



# Leading the Way: Partnerships and Solutions

**PROGRESS REPORT 2024**



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To access the 2024 Better Buildings Initiative Progress Report, visit <https://betterbuildingssolutioncenter.energy.gov/better-buildings-progress-reports>.

Cover photos feature a site visit to Cleveland-Cliffs, along with scenes from the 2024 Better Buildings, Better Plants Summit.

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## EXECUTIVE SUMMARY

We are at a critical crossroads in our nation's use of energy. Our need to advance clean, reliable energy solutions that allow for strong economic growth is paramount. Through the Better Buildings Initiative, DOE partners with hundreds of leading organizations to advance and demonstrate real-world solutions. These solutions showcase our collective success in driving down costs while reducing greenhouse gas emissions, improving energy independence, and fostering workforce development. In partnership with DOE, Better Buildings Initiative partners are:

### Achieving Significant Savings

Since the program began in 2011, partners have collectively saved more than 3.6 quadrillion British thermal units (Qbtu) of energy, equivalent to nearly \$22 billion in cost savings. Partners have also cut greenhouse gas (GHG) emissions by more than 220 million metric tons, reduced their water use by nearly 22 billion gallons, and diverted more than 3.5 million tons of waste from landfills. In the past year, partners have implemented innovative solutions and best practices that have resulted in substantial financial benefits, reinforcing the economic value of energy efficiency investments.

### Advancing Innovation through Collaboration

Progress is made when meaningful exchanges occur between partners, industry experts, and national laboratories to tackle common challenges and share best practices. Through these collaborations, partners develop practical tools and resources, offering comprehensive guidance on implementing decarbonization strategies. For example, more than 100 partners joined Better Climate Challenge working groups to help guide their transition to low-carbon operations.

### Demonstrating Decarbonization Pathways

The Better Buildings Initiative provides a national platform for public-private partnerships, providing transparency, technical assistance, and collaboration to identify and accelerate decarbonization pathways. Through the Better Climate Challenge, more than 225 organizations work with DOE to reduce GHG emissions and share replicable strategies.

### Promoting a Strong Economy and American Competitiveness

Program partners are at the forefront of the nation's effort to champion energy independence and develop a strong workforce from the ground up. By setting ambitious goals for reducing energy consumption and integrating renewables, our partners reduce their reliance on non-renewable energy and contribute to a more resilient and sustainable energy infrastructure. More than 500 partners joined virtual and in-person trainings that help equip the dedicated people driving the energy transition with best practices and proven technologies. In addition, partner contributions and feedback were a foundation for DOE's [National Blueprint](#) to decarbonize U.S. buildings by 2050 while promoting equity, affordability, and resilience.



*"The Better Buildings Initiative underscores how important public-private sector collaboration is to unlocking the incredible benefits of our growing clean energy economy. By achieving portfolio-wide milestones in decarbonization and energy efficiency, DOE's partners are creating the forward-looking solutions we need to combat the climate crisis and secure our clean energy future for generations to come."*

**Jennifer M. Granholm**  
Secretary, U.S. Department of Energy



Better Buildings Initiative partners represent a diverse array of sectors, from companies and industries that employ millions of workers to local and state governments across the nation. These organizations are at the forefront of creating innovative solutions. Their commitment to decarbonization and energy efficiency yields significant benefits for the American economy and workforce, demonstrating the impact of collaborative efforts in promoting sustainability.

#### OUR PARTNERS REPRESENT:

- 28** of the Fortune 100 Companies
- 13%** of all U.S. commercial building space
- 100+** non-profits and industry associations
- 22** of the Top 50 U.S. Employers
- 14%** of the U.S. manufacturing energy consumption footprint
- 90+** state and local governments

#### THIS YEAR'S KEY RESULTS:

- 26** partners achieved their goals in emissions reduction, energy and water usage, waste mitigation, and financing extended
- 41** partners received awards for innovative and industry-leading accomplishments
- 95+** articles featuring program goal achievers were viewed over 4 million times
- 100+** partners joined working groups on decarbonization topics
- 98%** of respondents are satisfied or very satisfied with technical assistance

## BETTER BUILDINGS INITIATIVE | Overall Results to Date

Through the Better Buildings Initiative, DOE works with organizations across the nation to improve buildings and manufacturing plants. The cumulative result of this work is reported below and demonstrates the remarkable impacts being made by leading organizations to increase energy and water efficiency while driving down GHG emissions and waste. For example, now in its second year of reporting, the more than 225 partners in the Better Climate Challenge are succeeding in reducing their scope 1 and scope 2 carbon emissions. This work increases sustainable practices across the nation while uplifting the American workforce.



Many Better Buildings Initiative partners demonstrate leadership by setting ambitious portfolio-wide goals to reduce emissions, energy, waste, or water. They share annual performance data for review by DOE and also share their proven approaches with the marketplace on the [Better Buildings Solution Center](#).



**225+** partners commit to reduce portfolio-wide GHG emissions at least 50% over 10 years



**285+** partners commit to reduce portfolio-wide energy-use intensity at least 20% over 10 years



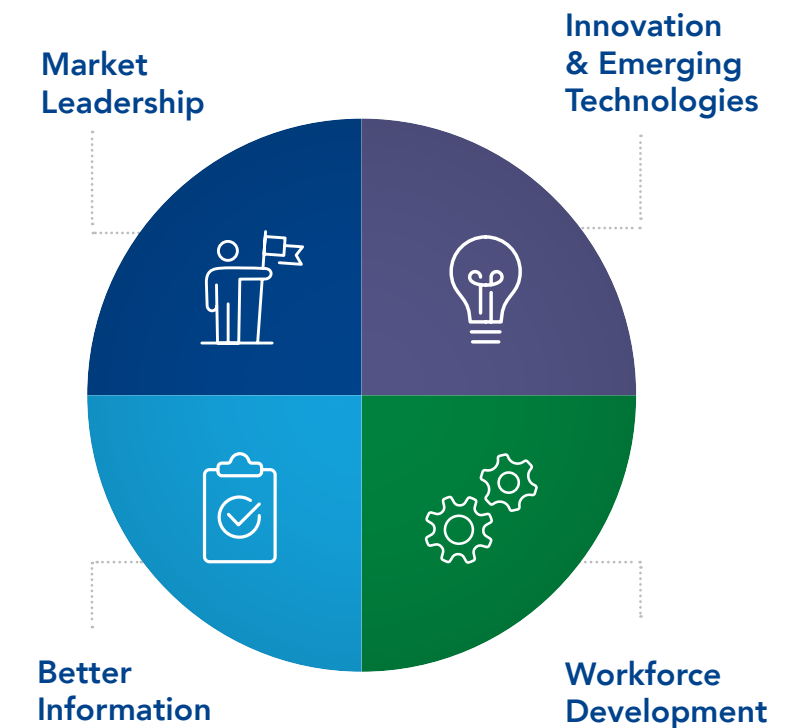
**270+** industrial partners commit to reduce portfolio-wide energy-use intensity at least 25% over 10 years

Additional Better Buildings Initiative partnership opportunities include the following:

- ▶ Better Climate Challenge Allies
- ▶ Financial Allies
- ▶ Better Buildings Accelerators
- ▶ Better Buildings Alliance
- ▶ Design and Construction Allies
- ▶ Waste and Water Reduction Networks
- ▶ Better Buildings Residential Network
- ▶ Industrial Energy Management Workforce
- ▶ High-Impact Technology Field Validations
- ▶ Technology Research Teams and Campaigns
- ▶ Home Energy Score™

Visit the [Better Buildings Solution Center](#) for more information.

### Key Pillars of the Better Buildings Initiative



## KEY PILLARS | Highlights from the Past Year

### MARKET LEADERSHIP

Market leadership is about demonstrating what's possible, setting aggressive portfolio-wide goals, and influencing the development and use of cutting-edge technologies.

- ▶ More than 120 partners have met a portfolio-wide energy reduction goal since the start of the program, nearly 20 have achieved an emissions reduction goal, and nearly 40 Financial Allies have met a financing goal.
- ▶ Eight manufacturers and more than 20 building owners and operators joined the [Commercial Building Heat Pump Accelerator](#) to bring to market new technologies that could reduce GHG emissions and energy costs by up to 50% compared to conventional rooftop units.



Secretary Granholm visiting multifamily partner Mercy Housing in Chicago, IL.

### INNOVATION & EMERGING TECHNOLOGIES

Innovation and emerging technologies are key to building a stronger, more competitive economy that benefits from clean energy.

- ▶ Through the [Industrial Technology Validation Program \(ITV\)](#) DOE and its National Laboratories help de-risk the exploration and adoption of emerging technologies.
- ▶ [Integrated Lighting Campaign](#) participants saved more than 40 million kilowatt hours (kWh) through the adoption of advanced lighting systems.
- ▶ [Building Envelope Campaign](#) participants saved approximately 23,000 MMBtu of energy across more than four million square feet of conditioned floor space.



Partner checking for compressed air leaks using an ultrasonic leak detector.

### WORKFORCE DEVELOPMENT

Workforce development is essential to advance the American job force in step with technological progress and advances.

- ▶ More than 500 attendees joined [Better Plants Trainings](#) in the past year, including nearly 30 participants representing underserved communities.
- ▶ A range of workforce development resources are available on the [Better Buildings Solution Center](#) including best practice case studies, trainings and partner presentations, outreach materials, and more.



Plant workers at a Cleveland-Cliffs facility in Toledo, OH.

### BETTER INFORMATION

Better information means having unbiased insights to make smarter decisions, which in turn leads to deeper emissions reductions and energy and cost savings.

- ▶ The [Better Buildings Solution Center](#) underwent a site-wide refresh of 12,000+ pages, which improved navigation, functionality, and design for an enhanced user experience. There have been more than 1.5 million page views since 2023.
- ▶ More than 9,500 attendees joined one of 26 [Better Buildings Webinars](#), and more than 3,400 viewers watched Better Buildings Webinars on-demand in the past year.
- ▶ The annual [Better Buildings, Better Plants Summit](#) in April 2024 gathered over 800 attendees across two and a half days.



Partners learning about additive manufacturing at the 2024 Technology Days event held at Oak Ridge National Laboratory.

## Decarbonizing the U.S. Economy by 2050

### A National Blueprint for the Buildings Sector



With learnings from leadership work completed over decades by Better Buildings partners, the U.S. Department of Energy authored a [blueprint to decarbonize U.S. buildings by 2050](#), while prioritizing equity, affordability, and resilience. The blueprint highlights pathways to decarbonize buildings, and the federal roles in doing so, including increasing energy efficiency, accelerating onsite emissions reductions, transforming the grid edge, and minimizing embodied life-cycle emissions.

## DEMONSTRATING LEADERSHIP

### Emissions Reduction Goal Achievers

Total scope 1 and scope 2 GHG emissions reduction since base year

**ABB** 81%  
**ABB**  
 Cary, NC  
 65 facilities committed  
 2019 base year

**MITSUBISHI ELECTRIC** 60%  
**MITSUBISHI ELECTRIC AUTOMOTIVE AMERICA**  
 Mason, OH  
 2 facilities committed  
 2021 base year

**Davita** 75%  
**DAVITA**  
 Denver, CO  
 24 million sq. ft. committed  
 2018 base year

**TRANE TECHNOLOGIES** 60%  
**TRANE TECHNOLOGIES**  
 Davidson, NC  
 22 facilities committed  
 2017 base year

**Whirlpool CORPORATION** 68%  
**WHIRLPOOL CORPORATION**  
 Benton Harbor, MI  
 10 facilities committed  
 2019 base year

**Chemours™** 58%  
**THE CHEMOURS COMPANY**  
 Wilmington, DE  
 15 facilities committed  
 2018 base year

**CITY OF CHULA VISTA** 64%  
**CHULA VISTA, CA**  
 850,000 sq. ft. committed  
 2018 base year

**Nestlé** 54%  
**NESTLÉ USA**  
 Arlington, VA  
 19 facilities committed  
 2018 base year

**Channel Islands CALIFORNIA STATE UNIVERSITY** 60%  
**CALIFORNIA STATE UNIVERSITY, CHANNEL ISLANDS**  
 Camarillo, CA  
 1.4 million sq. ft. committed  
 2019 base year

**KOHL'S** 52%  
**KOHL'S, INC.**  
 Menomonee Falls, WI  
 82 million sq. ft. committed  
 2014 base year

### Energy Goal Achievers

**JSW USA** 55%  
**JSW STEEL USA**  
 Baytown, TX  
 2 facilities committed  
 2019 base year

**S** 21%  
**SCHOCHET COMPANIES**  
 Braintree, MA  
 3.8 million sq. ft. committed  
 2011 base year

**PIMA COUNTY WASTEWATER RECLAMATION** 38%  
**PIMA COUNTY WASTEWATER RECLAMATION DEPARTMENT**  
 Tucson, AZ  
 5 facilities committed  
 2014 base year

**COMAU** 16%  
**COMAU INC.**  
 Southfield, MI  
 2 facilities committed  
 2018 base year

**ANNE ARUNDEL COUNTY PUBLIC SCHOOLS** 30%  
**ANNE ARUNDEL COUNTY PUBLIC SCHOOLS, MD**  
 Annapolis, MD  
 14.2 million sq. ft. committed  
 2013 base year

**WEST PALM BEACH** 16%  
**WEST PALM BEACH, FL**  
 1.5 million sq. ft. committed  
 2015 base year

**HARLEY-DAVIDSON MOTOR COMPANY** 26%  
**HARLEY-DAVIDSON MOTOR COMPANY**  
 Milwaukee, WI  
 3 facilities committed  
 2017 base year

**TOWSON UNIVERSITY** 10%  
**TOWSON UNIVERSITY**  
 Towson, MD  
 6 million sq. ft. committed  
 2018 base year

**IAC GROUP** 25%  
**IAC GROUP**  
 Southfield, MI  
 9 facilities committed  
 2019 base year

**LBA REALTY** 2.7%  
**LBA REALTY**  
 Irvine, CA  
 9.1 million sq. ft. committed  
 2013 base year

**CARLISLE, LLC** 21%  
**CARLISLE, LLC**  
 Memphis, TN  
 460,000 sq. ft. committed  
 2013 base year

**COMMONWEALTH PARTNERS** 2.4%  
**COMMONWEALTH PARTNERS**  
 Seattle, WA  
 9.9 million sq. ft. committed  
 2010 base year

### Financial Ally Goal Achievers

**NUVEEN GREEN CAPITAL** \$1.95 BILLION  
**NUVEEN GREEN CAPITAL**  
 Darien, CT  
 \$1.72 billion financing

**ONSITE UTILITY SERVICES CAPITAL (OUS) CAPITAL** \$53 MILLION  
**ONSITE UTILITY SERVICES (OUS) CAPITAL**  
 New York, NY  
 \$50 million in financing

**PACE EQUITY** \$521 MILLION  
**PACE EQUITY**  
 Milwaukee, WI  
 \$500 million in financing



## ADVANCING DECARBONIZATION

Buildings and industrial facilities account for roughly two-thirds of domestic greenhouse gas emissions.<sup>1</sup> Successful carbon reduction is crucial to efficient operations and robust long-term financial performance. DOE works with partners to demonstrate and share real-world emissions reduction pathways.

### Spurring Progress Through Technical Assistance

Through the Better Climate Challenge, partners engage in 1 on 1 technical assistance to accelerate their progress. Moreover, peer exchanges foster industry collaboration, and DOE develops resources based on partner input and feedback to address ongoing challenges. With guidance on decarbonization planning and technology implementation, partners are crafting pathways to decarbonization that will enable and empower others to follow their lead.

DOE has addressed more than 800 technical assistance questions for commercial and industrial partners and delivered more than 50 training events. The most commonly addressed topics are as follows:

- ▶ Building Decarbonization Audits and Measures
- ▶ GHG Accounting and Reporting
- ▶ GHG Emissions Reduction Planning
- ▶ Heating System Electrification
- ▶ Process Assessments and Optimization
- ▶ Process Heat Decarbonization
- ▶ Implementing Treasure Hunt Events

Examples of support provided to partners include the following:

- ▶ Dozens of organizations are now working with DOE to plan energy efficiency, electrification, and renewables projects across their portfolios. Using their own building-level data, DOE helps partners test different scenarios and estimate whether planned projects will successfully achieve portfolio-level decarbonization targets.

- ▶ DOE identified the need to clarify the difference between a building-level energy audit and a GHG emissions reduction audit. To address this, the program developed resources to [define the process and scope for executing decarbonization audits](#). These resources assist Challenge partners in scoping and executing comprehensive decarbonization audits and scaling the improvement recommendations across their portfolios.

### Hearing from Partners

More than a third of Better Climate Challenge partners provided crucial feedback through an annual survey on the specific types of information and technical assistance needed. Notable takeaways include:

- ▶ Case studies from peers are the most useful type of resource.
- ▶ One-on-one working sessions with experts are a very helpful way to access resources.
- ▶ Project funding and organizational policy development for decarbonization are highly valued peer exchange topics.

In addition, these partners are satisfied with program resources and technical assistance. Receiving and responding to ongoing partner feedback to DOE is a central part of the Better Climate Challenge.



Mardi Ditze of IKEA US RETAIL LLC networking at the 2024 Better Buildings, Better Plants Summit with Eric Horn of TRC Companies.

### Working Together to Find Solutions

The [Better Climate Challenge Working Groups](#) are collaborative opportunities for partners to discuss real-world challenges. Partners share insights, strategies, and action plans, while DOE experts provide ongoing technical assistance to support them. The most recently completed working groups are listed below, and many of the resources on this page were informed by the discussions and feedback provided by working group participants.

- ▶ The [GHG Emissions Reduction Audits and Assessments](#) group focused on best practices in conducting [building](#) and [plant-level](#) emissions reduction audits and assessments.
- ▶ The [Onsite Renewable Energy and Storage](#) group focused on planning and deploying onsite renewable energy and storage systems in [buildings](#) and in industrial [facilities](#).
- ▶ The [Low-Emission Alternatives to Industrial Thermal Loads](#) group convened industrial organizations to discuss how the [four key technological pillars of industrial decarbonization](#) can be used to reduce emissions from process heating.

The 2024-2025 Working Groups available for Better Climate Challenge partners will focus on central plant decarbonization, shifting to low-impact refrigerants, and financial analysis for industrial decarbonization.

