1.3 billion gross square footage across 107 countries.

Number of projects

- 1–249
- 250–499
- 500–749
- 750+
- n/a

SECTION 1.

2030 SIGNATORIES ARE MAKING AN IMPACT

Photo by Chad Davies

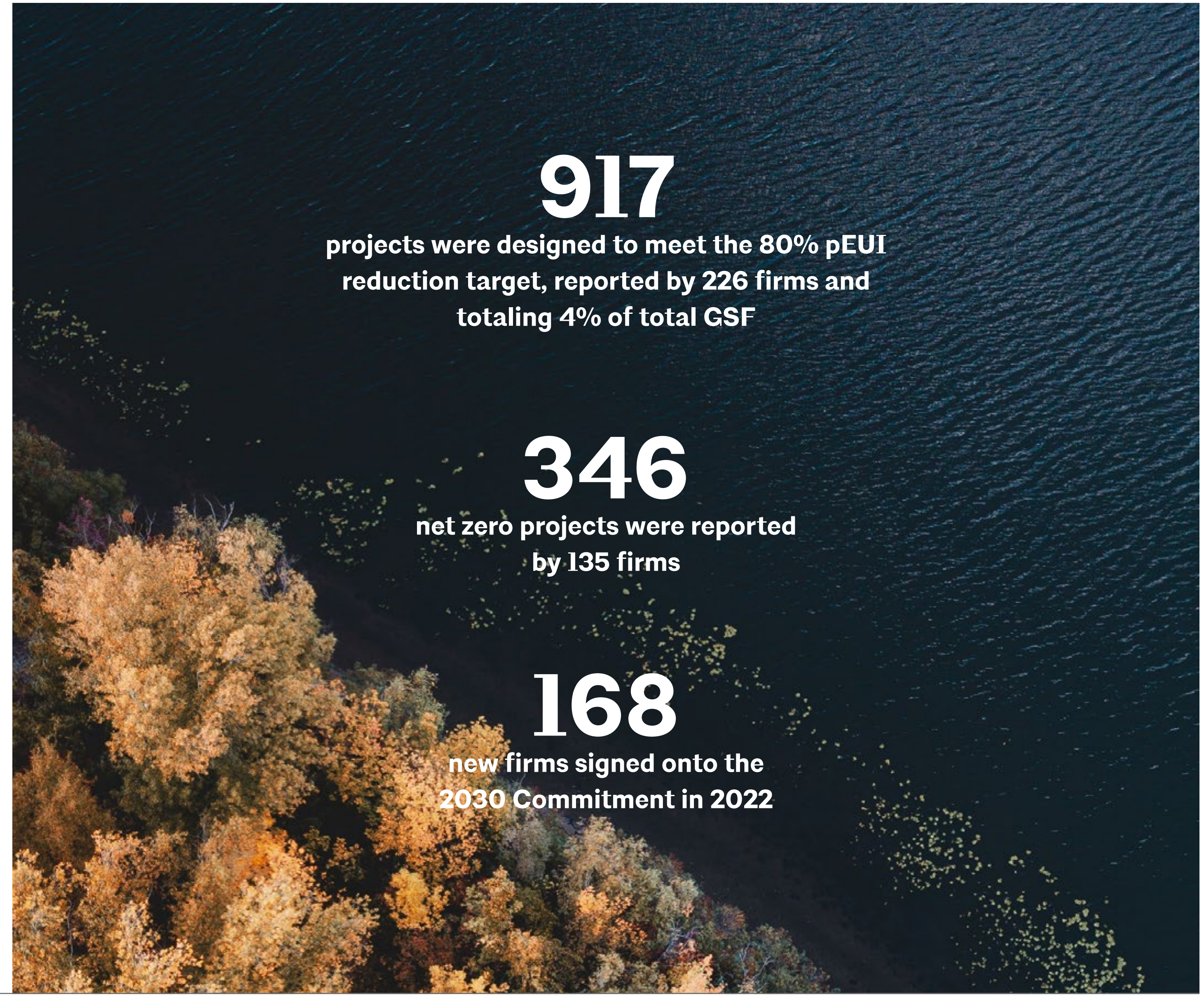
$11.3 billion/year

In 2022, signatories reported projects that represent energy savings of more than $11.3 billion over the baseline equivalent.

41.8

MILLION MT CO_2E

In 2022, 2030 Commitment projects accounted for an annual overall energy savings equivalent to avoiding 41.8 MT CO_2e.



917

projects were designed to meet the 80% pEUI reduction target, reported by 226 firms and totaling 4% of total GSF

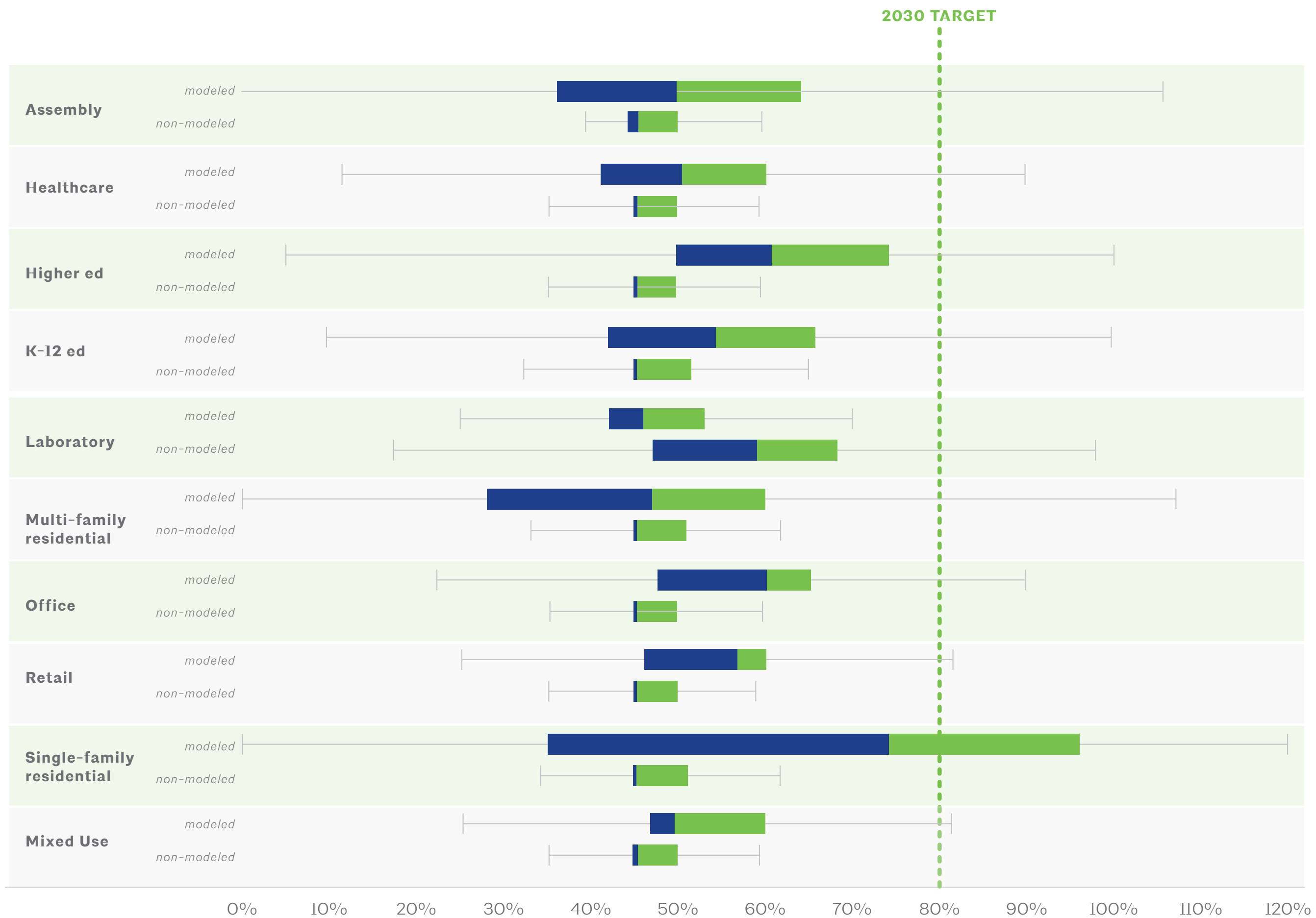
346

net zero projects were reported by 135 firms

168

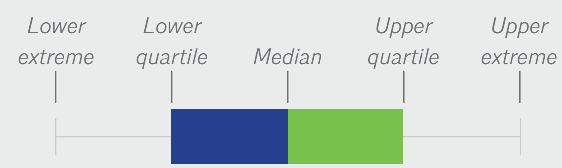
new firms signed onto the 2030 Commitment in 2022

PEUI REDUCTION BY USE TYPE, MODELED VERSUS NON-MODELED

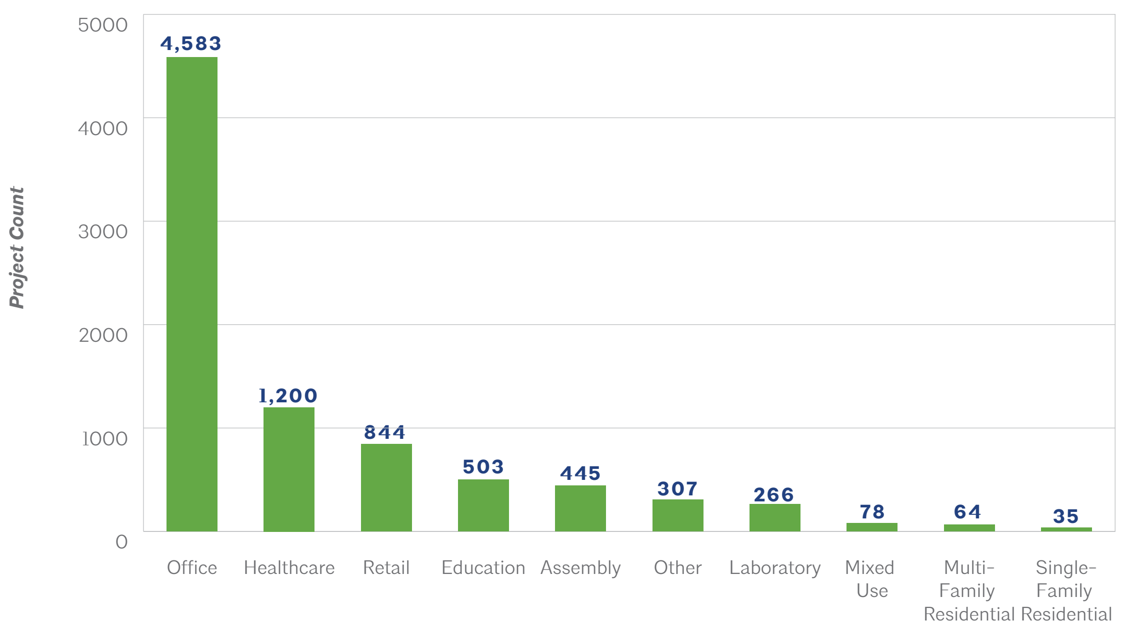


The 2022 data shows that all the use types are able to meet the 80% pEUI reduction. Energy modeling will become even more important as the targets become more challenging in 2025 and eventually 2030.

Key

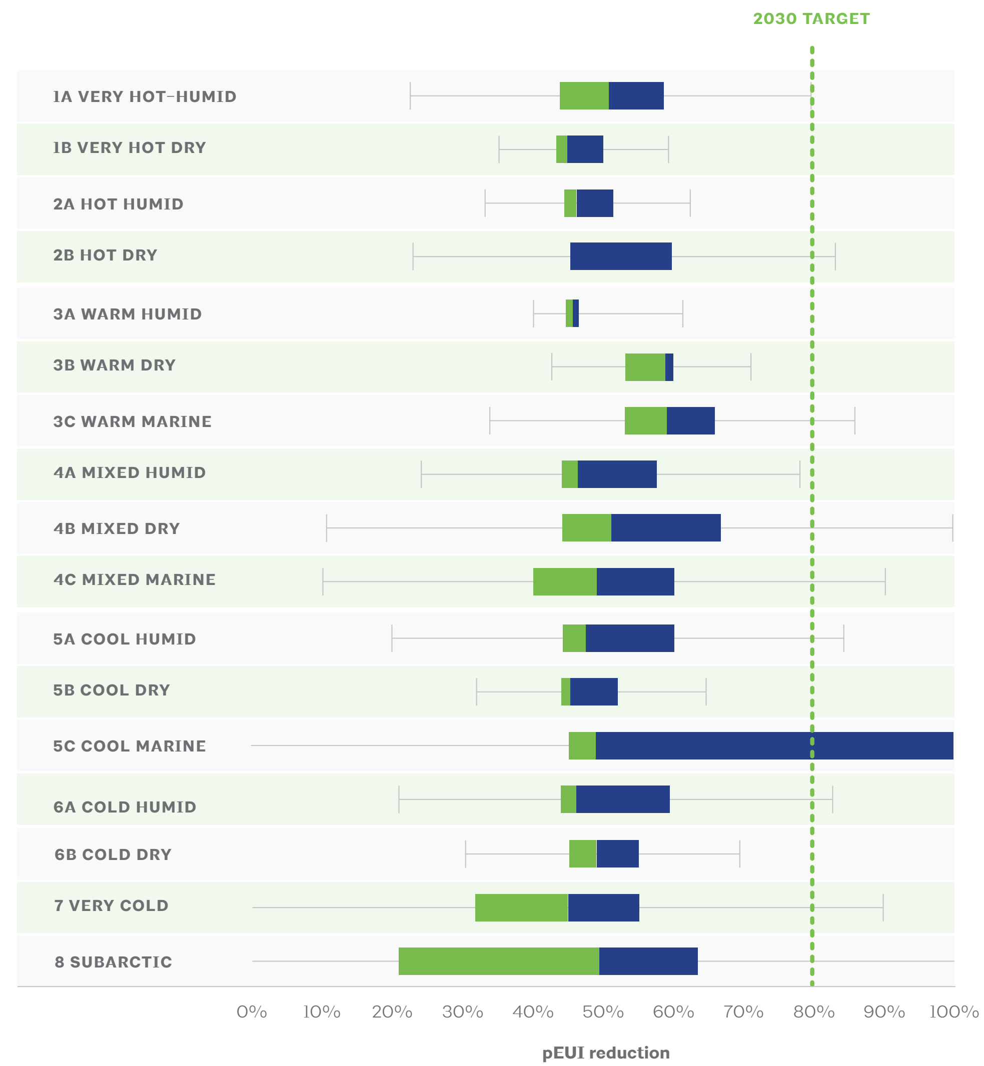


INTERIORS-ONLY PROJECTS BY USE TYPE



PEUI REDUCTION BY CLIMATE ZONE

[IECC Climate Zone map]