### Developing Resources to Decarbonize Buildings and Plants

Program resources are developed in collaboration with partners to address the specific barriers they face, ensuring that the solutions are relevant and effective in helping organizations achieve their emissions reduction goals. The following resources and more are available on the Better Buildings Solution Center [Decarbonization Resource Hub](#):

- ▶ [Framework for Greenhouse Gas Emissions Reduction Planning](#) provides guidance to organizations seeking to reduce portfolio-wide GHG emissions.
- ▶ [GHG Emissions Reduction Audit Scope of Work Template](#) outlines a scope of work for a building-level Greenhouse Gas (GHG) Emissions Reduction Audit for operational Scope 1 and 2 GHG emissions.
- ▶ [Portfolio Screening and Prioritization for Onsite Energy](#) provides guidance on how to screen and prioritize a portfolio based on favorable project development criteria, along with a version for making decisions at the [site-level](#).
- ▶ [Assembling an Effective Team for Renewable Generation and Storage Projects](#) helps streamline the implementation of onsite renewable generation and storage systems and ensure they are aligned with the needs of the facility owner.
- ▶ [Renewable Energy Certificates Overview](#) provides an overview of renewable energy certificates in the U.S. renewable energy market.
- ▶ [Thermal Energy Storage in Commercial Buildings](#) overviews the benefits of thermal energy storage systems when integrated with onsite renewable energy in commercial buildings.
- ▶ [Commercial and Public Building Action Plan Template](#) helps create a building-level action plan to improve energy efficiency and reduce carbon emissions.



## DRIVING INNOVATION THROUGH COLLABORATION

As partners in the Better Buildings Initiative, organizations benefit from a range of opportunities to discuss common barriers and share best practices with their peers and technical experts from National Laboratories. These exchanges drive innovation across the marketplace, and inform DOE's research, development, and deployment (RD&D) focus areas.

### Learning from Peers and Experts

At the 2024 Better Buildings, Better Plants Summit, more than 800 partners and experts discussed the technologies and systems driving reductions in portfolio-wide emissions. The summit featured a wide array of presentations, which are available [at the Better Buildings Solution Center](#).

The Better Plants program and Oak Ridge National Laboratory offer intensive three-day decarbonization and energy bootcamps. These workshops combine classroom instruction, hands-on activities, and tours of state-of-the-art facilities. Additionally, Technology Day events provide industrial energy and R&D staff opportunities to tour National Laboratories, see innovative technology demonstrations, and network with experts. These events expose manufacturers to cutting-edge technologies and foster lab-industry collaborations. For more details, view the [Industrial Sector Spotlight](#) later in this report.

Steering committees, made up of leaders from across the commercial and multifamily sectors, also collaborate to provide invaluable feedback to DOE. These committees help their sectors refine program priorities for the year and shape session ideas for the annual summit. Their insights ensure that the program's initiatives are aligned with industry needs and challenges.

### Innovating Around Technology and Design

The **Design and Construction Allies** program has involved more than 90 design and construction professionals from nearly 50 participating firms. In 2024, two working groups brought together designers and building owners on the topics of building retrofit strategies and thermal heating design guidance. This collaboration helped inform [upcoming guides](#) focused on new and retrofit construction to demonstrate ways for organizations to make use of heat pump and other heating technologies. Part two of

the guide will be developed for 2025 and will expand on applications for decarbonized heating systems, and DOE will work with ASHRAE and program allies to broaden the reach of the guide. To learn more about how these allies are demonstrating leadership, [visit the Better Buildings Solution Center](#).

### Technology Campaign Overviews

Technology Campaigns help to accelerate the adoption of efficient building technologies by providing technical assistance, resources, and guidance on implementing best practices.

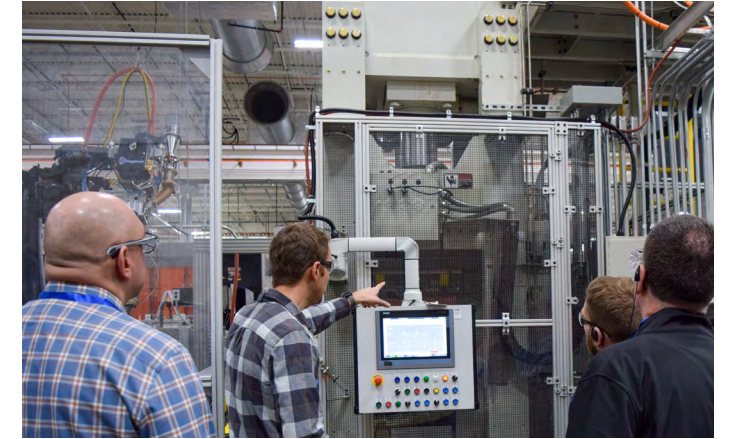
- ▶ **Building Envelope Campaign:** Improves the performance of building envelopes in both new and existing buildings by setting goals for building envelope performance, determining available energy savings, and providing technical support. In the past year, 34 participants were recognized for high performing building envelopes.
- ▶ **Integrated Lighting Campaign:** Helps facility owners and managers integrate advanced lighting controls and lighting systems with other building or business systems in their facilities. In the past year, 16 participants were recognized for exemplary projects in lighting.
- ▶ **Smarter Small Buildings Campaign:** Offers technical assistance and recognition opportunities to help small- and medium-sized buildings adopt improved controls for rooftop heating, ventilation, and air conditioning (HVAC) units. In the first year of the campaign, more than 90 industry partners and 35 building owners/operators enrolled, representing over 54 million square feet across 3,000 buildings. In 2024, three of these building owners were recognized for their excellence in rooftop HVAC controls.

### Accelerating Change

Better Buildings Accelerators are targeted efforts to address persistent barriers to efficiency, decarbonization, and more. These initiatives speed up investments and the adoption of proven approaches by demonstrating what's possible through case studies, toolkits, and market research.

- ▶ **The Commercial Building Heat Pump Accelerator**, launched in 2024, focuses on reducing GHG emissions and energy costs by up to 50% compared to conventional rooftop units (RTUs) with natural gas heating.<sup>2</sup> Running through 2027, this accelerator works with stakeholders to accelerate the development and adoption of heat pump packaged RTUs, achieving integrated energy efficiency and building electrification. Eight manufacturers have now joined the accelerator and are working to have prototypes ready for field validation testing in the winter of 2025. They are complemented by more than 20 campaign participants who are commercial building owners and operators that demonstrate market demand while providing critical feedback to the manufacturers. Some are also providing space to perform real-world testing of the new designs.
- ▶ **The Sustainable Corrections Infrastructure Partnership (SCIP)** was completed in 2024. Nearly 20 state and local partners, with more than 280 facilities representing almost one-third of state correctional facilities in the country, developed infrastructure improvement plans for their correctional facilities, targeting 5% short-term and 20% long-term energy savings across their portfolios.
- ▶ **The Sustainable Wastewater Infrastructure Accelerator 2.0 (SWIFt)** was also completed in 2024. More than 150 partners representing over 325 facilities across 43 states participated, achieving an average 7% reduction in energy intensity over their baseline, resulting in nearly 131 million kWh in cumulative energy savings.

**The Green Lease Leaders program**, a partnership with the Institute for Market Transformation, has recognized landlords and tenants totaling more than 8 billion square feet of building space globally since 2014. More than 200 organizations have been recognized for their leadership instituting clauses and operational procedures that advance efficiency and emissions reductions.



Peer collaboration at the 2024 Decarbonization Bootcamp at Oak Ridge National Laboratory.



Partners collaborating during a Better Plants Bootcamp.

### Working with Utilities

**AVANGRID, Exelon Corporation, and the Pacific Gas and Electric Company** have partnered with DOE to reduce direct emissions within their portfolio of utility-owned facilities and to pursue broader decarbonization targets tied to the utilities' roles as energy providers across the country. They are working through barriers to decarbonizing utility operations and demonstrating an increased commitment to leveraging their role in transforming the built environment.

## REDUCING WASTE

The [Waste Reduction Network](#) brings together more than 70 industry-leading partners to demonstrate successful approaches to waste management. The Waste Reduction Network enables partners to:

- ▶ Access peer-to-peer learning opportunities.
- ▶ Receive technical assistance from DOE and National Laboratory experts to measure, track, and improve waste reduction practices.
- ▶ Receive national recognition for progress in reducing waste and associated energy or GHG emissions reduction results.

Notable resources from the Waste Reduction Network include:

- ▶ A [Waste Stream Energy Content Calculator](#) to help partners understand the link between waste and energy. This spreadsheet-based tool evaluates the potential for energy recovery from applicable waste streams, outlines the impact of onsite energy consumption, and offers the ability to evaluate on- and off-site GHG impacts of the recovered energy.
- ▶ A [quarterly newsletter](#) that highlights best practices in the industry and the latest innovations and emerging trends to facilitate successful approaches to waste reduction.
- ▶ A [virtual training](#) on waste reduction, an ongoing webinar series featuring program partners speaking on topics including remanufacturing and beneficial reuse in the circular economy, and sustainable food management strategies.

### Leadership in Action

- ▶ [Eastman](#) built a new [plastic molecular recycling facility](#), creating a market for plastic waste and jobs in operations, maintenance, and engineering.
- ▶ [Ingersoll Rand](#) [reduced landfill waste](#) by more than 875,000 pounds in 2022 by diverting wood waste from its Sedalia, MO facility to mulching.
- ▶ [Whole Foods Market](#) and [Lundberg Family Farms](#) [presented on](#) the environmental benefits of sustainable food systems and best practices for managing food waste.



## SAVING WATER

The [Water Savings Network](#) brings together organizations to discuss and demonstrate successful approaches to conserving water in buildings and plants. Water conservation and efficiency efforts save energy and operational costs while protecting regions most vulnerable to water shortage. The Water Savings Network gives more than 75 partners the opportunity to receive technical guidance and support, join a network of peers working to address similar issues and share solutions, and set water goals in partnership with DOE to track progress over time.

Notable outcomes from DOE's collaboration with partners around water saved include the following:

- ▶ Partners have reported nearly 22 billion gallons of water saved since 2015.
- ▶ Developed more than 160 solutions for the Better Buildings Solution Center on topics such as water efficient equipment, exterior landscaping, and wastewater management.
- ▶ Hosted trainings that helped industrial partners evaluate their plant water efficiency status and identify more than \$2 million in water reduction opportunities.
- ▶ Held a peer exchange call on water data collection best practices, a [webinar on water reuse](#), and a [Summit session on organizational practices](#) to improve water efficiency featuring MGM Resorts International and General Motors.

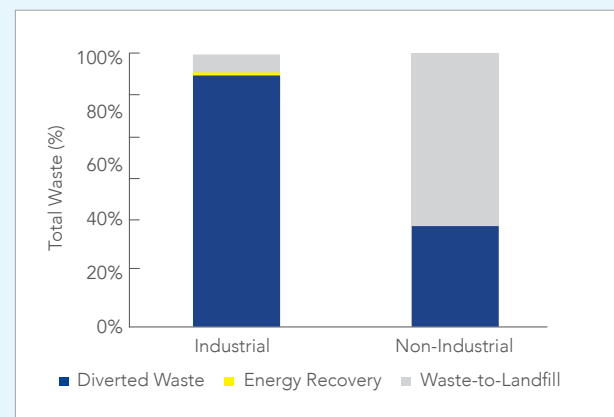
### Goal Achievement

[Ford Motor Company](#) met its water reduction goal by reducing water consumption 16% since 2019 across 23 facilities. Headquartered in Dearborn, MI, Ford's water management program emphasizes innovative technology solutions, including Minimum Quantity Lubrication (MQL) for machining, increasing cooling tower cycles of concentration, and sharing best practices with suppliers through Ford's Partnership for A Cleaner Environment (PACE) program. Ford recognizes the importance of community water availability and aims to achieve zero potable water use for manufacturing processes.



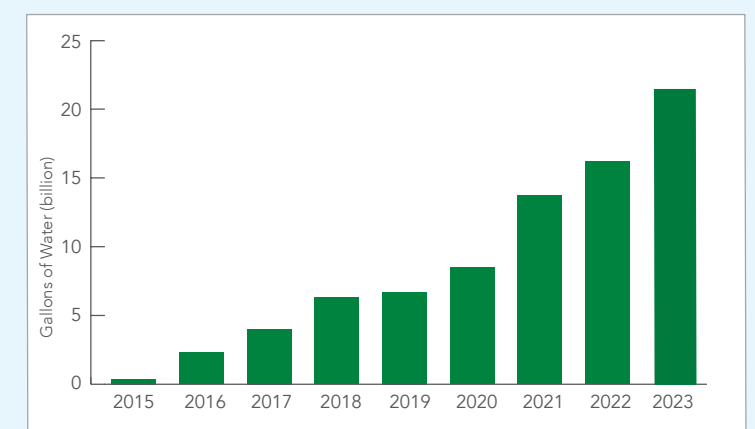
### 2023 WASTE MANAGEMENT RESULTS

Organizations achieve waste reduction through various strategies. Industrial partners optimize processes, reuse materials, and engage employees, while nonindustrial partners focus on tenant engagement, signage, composting, and recycling. Additional methods include circular economy principles, reducing packaging waste through supplier partnerships, and using technology for waste tracking and auditing to identify and address inefficiencies.



### CUMULATIVE WATER SAVINGS RESULTS

Conserving water also saves energy due to the energy required for its transport and treatment. This water-energy nexus positions water conservation as an important part of energy efficiency. Organizations achieve water efficiency in many different ways. They reduce operating costs, enhance supply reliability, and improve water quality through efficient water use. Strategies include optimizing water-intensive processes, implementing advanced irrigation systems, reusing water in operations, and installing low-flow fixtures.



# SHARING PROVEN SOLUTIONS

## Solutions that Move the Market

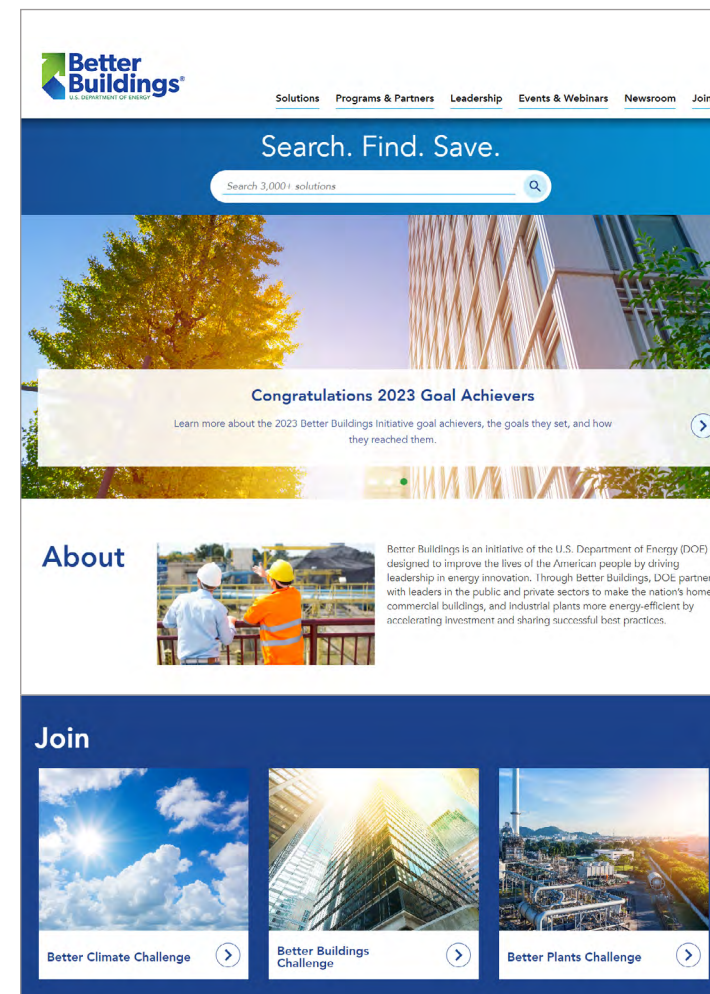
Real-world examples from partners and stakeholders are key to accelerate change in the marketplace. These solutions come in many forms, from partner-developed case studies to webinars, toolkits, and technology information suits.

**3,400+**  
Solutions

**IN THE PAST YEAR**

**180+**  
New solutions

**40+**  
New webinars



## Better Buildings Solution Center

DOE's Better Buildings Solution Center is a one-stop shop for expert-driven energy efficiency, decarbonization, water, and waste reduction strategies. It houses thousands of proven and replicable case studies and solutions to help solve your organization's challenges by:

- ▶ Accessing resources on cutting-edge topics, including decarbonization, workforce development, resilience, and renewable energy.
- ▶ Identifying government funding opportunities to catalyze energy efficiency, renewable energy, and decarbonization projects.
- ▶ Engaging with Better Buildings programs, including working groups and peer exchanges, and join one or more of the Initiative's challenges.

## Improving the User Experience

The Better Buildings Solutions Center recently underwent a site-wide upgrade of more than 12,000 pages that improved navigation, functionality, and design for an enhanced user experience.

New features include:

- ▶ Streamlined main menu navigation.
- ▶ Upgraded partner profiles pages with interactive data displays to better showcase partner progress.
- ▶ Enhanced partner list, enabling organizations to filter by program affiliation, sector type, location, and goal achievement status.
- ▶ An optimized search platform, allowing users to more effectively customize their search criteria based on their organization's needs for more relevant and actionable search results. [Click here](#) to explore solutions by barrier, building type, technology, and more.

## Better Buildings Events

The Better Buildings Initiative hosts webinars, peer exchange calls, meetings, industry workshops, and conferences. Recently optimized to allow users to filter by sector and type of event, the [Events and Webinars Calendar](#) can help you find opportunities to engage with Better Buildings.

## Better Buildings, Better Plants Summit

This annual event for Better Buildings, Better Plants partners, and other key stakeholders, provides networking opportunities for professionals to explore emerging technologies and share innovative strategies in energy efficiency, decarbonization, water, and waste reduction. In 2024, the Summit hosted more than 800 attendees who took part in interactive sessions with industry experts and market leaders. [Click here](#) to learn more and explore presentations from the 2024 Better Buildings, Better Plants Summit.

## Better Buildings Webinars

The Better Buildings Initiative works with DOE and National Laboratories experts to host webinars on the most pressing topics facing energy professionals. Webinars are held year-round and showcase proven best practices, cost-effective strategies, and innovative new ways to approach decarbonization, energy, waste, and water performance. View upcoming webinars on the [Better Buildings Webinars page](#) or watch [webinars on-demand](#).

Since 2018 there have been:

- ▶ 120+ webinars led by DOE and technical experts
- ▶ 40K+ live webinar attendees
- ▶ 27K+ on-demand views
- ▶ 450% increase in attendees

Better Buildings Webinars continue to grow in popularity. In the past year alone, nearly 10,000 attendees joined a webinar, which average more than 360 attendees each.



## Subscribe for Monthly Insights

The Initiative sends monthly emails to keep your organization informed about emerging technologies, government funding opportunities, featured resources, and upcoming events and webinars.

- ▶ **Better Buildings Bulletin**  
Bi-monthly newsletter welcoming new Better Buildings partners, listing news stories, broadcasting new partner solutions, offering opportunities to sign up for webinars, and more.
- ▶ **Top Partner Solutions**  
Monthly list highlighting partner-created solutions and case studies available on the Better Buildings Solution Center.
- ▶ **3 Ways to Jumpstart Your Decarb Journey (new in 2024)**  
Quarterly series dedicated to sharing the three latest decarbonization resources created by DOE and National Lab energy experts.

[Subscribe](#) to receive **Better Buildings Initiative communications delivered to your inbox.**

## SPOTLIGHTING PARTNERS

### Partner Media Events

DOE visited partners throughout the year to recognize them for their progress in efficiency and decarbonization.



DOE toured **Morehouse College's** campus in Atlanta, Georgia, to recognize the historically black liberal arts college for men for its Better Buildings Challenge goal achievement. The college has reduced its energy intensity by more than 30% since 2017 across more than 1.6 million square feet of building space at its 60-acre campus.



Secretary Granholm and Director Vargas visited the Empire State Building for Earth Week to recognize partner **Empire State Realty Trust (ESRT)** for its longstanding commitment to sustainability. In partnership with DOE, ESRT has replaced more than 6,000 windows on the building, updated insulation, and made the switch to 100% renewable wind energy to cut emissions by more than half.



At its Newark, Delaware, manufacturing site, **AstraZeneca** leadership, elected officials, and DOE flipped the switch on 7,800 solar panels to power building operations, reducing site utility spend by 20-30%. AstraZeneca is demonstrating its commitment to sustainable manufacturing practices and environmental stewardship by generating 5.8 million kilowatts of energy annually.

### Celebrating New Goal Achievers

In the past year, more than 20 organizations met or exceeded their Better Climate Challenge, Better Buildings Challenge, or Better Plants goal. These partners' achievements inspire others by showing what's possible when taking a portfolio-wide approach to reducing emissions and energy use while also cutting water use and waste.

To help amplify their success, DOE provided communications materials to Goal Achievers and shared the announcement with local, trade, and national media, resulting in:

30+  
Articles Published

4 Million+  
Media Views



The team at Bendix Commercial Vehicle Systems receiving a Goal Achiever award at the 2024 Better Buildings, Better Plants Summit.

### Better Climate Challenge Road Show: Season Two

In the latest season of DOE's Better Climate Challenge Road Show video series, our energy experts headed to Cleveland, Ohio, to see how partners Cleveland Clinic, Cleveland-Cliffs, and City of Cleveland are deploying technologies and innovative strategies to reduce emissions. Watch all episodes here: [betterbuildingsolutioncenter.energy.gov/roadshow](https://betterbuildingsolutioncenter.energy.gov/roadshow)

Stay tuned for Season Three coming next year from Dallas-Fort Worth, Texas!

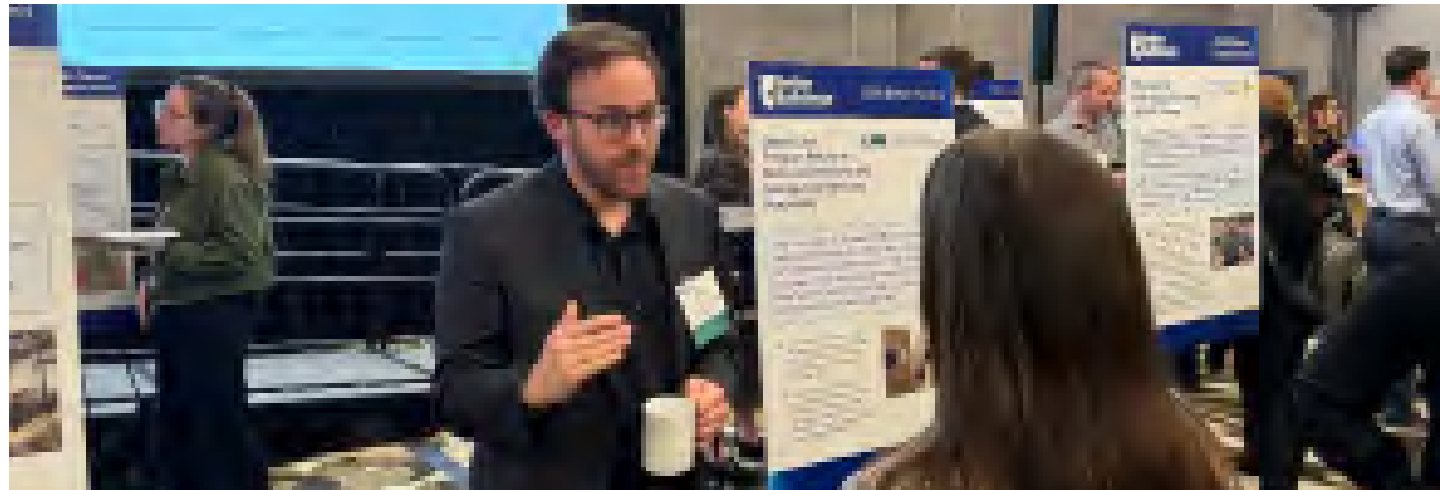


## FOCUSING ON SECTOR PRIORITIES

Better Buildings Initiative partners represent nearly every sector of the economy. To help them reach their goals, DOE provides opportunities for peer exchange within and across sectors, while recognizing industry-leading achievements through the annual Better Project, Better Practice, and Climate Finance Innovation Awards.

### Engaging in Knowledge-Sharing Peer Exchanges

- ▶ **The Industrial Peer Exchange Series:** Better Climate Challenge industrial partners meet regularly to ask questions of each other and subject matter experts on topics like fugitive emissions, supply chain engagement, climate reporting, and industrial policy updates.
- ▶ **Commercial Sector Data Management Peer Exchange:** Program partners discussed common challenges in data management, sharing their experiences and insights. Topics included emissions tracking data tools, defining reporting boundaries, and tracking scope 3 emissions.
- ▶ **Financing Decarbonization:** Better Climate Challenge partners from the higher education sector met with financing experts to discuss funding central plant decarbonization strategies, options for using Energy-as-a-Service, debt treatment, and stacking federal incentives.
- ▶ **Public Sector Quarterly Peer Exchanges:** The local government, state, and K-12 sectors launched quarterly peer exchanges in response to needs identified by partners at the 2024 Better Buildings, Better Plants Summit. Topics have included portfolio-level decarbonization planning, financing projects, data management, and crafting detailed project scopes and requirements.
- ▶ **State and Local Planning for Energy (SLOPE):** More than 10 state and local partners met to identify how to incorporate electric vehicle (EV) infrastructure, increase onsite solar generation, and address issues around energy justice.
- ▶ **Multifamily Sector Quarterly Peer Exchanges:** Sector partners meet quarterly to discuss common barriers to decarbonization. Topics included portfolio-level decarbonization planning, data collection and benchmarking, financing, and accessing Inflation Reduction Act incentives.



Nick Ciancio from the University of Alabama at Birmingham presenting an award-winning practice at the 2024 Better Buildings, Better Plants Summit.

### Awarding Performance and Innovation

More than 40 Better Buildings Initiative partners received a 2023 Better Project, Better Practice, or Climate Finance Innovation award. These awards recognize partners for their innovative and industry-leading decarbonization, energy efficiency, water efficiency, and waste reduction accomplishments. Visit the [awards page](#) on the Better Buildings Solution Center to view previous winners, access more information, or to apply.

*“ Thank you so much for selecting us for a 2024 Better Project, Better Practice Award. We are very proud of our team’s effort to increase worker safety and reduce energy consumption. ”*

**Energys**

*“ This is amazing news, thank you so much!! We really appreciate you taking the time to chat with us in advance and encouraging NYCEEC to apply. ”*

**New York City Energy Efficiency Corporation**

*“ Thank you very much for the recognition. We greatly appreciate all of the support that has been provided by the DOE Better Plants program in our efforts to improve our efficiencies, cost & environmental footprint. ”*

**General Mills**



Peer networking at the 2024 Better Buildings, Better Plants Summit.

The Sector Spotlights that follow illustrate the many ways partners are driving decarbonization and prioritizing efficiency:

<b>Industrial</b> .....	<b>26</b>
<b>Commercial Real Estate</b> .....	<b>30</b>
<b>Healthcare</b> .....	<b>32</b>
<b>Retail, Food Service, and Grocery</b> .....	<b>34</b>
<b>Hospitality</b> .....	<b>36</b>
<b>Higher Education</b> .....	<b>38</b>
<b>K-12 School</b> .....	<b>40</b>
<b>State and Local Government</b> .....	<b>42</b>
<b>Multifamily</b> .....	<b>44</b>
<b>Financial Allies</b> .....	<b>46</b>
<b>Residential</b> .....	<b>48</b>
<b>Federal</b> .....	<b>50</b>

For every \$1.00 spent in manufacturing, there is a \$2.69 total impact on the overall economy.<sup>3</sup>



**317** UNIQUE SECTOR PARTNERS

**3.7** THOUSAND FACILITIES

**\$14.1** BILLION SAVED SINCE 2009

## SECTOR SPOTLIGHT | Industrial

GHG emissions from industrial facilities total 1.87 billion metric tons of CO<sub>2</sub>e annually.<sup>1</sup> Organizations in the sector have collaborated with DOE over the past year to address the following barriers to decarbonization:

- ▶ Process heating, the application of heat to manufacture materials and goods in industry, is the biggest onsite energy consumer and the largest source of onsite carbon emissions within the U.S. [The Low-Emission Alternatives to Industrial Thermal Loads Working Group](#) brought together partners to discuss and identify both opportunities and barriers associated with low-emissions process heating technologies, informing the development of the [Process Heat Decarbonization Scoping Tool](#).
- ▶ Organizations can face challenges in bridging the gap between planning and implementing effective emissions reduction measures in the long term. To address this, the [GHG Emission Reduction Audits and Assessments Working Group](#) focused on Milestone 3 of the five-milestone framework, where participants discussed how emissions reduction assessments differ from traditional energy efficiency assessments and how to identify, evaluate, and prioritize decarbonization measures.
- ▶ Manufacturers are called to put energy efficiency plans into action but often need support identifying and implementing the organizational and technical requirements for implementation. [Better Plants Trainings](#) emphasize a hands-on, system-level approach to energy efficiency and teach participants how to identify, implement, and replicate industrial energy-saving projects in real world scenarios.



Scene from an in-plant training at an Owens Corning facility.

### Better Plants Trainings

Better Plants Trainings provide organizations with technical expertise to overcome common barriers to adopting energy management practices and technologies. These trainings are a unique opportunity, empowering participants with the tools to optimize industrial systems and achieve facility commitment for reliable and sustainable production.

#### In-Plant Trainings

**490** Attendees

**\$8.4M** Potential energy cost savings identified

**15** Trainings held within underserved communities

#### Virtual Trainings

**400** Attendees

**\$710K** Potential energy cost savings identified

#### Bootcamps

**200** Attendees

**108** Partners represented

### New Tools and Resources

- ▶ To better assist companies with organizing and implementing an Emissions Reduction Plan (ERP), the [ERP Toolkit](#) was developed to guide their planning and communicate their successes. This toolkit provides industrial organizations with the necessary resources to set ambitious and specific GHG emissions reduction goals, create strategies for thoughtful implementation, and assess progress towards achieving their goals.
- ▶ Renewable Energy Guidance documents are being developed as concise resources to help manufacturers understand renewable energy topics and make informed decisions. These guidance documents cover topics including utility supply options, power purchase agreements, and renewable energy credits. The first of the series to be published, [Renewable Energy Credits Overview](#), is now available on the Solution Center.
- ▶ The Electrification Assessment Framework and Toolkit offers resources for pursuing decarbonization goals and walks facilities through the process of electrifying operations, assessing emissions/economic impacts, and ensuring readiness. The toolkit includes calculators (electrification impact, forklifts, and heat pumps) a readiness checklist, and a facility inventorying template.

## LEADERSHIP IN ACTION

### 2024 Better Practice Award Winners

[General Mills](#) reduced its annual carbon footprint by more than 45,000 MTCO<sub>2</sub>e and utility costs by \$8 million with no upfront investment using an [energy efficiency as a service contract](#) for upgrades at 12 of its largest sites.

[Texas Instruments, Inc.](#) saved \$5.3 million a year, reducing emissions by 27,000 MTCO<sub>2</sub>e by [implementing an LED Roadmap](#) that standardized material selection and capital applications and led to better project tracking.

[OxyChem](#) teamed with Industrial Assessment Centers from local universities to [perform energy audits](#) at local elementary schools. One school is estimated to have annual savings of 375,000 kWh and \$34,000.

[The Chemours Company](#) implemented over 60 individual [energy efficiency projects](#) that reduced energy intensity by 3.5% company-wide after launching an internal energy efficiency bonus metric.

[Stellantis](#) saved over 2.8 million kWh in two months by implementing a new phase of [Energy Treasure Hunt surveys](#). These “Energy Treasure Hunts 2.0” were implemented with a more focused system-level approach designed to be completed more quickly and more often.

[Toyota Motor North America, Inc.](#)’s Dealership Environmental Excellence Program, a [voluntary program](#) designed to improve environmental performance, resulted in average savings of more than \$40,000 by cutting energy use by 17% and water use by 23% for the 12 dealerships that piloted the program.

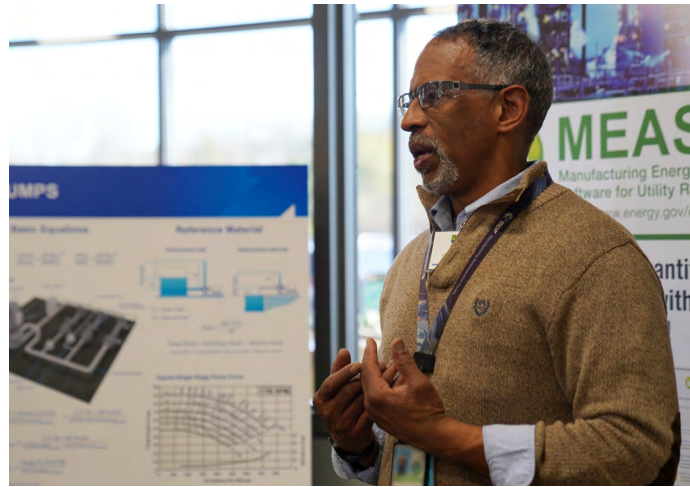
## Connecting Manufacturing Partners to Key Resources

Because decarbonizing the industrial sector is a complex challenge, Better Plants works in partnership with other DOE programs to enhance partner success and offers opportunities so they can expand their efforts within onsite energy, energy management, emerging technology validation, and continuing education.

- ▶ The DOE's [Onsite Energy Program](#) offers national coverage for technical assistance through 10 regional technical assistance partnerships (TAPs) to help industrial organizations and other large energy users adopt clean onsite energy technologies to curb emissions and generate savings. Better Plants partners receive priority access to technical assistance provided by the program.
- ▶ The [Industrial Technology Validation \(ITV\)](#) program is open to all industrial sites that want to team with technology vendors to evaluate innovative manufacturing technologies in their plants, reduce greenhouse gas emissions, and meet decarbonization goals. The majority of ITV host sites are Better Plants partners, and all manufacturers are encouraged to participate.
- ▶ The [50001 Ready Program](#) provides free technical assistance to cohorts of energy team members of U.S.-based industrial, commercial, and institutional sites as they implement a robust energy management system based on the global ISO 50001 energy management standard. More than 100 Better Plants facilities have participated in the program.



Thomas Wenning of Oak Ridge National Laboratory working with partners at a Decarbonization Bootcamp in 2024.



Daryl Cox of Oak Ridge National Laboratory working with partners at an Energy Bootcamp in 2023.

- ▶ The new [Industrial Training and Assessment Centers \(ITACs\)](#), formerly known as the Industrial Assessment Centers (IACs), train energy efficiency workers to help small- and medium-sized manufacturers (SMMs) reduce their carbon emissions and energy costs. These new ITACs will expand the IAC model to manufacturers and students in more states and communities across the country, while training more than 4,000 students, apprentices, and incumbent manufacturing workers for quality careers that optimize energy efficiency and environmental performance. Better Plants partners receive priority access to no-cost ITAC energy assessments.
- ▶ The Better Plants program, within the Industrial Efficiency and Decarbonization Office (IEDO), collaborates with other DOE technology offices to promote cross-sector technologies and funding essential for industrial decarbonization. The Office of Clean Energy Demonstrations (OCED) received \$6.3 billion for its [Industrial Demonstrations Program \(IDP\)](#), funded by the Bipartisan Infrastructure Law and Inflation Reduction Act. The IDP selected 33 projects for award negotiations in difficult-to-decarbonize industries, including five projects involving four Better Plants partners.

## LEADERSHIP IN ACTION

### 2024 Better Project Award Winners

[3M](#) cut steam use by more than 85,000 Mlbs and emissions by more than 4,000 MTCO<sub>2</sub>e with a battery-less and wireless [monitoring and communication system](#) installed on 1,200 steam traps across a single facility.

[Intralox](#) reduced the amount of waste produced in the runner of a highly utilized mold by over 60% by [modifying the existing mold](#) saving 115,000 lbs of plastic waste and \$60,000 per year.

[The Chemours Company](#) achieved over \$1 million in annual savings on waste disposal costs by employing an [intermediate distillation column](#) without sacrificing quality or catalyst integrity.

[Nestlé Health Science](#)'s Wisconsin nutritional drink factory saved more than 26 million gallons of water and 37 MTCO<sub>2</sub>e annually with a [reverse osmosis system](#).

[Nissan North America](#) reduced compressed air electricity usage by 24%, or total facility energy consumption by 7%, by upgrading [automated compressor controls](#) at a powertrain facility.

[The Sherwin-Williams Company](#) completed an [onsite solar project](#) with rooftop and carport arrays, reducing plant's carbon emissions by 680 MTCO<sub>2</sub>e annually.

[Trane Technologies](#) reduced annual water use by 53 million gallons [using thermal energy storage, heat pump technology, and advanced controls](#).

[PepsiCo Foods North America](#) reduced emissions by 400 MTCO<sub>2</sub>e per year at a single facility, or 8% of the plant's annual GHG emissions, by replacing water-cooled compressors with [air-cooled compressors with heat recovery systems](#), eliminating the need for a cooling tower.

[FMC Corporation](#)'s multi-stage cooling tower project improved energy efficiency by 75% and cut water use by 25% by involving [rainwater harvesting and VFD installations](#).

[General Motors](#) eliminated steam use and reduced carbon emissions by 30% by [capturing waste heat](#) from four electric generators used onsite.

[Volvo Group North America](#)'s powertrain facility cut GHG emissions by 14% [using renewable diesel](#) (HVO100) for engine testing.

[HNI Corporation](#) reduced natural gas consumption of paint ovens by up to 30% with [new air curtains](#) designed in-house.