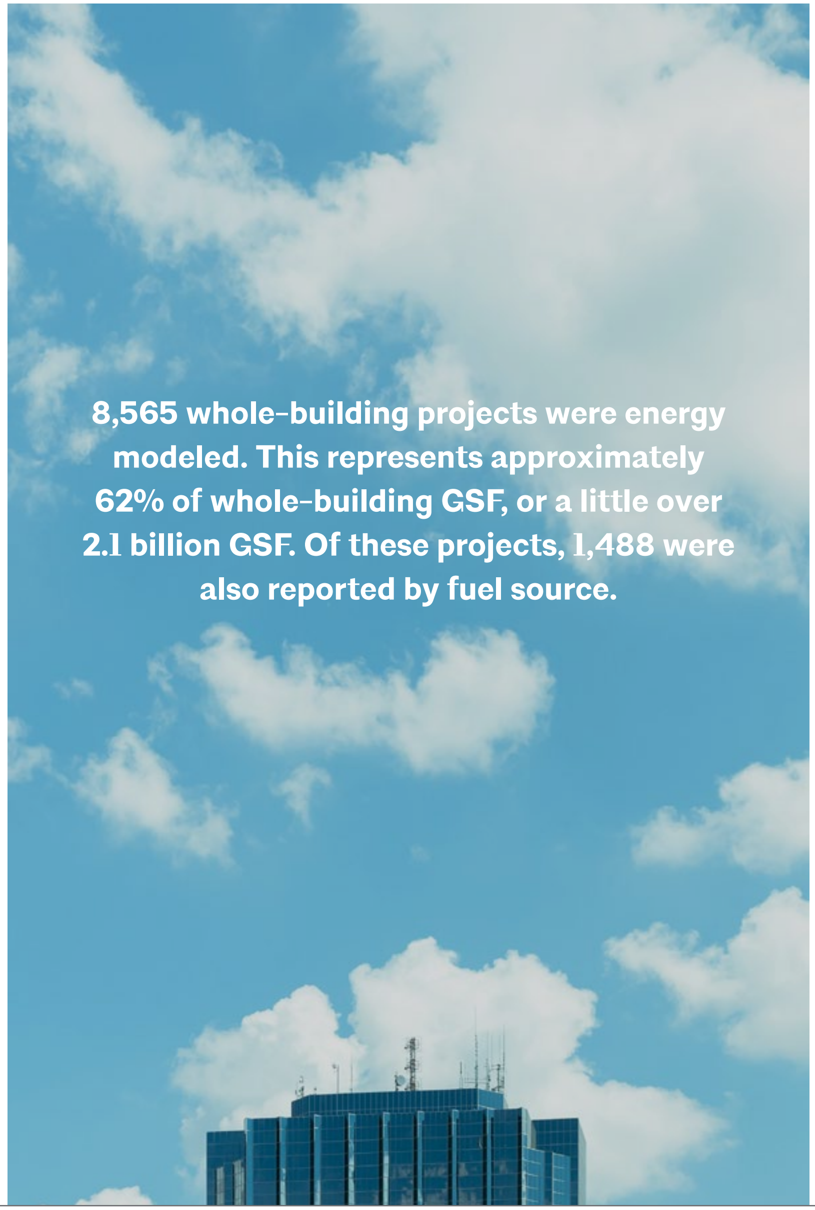
SECTION 2.

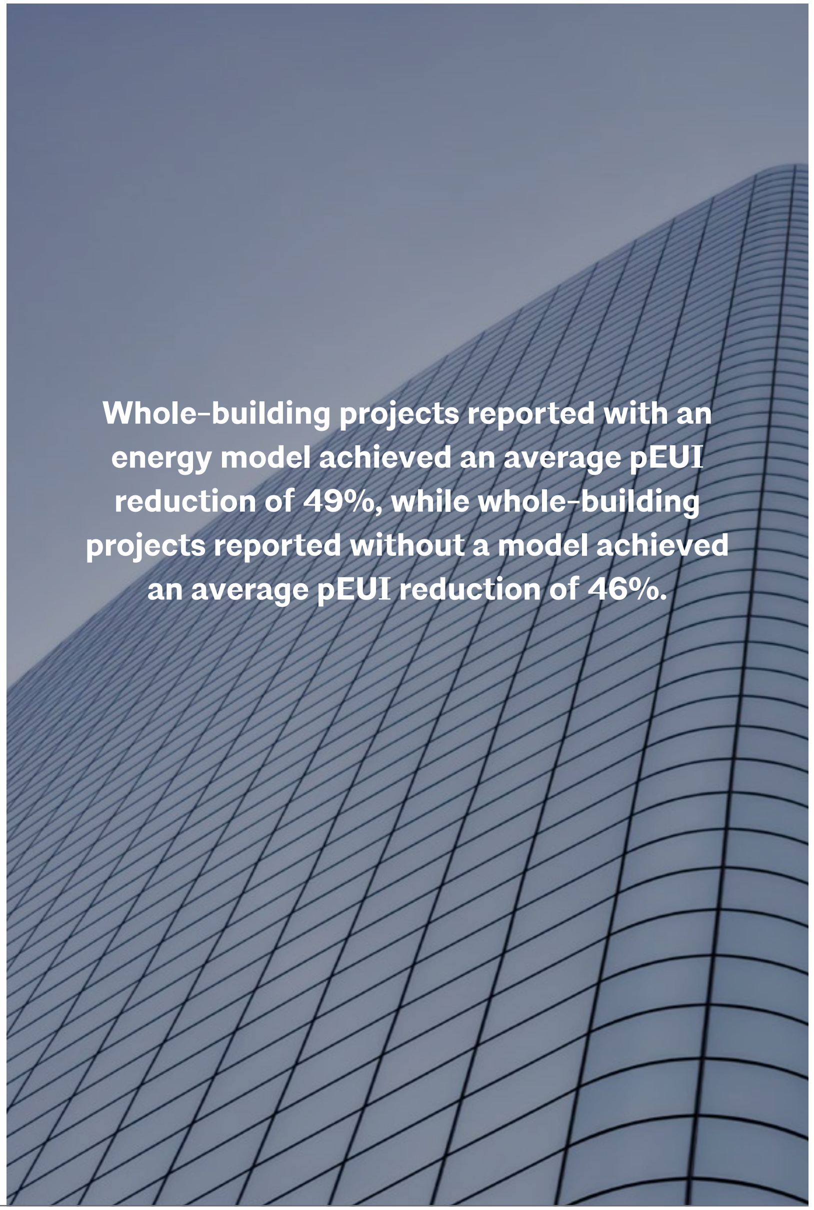
MODEL ENERGY USAGE ACROSS DESIGN PHASES

Photo by Tom Harris

2022 KEY TAKEAWAYS FOR PROJECTS REPORTING ENERGY MODELING

Integrating energy modeling into firm practice is critical for designing high-performance buildings. With the help of the increasing number of sophisticated tools available for architects, energy modeling is a powerful strategy to support climate-minded decisions and passive design strategies that will help your project achieve its energy goals. While energy modeling can be seen as a task to complete to prove code compliance or to achieve a building certification, its benefits are best utilized when it's done at the very beginning of the design process. Clients are often most concerned with cost, and energy modeling provides an effective method for project cost management. Modeling enables architects and design teams to compare how certain design elements can reduce the size and cost of mechanical systems and offer other tradeoffs to reduce the building's utility bill. It also allows comparison of upfront costs alongside operational cost payback periods; clients are more likely to choose potentially more expensive but more efficient systems if there is a payback incentive.

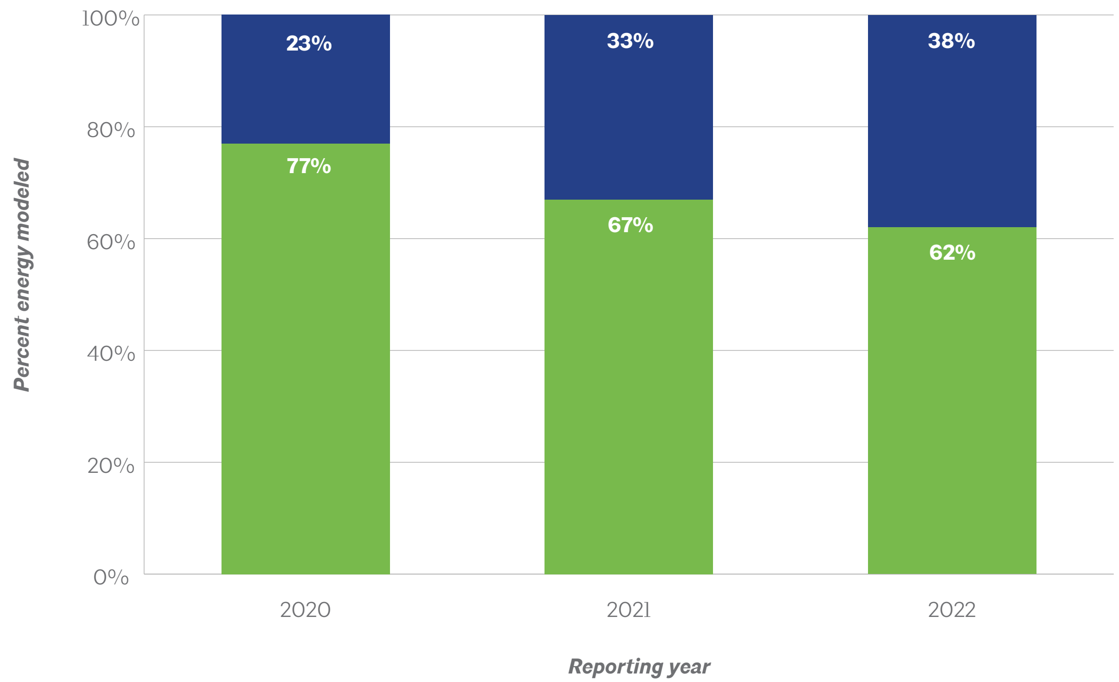




Photos (from left to right): Scott Web on Unsplash; Joshua Sukoff on Unsplash

MODEL ENERGY USAGE / 2022 key takeaways for projects reporting energy modeling

PERCENT OF WHOLE-BUILDING GSF WITH ENERGY MODELS

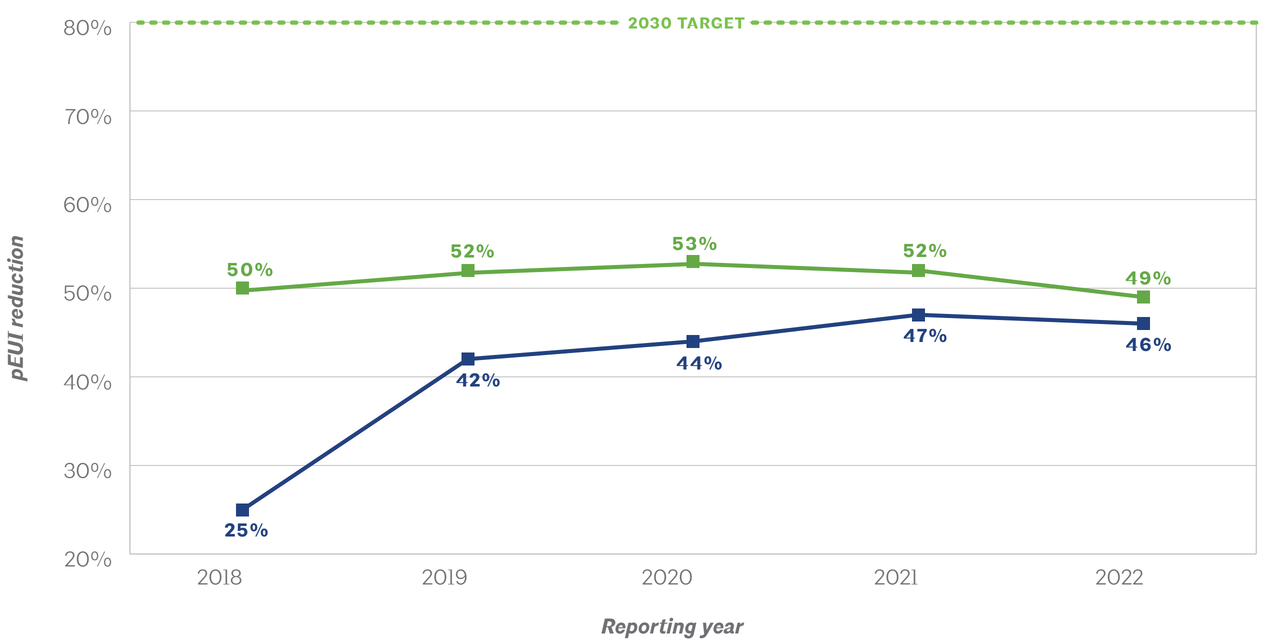


This reporting year, over 8,600 projects totaling 2.1 billion of whole-building gross square footage—or 62.1%—were energy modeled, with the majority (40% of whole-building GSF) of these projects in the construction administration design phase. In the past three years, the percentage of whole-building GSF modeled has steadily decreased, from 77% in 2020, 67% in 2021, and now down another 5% to approximately 62% in 2022. Beginning in 2021, the DDx eliminated the “to be modeled” category, which considered those projects as modeled. Thus, the decreasing percentage of modeled whole-building GSF may indicate a more accurate percentage.

Key

- Non-modeled
- Modeled

WHOLE-BUILDING PROJECTS MODELED VS NON-MODELED PEUI REDUCTION



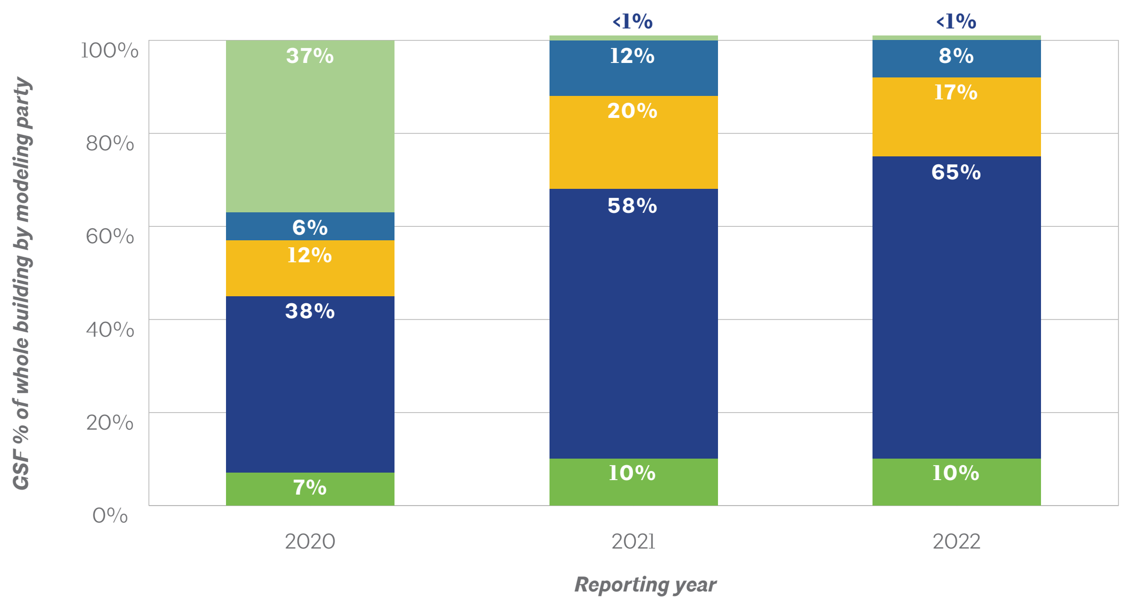
However, what remains consistent is the fact that modeled projects perform with higher percentage pEUI reductions: 46% pEUI reduction of non-modeled projects versus 49% pEUI reduction of modeled projects. Notably, this difference between non-modeled and modeled projects has been shrinking; this year there was only a 3% difference in pEUI reduction compared to last year's 6% difference. While maintaining energy modeling is key for high-performing buildings, across the country, higher performing prescriptive energy codes are raising the bar for energy savings. This means that even for projects that aren't being energy modeled, their pEUI reductions are increasing as a result of updating energy codes—a process in which architects are key local advocates.

Key

- Non-modeled
- Modeled

MODEL ENERGY USAGE / 2022 key takeaways for projects reporting energy modeling

PERCENT OF WHOLE BUILDING GSF BY MODELING PARTY



For projects reported with energy models in 2022, the majority—65%—were modeled by a design engineer, 17% by a modeling consultant, 10% by the architecture team, and 8% by other parties. While the number of projects modeled by architects is small, the role of architects as the connector between parties cannot be understated. Architects must take the lead in both initiating energy modeling at the start of the design process as well as implementing passive design strategies in response, bringing benefits both to the client and the climate.

Key

- Architecture team
- Design engineer
- Modeling consultant
- Other
- Unknown

MODEL ENERGY USAGE / 2022 key takeaways for projects reporting energy modeling

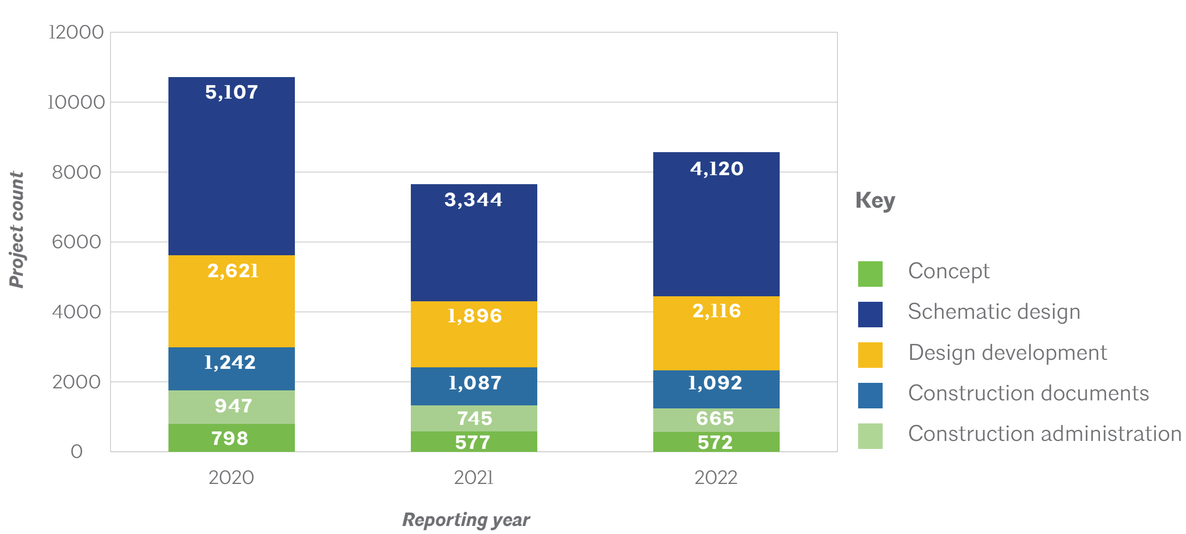
While 2030 Commitment data relies on the reported predicted EUI of projects, we know that predictions don't tell the whole story. To truly measure our progress and extract takeaway lessons from past projects, looking at post-occupancy energy data is key. This provides benefits to the architect, occupants, and clients alike. By revisiting the project after it is finished, architects are able to measure their success and make intentional adjustments, optimizing both comfort and cost. Unfortunately, measuring post-occupancy data can be seen as just an additional cost and is not commonly put into practice and contracts. To encourage the tracking of post-occupancy data, the DDx allows firms to track their projects' actual energy performance over time. Once a project is completed, firms can enter the energy use intensity from an overall utilities bill or by fuel source, which is especially helpful in assessing how on-site renewables perform in practice. This reporting year, 20 projects have reported measured energy usage data in the DDx.

Energy modeling can often be seen as a barrier to engaging in the 2030 Commitment. However, while 373 of the 423 reporting firms reported at least one whole-building project that was energy modeled, only 53 of the 423 had their full whole-building project portfolios energy modeled. This suggests that the knowledge of energy modeling is there; now firms need to integrate it across their entire portfolio to reap its full benefits.

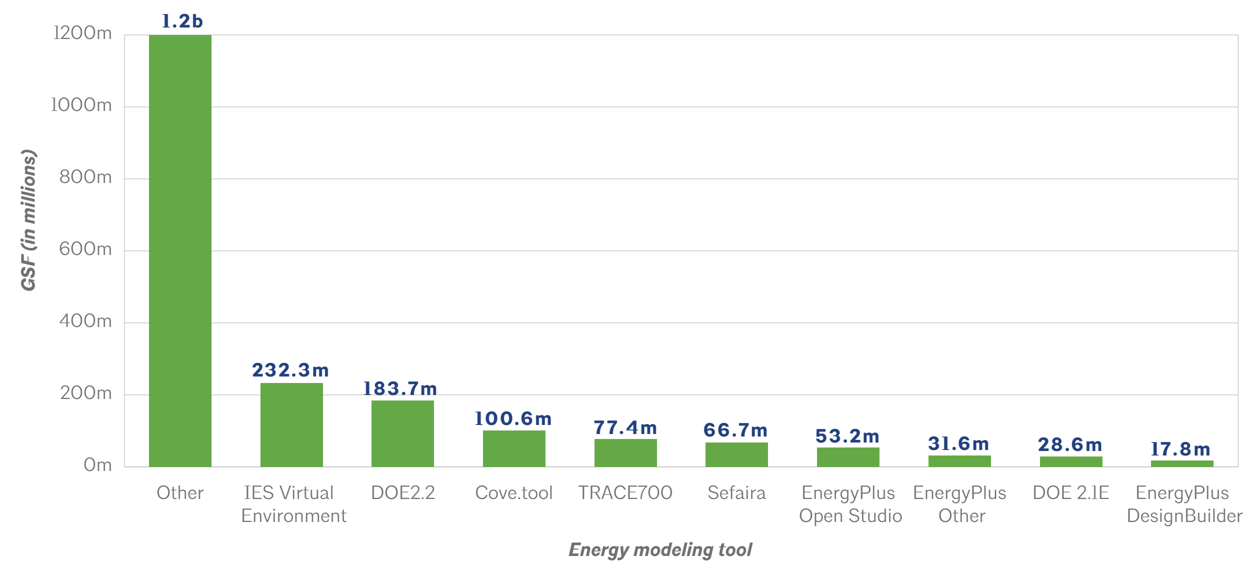
Resources

Architect's Guide to Building Performance
ROI of High-Performance Design
Energy Modeling and High-Performance Design (2020 AIA/ACSA Intersections Research Conference)

MODEL ENERGY USE ACROSS DESIGN PHASES



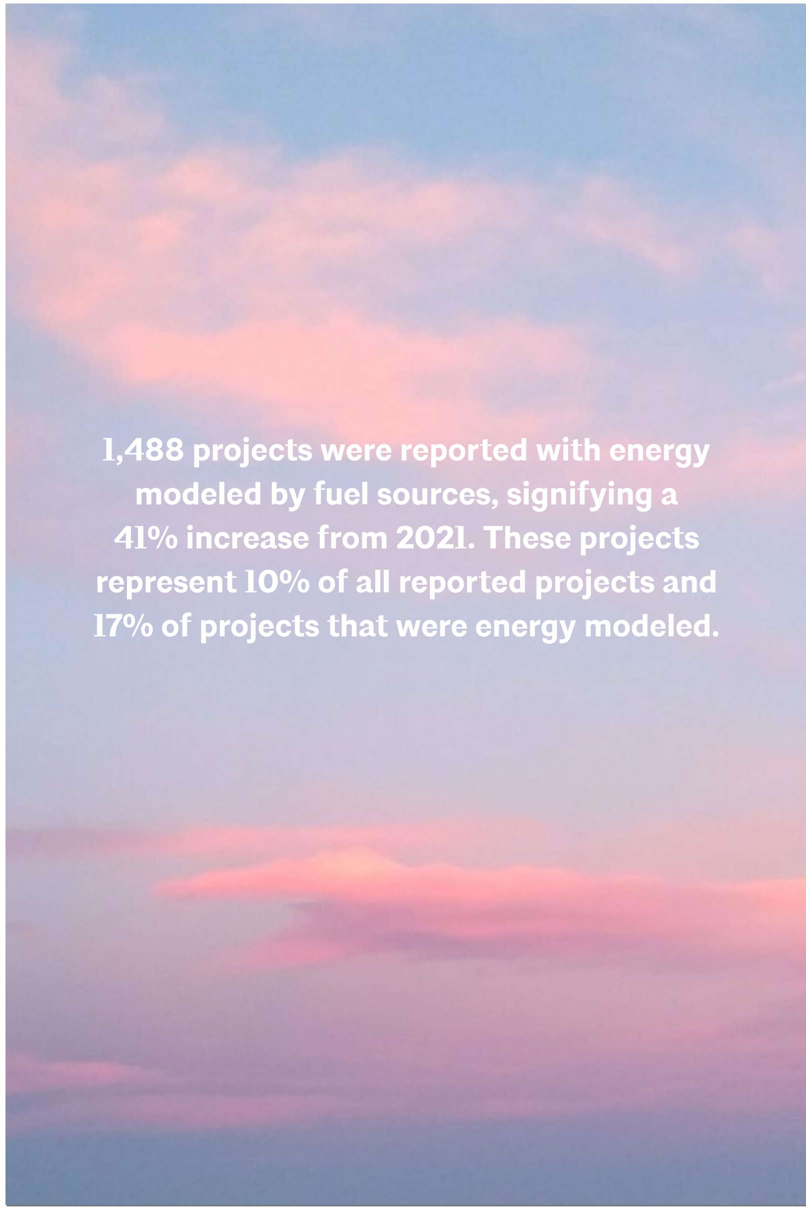
ENERGY MODELING TOOL BY WHOLE-BUILDING GSF



SECTION 3.