[Waupaca Foundry, Inc.](#) saved more than 1,600 MTCO<sub>2</sub>e annually with ["Smart Controls" for exhaust fans](#), improving workplace conditions and reducing gas usage.

[EnerSys](#) reduced annual energy consumption at one of its plants by 20% after [implementing an innovative production system](#) that eliminated the need for an energy-intensive lead melting process while improving worker health and safety.

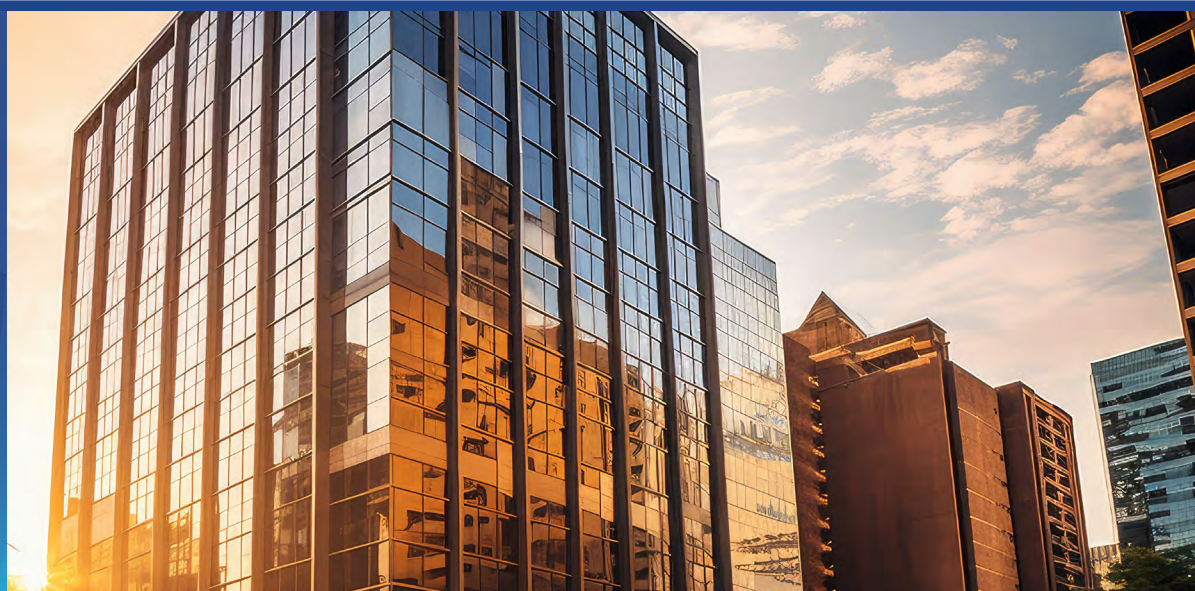
## CASE STUDY

[Cleveland-Cliffs](#) achieved its Better Climate Challenge goal in 2024. Its greatest emissions reductions to date have been scope 1 reductions driven by process improvements such as optimizing assets and footprint, using lower-carbon fuels like natural gas, consuming hot briquetted iron to reduce coke rates, and recovering energy from byproduct gases at integrated steel mills. Looking ahead, Cleveland-Cliffs will continue to reduce emissions by using hydrogen-ready direct reduced iron and electric melting furnaces, replacing natural gas furnaces with electrified induction furnaces, adopting direct carbon capture technology, and developing energy-efficient steel products for the battery EV industry.



Touring a Cleveland-Cliffs plant in Toledo, OH.

Operational improvements can cut scope 1 and 2 carbon emissions by more than 40%, also lowering energy costs and improving asset value.<sup>4</sup>



**71** UNIQUE SECTOR PARTNERS

**1.4** BILLION SQUARE FEET

**\$610** MILLION SAVED SINCE 2011

## SECTOR SPOTLIGHT | Commercial Real Estate

GHG emissions from commercial real estate (CRE) facilities total 107 million metric tons of CO<sub>2</sub>e annually.<sup>5</sup> Organizations in the sector have collaborated with DOE over the past year to address the following barriers to decarbonization:

- ▶ CRE companies developing portfolio-wide decarbonization plans face challenges related to financing, compliance, and GHG audits. To address this, DOE created [guidance documents](#) for Emissions Reduction Planning (ERP) to help partners develop their own plans, including an [ERP Toolkit](#). These resources were informed by valuable feedback gained through more than 30 technical assistance calls with Better Climate Challenge partners in the sector.
- ▶ Organizations in the CRE sector face obstacles in adopting electrification pathways because of technical complexities, intricate building standards, high upfront costs for heat pumps, and difficulty in building a business case for internal decision makers. To address these barriers, the program developed a [Benchmarking and Building Performance Standards \(BPS\) Resource Page](#) with strategies, toolkits, and guidance for improving energy efficiency through performance tracking and benchmarking practices. The program also hosted a [webinar on heat pump technology](#) that attracted nearly 1,000 attendees.
- ▶ Engaging tenants and fostering collaboration is essential for enhancing data transparency and tracking scope 3 emissions. The program featured leading CRE partners in a [webinar on best practices](#) for tracking tenant and scope 3 emissions and developed a range of related resources on the [CRE sector page](#).



Marta Schantz and Paulina Torres of Jones Lang LaSalle of ULI speaking at the 2024 Better Buildings, Better Plants Summit.

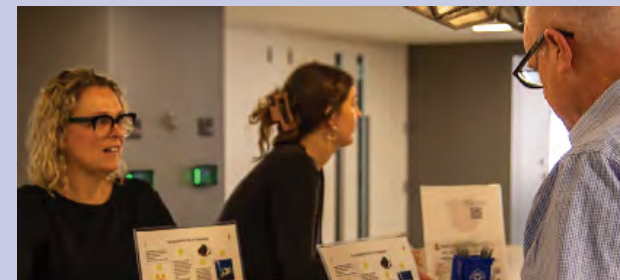
## LEADERSHIP IN ACTION

### 2024 Better Project and Better Practice Award Winners

[Centersquare optimized the data center cooling system](#) at its Mesa, AZ, site by improving airflow and water temperature, saving over \$100,000 annually and over 1,240 MWh in electric savings. Additionally, Centersquare received over \$75,000 in cash incentives from a partnership with the local utility's energy efficiency program.

[RXR Realty](#) achieved [\\$1 million in energy savings](#) through audits, system mapping, and improved heating and cooling system controls. This initiative reduced natural gas consumption by 35% and improved control of condenser water pumps and cooling towers, reducing annual electricity usage by 10%.

[Vornado Realty Trust](#) implemented [organics collection in 100% of its in-service office portfolio](#), achieving 64% diversion, preventing nearly 1,700 tons of food waste and avoiding nearly 15,000 MTCO<sub>2</sub>e. By removing financial and infrastructural barriers, Vornado facilitated accessible organics programs for tenants in major cities across 34 million square feet.



Learning about waste diversion at Vornado Realty Trust.

[Kilroy Realty Corporation](#) was recognized as a [Green Lease Leader of the Decade](#) to celebrate its strides in implementing green leasing practices. Kilroy has included standard energy efficiency and sustainability language in the company's leases for more than 10 years, allowing it to cover investments in energy and water efficiency upgrades. The language also covers tenant operations and improvement requirements related to sustainability, green cleaning, recycling, and utility cost disclosure.

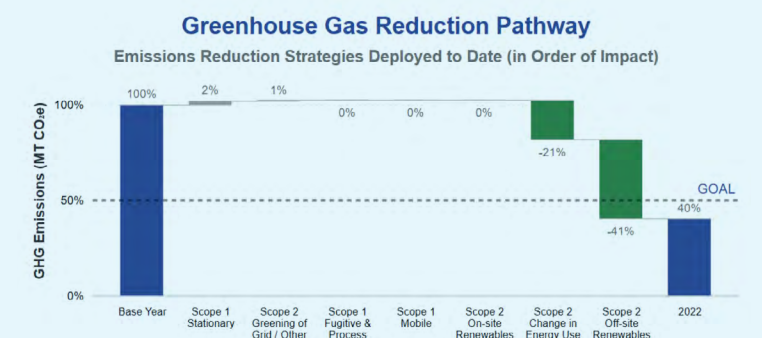
[Empire State Realty Trust](#) reduced GHG emissions by nearly 60% at the Empire State Building through long term decarbonization planning with a focus on energy efficiency, water efficiency, recycling and waste diversion, and healthy work environments for their tenants and employees. The company also hosted a site visit for Secretary Jennifer Granholm in the past year, who lit the building green for Earth Week.

[Paramount Pictures](#) implemented a [smart flooring system in the Freeman Building](#), located on the Paramount Pictures Studio Lot in Los Angeles. The sensor technology ensures precise, flexible data collection in high-traffic areas, providing real-time insights and alerts to enable proactive building management and optimize HVAC systems based on occupancy data.

The [St. John Properties](#) headquarters facility in Baltimore, Maryland, has [saved over 225,000 kWh and \\$12,500 annually](#) from energy efficiency upgrades conducted between 2018 and 2021. This building serves as a testing ground for energy efficiency initiatives like HVAC, solar, lighting system enhancements, and a Building Management System (BMS).

## CASE STUDY

[RXR Realty](#), an inaugural Better Climate Challenge partner, achieved its emissions reduction goal in 2022 by reducing its scope 1 and 2 emissions 50% from a 2019 base year. The real estate firm reached its commitment seven years ahead of schedule, with the greatest emissions reductions coming from scope 2 reduction in energy use and green power purchases. RXR takes an organizational approach to sustainability, engaging all levels of internal staff in the process and creating a culture shift to put energy efficiency and decarbonization at the forefront of operations.





Inpatient healthcare facilities have the highest space heating and ventilation intensities of all commercial buildings.<sup>6</sup>



**43** UNIQUE SECTOR PARTNERS

**258** MILLION SQUARE FEET

**\$490** MILLION SAVED SINCE 2011

## SECTOR SPOTLIGHT | Healthcare

GHG emissions from healthcare facilities total 50 million metric tons of CO<sub>2</sub>e annually.<sup>5</sup> Organizations in the sector have collaborated with DOE over the past year to address the following barriers to decarbonization:

- ▶ Healthcare systems face challenges around renewable onsite power generation, heating, and cooling due to high demand, emergency back-up power requirements, and implementation costs. Sector partners exchanged best practices for planning and deploying onsite renewable energy systems and energy storage systems through a Better Climate Challenge working group and contributed to resources focused on portfolio **screening and prioritization**, **site-level technology screening**, and **assembling effective teams** for renewable generation and storage projects.
- ▶ Healthcare buildings have highly specific energy intensive space types such as emergency and operating rooms, ambulatory facilities, and laboratories. DOE and the National Renewable Energy Laboratory convened healthcare and higher education partners and allies in a working group to foster collaboration to share best practices for energy efficiency and sustainability **efforts in laboratories**.
- ▶ Healthcare organizations face challenges in effectively monitoring, managing, and minimizing the plug and process loads generated by energy-intensive healthcare equipment, including medical imaging equipment. Sector partners contributed to the DOE and U.S. Environmental Protection Agency's efforts to develop an **ENERGY STAR® product specification for medical imaging equipment**.



Ratan Milevoj of Valley Children's Healthcare speaking at 2024 Better Buildings, Better Plants Summit.

## LEADERSHIP IN ACTION

**UW Health's** new Eastpark Medical System is designed to use **30% less energy than ASHRAE 90.1 standards** through the installation of Wisconsin's largest solar carport, native landscaping, electric vehicle charging stations, and green cleaning practices.

**Allina Health** saved **more than \$170,000** through an asset reuse exchange program by diverting nearly 20,000 pounds of supplies, furniture, and additional items from the landfill.

**Kaiser Permanente** saved \$373,000 in utility bills by implementing a smart buildings analytics program. The program covers over 57,000 pieces of equipment including water meters, smart irrigation controllers, and utility interval meters. This equipment spans nearly 300 buildings, representing **34 million square feet**, with automated fault detection and diagnostics.

**Valley Children's Healthcare** is installing a large renewable energy microgrid system using funding from the Inflation Reduction Act. The microgrid is projected to meet 80% of Valley Children's Hospital's energy needs for current services and cut carbon emissions by more than 50%.

**Boston Medical Center**, a nonprofit leader, issued a sustainability bond with a **\$232 million bond sale** that reflects the hospital's commitment to carbon reduction and health equity for its patient population.

Better Buildings affiliate **Healthcare Without Harm** and its **Healthcare Climate Council** members convened at DOE offices to discuss sector barriers including decarbonizing central steam plants, implementing renewable microgrids to decrease grid reliance, and financing decarbonization projects. The 11 health systems that make up the council have committed to achieving net-zero emissions by 2050, with a 50% reduction by 2030.



Better Buildings Affiliate: Health Care Without Harm participated in a Climate Council meeting with EERE leadership at DOE.

## CASE STUDY

**Cleveland Clinic** has increased energy efficiency and reduced carbon emissions across its campus while continuing to prioritize patient care and save money. The healthcare system has saved 58,000 tons of CO<sub>2</sub> and \$6 million by implementing air exchange setbacks in operating rooms. Previously operating at 35 air exchanges per hour, Cleveland Clinic has reduced that amount to 20 exchanges per hour when an operating room is in use and 6 exchanges per hour when not in use. These exchanges do not compromise the sterile environment required in an operating room.

Learn about additional energy savings and emissions reductions that Cleveland Clinic has implemented in operating rooms and across its campus in **Season Two of the Better Climate Challenge Road Show**.



DOE staff touring a Cleveland Clinic facility during the filming of Road Show.

Fast-food restaurants have the highest average energy use intensity of all commercial building types, and grocery stores have the fourth highest.<sup>7</sup>



**65** UNIQUE SECTOR PARTNERS

**750** MILLION SQUARE FEET

**\$4** BILLION SAVED SINCE 2011




Cara Bastoni of Target participating in peer exchange with other partners.

## SECTOR SPOTLIGHT | Retail, Food Service & Grocery

GHG emissions from retail, food service, and grocery facilities total 89 million metric tons of CO<sub>2</sub>e annually.<sup>5</sup> Organizations in the sector have collaborated with DOE over the past year to address the following barriers to decarbonization:

- ▶ Better Buildings helped organizations prepare to comply with the AIM Act regulations by hosting a [webinar](#) explaining how the HFC phasedown affects technologies in commercial buildings. It also published the [Guide for Retrofitting of Open Refrigerated Display Cases with Doors](#), with best practices and guidelines for conducting case retrofits by project stage, from initial planning through project completion and system monitoring.
- ▶ Advanced Rooftop Controls (ARC) offer a wide range of benefits for building owners—a Pacific Northwest National Laboratory field study of 66 ARC installations showed an average of nearly 60% energy savings. The program held a [peer exchange](#) with sector partners to discuss ARC installations, help them understand the potential savings, and navigate possible challenges of adopting these new systems.
- ▶ Compared with conventional packaged rooftop units (RTUs) with natural gas heating, heat pump RTUs are estimated to reduce GHG emissions and energy costs by up to 50%. To respond to market demand, DOE formed the [Commercial Building Heat Pump Accelerator](#) to work with stakeholders, from commercial building owners and operators to manufacturers, to accelerate the development and adoption of heat pump packaged RTUs to achieve integrated energy efficiency and electrification of buildings.

## LEADERSHIP IN ACTION

 **2024 Better Project and Better Practice Award Winners**

[The Wendy's Energy Challenge](#) quadrupled the participation of franchisees and [achieved a 14% reduction in energy use per square foot](#). The platform enables franchisees to achieve energy and cost savings.

[Albertsons Companies, Inc.](#) completed more than 1,100 energy efficiency projects across its operations to reduce energy demand, including installing LED lighting retrofits, adding doors to refrigerated cases, installing building management systems, and more. The company also joined the Better Climate Challenge in 2024.

[Kohl's, Inc.](#) has installed more than 175 solar arrays across the country and obtained over 6% of its electricity from renewable sources in 2023. The company recently installed 9 additional arrays in Arizona and Illinois, with 6 more rooftop projects planned for Illinois, which combined have the potential to increase. Kohl's achieved its Better Climate Challenge goal this year.

[The Wendy's Company](#) franchisee WEN-GAP, LLC reduced its energy intensity by 22% from a 2014 base year across 54,000 square feet of property, achieving its Better Buildings Challenge goal. WEN-GAP installed LED lighting, upgraded HVAC units to high efficiency models, and leveraged available rebates to help fund this progress.

Sector partners, including [IKEA US RETAIL LLC](#), [Life Time, Inc.](#), [Target Corporation](#), and [Whole Foods Market](#), joined the [Commercial Building Heat Pump Accelerator](#), committing to support high efficiency and low carbon RTUs and collaborate on educational and awareness initiatives. These partners are part of the more than 20 commercial building owners and operators that are demonstrating market demand while providing critical feedback to the manufacturers and, in some cases, providing space to perform real-world testing of the new designs.

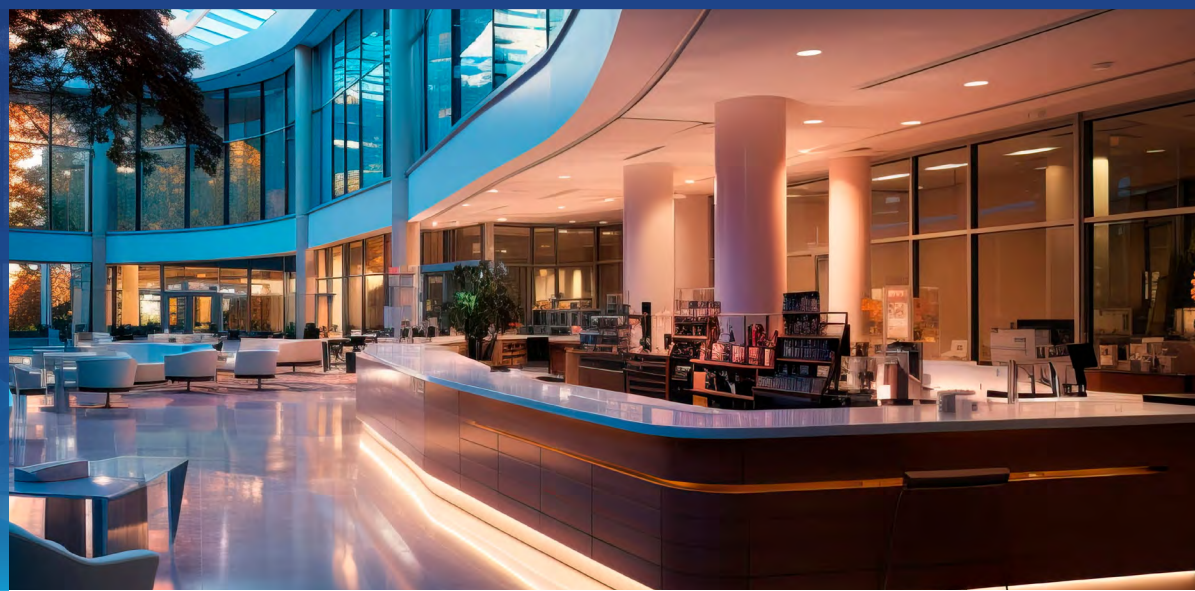
[Room and Board, Inc.](#) installed a substantial rooftop solar array in its central headquarters designed to produce more than 1.3 million kWh annually and offset 120% of the company's energy usage. The company also joined the Better Climate Challenge in 2024.