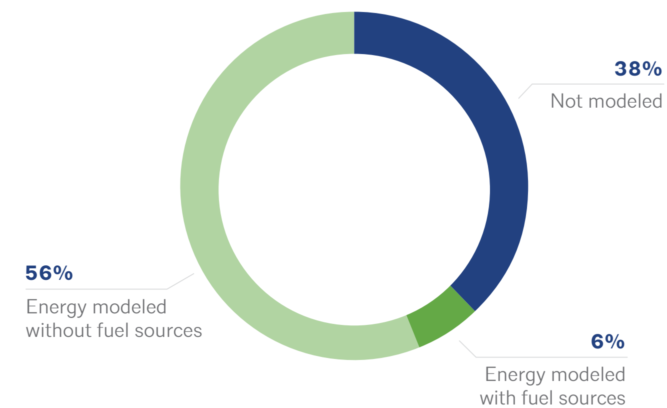
MOVE BEYOND FOSSIL FUELS THROUGH BUILDING ELECTRIFICATION

Photo by Peter J. Sieger



2022 KEY TAKEAWAYS FOR PROJECTS REPORTING FUEL SOURCES

While energy modeling helps determine the impact of energy efficiency and passive design strategies, the decarbonization of buildings is another core strategy for reaching 2030 goals. Building electrification provides a pathway to significantly reduce the building sector's current emissions. Approximately 21.5% of the U.S grid is powered by clean electricity—from renewable energy sources like wind and solar—and this is increasing. The benefits of all-electric extend past climate health to human health as well. The current state of combustion-based appliances exposes inhabitants to harmful air pollutants, including nitrogen dioxide (NO_2), particulate matter, and formaldehyde. Short- and long-term effects of these air pollutants include increased rates of asthma, lung cancer, and heart problems.



Photos (from left to right): Guillaume Galtier on Unsplash; Red Zeppelin on Unsplash

BUILDING ELECTRIFICATION / 2022 key takeaways for projects reporting fuel sources

Across the country, electrification policies that phase out gas appliances and push for clean energy transformation have been gaining momentum to reach the 1.5° C future. The Inflation Reduction Act of 2022 provided notable incentives, including rebate and tax credit programs to support households switching to electric heat pumps, conduct commercial and residential building energy retrofits, and provide electrification upgrades in low- to moderate-income communities. With the cost of maintaining the U.S. gas infrastructure trickling down to consumers, the transition to building electrification continues to be the more beneficial option for the health of both the people and the planet.

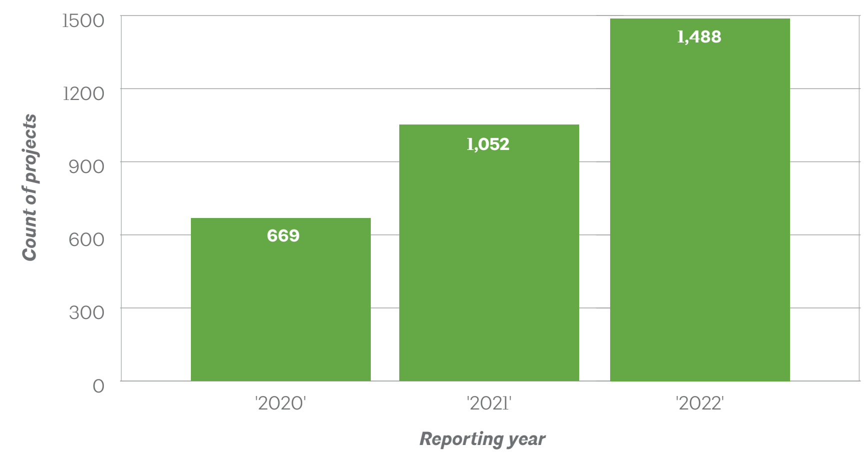
While the original focus of the 2030 Commitment was primarily energy performance, to meet 2030 goals, we must also decrease our dependency on fossil fuels. This reporting year was the third year that firms could report their projects by fuel sources in the DDx. By doing this, firms can analyze how much of their energy is coming from fossil fuels and how much from electricity—a project that may have a lower pEUI but derives its energy from fossil fuels could be responsible for more carbon emissions than a project with a higher pEUI that is using a clean electricity grid.

Reporting fuel sources in the DDx continues to increase since its inception in 2020. This year, 1,488 projects (10% of whole-building projects) were reported by fuel source in the DDx, totaling just over 208 million GSF. This is almost double the number in 2020, when 669 projects (5% of whole-building projects) were reported. This year, there were 707 all-electric buildings, totaling over 80 million GSF, and another 303 projects were at least 75% electrified. This rapid increase in GSF reporting by fuel source signifies that architects are continuing to prioritize building electrification, showcasing both projects on the path to full electrification as well as projects that have already achieved it.

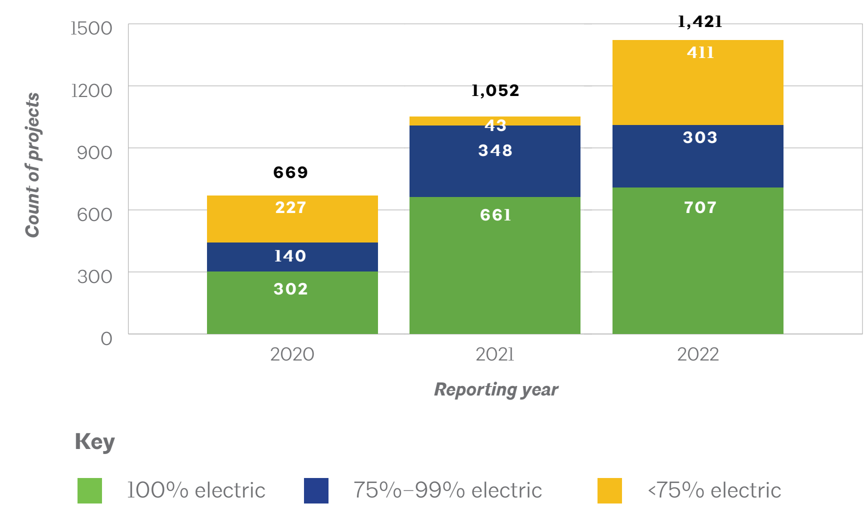
Resources

The Building Electrification Technology Roadmap
Framework for Design Excellence: Design for Energy
The Economics of Electrifying Buildings

PROJECTS REPORTED BY FUEL SOURCE



PATH TO ALL-ELECTRIC BUILDINGS BY PROJECT COUNT



SECTION 4.

USE ON-SITE OR OFF-SITE RENEWABLE ENERGY

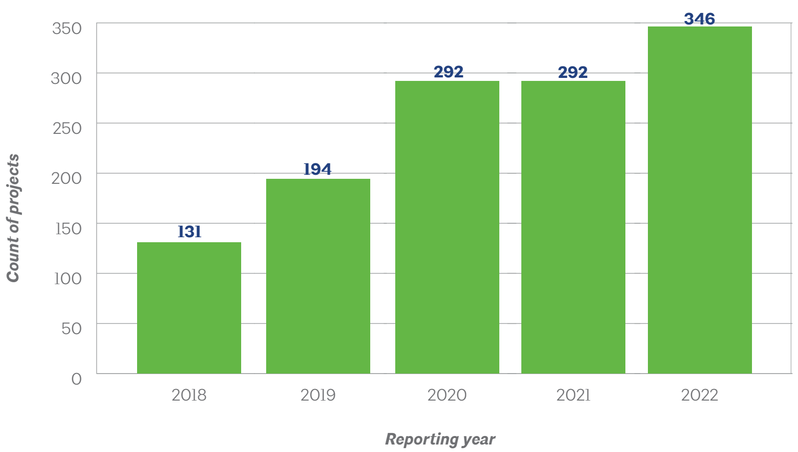
Photo by Built Work Photography

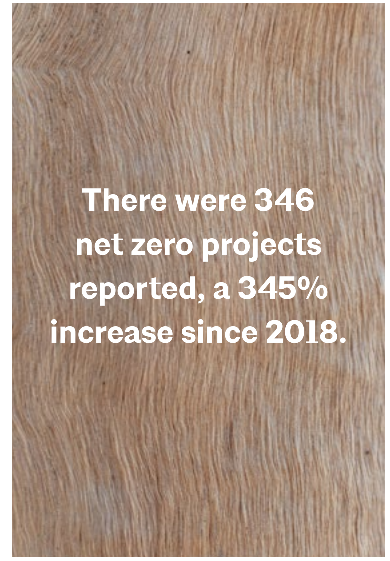
2022 KEY TAKEAWAYS FOR PROJECTS REPORTING RENEWABLE ENERGY

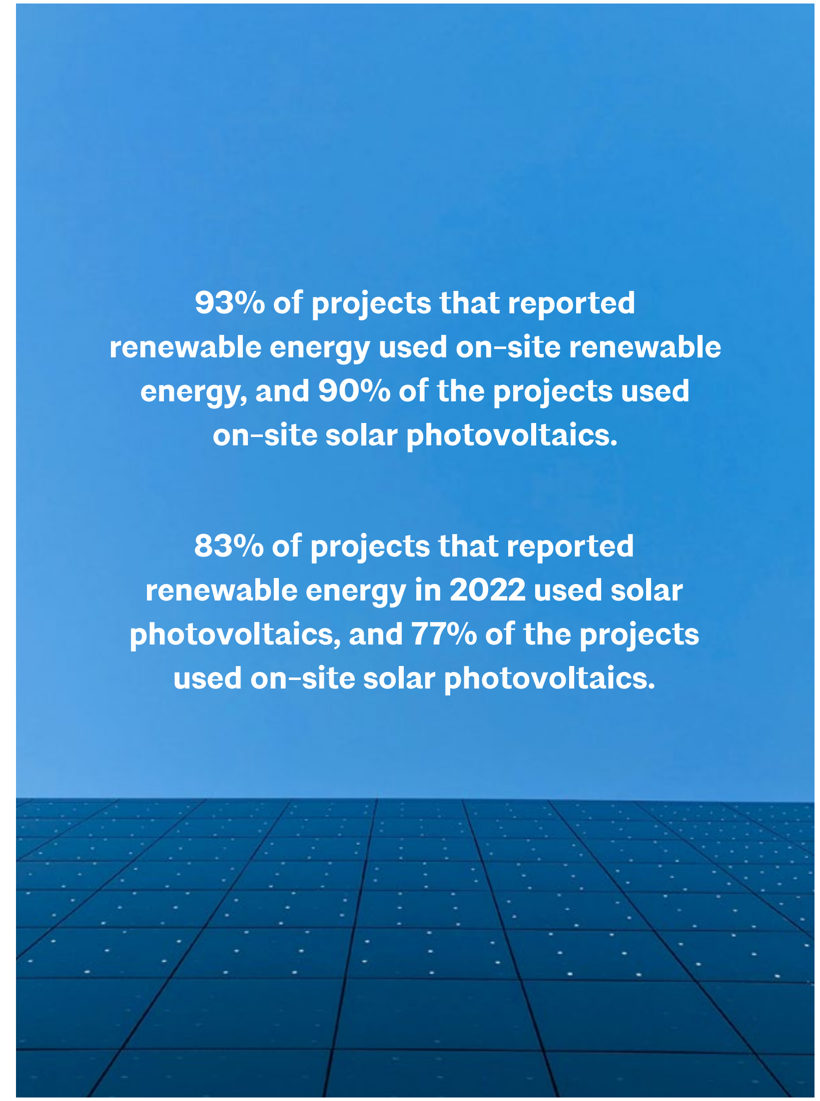
The renewable energy transformation is here, and architects have a key role. The journey to 2030 targets has three facets: passive design solutions, energy efficient systems, and incorporating renewable energy sources to reach net zero energy.