## CASE STUDY

As [Whole Foods Market](#) expands its retail footprint, the company is committed to growing responsibly by reducing emissions in its stores, facilities, and operations. For example, 45 Whole Foods Market stores now utilize refrigeration systems that rely on low-GWP refrigerants, and an additional 65 stores have been retrofitted to use the refrigerant R-448A, which has a GWP approximately 68% lower than legacy HFC refrigerants. In addition, a flagship Whole Foods Market store in Brooklyn, NY, has a central refrigeration system that is 100% HFC-free. This includes incorporating systems that use refrigerants with lower global warming potential (GWP). Learn more [here](#).



74% of travelers want travel companies to offer more sustainable travel choices, and 43% are willing to pay more to support certified sustainable travel options.<sup>8</sup>



**14** UNIQUE SECTOR PARTNERS

**556** MILLION SQUARE FEET

**\$300** MILLION SAVED SINCE 2011

## SECTOR SPOTLIGHT | Hospitality

GHG emissions from hospitality facilities total 52 million metric tons of CO<sub>2</sub>e annually.<sup>5</sup> Organizations in the sector have collaborated with DOE over the past year to address the following barriers to decarbonization:

- ▶ Accurate data management presents a significant challenge for hospitality businesses with franchised properties. To address this, the program organized a [data management peer exchange](#) for partners and data experts to discuss best practices in data management, tools for emissions tracking, boundary reporting, and scope 3 emissions tracking. This provided an open platform for partners to troubleshoot data challenges and discuss how to approach regulatory requirements for emissions tracking disclosures.
- ▶ Water conservation continues to be a top priority for hospitality organizations due to regional drought concerns and the strong link between water and energy usage. Hospitality organizations need ways to reduce consumption while ensuring guest satisfaction both inside and outside of hotel facilities. Reducing water consumption poses unique challenges to hospitality organizations as they operate 24/7. The program hosted a [webinar](#) featuring best practices in the hospitality sector for reducing water usage in landscaping practices.
- ▶ Implementing an emissions reduction plan is essential for partners to achieve their GHG reduction targets. The program's Emissions Reduction Planning (ERP) Workbook is designed to help partners visualize data and create actionable plans. To promote adoption, the hospitality sector organized a peer exchange to introduce the ERP Workbook, highlight its capabilities, and discuss implementing emissions reduction strategies within partner organizations.



MGM Resorts International's Matt Esper receiving a goal achiever crystal at the 2024 Better Buildings, Better Plants Summit.

## LEADERSHIP IN ACTION

### 2024 Better Practice Award Winners

[MGM Resorts International](#) reduced the Scope 2 emissions of its Las Vegas properties by more than 40% [by developing a 640-acre, 323,000-panel solar farm](#). The solar energy generated has the capacity to produce up to 90% of the daytime energy needs for MGM Resorts International's Las Vegas properties, excluding The Cosmopolitan of Las Vegas.

[Marriott International](#) launched its [Climate Action Program \(CAP\)](#), a holistic approach to reduce climate risks, promote sustainable growth, and achieve a science-based target of net zero greenhouse gas emissions across operations that include its 8,300+ hotel portfolio. As part of this initiative, the organization conducted over 100 energy assessments in 2023.



Marriott International Climate Action Program staff discussion.

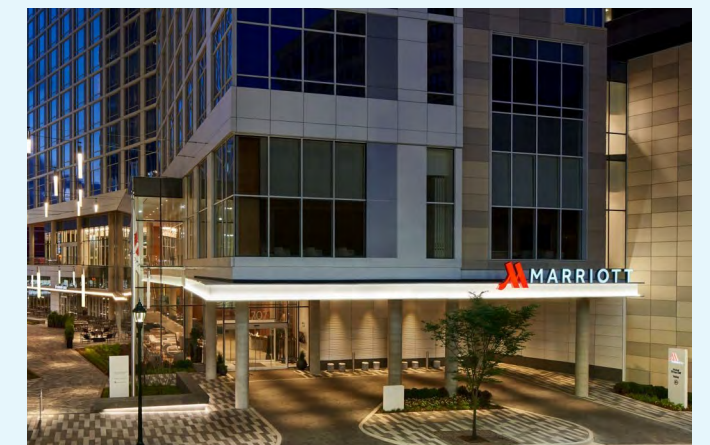
[Loews Hotels & Co.](#) [reduced water usage by 32%](#) at its Miami Beach Hotel by implementing a series of water-efficient upgrades. This included replacing three hot water heaters with two energy-efficient versions, new energy-efficient washers and dryers, and the installation of a wastewater recycling system. These upgrades included systems with remote monitoring capabilities, allowing staff to quickly identify and address errors. In addition to a significant reduction in water usage, the facility also reduced water costs by approximately \$7,000 per month.

[MGM Resorts International](#) [saved 13.9 billion gallons of water](#) in its U.S. operations by replacing over 200,000 square feet of grass with artificial turf and drought-tolerant plants. The organization also installed an irrigation central control system to monitor active weather data and evapotranspiration, remotely adjust irrigation schedules, and monitor for major leaks.

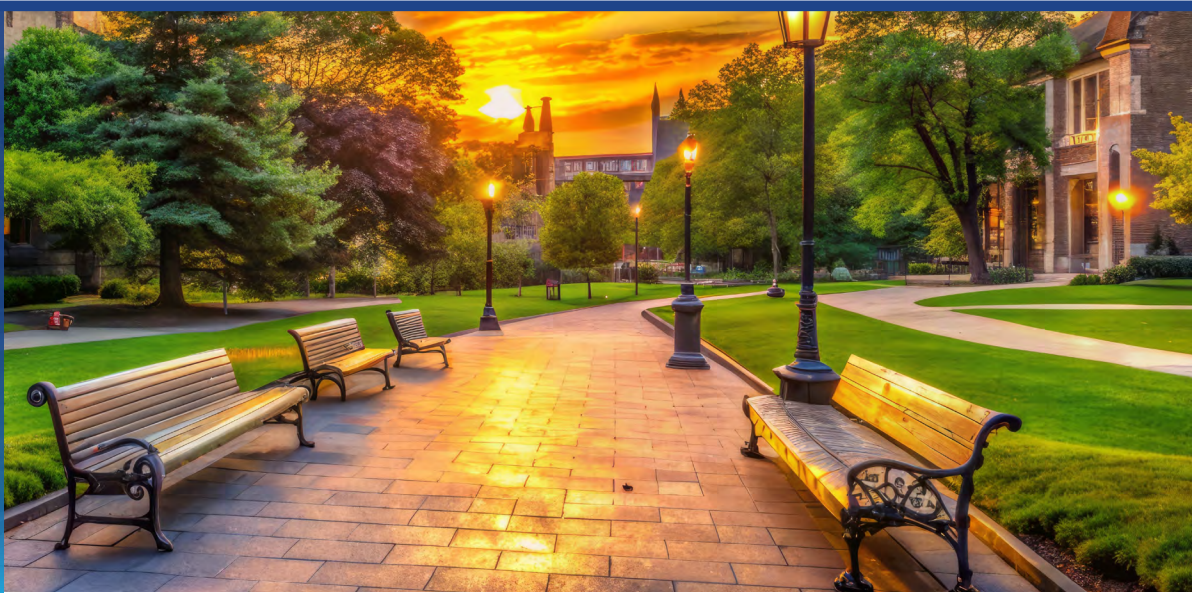
[Wyndham Hotels and Resorts](#) launched the [Wyndham Green Program](#) to help guide hotel owners in reducing operating costs through efficiency projects and enacting other sustainability measures. The program was designed to act as a roadmap for franchisees to make sustainable practices more attainable and cost-effective. Wyndham has certified many of its hotels for meeting the criteria of the five-level program, contributing to Wyndham's emissions reduction target of 15% emissions reduction by 2025.

## CASE STUDY

[Marriott International](#) replaced its manual, spreadsheet-based calculation method with an [automated Artificial Intelligence product, reducing its scope 3 emissions by 5% to 10%](#) because of increased accuracy. The tool incorporates the most recent EPA emissions factors and reflects the most recent updates to grid electrification. By transitioning to an automated system, Marriott was also able to save over 250 hours of labor, a figure expected to grow each year. Moreover, its database has enabled improved data sharing across the organization, streamlining communication between data experts, engineers, and other stakeholders.



61% of prospective applicants say a college or university's commitment to environmental issues would affect their decision to apply or attend.<sup>9</sup>



**58** UNIQUE SECTOR PARTNERS

**263** MILLION SQUARE FEET

**\$370** MILLION SAVED SINCE 2011



Stacey Baumgarn from Colorado State University sharing a decarbonization success story at the 2024 Better Buildings, Better Plants Summit.

## SECTOR SPOTLIGHT | Higher Education

GHG emissions from higher education facilities total 13 million metric tons of CO<sub>2</sub>e annually.<sup>5</sup> Organizations in the sector have collaborated with DOE over the past year to address the following barriers to decarbonization:

- ▶ Higher education institutions are urgently prioritizing decarbonization but face significant barriers with diverse building portfolios, including energy-intensive buildings and complex legacy systems like laboratories and central plants. To help partners better understand the opportunities and challenges around decarbonization opportunities, cross-sector peer exchanges were held on HVAC rooftop unit optimization and smart labs, and a session focused on [decarbonizing steam systems](#) at the 2024 Better Buildings, Better Plants Summit.
- ▶ As universities face increasing climate-related risks like wildfires, floods, and heat waves, they must ensure system continuity and mitigate risks to serve as community hubs during hazardous weather events. The program convened a cross-sector peer exchange to share best practices for alternatives to diesel backup generators and discuss backup power assessment and decarbonization opportunities. The sector also hosted a webinar on [climate action planning](#) and hosted a session on [resilience planning](#) at the summit.
- ▶ Many higher education institutions face tightening budgets across their sustainability and facility management teams because of the pandemic and declining enrollment, forcing difficult workforce decisions and the need to defer maintenance projects. The sector team connected higher education partners with the [Better Buildings Financial Allies](#) to consider new and innovative ways to fund projects, while disseminating financing tools like the [Financing Navigator](#) and [Funding and Incentives Resource Hub](#).

## LEADERSHIP IN ACTION

### 2024 Better Project and Better Practice Award Winners

[University of Virginia](#) implemented Green Building Standards, which align University sustainability goals with building design, construction, and maintenance. The standards also require new construction and major renovations to be 40% better than similar buildings at the university. UVA also won an award in 2023 for its [Smart Labs Program](#), which helped decrease its energy use by 22% in fiscal year 2023, resulting in \$930,000 of energy savings.

[Pace University](#) reduced energy use by more than 60% at its new [26-story mixed-use learning hub](#) in NYC, compared to the previous building used for the same purposes. It also improved air quality by incorporating sustainable design elements such as increasing building envelope insulation, efficient HVAC, and advanced lighting systems. Pace also won an award in 2023 for a [Building Management System](#) program that reduced energy use by an average of 18% per year, achieving over \$6.8 million in operational savings.

[The University of Alabama at Birmingham](#) reduced emissions and waste campus-wide by boosting engagement in its [Green Labs Program](#). The effort included participation in the International Laboratory Freezer Challenge and the training of 300 individuals to use asset management software, preventing nearly 5 tons of CO<sub>2</sub>e, achieving savings of \$130,000.

[Colorado State University](#) reduced energy use by over 50% at the Moby Athletic Complex by replacing 1960s-era HVAC equipment that historically used steam and air-cooled chillers with a new [ground source heat pump](#) system for both heating and cooling.

[The University of Pittsburgh](#) installed onsite solar arrays on four university buildings, totaling nearly 115kW capacity. Pitt has committed to net zero emissions by 2037 and joined the Better Climate Challenge in 2023.

[California State University, Channel Islands](#) utilized a power purchase agreement to develop a 3.75-megawatt solar array to generate nearly 70% of its campus's annual electricity needs. CSUCI committed to carbon neutrality by 2040 and joined the Better Climate Challenge in 2023.

[Community College of Allegheny County](#) achieved a 22% reduction in energy intensity from a 2014 baseline year by implementing lighting, HVAC, and controls upgrades across all campus facilities, meeting its Better Buildings Challenge goal.

[Allegheny College](#) reduced energy use by 22% from a 2008 baseline year by implementing energy efficiency strategies varying from lighting retrofits to creating an annual energy challenge to promote occupant behavior change, meeting its Better Buildings Challenge goal.

## CASE STUDY

[Morehouse College](#) reduced portfolio-wide energy use by more than 30% from a 2017 baseline year, achieving its Better Buildings Challenge energy goal. Morehouse implemented an energy management program that resulted in a campus-wide energy policy, occupant engagement programs, and reduced building energy usage. Other energy efficiency strategies deployed to achieve energy savings include LED upgrades, installation of low-flow water fixtures, fault detection analytics, building submetering, energy audits, and HVAC control upgrades. On March 19th, the U.S. Department of Energy visited the Atlanta-based historically black college and university (HBCU). Read more about it [here](#).



Morehouse College President David Thomas speaking in the MLK Jr. International Chapel.

An estimated \$2 billion of K-12 school district operating budgets can be saved by improving energy efficiency, an amount equivalent to the cost of nearly 40 million new textbooks.<sup>10</sup>



**26** UNIQUE SECTOR PARTNERS

**316** MILLION SQUARE FEET

**\$140** MILLION SAVED SINCE 2011



Lyndl Schuster of River Trails School District 26 with DOE's Chris Castro at the Better Buildings, Better Plants Summit.

## SECTOR SPOTLIGHT | K-12 School Districts

GHG emissions from K-12 school facilities total 52 million metric tons of CO<sub>2</sub>e annually.<sup>5</sup> Organizations in the sector have collaborated with DOE over the past year to address the following barriers to decarbonization:

- ▶ Establishing an accurate GHG inventory is a critical first step to developing a plan to reduce emissions. This past year, the program provided robust data support to schools helping them collect accurate energy and fuel consumption data, navigate data access gaps, select emissions factors, calculate scope 1 and 2 emissions, and track progress towards their goals. With this support, partners are well positioned to develop and implement a plan to reduce GHG emissions across their portfolio.
- ▶ Although there are several resources available to help K-12 school districts benchmark energy performance and identify specific energy improvement measures, there are limited options to help them better understand how these measures may be combined, scaled, and phased across their building portfolio. The program works with K-12 school districts to develop a robust framework for comparing various pathways to achieve emissions reduction targets and, ultimately, an actionable plan that prioritizes emissions reduction measures.
- ▶ Securing financing for upgrades continues to remain a challenge in K-12 school districts. Access to capital is often limited, and the process of securing grants or loans can be complex and time-consuming, requiring significant administrative effort. To help support our K-12 partners, the program prioritizes connecting them to information on active funding opportunities and financing strategies that offer a clear, quantifiable return on investment. In addition, the program provides a platform for partners to share solutions to financing and procurement by hosting sector-specific working groups.

## LEADERSHIP IN ACTION

### 2024 Better Project Award Winner

Prairie Trails Elementary School, part of [River Trails School District 26 \(IL\)](#), was renovated in 2021 and is now a net-zero energy facility that meets the [PHIUS+ Source Zero standard](#) for using 40-60% less energy than conventional buildings. Sustainability features include solar panels, permeable paving, and an efficient HVAC system with heat recovery.



[Anne Arundel County Public Schools \(MD\)](#) achieved its second energy goal in the Better Buildings Challenge, reducing energy intensity throughout its district portfolio by 30% since 2013 by focusing on high-performance new construction, proactive equipment scheduling, and controls optimization.

[Hillsboro School District \(OR\)](#) has utilized information provided by the data analysis provided by the Better Climate Challenge program to encourage district leadership to consider lower-GHG pathways for new construction and major renovations.

[Los Angeles Unified School District \(CA\)](#) is moving forward with the electrification of their Sun Valley Bus Yard, recently purchasing 180 electric school buses and initiating a creative solution to charging infrastructure that avoids significant delays to their timeline. The district has also successfully transitioned its entire fleet of lawn care equipment, totaling over 2000 machines, to electric alternatives to care for the district's 860 acres of outdoor space.

*"Technical assistance through the Better Climate Challenge has provided significant value. The one-on-one interactions feel tailored to our needs, and the visuals developed in the ERP workbook help me communicate decarbonization priorities to district leadership. We look forward to working with the Better Climate Challenge team for years to come as we tackle GHG emissions reductions throughout our portfolio."*

**Hillsboro School District, OR**

## CASE STUDY

New Better Climate Challenge partner [West St. Paul-Mendota Heights-Eagan Area Schools](#) of Minnesota, also known as ISD 197, utilizes solar thermal technology as the primary heating source for the pool and ventilation system in its aquatic center and Community Education offices. The district has paired this renewable energy system with a variety of energy efficiency measures, including automated LED lighting and HVAC systems. The facility, renovated in January 2021, has reduced natural gas dependency by 49% annually for heating needs.



45 states, the District of Columbia, Puerto Rico, and dozens of Metropolitan Areas have developed Climate Actions Plans through investments made by the Inflation Reduction Act.<sup>11</sup>



**69** UNIQUE SECTOR PARTNERS

**1.04** BILLION SQUARE FEET

**\$1.5** BILLION SAVED SINCE 2011



David Ruggiero of the City of Providence, RI at the 2024 Better Buildings, Better Plants Summit.

## SECTOR SPOTLIGHT | State & Local Government

Greenhouse gas emissions from state and local government facilities total 121 million metric tons of CO<sub>2</sub>e annually.<sup>5</sup> Organizations in this sector have collaborated with DOE over the past year to address the following barriers to decarbonization:

- ▶ State and local governments face significant challenges in tracking and analyzing energy data. To address these challenges, the Better Buildings team organized peer-to-peer exchanges for partners to share data solutions and lessons learned. The team also incorporated partner feedback into existing DOE data tools, adding new functionality such as SLOPE's [City Level GHG Emissions Data](#) alongside state and county level data.
- ▶ State and local governments often have limited capacity and budgets for energy efficiency and decarbonization projects. In response, the program shared the Office of State and Community Energy Program's newly released [Funding and Technical Assistance Navigator](#), a centralized database that consolidates funding information. The team also highlighted the [innovative strategies](#) from Better Buildings Financial Allies, and stories featuring the power of partnerships to overcome related barriers in a [webinar](#) and [summit presentation](#).
- ▶ The passage of the Inflation Reduction Act (IRA) and Bipartisan Infrastructure Law (BIL) created unprecedented opportunities for state and local governments to expand clean energy development. However, it has also added new complexities for public sector staff. In response, the program focused on connecting partners with strategic resources and improving cross sector collaboration to help partners maximize the positive outcomes from this set of new laws. For example, the program hosted an EECBG workshop, connected partners with the [Low-Income Energy Affordability Data Tool](#), and [facilitated knowledge sharing](#) on building performance standards.