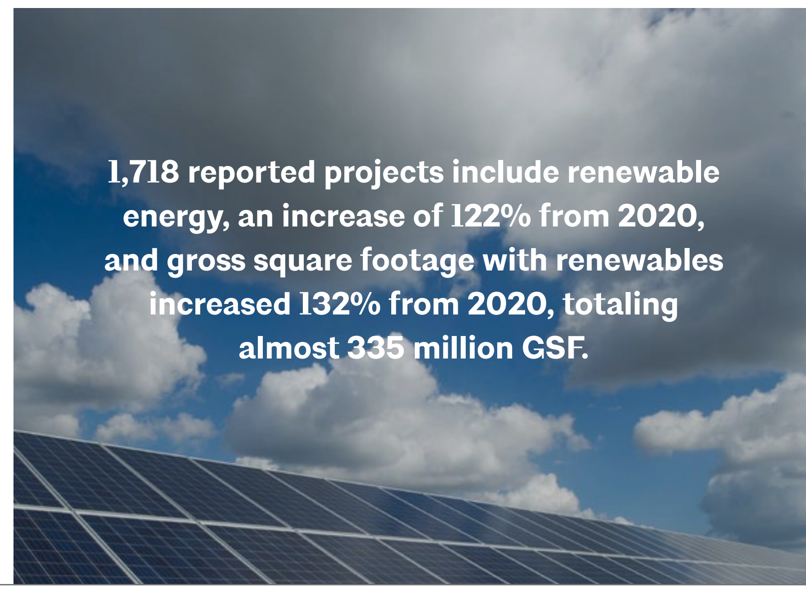
This year, the 2030 Commitment program aligned definitions with the IECC 2021 Zero Code, establishing that renewable energy sources are included in a project's net pEUI: Dedicated off-site renewables will count as equal to on-site renewables in your net pEUI calculation, while unbundled RECs do not count toward off-site renewable contributions. This allowance takes into account that off-site renewables must bridge the gap between energy efficient design, on-site renewables, and getting to the current 80% pEUI reduction target—and eventually net zero emissions.

NET ZERO ENERGY PROJECTS





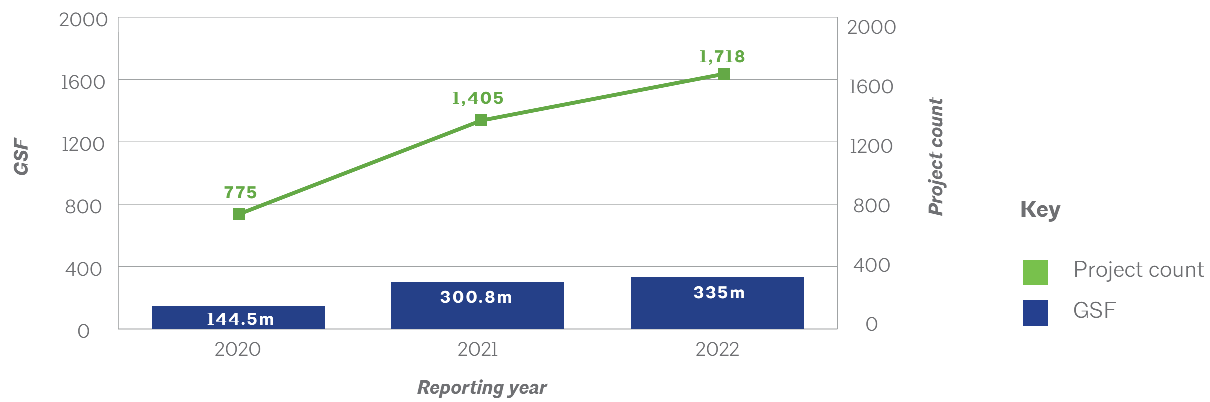




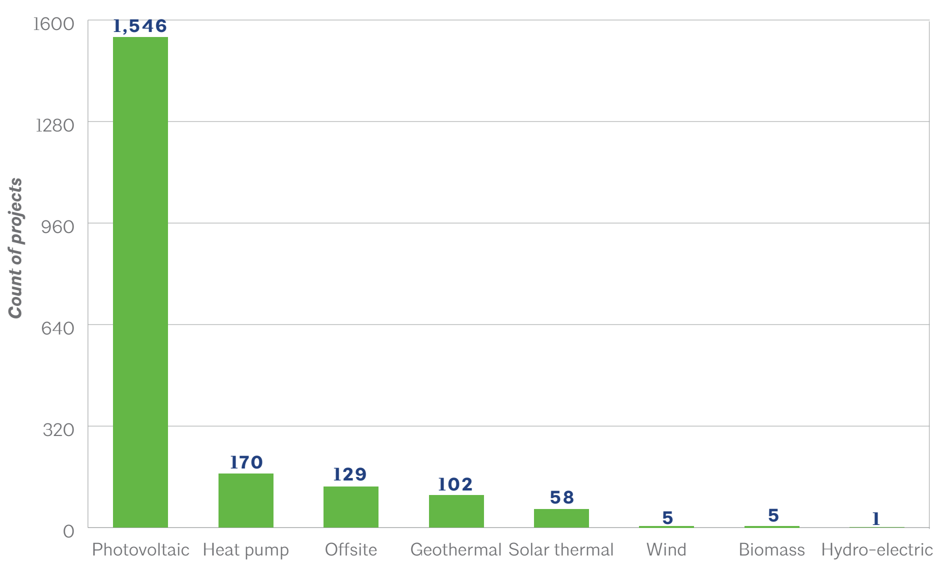
Photos (clockwise from top left): Appolinary Kalashnikova on Unsplash; Ashkan Forouzani on Unsplash; Pawel on Unsplash; American Public Power Association on Unsplash

RENEWABLE ENERGY / 2022 key takeaways for projects reporting renewable energy

PROJECTS REPORTED WITH RENEWABLE ENERGY

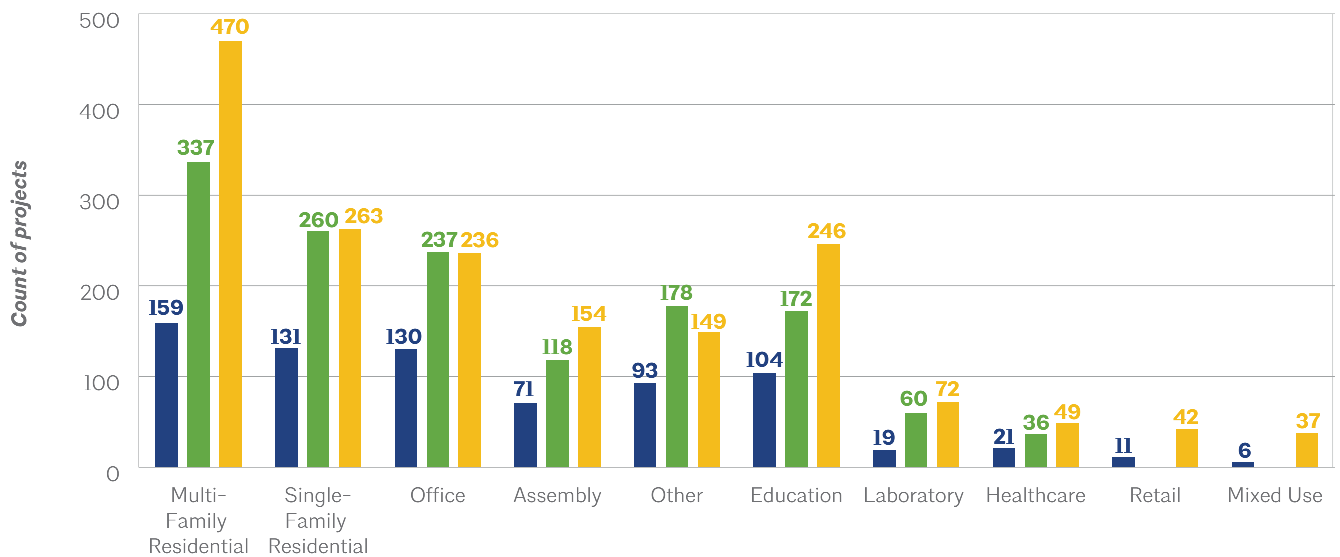


RENEWABLE ENERGY OPTIONS BY PROJECT COUNT



Although the cost of renewable energy continues to decline, there still is hesitation to include renewable technologies in projects. This can often be on the clients' side—in these cases, it's important to adapt your building to be "renewable ready." This can include strategies such as optimizing building orientation, roof design, and electrical systems, which can help with the cost of adding PV and can also improve PV performance in the future. This year, 1,718 projects—or approximately 7% of projects and representing almost 335 million GSF—reported using renewable energy. This continues the trend of year-over-year increases in the percentage of reported projects in the DDx that include renewable energy. Of these projects, the most popular renewable energy source is photovoltaics, with over 90% using photovoltaics as an energy source. Incorporating photovoltaics can also be more cost effective when they're utilized in multiple facets: For example, projects can use rooftop solar energy to provide shade for the building and collect rainwater. An additional benefit of renewable energy is increased resilience to building power outages and other disruptions, which are increasingly common as extreme weather events are on the rise.

PROJECTS REPORTING RENEWABLE ENERGY BY USE TYPE



Another way to include renewable energy sources is by utilizing off-site options. Dedicated off-site renewables, which include direct ownership, green retail tariffs, power purchase agreements (PPAs), community renewables, and utility renewable contracts, are also considered when calculating a project's net pEUI. However, procurement of off-site renewable energy requires the purchase of renewable power that would not have existed otherwise. In 2022, 81 projects total, or 4.7% of renewable energy projects, used both on- and off-site renewable energy.

Resources

Architect's Primer on Renewable Energy
Solar Ready Buildings Planning Guide
Zero Code 2.0

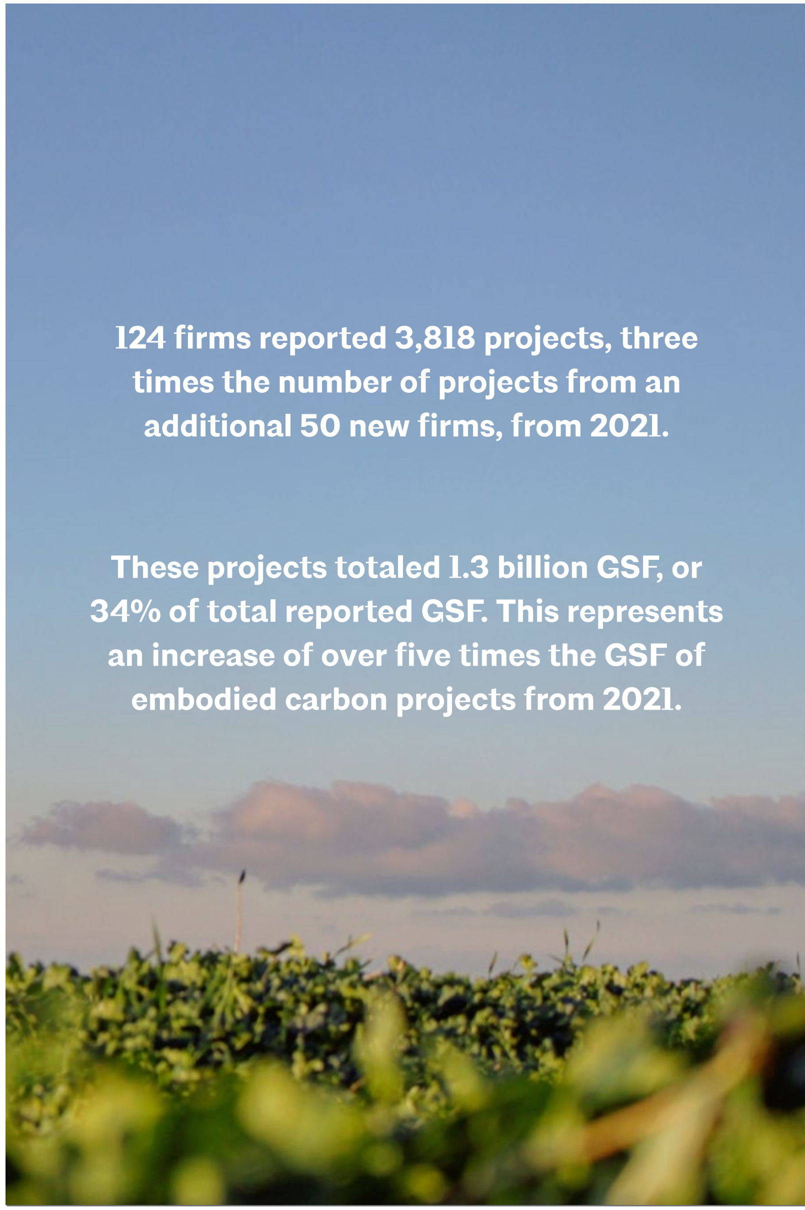
Key

- 2020
- 2021
- 2022

SECTION 5.