## LEADERSHIP IN ACTION

 **2024 Better Project, Better Practice Award Winners**

[The City of San Diego](#) implemented a [Zero Emissions Municipal Buildings and Operations Policy](#) and analyzed electrification opportunities to help meet the City's Climate Action Plan targets.

[The Ohio Department of Rehabilitation and Correction](#) drives energy, water, and waste reductions in state correctional facilities [using a sustainability strategy that overcomes barriers](#) through education, engagement, and policy.



Cassidy Jenney of the Ohio Dep. of Rehabilitation and Correction receiving an award from DOE's Chris Castro at the 2024 the Better Buildings, Better Plants Summit.

[Norfolk, VA](#) created the ["Watts Going Down, Norfolk"](#) campaign, successfully engaging city employees in energy efficiency efforts with over 70 individuals across 26 departments committing to be "energy champions." This initiative is one of many that helped the city achieve a 14% reduction in energy usage since 2019.

[Cook County, IL](#) used in-house data management dashboards to identify high greenhouse gas (GHG) emitting buildings and prioritize savings. The dashboards flagged Oak Forest Hospital for high GHG emissions despite declining occupancy. The County was able to implement energy saving solutions that reduced emissions by 30% and water usage by 81% compared to the previous year.

[Madison, WI](#) has rapidly electrified its municipal fleet over the past several years and installed enhanced charging infrastructure over the last year. The city now has over one hundred electric vehicles in its fleet, and over a 10-year period of ownership, the city expects to save roughly \$8,700 on fuel costs and \$6,500 on maintenance costs per vehicle.

[The State of Maryland's](#) Department of General Services (DGS) piloted a unique strategy to increase data reporting compliance from state agencies, historically a significant hurdle to making data-driven planning decisions. With the success of this pilot, DGS will expand this methodology to all state agencies and recently shared the model with other states during a sector peer exchange.

## CASE STUDY

[Saint Paul, MN](#) began construction on the [North End Community Center project](#) in 2023, which is expected to result in energy savings of nearly 80% and cost savings of more than \$100,000 annually. The project includes a new 25,000-square-foot facility and various enhancements to an existing 6-acre park. The building design incorporates a high-efficiency geothermal heating and cooling system, a roof-mounted solar photovoltaic system, the use of sustainable materials, and other energy and water-saving measures. Additionally, the North End Community Center is helping to address inequities in recreational spaces, which many local governments grapple with.





Multifamily housing built to the latest energy efficiency standards adopted by HUD are estimated to save \$5,800 per unit over their life cycle.<sup>12</sup>



**88** UNIQUE SECTOR PARTNERS

**650** MILLION SQUARE FEET

**\$350** MILLION SAVED SINCE 2013

## SECTOR SPOTLIGHT | Multifamily

GHG emissions from multifamily facilities total 108 million metric tons of CO<sub>2</sub>e annually.<sup>13</sup> Organizations in the multifamily sector have collaborated with DOE and HUD over the past year to address the following barriers to decarbonization:

- ▶ Financing decarbonization projects in multifamily buildings is complex, especially with the influx of resources from the Inflation Reduction Act (IRA). In the past year, the program provided partners with resources such as an updated [Multifamily Energy Financing Primer](#), hosted peer exchanges on topics like HUD’s Green and Resilient Retrofit Program, and presented two Better Buildings, Better Plants Summit sessions that provided a timely inside look at the upcoming IRA funding opportunities from senior federal climate staff and industry experts.
- ▶ While heat pump technology and heating system electrification strategies continue to improve, keeping up with these advances can be challenging and outdated misconceptions about their effectiveness have limited their adoption. To debunk myths and showcase heat pumps’ effectiveness and flexibility, the program hosted a [webinar](#) on decarbonizing heating systems in multifamily buildings.
- ▶ GHG emissions reduction planning is critical for multifamily partners to tackle decarbonization, but it requires time and resources. This year 13 partners worked with DOE to pilot the Emissions Reduction Planning Workbook and create actionable portfolio-level Emissions Reduction Plans. The Better Buildings, Better Plants Summit featured a workshop on electrification pathways in multifamily buildings, in which experts in building design, finance, and portfolio management led partners through building retrofit scenarios to evaluate how building characteristics, budget constraints, organizational expertise, and the policy environment impact electrification projects.



Jackie Slocombe of Mercy Housing and Lauren Westmoreland of Stewards of Affordable Housing for the Future examine a semi-centralized hot water system.

## LEADERSHIP IN ACTION

**2024 Better Project Award Winner**  
**New York City Housing Authority (NYCHA)**, in partnership with Buildings Design and Construction Ally Curtis and Ginsberg Architects, received a **2024 Better Project Award** for its Melrose North property in the Bronx, New York. The 171-unit affordable and supportive housing project meets Passive House Standards with a façade that is 5 to 10 times tighter than the standard, efficient through-wall air conditioners, centralized air-to-air energy recovery ventilators to provide high-quality occupant comfort and ultra-low energy demand, a 38.4-kW solar PV array, and high-efficiency appliances and lighting.

**Stoneweg US** piloted a **new building automation system** in clubhouse facilities in 12 of its communities across six states in the south and southwest. The system used a distributed array of sensors in rooms to improve energy efficiency while continuously adjusting to prioritize human comfort. Since initial deployment in 2022, monthly average energy use improved by an average of 15% across the buildings where the technology was deployed.

**Tenderloin Neighborhood Development Corporation** implemented its first fully electric retrofit in its Pierce Street Apartments development through the replacement of the existing gas boiler with an electric domestic hot water system, which operates on green power. This retrofit has resulted in significant energy and emissions reductions.

**WinnCompanies’** Zero Energy Ready Homes-certified Mill Street Square property in Paterson, NJ, will consume roughly 57% less energy than conventional construction and provide 74 units of intergenerational affordable housing. The design included Passive House certified windows, continuous insulation, energy recovery ventilation, and a 97-kilowatt solar array. WinnCompanies leveraged the 45L New Energy Efficiency Homes Tax Credit and a 30 percent Investment Tax Credit made available through the Inflation Reduction Act.

**Sunrise Opportunities** in Washington County, ME, demonstrated that heat pumps are a solution for heating system decarbonization even in the coldest U.S. climates, saving roughly 475 gallons of fuel oil annually after installing the technology at nearly half its buildings. Sunrise plans to install heat pumps at their other properties.

## CASE STUDY

Over 40 attendees joined Better Climate Challenge multifamily partner **Preservation of Affordable Housing (POAH)** to tour The Asberry, which is part of the Barry Farm Redevelopment Project. The Barry Farm neighborhood, located in Southeast D.C., was established in 1867 as the first African American homeownership community in Washington, D.C. Since 2013, POAH has partnered with the community to redevelop the neighborhood into a vibrant mixed-use, mixed-income development. The Asberry will host roughly 1,000 units when complete, including affordable and for-sale apartments, townhomes, and flats, with priority given to former Barry Farm residents. During the tour, participants explored the Asberry construction site and learned about how the development is incorporating Passive House construction standards, green roofing with rooftop solar, and cutting-edge high-performing building technologies like semi-central heat pump water heaters.



Better Climate Challenge Financial Allies funded projects that resulted in more than 366 thousand metric tons of CO<sub>2</sub>e emissions avoided in 2023.



40 FINANCIAL ALLIES

37 BILLION FINANCED SINCE 2012

\$4.1 BILLION FINANCED SINCE 2023



Megan Rosa and Miran Webber of NYCEEC, a Climate Finance Innovation Award winner.

## SECTOR SPOTLIGHT | Financial Allies

Financing solutions for energy and decarbonization projects continue to be a key topic of interest, particularly in light of increased federal funding and low-interest financing through the Inflation Reduction Act (IRA), and the Bipartisan Infrastructure Law (BIL).

Financial Allies support necessary energy efficiency and renewable energy investments by creating innovative financing products to meet the dynamic needs of the marketplace. They demonstrate leadership by publishing their best practices on the Better Buildings Solution Center and supporting program partners.

In the past year, the program helped address barriers to financing in the following ways:

- ▶ Access to resources on funding and incentives, and replicable solutions to funding challenges are needed to accelerate decarbonization. The [Funding and Incentives Resources Hub](#) is regularly updated with current opportunities including those available through the IRA and BIL. The [Financing Navigator](#) helps users explore financing solutions, identify relevant financing options for their energy projects, and connect with the Financial Allies. Published solutions that reflect partner challenges over the past year included examples of [stacking Investment Tax Credits \(ITCs\) to help finance a municipal solar farm](#), [bridge funding used to leverage utility incentives on a multifamily retrofit](#), and [decarbonization of industrial process heat with an Energy-as-a-Service model](#).
- ▶ Financing and funding conversations earlier in project development can lead to better outcomes in financing projects and leveraging incentives. The program provided financial technical assistance to partners and facilitated direct engagement with Financial Allies to empower partners with project and financing product resources and education as they seek decarbonization funding.

## 2024 CLIMATE FINANCE INNOVATION AWARD WINNERS

The [Climate Finance Innovation](#) Award was launched to recognize Financial Allies deploying finance solutions that go beyond current market practices. The seven award winners shared examples of diverse projects with significant emissions and cost savings financed using innovative approaches.

[BlocPower](#) focused on electrification financing, showcasing an electrified historic building that houses low- and moderate-income tenants and [saves over 400,000 kBtu annually](#) while increasing occupant comfort.

[Ecosave Inc.](#) utilized its Ecosave Services Agreement (ESA) contracts to [provide free energy savings opportunity assessments to senior living facilities](#) and fund efficiency upgrades that are projected to reduce energy cost by more than 30% over 15 years.

[New York City Energy Efficiency Corporation \(NYCEEC\)](#) provided an interest-free green predevelopment loan for affordable housing rehabilitation that is [estimated to save St. Francis Friends of the Poor Inc. an aggregate of 3,900,000 kBtu](#) of energy annually.

[PACE Equity](#) used C-PACE financing to [fund efficiency improvements at Coleman Yards redevelopment](#) in Rockford, IL. The project is expected to reduce lifetime carbon emissions by over 20,000 metric tons.

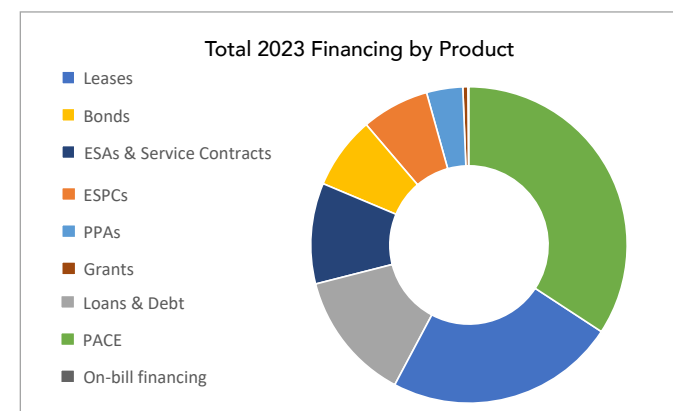
[RENEW Energy Partners](#) blended finance streams and incentives using [Energy-as-a-Service solutions to help a microchip manufacturer](#) install a trigeneration system that improves resilience and reduces the site's carbon emissions by 1,800 metric tons annually.

[Skyven Technologies](#) advances industrial heat decarbonization by using an [Energy-as-a-Service financing model to fund](#) full redundancy facility retrofits and reduce risk.

[Triple Bottom Line Foundation](#) leveraged technical expertise and financing strategies to [fund multifamily affordable housing building upgrades](#) projected to reduce carbon emissions by 26 million pounds and water use by over 20,000 gallons.

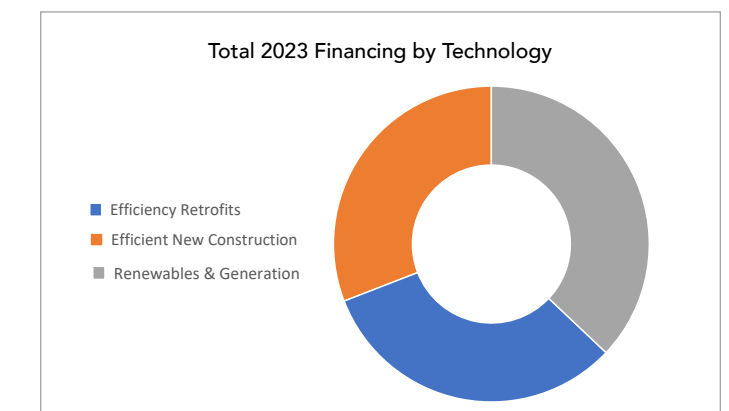
### ▶ Financing Products

Financial Allies offer a variety of financial products to meet diverse needs for decarbonization in the marketplace. Product offerings represent traditional financing mechanisms like leases, loans, and debt, as well as products designed specifically for energy efficiency and renewable energy projects such as Power Purchase Agreements (PPAs), Energy Savings Performance Contracts (ESPCs), and service contracts including Energy or Efficiency-as-a-Service.



### ▶ Financing Technologies

Financial Ally offerings support a variety of decarbonization project types including energy efficiency retrofits, renewable energy procurement and generation, and efficient new building construction. Efficiency-as-a-Service and Energy Savings Performance Contracts are specialized to efficiency retrofits, Power Purchase Agreements and Energy-as-a-Service contracts are specialized to renewables and generation, and PACE can be specialized to efficient new construction.





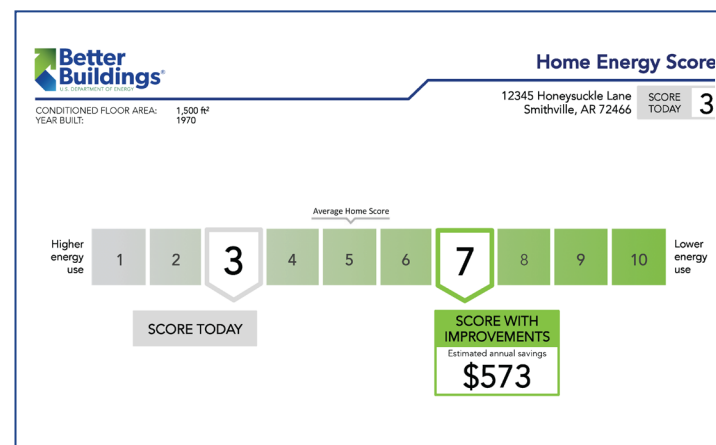


## SECTOR SPOTLIGHT | Residential

Better Buildings Residential Network members are focused on improving the energy efficiency of homes, thereby saving consumers money while making the places where they live healthier and more comfortable. This occurs through the collaboration of state and local governments, businesses, utilities, nonprofits, and other stakeholders. In the past year, the network organized 21 peer exchange calls with some 3,000 participants, sharing innovative strategies and best practices for energy-efficient homes.

### Additional highlights include:

- 600+** Energy efficiency upgrades completed by 490+ Better Buildings Residential Network members
- 29K+** Home Energy Scores™ generated in 2023, with recommendations to reduce energy use by \$10.2 million a year
- 250K+** Home Energy Scores™ completed since 2012 by Network members



An example of a Home Energy Score™

Click [here](#) to view the list of all Better Buildings Residential Network members.

## LEADERSHIP IN ACTION

Highlights from Better Buildings Residential Network members:

**CLEAResult®**, the largest provider of energy efficiency, energy transition, and decarbonization solutions in North America, achieved over 599,950 home energy upgrades of single-family home, multifamily, and low-income customers during FY 2023, and has achieved over \$106 million in savings by low-income customers on their energy bills since 2018.

**Efficiency Maine**, the state agency established to plan and implement energy efficiency programs, incentivized 9,175 heat pump water heaters that saved an equivalent of more than 77 thousand MMBtu annually, and paid rebates for nearly 20,000 residential heat pumps that saved an equivalent of more than 252 thousand MMBtu annually.

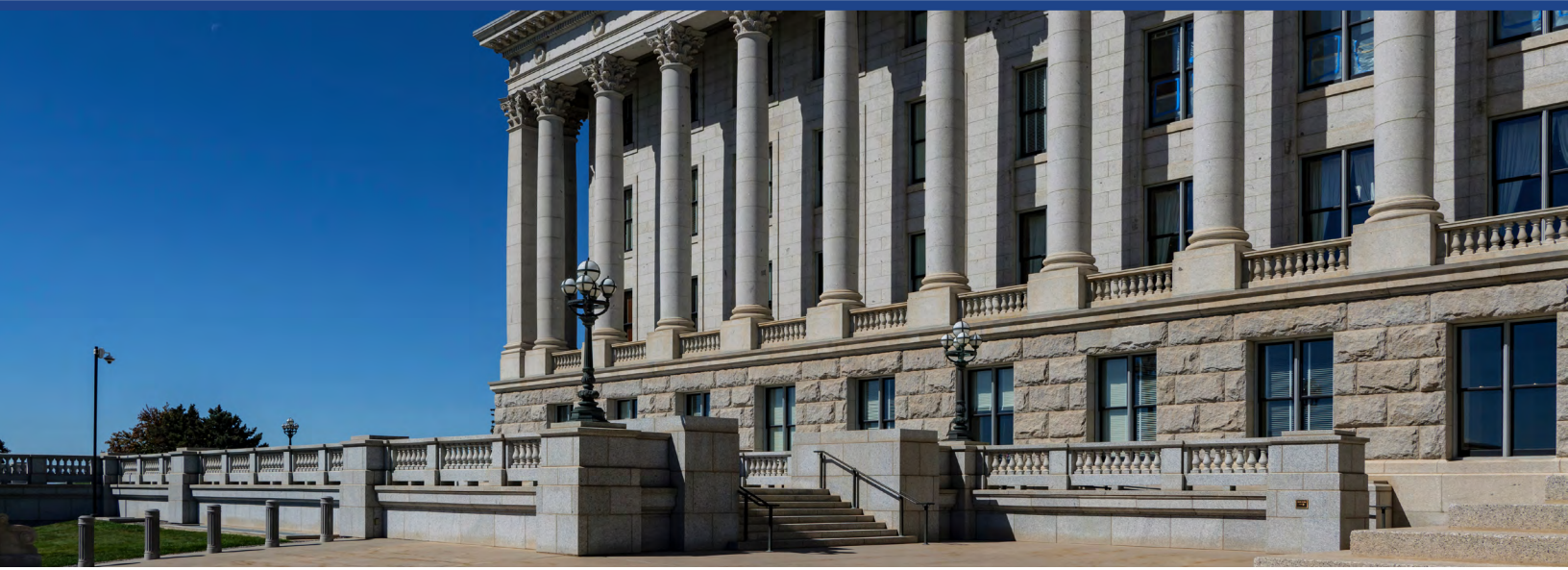


## PROGRAM HIGHLIGHTS

- ▶ **The Home Energy Score™** program has now recorded over 250,000 Scores, a milestone for the home energy rating tool. Use of the scoring tool continues to expand as more cities and states develop policies to use the tool in real estate transactions. Ann Arbor, Michigan became the most recent city to require a Home Energy Score in real estate listings. South Carolina is preparing a voluntary statewide Home Energy Score framework that local jurisdictions can use to create mandatory local ordinances. In California, the Bay Area Regional Energy Network (BayREN) will expand its voluntary program statewide with support from the California Public Utilities Commission (CPUC). Home Energy Score is now included in **Annex E of BPI-2400** as an example alternative compliance pathway for customers with insufficient utility bill data, and can also be used to meet the residential Revolving Loan Fund audit requirements. An update reduced calculation times by more than half, enabling Scores to be produced in under 30 seconds in certain scenarios.
- ▶ **Energy Skilled**, a recognition initiative from the U.S. Department of Energy (DOE), highlights credentials and training programs that include knowledge and skills needed to support residential electrification and energy efficiency. Energy Skilled recognitions currently cover critical job scopes such as heat pump

installation, heat pump water heater installation, and energy assessments. As of June 2024, DOE recognized 28 credentials from community colleges, labor unions, credentialing bodies, manufacturers, professional associations, contractors, and other training entities. These credentials are eligible for the **Training for Residential Energy Contractors** funding program from the Inflation Reduction Act (IRA), and states can use recognized credentials in their qualified contractor lists as part of the IRA's **Home Energy Rebates** programs.

- ▶ The DOE's **Building America Program** and National Laboratories, research teams, and subject matter experts conduct research, development, field validation, and demonstration projects that prioritize retrofit solutions to improve existing homes, and scalable retrofit solutions to equitably decarbonize the U.S. housing stock and disseminate best practices and guidance. Through a portfolio of field validation projects, Building America Teams will derisk installation and deployment barriers of core decarbonization technologies like heat pumps and envelope retrofits with a focus on solutions for hard-to-decarbonize segments of the existing housing stock. In 2024, Building America awarded **9 Retrofit Solutions Teams** to tackle the toughest technical challenges to residential retrofits.



## SECTOR SPOTLIGHT | Federal

As the nation’s largest energy consumer, with more than 350,000 buildings and 600,000 vehicles, the Federal Government has a significant opportunity and responsibility to cut its energy and water costs. Buildings and facilities represent about 57% of the government’s total energy use, with vehicles and equipment accounting for the remaining 43%. In fiscal year 2022, the Federal Government used nearly 830 trillion Btu of primary energy at a cost of more than \$19 billion.<sup>14</sup>



The closing plenary at FEMP’s Energy Exchange 2024 in Pittsburgh, PA.

For 50 years, DOE’s Federal Energy Management Program (FEMP) has facilitated savings opportunities and supported agency efforts to be more efficient, resilient, sustainable, and secure. FEMP provides access to carbon pollution-free tools, training, guidance, and resources that optimize energy and water infrastructure.

FEMP works with stakeholders to enable Federal agencies to meet energy requirements and provide energy leadership to the country. Executive Order 14057, which focuses on catalyzing American clean energy industries and jobs through Federal sustainability, set out ambitious goals to deliver an emissions reduction pathway consistent with President Biden’s goals, which include:

- ▶ Reducing U.S. greenhouse gas emissions by 50% to 52% from 2005 levels by 2030.
- ▶ Transitioning to 100% zero-emission vehicle acquisitions by 2035 (including 100% light-duty acquisitions by 2027).
- ▶ Achieving net zero emissions buildings by 2045 (including a 50% reduction by 2032), net zero emissions procurement by 2050, and net zero emissions operations by 2050 (including a 65% reduction by 2030).

## LEADERSHIP IN ACTION

In the past year, FEMP:

Hosted [Energy Exchange 2024](#), which connected more than 2,700 attendees in the Federal energy and water community—the most attended Energy Exchange in conference history—with the best practices and resources needed to meet ambitious climate and mission goals.

Honored 2023 [Federal Energy and Water Management Awards](#) winners, recognizing individuals and organizations for significant contributions to energy and water efficiency within the Federal Government.

Released the [EVI-LOCATE](#) interactive web tool, which generates location-specific cost estimates and site layouts for EV charging projects. In addition, FEMP’s EV Utility-Finder spreadsheet, once targeted to Federal agencies, was expanded into a [Utility Finder \(U-Finder\) web tool](#) funded by the Joint Office of Energy and Transportation.

Updated the [REopt® web tool](#), application programming interface, and open source code with enhanced features, including energy resilience performance, portfolio analysis, an expanded geothermal heat pump model, net billing modeling, tax model updates, off-grid wind, and more.

Released [TRN Lite](#), a streamlined version of the Technical Resilience Navigator (TRN) with fewer required inputs that provides users with a faster resilience assessment. TRN Lite ends with a short-list of potential solutions based on identified risk drivers.

Launched the inaugural [Treasure Hunt Challenge](#), a free program that helps agencies identify low-to-no-cost measures that can generate annual energy and water savings of up to 15% and provide a simple payback of less than one year.

Secured the prestigious IACET [Innovation of the Year Award for Learner Engagement](#). This coveted award recognizes organizations that excel in creating engaging classroom environments, particularly through innovative courses. FEMP’s Treasure Hunt training program exemplifies the goals of this award.

Delivered more than 55,000 hours of accredited training through FEMP’s [Training Catalog](#), webinars, and the annual Energy Exchange FEMP Pre-event Workshops, enabling energy and water management professionals to earn more than 2,500 continuing education units (CEUs).

## PROGRAM HIGHLIGHTS

- ▶ Announced the [first of three AFFECT funding disbursements, totaling \\$104 million](#). The first 31 selected projects are expected to double the amount of onsite carbon pollution-free electricity at Federal facilities (over the amount brought online in 2022), resulting in 27 MW of additional capacity. These projects leverage more than \$361 million in private investment and demonstrate replicable and scalable projects for the entirety of the Federal Government. A total of \$250 million in funding from President Biden’s Bipartisan Infrastructure Law will help Federal agencies implement net-zero building projects under the [AFFECT grant program](#).
- ▶ Released guidance around [Federal building energy efficiency rules and requirements related to the Clean Energy Rule](#), which transitions new buildings and major renovations away from onsite fossil fuel derived energy consumption. Projects meeting the cost thresholds that trigger compliance with the Clean Energy Rule must also comply with subparts A and B of the energy efficiency standards by first designing an efficient building (per subpart A) and then optimizing the design to reduce or eliminate onsite fossil fuel usage (per subpart B)...

## LOOKING AHEAD

Over the next year, our focus will be on enhancing the reach and impact of these strategies while addressing emerging challenges and opportunities. By continuing to share knowledge, engage with stakeholders, and explore new opportunities, we will ensure that the momentum built over the past year translates into lasting impact.

### Showcasing Scalable Decarbonization Pathways and Solutions

As our cohort of goal achievers grows, DOE will deepen its efforts to collaborate with partners across diverse sectors to showcase their innovative decarbonization strategies. The updated Better Buildings Solution Center will feature new case studies and partner success stories, highlighting how organizations have effectively prioritized and implemented emissions reduction measures across their portfolios. As part of this effort, DOE will continue with the next stop of the Better Climate Challenge Road Show series. We will produce and promote a series of web episodes to spotlight the decarbonization work of Better Climate Challenge partners in Dallas-Fort Worth, TX. These episodes aim to demonstrate that decarbonization is both feasible and beneficial for business, specifically supporting those who may feel overwhelmed by the complexity and cost of sustainable initiatives. In showcasing these real-world examples, we hope to inspire more organizations to join the Better Climate Challenge.

### Expanding and Strengthening Partner Working Groups

The Better Buildings Initiative has significantly expanded its Better Climate Challenge Working Groups, which now cover a broader range of topics and sectors than ever before. In the past year, we've gained valuable insights from completed working groups focused on portfolio-level GHG emissions reduction planning, electrification, and onsite renewable energy and storage. Looking ahead, we're eager to explore new areas, including low-impact refrigerants, financial analysis for industrial decarbonization, and central plant decarbonization. These collaborations will continue to drive innovation and inform DOE's research, development, and deployment priorities. Our working groups serve as vital forums for partners to collaborate, share best practices, and tackle common challenges.

### Expanding Workforce Development Initiatives

The need for a skilled workforce remains critical in achieving our collective decarbonization and energy efficiency goals. DOE will expand its efforts to support workforce development through targeted training programs and educational opportunities. By partnering with organizations that connect job seekers with relevant opportunities, we aim to build a robust pipeline of skilled professionals equipped to drive the next generation of clean energy projects.

### Advancing Technology and Financing Solutions

Technology remains a cornerstone of our decarbonization strategy. Upcoming Better Buildings Webinars will introduce cutting-edge technology solutions, helping organizations across the country adopt and integrate these innovations into their operations.

### Leveraging Stakeholder Input to Inform DOE Strategy for Buildings and Industry

Partnerships forged through the Better Buildings network provide an invaluable opportunity to receive feedback on our technical assistance initiatives, and our decarbonization strategy for buildings and industry more broadly. Feedback from partners was critical to developing the new DOE report, [Decarbonizing the U.S. Economy by 2050: A National Blueprint for the Buildings Sector](#), and over the next year, we will continue to vet the blueprint with partners and other stakeholders to put it into practice while shaping the broader DOE portfolio. Similarly, feedback from our Better Plants partners, through a request for information and a series of stakeholder workshops and listening sessions, will help to shape our upcoming industrial vision study, [Pathways for U.S. Industrial Transformations: Unlocking American Innovation](#).

## MEET THE PARTNERS

### COMMERCIAL

adidas  
AdventHealth+  
**Affinius Capital\***  
Akachi Development LLC  
AKSAN United Fortune, Inc.\*  
Albertsons Companies, Inc.+  
Allina Health+  
American Family Insurance  
**Arby's Restaurant Group, Inc\***  
**Ascension\***  
Associated Restaurant Venture  
Atlantic Health System\*  
AtSite  
AvalonBay Communities+  
Berkshire Residential Investments+  
Berlin Packaging\*  
**Best Buy\***  
Boston Medical Center+\*  
Briad Wenco\*  
Brixmor Property Group  
**BXP+**  
Calhoun Management\*  
**Carlisle, LLC\***  
Carolina Restaurant Group, Inc.\*  
Carnival Corporation  
CBRE  
Century Partners\*  
Chipotle Mexican Grill  
Clarion Partners  
**Cleveland Clinic\*\***  
Colliers  
**Columbia Association\*\***  
**CommonWealth Partners\***  
Corewell Health  
Cotti Foods Corporation\*  
Credit Human  
Dave Thomas Family Companies  
**DaVita+**  
Delight Restaurant Group\*  
Donaldson Company, Inc.  
**DWS\***  
Eastbay Equities\*

Eddie Cheng Corporation\*  
**Elevance Health, Inc.+\***  
**Elme Communities+\***  
**Empire State Realty Trust\*\***  
EQT Exeter  
Flexsys+  
FXI, Inc.  
GE Aerospace+\*  
Federal Realty Investment Trust  
Flagstar Bank  
General Services Administration (GSA)  
Giant Eagle, Inc.  
Gundersen Health System  
H&M  
Hackensack Meridian Health\*  
Hamra Enterprises\*  
Hannaford  
**Havertys\***  
Hawaiian Airlines\*  
Healthcare Realty Trust  
Hemlock Semiconductor (HSC)  
Highwoods Properties\*  
Hill & Smith Group Holdings, Inc  
Hilton Worldwide\*+  
Hoover Foods\*  
Howard Hughes Corporation  
Hudson Pacific Properties  
IHG Hotels & Resorts  
IKEA US RETAIL LLC+  
Jamestown\*+  
JBG Smith\*  
JMA Wireless\*  
Jones Lang LaSalle  
Kaiser Permanente  
Kayne Anderson Real Estate  
Kilroy Realty\*  
Kimco Realty Corporation  
**Kohl's, Inc.\*\***  
LaSalle Investment Management+  
**LBA Realty\***  
Legacy Capital Maine LLC  
Legacy Vacation Resorts+  
**Lendlease\*\***

**Life Time, Inc.\*\***  
Link Logistics+  
**Loews Hotels & Co.\***  
Lush Cosmetics  
**Macy's\***  
Manufacturing Sciences Corporation  
MAPEI+  
Marriott International+  
Mayo Clinic+  
MetLife Investment Management\*+  
**MGM Resorts International\*\***  
Montefiore Medical Center\*  
Mountain West Wendy's\*  
Neema Hospitality  
Newmark  
NewYork-Presbyterian Hospital\*  
**Nike\***  
**Nuveen\***  
Paramount Pictures+  
Parkland Health & Hospital System  
Parkway Properties\*  
Pertoria  
Physicians Realty Trust\*  
PNC Financial Services Group\*  
Primary Aim, LLC\*  
Prologis  
Promar Corporation\*  
Qurate Retail Group\*  
REI  
Room & Board Home Furnishings+  
**RXR Realty+**  
Schmidt Family Restaurant Group\*

### KEY

Partners with names in bold are emissions, energy, water, or waste goal achievers  
Partners with a \* have taken the Better Buildings Challenge  
Partners with a + have taken the Better Climate Challenge  
Partners with names in italics are new to Better Buildings

## MEET THE PARTNERS

### Shari's Cafe & Pies\*

Sheetz, Inc.\*

### Shorenstein Properties, LLC\*

Sierra Nevada Brewing Co.

### Sprint\*

St. John Properties

### Staples\*

Starboard Group\*

Starbucks Coffee Company\*

Summa Health System

Tar Heel Capital\*

Target Corporation+

### The Hartford Financial Services Group, Inc.\*

The Home Depot

The Paradigm Group\*

### The Tower Companies\*\*

### The Wendy's Company\*

Theobald Management Inc.\*

Tishman Speyer

Titan Investments+

T-Mobile

Travel + Leisure Co.\*

Twin Coast Enterprises\*

U.S. Department of Veterans Affairs (VA)

Uber Technologies, Inc.

Ulta Beauty, Inc.

University of Kansas Health System

University of Maryland Medical Center (UMMC)\*

### University of Nebraska Medical Center (UNMC)\*

University of Pittsburgh Medical Center (UPMC)\*

University of South Alabama Medical Center

University of Utah Health

### UW Health\*\*

Valley Children's Healthcare+

Ventas

VESTCO, Inc.\*

Vornado Realty Trust+

### Walgreens\*

Welltower

Wen JAI Restaurant Group\*

### Wendium of Florida, Inc.\*

Wend-Rockies, Inc\*

### Wen-GAP, LLC\*

Wenesco\*

Wenco Restaurant Group\*

WenMarr Management Company, LLC\*

### Whole Foods Market\*

Wiley Management\*

WKS Restaurant Group\*

Wyndham Hotels and Resorts

## DATA CENTERS

Centersquare+\*

### Iron Mountain Data Centers\*

QTS Data Centers+

### Sabey Data Centers\*\*

## EDUCATION

Agnes Scott College+

Alachua County Public Schools, FL\*

### Albuquerque Public Schools, NM\*

### Allegheny College\*

### Anne Arundel County Public Schools, MD\*

Arizona State University

Aurora Public Schools, CO\*

Bard College\*\*

### Bullitt County Public Schools, KY\*\*

### California State University, Channel Islands+

California State University, Sacramento+

### Camas School District, WA\*

Carleton College

Catholic University of America\*

Chariho Regional School District+

### Chesapeake College\*

Chicago Public Schools\*\*

Colorado State University+

### Community College of Allegheny County\*

Cornell University

### Douglas County School District, NV\*

Duke University

Dysart Unified School District 89, AZ\*

Emory University

### Fairfax County Public Schools, VA\*

Florida A&M\*

### Fort Worth Independent School District, TX\*

Grand Valley State University

### Hillsboro School District, OR\*\*

### Indianapolis Public Schools, IN\*

ISD 197 West St. Paul-Mendota Heights-Eagan Area Schools+

Los Angeles Unified School District, CA\*\*

Loyola University

Madison City Schools, AL\*

Manchester School District, NH\*

Massachusetts Institute of Technology

Miami-Dade County Public Schools+

### Michigan State University\*

### Morehouse College\*

Northwestern University\*

Oregon Health & Science University

Pace University\*\*

### Parkway School District, MO\*

### Pasadena Independent School District, TX\*

Pennsylvania State University\*

Pomona College+

Portland Public Schools, OR\*\*

Portland State University

### Poudre School District, CO\*

Ramapo College

### River Trails School District 26, IL\*\*

San Francisco Unified School District\*

San Mateo Community College District

Scott County Schools, KY+

Seattle Public Schools

Sewanee: The University of the South\*

Simpson College

Southern Oregon University+

Stanford University+

Stevens Institute of Technology\*

### Towson University\*

Tulane University

University of California, Berkeley\*

University of California, Davis

### University of California, Irvine\*

University of California, Merced

University of Chicago+

University of Colorado Boulder

University of Hawaii at Manoa

University of Maryland

University of Miami

University of Michigan+

University of Pittsburgh+

University of South Carolina

University of Tulsa\*

### University of Utah\*

### University of Virginia\*\*

University of Wisconsin

Washington College\*

Washington University in St. Louis\*

Xenia Community Schools, OH\*

## FINANCIAL ALLIES

### Abundant Power Group\*

### Allumia\*

### Bank of America\*

BlocPower\*

### Bostonia Partners LLC\*

Butterfly\*

### Citi\*

Citizen Energy\*

### CleanFund LLC\*

CollectiveSun+

### Connecticut Green Bank\*

Counterpointe Sustainable Real Estate\*

CreativEnergy+

Ecosave Inc.+

### Enterprise Community Partners\*

### HASI\*

### Hawaii Green Infrastructure Authority\*\*

### Jua Capital LLC (formerly BlueFlame Energy Finance)\*

Kyotherm\*\*

### Metrus Energy\*\*

Nevada Clean Energy Fund

Minimise\*

### New York City Energy Efficiency Corporation (NYCEEC)\*\*

### Nuveen Green Capital (Formerly Greenworks Lending)\*

### Onsite Utility Services Capital\*

### Onyx Renewable Partners L.P.\*

Orca Energy\*

### PACE Equity\*

Petros PACE Finance, LLC\*

### Redaptive\*

### Renew Energy Partners\*\*

Siemens Financial Services, Inc.