TRACK AND IMPROVE THE EMBODIED CARBON OF BUILDINGS

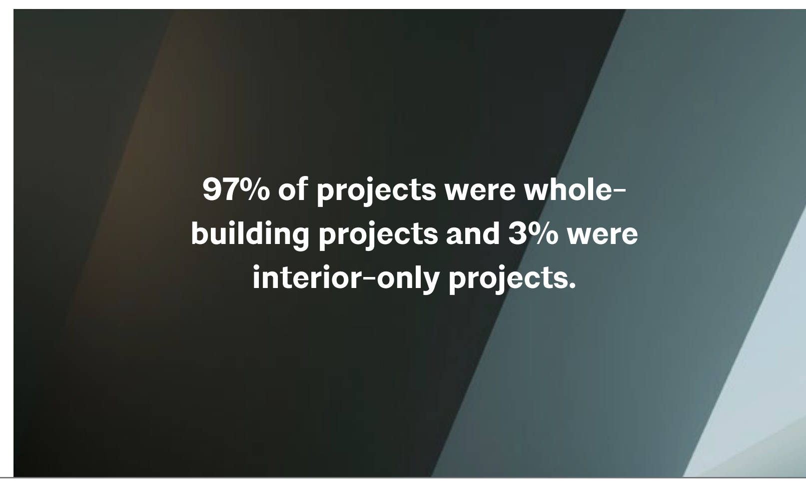
Photo by Bruce Damonte

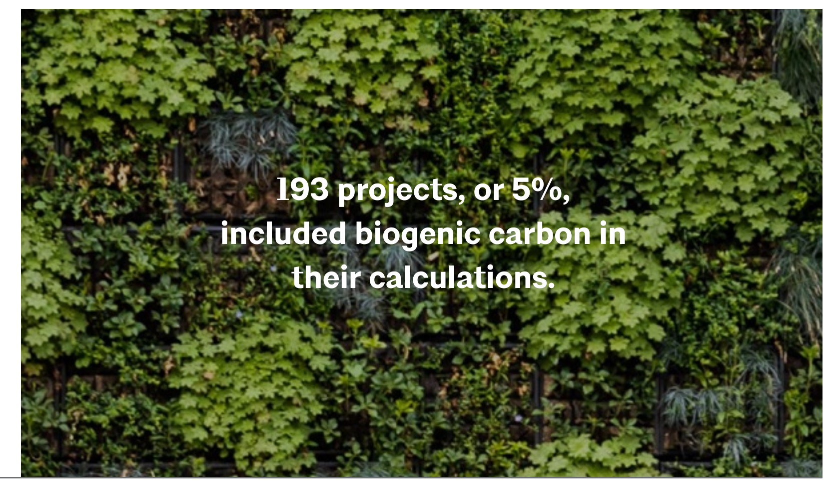


2022 KEY TAKEAWAYS FOR PROJECTS REPORTING EMBODIED CARBON

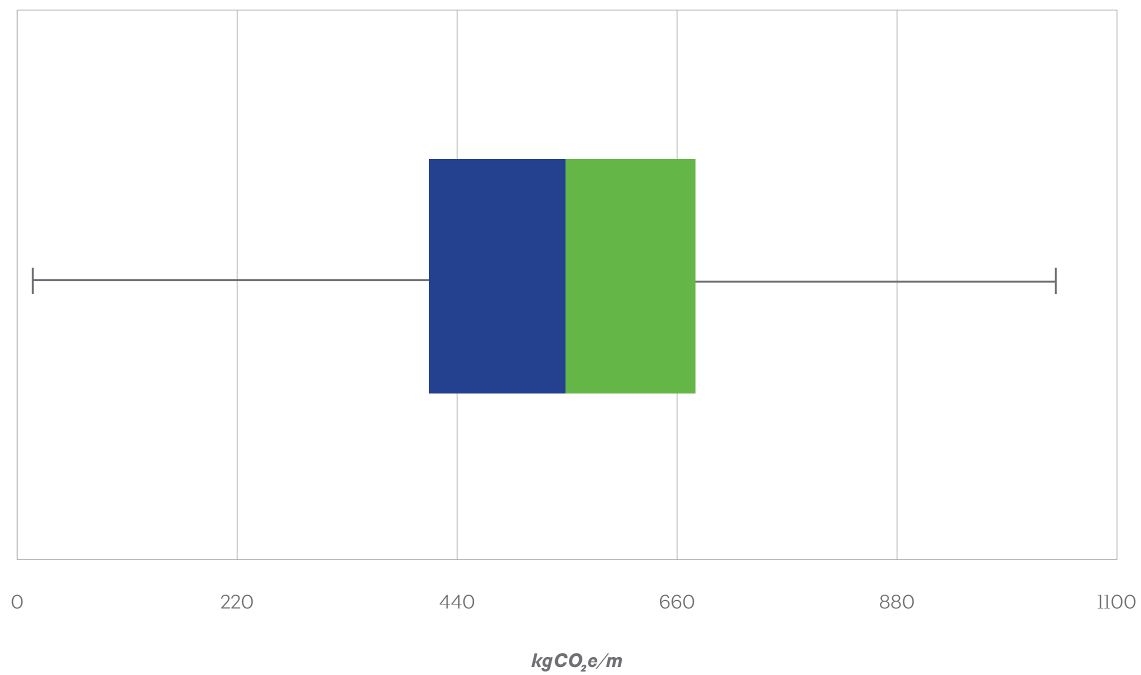
Embodied carbon has increasingly become a key topic in discussions about the built environment—we now understand that reducing operational carbon isn't enough to track the true impact of buildings. The carbon-intensive process necessary to construct a building—even before it begins to utilize energy during its use—cannot be overlooked when trying to reduce a building's contribution to climate change and greenhouse gas emissions. Concrete, steel, and aluminum, predominantly from the built environment, are responsible for 23% of global emissions. Architects must take action to both track and reduce embodied carbon in concert with operational carbon.

Photos (clockwise from top left): Iva Rajovic on Unsplash; Jude Infantini on Unsplash; Pawel on Unsplash; Hannes Egler on Unsplash



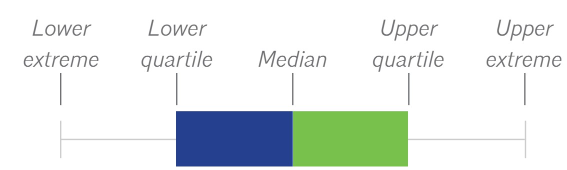


REPORTED EMBODIED CARBON RANGES, EXCLUDING OUTLIER IN $KgCO_2e/m^2$



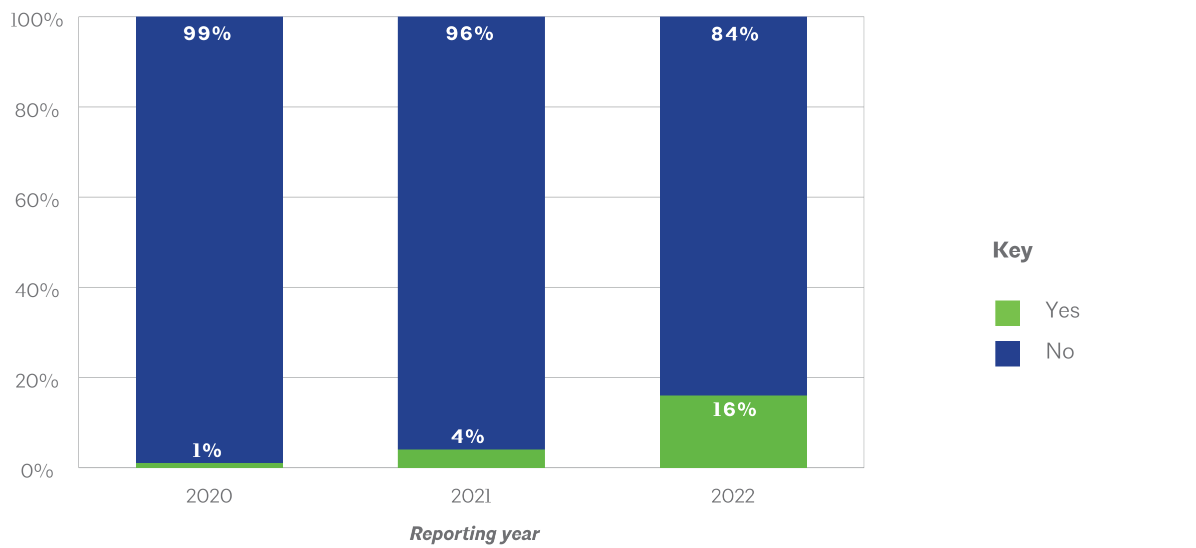
Embodied carbon ranges, 2022	
Minimum (excluding outliers)	14.8
Q1	412
Median	550.76
Q3	677
Maximum (excluding outliers)	1054.86

Key

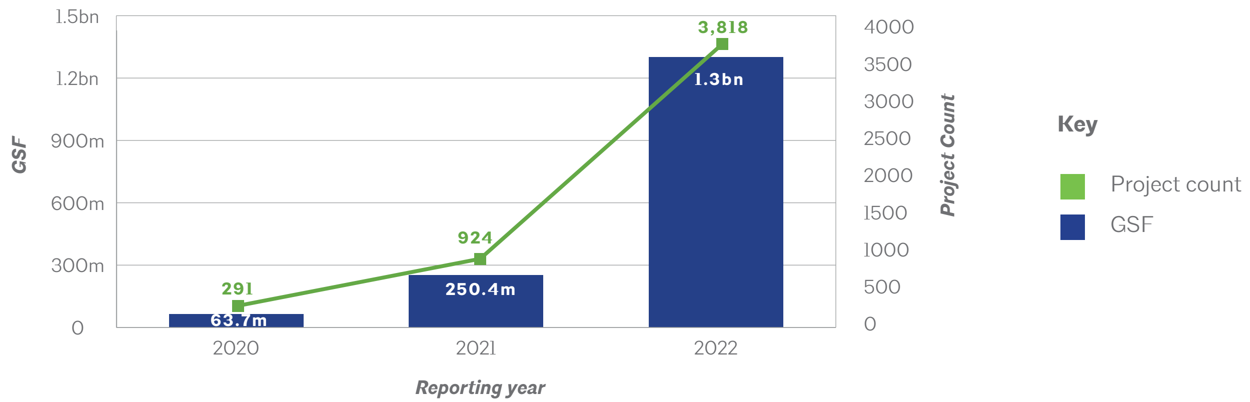


EMBODIED CARBON / 2022 key takeaways for projects reporting embodied carbon

PERCENT OF ALL PROJECTS REPORTING EMBODIED CARBON

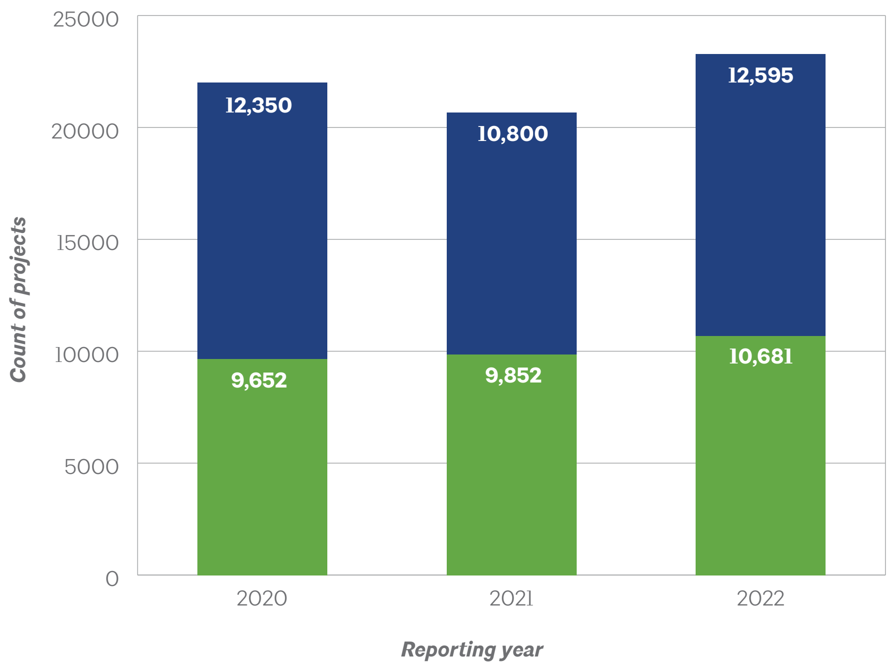


PROJECT COUNT AND GSF REPORTED WITH EMBODIED CARBON



In 2020, the updates to the DDx allowed firms to input their embodied carbon calculations for their projects. That first year, 55 firms reported embodied carbon for their projects, totaling 293 projects. Two reporting years later, the number of firms increased more than twofold to 123 firms, and the number of projects increased more than tenfold to over 3,800 and representing 1.3 billion GSF.

PROJECTS REPORTED BY CONSTRUCTION TYPE

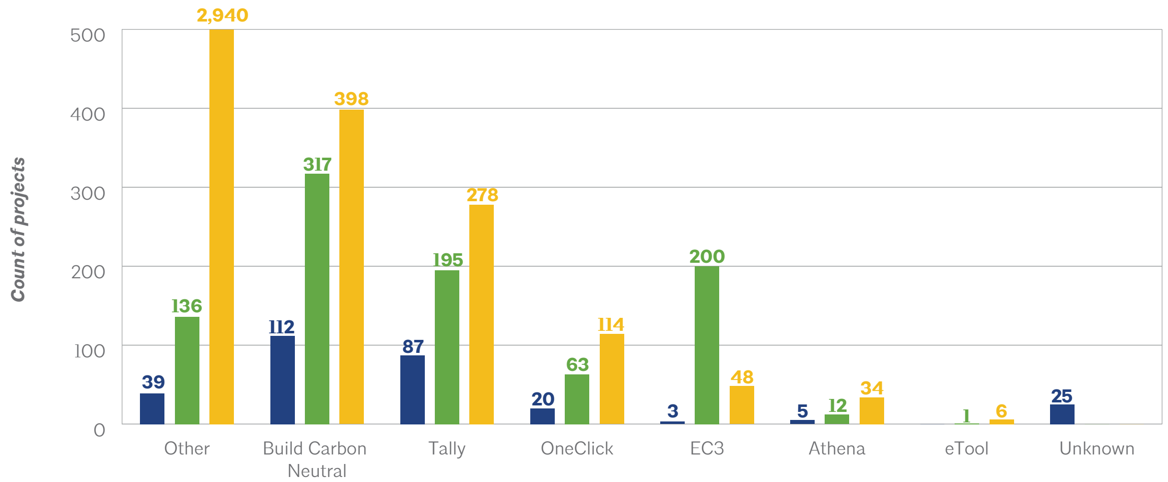


One significant opportunity to reduce embodied carbon emissions is through building reuse. Of the projects reporting embodied carbon, approximately 18% are major renovations of existing buildings. Across the entire DDx portfolio this reporting year, 10,681, or 45.9% of projects— though only 16.6% of gross square footage—are major renovations. This is the highest number of projects reported so far; this number has been increasing steadily since 2019. Designing for adaptability becomes an opportunity for building owners and architects alike due to the reduced environmental and carbon footprint as well as the community resilience and economic benefits.

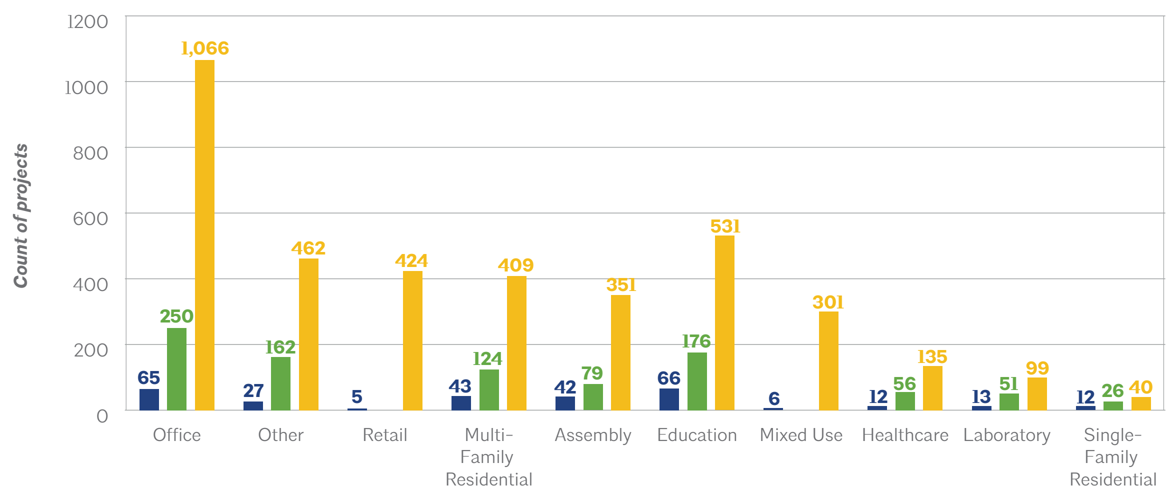
Key

- Major renovation
- New construction

EMBODIED CARBON MODELING TOOL BY PROJECT COUNT



PROJECTS REPORTING EMODIED CARBON BY USE TYPE



Still, we have a long way to go to both increase the number of projects that are addressing embodied carbon as well as improving the accuracy of total embodied carbon numbers. This work includes incentivizing embodied carbon tracking and further training on these tools.

Resources

AIA-CLF Embodied Carbon Toolkit for Architects
AIAU Embodied Carbon 101 Certificate Series
Renovate, Retrofit, Reuse
ROI: Designing for reduced embodied carbon

Key

- 2020
- 2021
- 2022

SECTION 6.

CASE STUDIES

Photo by Bruce Damonte

AIA INDIANA COTE

Back in 2016, Indiana was home to only six 2030 signatory firms. A small but mighty group, the sustainability professionals in these signatory firms quickly recognized the need for a peer-to-peer network to help support their 2030 data reporting and share best practices for high-performance design. In an effort to establish a formal community for these conversations, Daniel Overbey, AIA, and Joe Yount, AIA, co-founded the AIA Indiana Committee on the Environment (COTE®) Chapter—originating, they joke, as a "2030 support group."

As both co-founders reflect on the past seven years of AIA Indiana's COTE chapter, they note that they see incremental change. When speaking to their peers about the AIA 2030 Commitment, "most people have interest; there just needs to be that 'sell' that it can be done and here's how to do it," affirms Yount, senior associate at RATIO Design. That's where their local AIA chapter comes in: Meeting quarterly, AIA Indiana COTE has created go-to clusters for members to support one another and discuss topics like education, advocacy, and the 2030 Commitment. "It's almost like calling customer service. Folks just want to talk to a person, and our local COTE group can provide that direct person-to-person engagement," asserts Overbey, the director of sustainability and associate principal at Browning Day, speaking to the importance of having a local voice to champion sustainability with their peers.

Advocating for a stronger energy code has also been a core mission for the local member group as well. Right now, the Indiana energy code gives an approximately 31% pEUI reduction from the 2003 CBECS baseline. This past reporting year, projects in Indiana had an aggregated 34.9% pEUI reduction. "You have no idea how well you're doing if you're not recording the data," Overbey says, speaking to the power of 2030 reporting.

Today, in 2023, Indiana boasts 16 2030 signatory firms. The growth of both 2030 signatory firms and the AIA Indiana COTE chapter is proof of the importance of community when working toward a common goal. With 2030 right around the corner, local member networks like theirs are vital to keeping the architecture community both passionate about and accountable to doing their part in reducing carbon emissions.

"It's almost like calling customer service. Folks just want to talk to a person, and our local COTE group can provide that direct person-to-person engagement."

—Daniel Overbey, AIA

AIA PHILADELPHIA COTE 2030 SUBCOMMITTEE

In 2017, the 2030 subcommittee of AIA Philadelphia's Committee on the Environment (COTE) had a renewed sense of importance as it sought to build community and further the profession's sustainability goals. Understanding that in the Philadelphia region, the green building space already had pockets of membership focused on topics like Passive House and the Living Future Communities, co-founders David Hincher, AIA, and Bunny Tucker, AIA, decided to focus the subgroup on AIA's sustainability initiatives, primarily the AIA 2030 Commitment and energy performance.

Prior to the start of the COVID-19 pandemic, member engagement—like most things—was happening in person. Speaking about the AIA 2030 Commitment at different firm offices, the 2030 subcommittee convened audiences of up to 30 members and covered introductory topics about the 2030 program. This included demystifying the 2030 Commitment, showcasing the DDx, getting acquainted with the ZeroTool, and promoting case studies of different-sized projects.

Once the pandemic turned our world remote, the Philadelphia 2030 subcomittee ramped up its programming, using virtual platforms to reach a larger audience. More than doubling their audience and broadening their reach to include members and speakers across the country, the Working Group hosted a session almost every month, extending their topics to not only be 2030 Commitment- and DDx-specific but also focusing on different energy themes, including tools and case studies.

The subcommittee's co-chairs serve a two-year term. "A new group of leaders is always bringing new ideas," says former co-chair Josh Abbell, AIA, project architect at Ballinger. "They're able to rethink what we're most interested in interrogating this year and turn it into programming." Catalyzing the benefits of virtual programming, the sessions are also recorded and put onto AIA Philadelphia COTE's YouTube channel. "We still see viewership tick up on our recorded sessions on YouTube, with repeated views on content like energy modeling," noted current co-chair Roshni Krishnan, AIA, architectural designer at Wulff Architects.

The 2030 subcomittee of AIA Philadelphia COTE is a prime example of how engaging with the AIA 2030 Commitment leads to continued conversations about and improvements to sustainability in practice. Hincher says that in the Philadelphia area, there may not be a lot of "low-hanging fruit left"—that is, firms that haven't signed onto the 2030 Commitment—so the attention now turns to conversations on what it means in practice to integrate data tracking and sustainability into a firm's workflows from the very beginning. At its core, this is the one of the primary goals of the AIA 2030 Commitment: By providing the set of standards and metrics for reaching net zero emissions, members are now building communities to learn from each other, improve firm practice, and better serve clients and project outcomes—while engaging in collective action that is necessary in this current moment.

> "A new group of leaders is always bringing new ideas. They're able to rethink what we're most interested in interrogating this year and turn it into programming."
>
> —***Josh Abbell, AIA***

SECTION 7.

CONCLUSION

Photo by Bruce Damonte

CONCLUSION

NEXT STEPS

The AIA 2030 Commitment and its signatories are dedicated to strengthening cross-network ties with the architecture and design community and beyond to meet its goals. This is happening in multiple ways. Representatives from AIA from both the AIA 2030 Commitment and Architecture & Design Materials Pledge programs have joined with other allied industry organizations to collaborate on a common framework that will describe the major elements necessary to align and accelerate embodied carbon initiatives in the U.S. Within AIA, the 2030 Commitment is working across Knowledge Communities to build stronger connections to grow the program's reach and further engage all reporting signatories. We are also renewing our support for small and medium-sized firms, dispelling the myth that the program is only for large firms—or that only large firms can succeed in their portfolios. Finally, the Design Data Exchange (DDx) continues to offer a wealth of possibilities, enabling firms to employ their DDx portfolios to better understand and improve their data tracking and analytics.

MOVING FORWARD TOGETHER

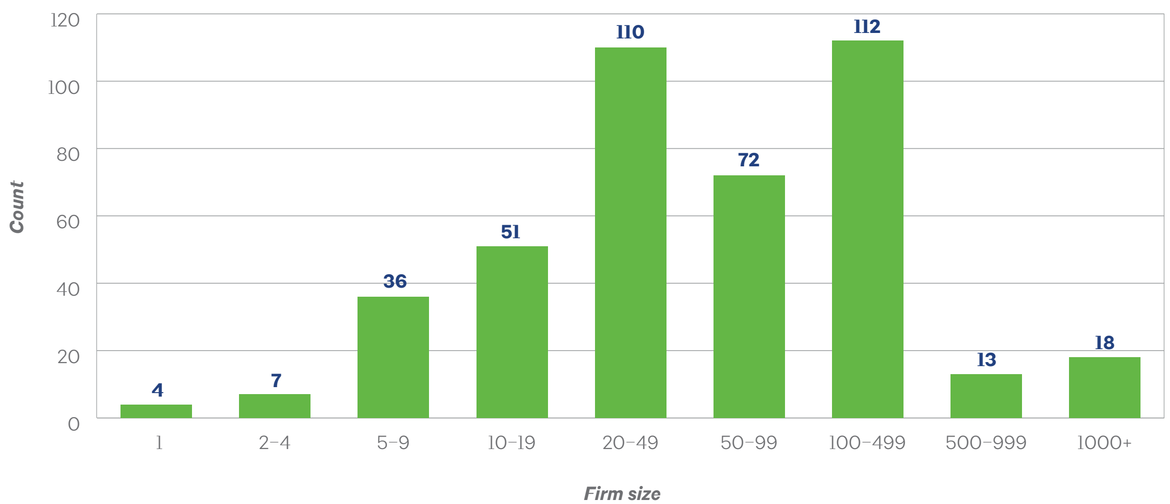
Reaching carbon neutrality is at the core of climate mitigation. The growing body of research shows that we're continuing down a path of no return regarding Earth's warming temperature—and this will lead to catastrophic impacts on all communities, with many on the front lines already bearing the brunt of climate impacts.

The AIA Code of Ethics Rule Canon VI requires "Members should recognize and acknowledge the professional responsibilities they have to promote sustainable design and development in the natural and built environments and to implement energy and resource conscious design." The AIA 2030 Commitment provides the framework for firms to respond and implement change in their practice and projects. It's now up to architects to respond. Together, the architecture and design community can take action, and through a transformation of practice, the profession can improve the emissions trajectory in the coming decade—and further it in decades to come.

Photo by John Edward Linden Photography

REPORTING SIGNATORIES

NUMBER OF FIRMS REPORTING BY FIRM SIZE



REPORTING SIGNATORIES

19 signatories met the 80% pEUI reduction target across their entire portfolio highlighted in green.

AC Martin
Access Architecture
Adrian Smith + Gordon Gill Architecture
Alchemy Architects
Allen Kachel
Alliiance
Amenta Emma Architects
Anderson Mason Dale Architects
Ankrom Moisan Architects, Inc.
Ann Beha Architects
ARC/Architectural Resources Cambridge
archimania
Architects FORA
Architects Hawaii Limited
Architectural Nexus, Inc.
Architectural Resources Group
Architekton
Arcturis
Arkin Tilt Architects
Arrowstreet
asap/ adam sokol architecture practice
Atkin Olshin Schade Architects
AXIS Architecture + Interiors
Ayers Saint Gross
Bailey Edward
Bala Consulting Engineers
Ballinger
BAR Architects & Interiors
Barley|Pfeiffer Architecture
Bassetti Architects
Bergmeyer
Beyer Blinder Belle Architects & Planners, LLP
BIG - Bjarke Ingels Group
bKL Architecture LLC
BKSK Architects
Blackney Hayes Architects
Blair + Mui Dowd Architects, PC
BLT Architects
BNIM Architects
Board & Vellum
Booth Hansen
Bora Architecture & Interiors
Boulder Associates, Inc.
BranchPattern, Inc.
BRIBURN
BRIC Architecture
brick architecture and interiors
Bright Common Architecture & Design

REPORTING SIGNATORIES

Brooks + Scarpa Architects, Inc.
Browning Day
Bruner/Cott & Associates
BuroHappold Engineering
BVH Architecture
BWBR
BWS Architects
CallisonRTKL
CambridgeSeven
Cannon Design
Canopy Architecture + Design
Carleton Hart Architecture
CAW Architects
CBT Architects
CCY Architects
Centerbrook Architects and Planners
Clark Nexsen
Clayco / LJC
CMTA, Inc.
CO Architects
Coldham & Hartman Architects
COOKFOX Architects
Cooper Carry
Corgan
Cornerstone Architecture Incorporated
COULSON
Cuningham Group Architecture, Inc.
Curtis + Ginsberg Architects LLP
Cushing Terrell
Dake Wells Architecture
Dattner Architects
David Baker Architects
Davis Partnership Architects
DE ARCHITECTS AIA
Deborah Berke Partners
Dekker/Perich/Sabatini
DELV Design
DES Architects + Engineers
Design Collective, Inc.
Dewberry
DIALOG
DIGSAU
DiMella Shaffer
Dimension IV – Madison, LLC
DLR Group
DRAW Architecture + Urban Design
DREAM Collaborative
DS Architecture
DSGN Associates, Inc.
DSK Architects + Planners
dSPACE Studio
Duda Paine Architects
DWL Architects + Planners, Inc
Eckenhoff Saunders Architects
EDA
EEA Consulting Engineers
Egan Simon Architecture
EHDD
Ehrlich Yanai Rhee Chaney Architects
El Dorado
Elkus Manfredi Architects
Ellenzweig
Elness Swenson Graham Architects, Inc
ELS Architecture and Urban Design
emersion DESIGN
Engberg Anderson Architects
English + Associates Architects, Inc
Ennead Architects
Epstein
ESa
Eskew+Dumez+Ripple
EUA
EwingCole
EXP
Farr Associates
FCA
Feldman Architecture
Fennick McCredie Architecture
Fentress Architects
FFA Architecture and Interiors, Inc.
FGM Architects
Field Paoli Architects
Finegold Alexander Architects
Flad Architects
Forge Craft Architecture + Design
Fox Architects
Frederick + Frederick Architects
Furman + Keil Architects
FXCollaborative LLP
gbA Architecture & Planning
GBBN
GBD Architects Incorporated
Gensler
Gerardo Noriega Architect, LLC dba GNA Architecture
GFF
GGA+
GGLO
Glumac, A Tetra Tech Company
Goettsch Partners
Goody Clancy
Gould Evans
Green Hammer
Gresham Smith

REPORTING SIGNATORIES

Grimm and Parker
Grimshaw
Group 4 Architecture, Research + Planning, Inc.
Gruen Associates
Guidon Design
Hacker
Hahnfeld Hoffer Stanford
Hanbury
Handel Architects, LLP
Hargis Engineers, Inc.
Harley Ellis Devereaux (HED)
HarrisonKornberg Architects
Hartshorne Plunkard Architecture
Hasenstab Architects, Inc.
Hastings Architecture Associates LLC
hb+a Architects
HDR
Heliotrope Architects
Helix Architecture + Design
Hennebery Eddy Architects, Inc
HGA Architects and Engineers
Hirsch MPG LLC
HKIT Architects
HKS
HLW International, LLP
HMC Architects
HMFH Architects, Inc.
Hoefer Welker
HOK Inc.
Holabird & Root
Holly and Smith Architects
Holst Architecture
Hord Coplan Macht
Howeler + Yoon Architecture
HPZS
Hughes Group Architects
Huntsman Architectural Group
HUSarchitecture
IA Interiors
IBI Group
ICON Architecture, Inc.
In Balance Green Consulting
Integrus Architecture
INVISION
isgenuity
Jacobs
Jensen Architects
Jer Greene, AIA + CPHC
JLG Architects
JNS Architecture + Interior Design
Johnson Fain
Johnson Roberts Associates, Inc.
JOHNSTON ARCHITECTS
Jones Studio, Inc.
Jones Whitsett Architects
Juniper Design + Build
Kahler Slater, Inc.
Kaplan Thompson Architects
Kerstin Hellmann Architecture
kevin daly Architects
KFA, LLP
KieranTimberlake
Kipnis Architecture + Planning
Kohn Pedersen Fox Associates PC
KOO LLC
Krueck Sexton Partners
KSS Architects
KTGY Group, Inc.
Kuhn Riddle Architects
Kuth Ranieri Architects
KYA Inc
Lahmon Architects
Lake|Flato Architects
Landon Bone Baker Architects (LBBA)
Lavallee Brensinger Architects
Leddy Maytum Stacy Architects
Leers Weinzapfel Associates
Legat Architects
Lehrer Architects LA, Inc.
Lemay
Leo A Daly
Lever Architecture
LHB, Inc.
Little Diversified Architectural Consulting
LMN Architects
Lord Aeck Sargent
LPA, Inc.
LRK Inc.
LS3P
LSW Architects
M Viamontes Architects LLC
MA Design
Macht Architecture
Magnusson Architecture & Planning, P.C.
Mahlum Architects
Margulies Perruzzi
Marlene Imirzian & Associates Architects
Marvel Architects
MASON
McCarty Holsaple McCarty
McGranahan Architects
McKinney York Architects
Mead&Hunt
MG2

REPORTING SIGNATORIES

MHTN Architects Inc.
Miller Dunwiddie
Miller Dyer Spears, Inc.
Miller Hayashi Architects PLLC
Mithun
MJMA
MKB Architects
Mohagen Hansen Architecture Interiors
Montalba Architects, Inc.
Moody Nolan
Moore Ruble Yudell Architects & Planners
Morris Adjmi Architects
Morrissey Engineering
MSR Design
Muller & Muller, LTD.
MWA Architects
NAC Architecture
Nano LLC
National Community Renaissance
NBBJ
NCA Studio Inc.
Nelsen Partners
NELSON Worldwide LLC
Neumann Monson Architects
Newman Architects
Noll & Tam Architects
NORR
Olson Kundig
Omgivning
Onion Flats Architecture
OPAL
Opsis Architecture
Orcutt | Winslow
Overland Partners Architects
P.K. VanderBeke, Architect
Page
Pappageorge Haymes Partners
Parkhill
Paul Poirier + Associates Architects
Paulett Taggart Architects
Payette
PBDW Architects
PCA, Inc
Pei Cobb Freed & Partners Architects LLP
Pelli Clarke & Partners
Perkins Eastman
Perkins&Will
Pickard Chilton
Placework
Plunkett Raysich Architects LLP
POPULOUS
Powers Brown Architecture
Precipitate, PLLC
Progressive AE
Pure Architects
Pyatok Architecture + Urban Design
PZS Architects LLC
Quattrocchi Kwok Architects
Quinn Evans Architects
Ratcliff
RATIO Design
RDG Planning & Design
Re:Vision Architecture
Richter Architects
RMW architecture & interiors
RNT Architects
Robbins Architecture, Inc.
Robert A. M. Stern Architects
RODE Architects
Rodwin Architecture
Ross Barney Architects
Rossetti
Roth Sheppard Architects
Rowland+Broughton
RS&H
RSP Architects
Sage and Coombe Architects LLP
Salazar Architect Inc.
Sam Rodell Architects AIA
Sasaki Associates
Schadler Selnau Associates P.C.
SEA
Searl Lamaster Howe Architects
SERA Architects
Seth Romig Architect, LLC
SHAFER CROWE KUECK | Architecture + Design LLC
Shears Adkins Rockmore Architects
Sheehan Nagle Hartray Architects
Shepley Bulfinch
SHP
ShubinDonaldson Architects Inc.
Siegel & Strain Architects
Sillman Wright Architects
Smith Gee Studio
Smith Seckman Reid, Inc.
SmithGroup
Smith-Miller + Hawkinson Architects
SMMA
SMNG A Ltd.
SMP Architects
SMRT
Snow Kreilich Architects
Sol design + consulting

REPORTING SIGNATORIES

REPORTING SIGNATORIES

Solomon Cordwell Buenz
SOM (Skidmore Owings & Merrill)
SRG Partnership, Inc.
Standard Architecture | Design
Stantec Architecture
Steinberg Hart
STG Design
Studio 8 Architects
Studio Gang Architects
Studio Ma
Studio Nigro Architecture + Designd
Studio.e Architecture, PC
StudioAXIS
STUDIOS architecture
studioWEBSTER
studioWTA
SWBR
Taylor Design
TBDA
TCA Architects
TCA Architecture + Planning, Inc.
TEF Design
The Arkitex Studio Inc
The Beck Group
The Green Engineer, Inc.
The Miller Hull Partnership
The Sheward Partnership
The SLAM Collaborative
Thornton Tomassetti
tklsc
TLC Engineering Solutions
TLCD Architecture
Tower Pinkster Titus Associates Inc
Trahan Architects
TreanorHL
Trivers Associates
TruexCullins
tvsdesign
Typical Works
Urban Design Perspectives
UrbanLab
UrbanWorks, Ltd.
Utile
Valerio Dewalt Train Associates
Van Meter Williams Pollack LLP
Vanderweil Engineers
VIA design architects
Vinci/Hamp Architects Inc.
VMDO Architects
WDG Architecture
Weber Murphy Fox
Weber Thompson
Weese Langley Weese Architects Ltd.
Wheeler Kearns Architects
Wight & Company
William Rawn Associates
WJW Architects
Woodhouse Tinucci Architects
Woods + Dangaran
Woods Bagot
Workbench
Works Progress Architecture
Wright Heerema Architects
WRNS Studio
WRT
Y.A. studio
Yost Grube Hall
ZeroEnergy Design
ZGF Architects LLP
Ziger|Snead Architects

ACKNOWLEDGMENTS

2030 Commitment working group

Co-chairs
David Arkin, AIA, Arkin Tilt Architects
Vanessa Hostick, AIA, HOK

Kit Elsworth, AIA, KieranTimberlake
Keith Hempel, FAIA, LPA Inc.
Ramana Koti, LEED Fellow, BEMP, GGP, HKS, Inc.
Erin McDade, Assoc. AIA, Architecture 2030
Samira Mohazabieh, CMVP, BEMP, Fitwell, LEED AP, Stantec
Ashley Mulhall, AIA, Winslow | Orcutt
Jesse Walton, AIA, LEED-AP CPHC, Mahlum
Frances Yang, PE, Arup

AIA Staff

Eana Bacchiocchi, Lead author & 2030 Commitment Program Manager
Melissa Morancy, Assoc. AIA, 2030 Commitment Program Director

Lisa Ferretto, AIA
Kathleen Lane, AIA
Stacy Moses

Consultants & special thanks

Cory Duggin, TLC Engineering
Kevin Settlemyre, Sustainable IQ, Inc.
Gayle Bennett
Polygraph

For more information and resources,
visit *aia.org/2030Commitment*.

PROJECT IMAGE CREDITS

Cover
RIDC Mill 19: Buildings A & B
Architect: MSR Design with R3A Architecture
Photo credit: Corey Gaffer
82.8% predicted net EUI reduction from national average for building type. .
This project received a 2023 COTE® Top Ten Award.

Page vi
Confluence Park
Architect: Lake|Flato Architects + Matsys
Photo credit: Casey Dunn
93% predicted net EUI reduction from national average for building type.
This project received a 2023 COTE® Top Ten Award.

Page 12
DPR Sacramento Zero Net Energy Office
Architect: SmithGroup
Photo credit: ©Chad Davies
89.2% predicted net EUI reduction from national average for building type.
This project received a 2023 COTE® Top Ten Award.

Page 16
UC San Diego North Torrey Pines Living & Learning Neighborhood
Architect: HKS, Inc & Safdie Rabines Architects
Photo credit: Tom Harris
81.4% predicted net EUI reduction from national average for building type.
This project received a 2023 COTE® Top Ten Award.

Page 22
Westwood Hills Nature Center
Architect: HGA Architects and Engineers
Photo credit: Peter J. Sieger
100% predicted net EUI reduction from national average for building type.
This project received a 2023 COTE® Top Ten Award.

Page 25
Watershed
Architect: Weber Thompson
Photo credit: Built Work Photography
68% predicted net EUI reduction from national average for building type.
This project received a 2023 COTE® Top Ten Award.

Page 29
Science and Environment Center
Architect: Leddy Maytum Stacy Architects
Photo credit: Bruce Damonte
100% predicted net EUI reduction from national average for building type.
This project received a 2023 COTE® Top Ten Award.

Page 35
Casa Adelante 2060 Folsom
Architect: Mithun with Y.A. Studio
Photo credit: Bruce Damonte
79% predicted net EUI reduction from national average for building type.
This project received a 2023 COTE® Top Ten Award.

Pages 38 & 39
John W. Olver Transit Center
Architect: Charles Rose Architects
Photo credit: John Edward Linden Photography
100.0% predicted net EUI reduction from national average for building type.
This project received a 2023 COTE® Top Ten Award.

The American Institute of Architects
1735 New York Avenue, NW
Washington, DC 20006
aia.org