### Skyven Technologies\*\*

### Skyview Ventures\*

Solaris Energy Inc.+

### Southeast Capital & Finance\*

### Sparkfund\*

The Community Preservation Corporation (CPC)+

The Hartford Steam Boiler Inspection and Insurance Co.\*

TBL Fund\*

Urban Ingenuity\*

## INDUSTRIAL

### 3M\*\*

### ABB\*\*

AbbVie Inc.

Acuity Brands, Inc.

Agropur

Ahlstrom-Munksjö

Alcoa\*

AlexRenew\*

### Alumalloy Metal Casting Company

Arcor Rigid Plastics

American MITSUBA Corporation

Archer Daniels Midland

Armstrong Flooring, Inc

Asama Coldwater Manufacturing

Astec

### AstraZeneca\*\*

### AT&T+

Autodie LLC\*

Autoliv

Autoneum North America

Avient

Avon Lake Regional Water

Ball Corporation

BD\*\*

Bendix Commercial Vehicle Systems+

### Bentley Mills\*\*

Billerud Americas Corporation\*\*

Boardman Foods

BorgWarner\*\*

Bosch Rexroth Corporation

### BPM, Inc. (Badger Paper Mills, Inc.)

### Bradken

Brewery Vivant\*\*

Bridgestone Americas, Inc.

Briggs & Stratton\*

Bristol-Myers Squibb\*

Brose North America

### Bucks County Water & Sewer Authority\*

### C. F. Martin & Co., Inc. (Martin Guitar)\*

Cabot Corporation

### California Portland Cement Company (d.b.a. CalPortland)

Campbell Soup Company

### Cardington Yutaka Technologies, Inc.

Carlton Forge Works

Cascade Engineering Technologies, Inc.

### Celanese Corporation\*

Champlain Water District

Chapco, Inc.

Charter Steel

Chippewa Valley Ethanol Company

City of Charleston Water System

City of Grand Rapids Water Resource Recovery Facility\*\*

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## MEET THE PARTNERS

City of Phoenix Water Services Department  
City of Roseville, Environmental Utilities Department

Clearwater Engineering, Inc.

### **Cleveland-Cliffs Inc.+**

*Coca-Cola Beverages Northeast*

Coca-Cola Consolidated\*

CoilPlus, Inc.

Colgate-Palmolive Company+

### **Comau Inc.**

Commercial Metals Company

Commercial Vehicle Group

Connector Castings, Inc.

Co-Operative Industries Aerospace & Defense

Cooper Standard

### **Cummins Inc.\*+**

Custom Glass Solutions

### **Daikin Applied Americas, Inc.**

Danaher Corporation

Delta Diablo

Denison Industries

DENSO

Des Moines Water Works\*

Deschutes Brewery+

Detroit Diesel Corporation

Didion Milling

Dixline Corporation

*Donaldson Company, Inc.*

Donsco Inc.

Dow Chemical

*DS Smith North America+*

### **DSM North America+**

Durable Products, Inc.

Dura-Line+

Durex Inc.

Earth2O

East Penn Manufacturing Co.

Eastman\*+

### **Eaton Corporation**

Eck Industries

Electrolux\*+

Emerson\*+

### **Encina Wastewater Authority\***

EnerSys

Entegris

FLEXCO

*Flexsys*

Flowers Foods

FMC Corporation

### **Ford Motor Company\*+**

Fort Wayne City Utilities - City of Fort Wayne

*FXI, Inc.+\**

GB Manufacturing

*GE Aerospace\*+*

Genentech Inc.+

General Aluminum Manufacturing Company

### **General Dynamics Ordnance and Tactical Systems**

General Electric+

### **General Mills\***

### **General Motors\*+**

General Stamping & Metalworking

Gibraltar Industries

GKN Aerospace

Golden Renewable Energy, LLC

Goodyear Tire & Rubber Company+

Graham Packaging Company, LP

### **Graphic Packaging International, LLC+ HARBEC\***

### **Harley-Davidson Motor Company+**

Harrison Steel Castings Co.

Harva Company

Haynes International

*Hemlock Semiconductor (HSC)+\**

Hershey

Hewlett Packard Enterprise+

*Hill & Smith Group Holdings, Inc+*

### **HNI Corporation+**

### **Holcim U.S.\*+**

Hollingsworth & Vose

Honda North America

Honeywell+

Huntsman Corporation

### **IAC Group**

Imerys Performance Minerals

### **Ingersoll Rand\*+**

### **Ingevity**

Intel

International Paper

Intertape Polymer Group+

Intralox LLC

### **Isringhausen, Inc (ISRI)**

### **J.R. Simplot\***

### **JBT Corporation**

Jedco Inc.

*JMA Wireless\**

### **Johnson & Johnson**

### **Johnson Controls\*+**

### **Johnson Matthey**

### **JSW Steel USA**

Kent County Levy Court

Kenworth Truck Company

### **Kingspan Insulated Panels, Inc.+**

Krage Manufacturing

KYB Americas Corporation+

Lamb Weston

Land O'Lakes

Lear Corporation+

Leggett & Platt, Incorporated.

### **Legrand North and Central America\*+**

Liberty Tire Recycling

Lincoln Electric

### **Lennox International\***

Lineage Logistics\*

### **Lockheed Martin\***

Lopez-Dorada Foods+

L'Oréal USA\*

### **Los Angeles Bureau of Sanitation**

Los Angeles Department of Water and Power\*+

Lundberg Family Farms+

Lynam Industries Inc.

Magnetic Metals Corp.

MAHLE Engine Components USA

Manitowoc Grey Iron Foundry

Mannington Mills

*Manufacturing Sciences Corporation*

*MAPEI*

Marquis Energy

Massachusetts Water Resources Authority

Michael Foods, Inc.

MB Aerospace East Granby

McCain Foods USA, Inc.

McWane, Inc\*

MEKRA Lang North America

### **Metal Industries, Inc.**

Metal Technologies, Inc.+

Miami-Dade Water and Sewer Department+

Michael Foods, Inc.

Michels Corporation

### **Mitsubishi Electric Automotive America+**

Mohawk Industries

Mulgrew Aircraft Components, Inc.

### **Narragansett Bay Commission**

### **Navistar, Inc.**

ND Paper, Inc.

*Niagara Bottling*

Neenah Foundry

### **Nestlé+**

### **NEW Water (Green Bay Metropolitan Sewerage District)\***

Newman Technology

### **Nissan North America\*+**

*Norpac Fisheries Export*

Novelis

NSK Americas

NYC DEP - Bureau of Wastewater Treatment

O'Fallon Casting

Occidental Chemical Corporation

OFD Foods

### **Orange Water and Sewer Authority\***

### **Oshkosh Corporation**

### **Osram Sylvania**

### **Owens Corning\***

Ozinga Brothers, Inc.

Pactiv

PaperWorks Industries

Parker Hannifin

### **Patrick Cudahy**

PepsiCo

Perrone Aerospace

Pharmavite\*

Philadelphia Water Department

Phoenix Closures

### **Pima County Regional Wastewater Reclamation Department+**

Plastics Engineering Company (Plenco)

PPC Broadband

PPG Industries

### **Procter & Gamble**

Quad/Graphics, Inc.

Rea Magnet Wire Company, Inc.

Research Electro-Optics

Richmond Industries Inc.

RING Container Technologies

### **Roche Diagnostics Operations**

Rowley Spring and Stamping

RTX+

Saint-Gobain Corporation\*+

Saputo USA

Savage Precision Fabrication

### **Schneider Electric\*+**

Sealed Air Corporation

Sears Seating

Selmet, Inc.

Shape Corp

### **Shaw Industries Group, Inc.**

Sheboygan Regional Wastewater Treatment Facility

### **Sherwin-Williams\*+**

Siemens+

*Sierra Nevada Brewing Co.*

Sika Corporation+

Silgan Closures

Silgan Containers

Silgan Plastic Food Containers

Skorpios Technologies

SL Corporation

*SMR Automotive Systems USA Inc.*

Solberg Manufacturing Inc.

Southwest Cheese

Spirax Sarco, Inc.

St. Petersburg Water Resources Department

Department

Stanley Black & Decker+

Stanley Spring and Stamping

### **Steelcase, Inc.\*+**

### **Stellantis\*+**

Stepan Company

Stryker+

Sugar Creek Packing Co.

SunOpta, Inc.

Synthomer+

Tarkett USA Inc.+

### **TE Connectivity\***

Tenaris

### **Texas Instruments**

Texas Nameplate Co.

Textron, Inc

### **The Chemours Company\*+**

The Estée Lauder Companies

*The Kraft Heinz Company+*

*The Lubrizol Corporation+\**

TitanX Engine Cooling, Inc.

### **TK Elevator**

Topsoe+

### **Toyota Motor North America, Inc.\*+**

TPC Group LLC

TRAM Group

### **Trane Technologies\*+**

Tri-State Plastics, Inc.

Tyson Foods

United Mechanical and Metal Fabricators Inc.+

Valmont Industries, Inc.

Valvoline Inc

Vanguard Space Technologies

Vermeer Corporation

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## MEET THE PARTNERS

### Vestolit+

### Victor Valley Wastewater Reclamation Authority\*

Vitro Architectural Glass

### Volvo Group North America\*+

W.L. Gore and Associates+

Waupaca Foundry, Inc.+

*Weatherford US, LP+*

West Lafayette Water Resource Recovery Facility

Western Lake Superior Sanitary District

*Westinghouse Electric Company*

Westrock

Weyerhaeuser WP

### Whirlpool Corporation+

Xerox\*+

Zebra Technologies\*+

Zimmer Biomet

## MULTIFAMILY

### 2Life Communities\*

Aeon\*

*Āhē Group\*+*

Atlanta Housing Authority\*

*Avanath Capital+*

Beacon Communities\*

Boston Housing Authority\*

Boulder Housing Partners\*

Bozzuto Management Company\*

### BRIDGE Housing Corporation\*

### Cambridge, MA Housing Authority\*

Caritas Communities, Inc.\*

Cascap, Inc.\*

Chicago Housing Authority+

Codman Square Neighborhood Development Corporation\*+

CommonBond Communities\*

Community Housing Partners\*+

Community Roots Housing\*

### Corcoran Management\*

Cuyahoga Metropolitan Housing Authority\*

### District of Columbia Housing Authority\*

EAH Housing, Inc.\*

Eden Housing\*+

Enterprise Community Development+

FirstService Energy\*

Fort Wayne Housing Authority\*

Foundation Communities\*+

Gary Housing Authority\*

Gateway Management Services, LLC\*

Homeowner's Rehab Inc.+

Homes for America\*

Housing Authority City of Pittsburgh\*+

Housing Authority of Baltimore City\*

Housing Authority of City of Bristol, CT\*

Housing Authority of City of Helena, MT\*

Housing Authority of City of San Buenaventura, CA\*

Houston Housing Authority\*

Human Good\*

*Jackson County Housing Authority (Jackson County, IL)+*

### Jamaica Plain Neighborhood Development Corporation\*

### Jersey City, NJ Housing Authority\*

Jonathan Rose Companies\*

### Keene Housing\*

Kier Property Management\*

King County Housing Authority\*+

Knox County Housing Authority (Knox County, IN)\*

*Launch Capital Partners\*+*

LINC Housing Corporation\*

Maloney Properties\*

Manhattan Housing Authority\*

### Mercy Housing, Inc.\*+

Michigan City Housing Authority\*

### Minneapolis Public Housing Authority\*

Mutual Housing California\*+

National Church Residences\*

*National Community Renaissance of California+*

New Bedford Housing Authority\*

New York City Housing Authority\*

NHP Foundation\*

### National Housing Trust\*+

Peabody Properties, Inc.\*

Philadelphia Housing Authority\*

### Preservation of Affordable Housing (POAH)\*+

Puerto Rico Public Housing Administration\*

REACH CDC\*

Retirement Housing Foundation\*

Riseboro Community Partnership\*+

Rural Ulster Preservation Company\*

San Antonio Housing Authority\*

Satellite Affordable Housing Associates\*

### Schochet Companies\*+

Seattle Housing Authority+

Standard Communities\*+

Stoneweg\*+

Sunrise Opportunities\*+

### Tenderloin Neighborhood Development Corporation\*+

The Community Builders, Inc.\*

The Economic Development Authority of the City of Mankato, MN\*

### The Housing Authority of the City and County of Denver\*

The Renaissance Collaborative\*

The Silver Street Group and Housing Management Resources, Inc.\*

Trinity Management\*

Truth or Consequences Housing Authority\*

Veris Residential+

Victory Housing+

Volunteers of America\*

### Wesley Living\*+

WinnCompanies\*+

## STATE AND LOCAL

Albany County, NY+

Alexandria, VA\*

Ann Arbor, MI+

### Arlington County, VA\*+

### Arvada, CO\*

### Atlanta, GA\*

### Beaverton, OR\*

Boston, MA\*

### Chattanooga, TN\*+

### Chicago, IL\*

### Chula Vista, CA\*+

Clark County, NV\*+

Cleveland, OH\*+

Columbia, MO\*

*Connecticut+*

### Cook County, IL\*+

Dallas, TX+

### Delaware\*

Denver, CO\*

*Des Moines, IA+*

District of Columbia\*

El Paso, TX\*

Fairfax County, VA+

### Fort Lauderdale, FL\*

Fort Worth, TX\*

Glens Falls, NY\*+

Hall County, GA\*

*Hawaii+*

### Hillsboro, OR\*+

Houston, TX\*

Huntington, NY\*

Illinois

### Kansas City, MO+

Kauai County, HI\*

King County, WA\*

### Knoxville, TN\*+

La Crosse, WI+

Los Angeles, CA\*+

Louisville, KY\*+

Madison, WI+

Maine+

Manchester, NH\*

### Margate, FL\*

### Maryland\*+

Massachusetts\*

Milwaukee, WI\*

Minnesota\*

Norfolk, VA\*

### North Carolina\*

Orange County, FL\*

### Orlando, FL\*+

Philadelphia, PA\*+

Pittsburgh, PA\*

Providence, RI\*+

Reno, NV\*

Rhode Island\*

### Roanoke, VA\*+

### Rochester, NY\*

Saint Louis, MO+

Saint Paul, MN +

Salt Lake City, UT\*

San Diego, CA\*+

*Santa Fe County, NM+*

Santa Fe, NM\*

Seattle, WA\*

Southampton, NY+

*Takoma Park, MD\*+*

Village of Montour Falls, NY\*+

### West Palm Beach, FL\*

### Will County, IL\*+

Worcester, MA\*+

## UTILITY

AVANGRID+

Exelon Corporation+

Pacific Gas and Electric Company+

## COMMERCIAL BUILDING HEAT PUMP ACCELERATOR

AAON, Inc.

Addison

Amazon

Budderfly

Carrier Global Corporation

Center for Energy and Environment, Minnesota

Collaborative Labeling and Appliance Standards Program

Columbia Association

Daikin

General Motors

IKEA US RETAIL LLC

Institute for Governance & Sustainable Development

International Center for Appropriate and Sustainable Technology

kW Engineering

Lennox International, Inc.

Life Time, Inc.

Los Angeles Unified School District

Mace Group

Monaire

Prologis

Refrigerant Emissions Elimination Forum

Rheem Manufacturing Company

Seeley International

Sencera Energy

Slipstream

South-central Partnership for Energy Efficiency as a Resource

Sustainable Energi

Target Corporation

Trane Technologies

Vermont Energy Investment Corporation

Whole Foods Market

York International Corporation

## DESIGN AND CONSTRUCTION ALLIES

BranchPattern

Centerbrook

CMTA

COOKFOX Architects, DPC

CPL

Cunningham

Curtis + Ginsberg Architects

DataBased+

DPR Construction

e<sup>2</sup>s

FLAD

Gensler

## KEY

Partners with names in bold are emissions, energy, water, or waste goal achievers

Partners with a \* have taken the Better Buildings Challenge

Partners with a + have taken the Better Climate Challenge

Partners with names in italics are new to Better Buildings

## MEET THE PARTNERS

GoSustainableEnergy  
HGA  
Ideas Consulting  
IMEG Corp.  
Integral Group  
Introba  
Jacobs  
LMS<sup>A</sup>  
Leopardo  
MCI  
McKinstry  
Moody Nolan  
P2S  
PAE Engineers  
Page  
RPM-Rethinking Power Management  
SERA Architects  
SOM  
SmithGroup  
WSB Engineering  
Willdan

Housing Partnership Network  
Hydraulic Institute  
ICAST  
ICLEI-Local Governments for Sustainability  
Institute for Market Transformation  
International Facility Management Association  
International Institute for Sustainable Laboratories  
My Green Lab  
National Institute of Building Sciences  
National Insulation Association  
North American Sustainable Refrigeration Council  
Pump Systems Matter  
Rewiring America  
RMI  
Second Nature  
Slipstream  
Stewards of Affordable Housing for the Future  
The Real Estate Roundtable  
U.S. Green Building Council  
Urban Land Institute

## BETTER CLIMATE CHALLENGE ALLIES

American Hotel & Lodging Association  
American Society for Healthcare Engineering  
American Society of Heating, Refrigerating & Air-Conditioning Engineers  
American Solar Energy Society  
APPA - Leadership in Educational Facilities  
Association for the Advancement of Sustainability in Higher Education  
Association of American Medical Colleges  
Association of Energy Engineers  
Building Owners and Managers Association International  
*Center for Green Schools*  
Chartered Institute of Building  
ConnexFM  
Curtis + Ginsberg Architects  
Elevate Energy  
Enterprise Community Partners  
Green Building Initiative

## BETTER BUILDINGS ALLIANCE AFFILIATES

American Hotel & Lodging Association  
American Institute of Architects  
American Society for Healthcare Engineering  
APPA - Leadership in Educational Facilities  
Asian American Hotel Owners Association  
Association for the Advancement of Sustainability in Higher Education  
Biomass Thermal Energy Council  
Building Owners and Managers Association International  
ConnexFM  
Environmental Defense Fund  
Green Building Alliance  
Green Parking Council  
Green Sports Alliance  
Health Care Without Harm  
Illuminating Engineering Society of North

America  
Institute for Market Transformation  
International Facility Management Association  
NACUBO  
Practice Greenhealth  
NAIOP (Commercial Real Estate Development Association)  
National Alliance of Forest Owners  
National Apartment Association  
National Association of Real Estate Brokers  
National Association of Real Estate Investment Trusts  
National Co-op Grocers  
National Multifamily Housing Council  
New Buildings Institute  
New Hampshire Healthcare Workers for Climate Action  
North American Sustainable Refrigeration Council  
Northwest Energy Efficiency Alliance  
Pension Real Estate Association  
Real Estate Research Institute  
Retail Industry Leaders Association  
Roof Coatings Manufacturers Association  
Second Nature  
Slipstream  
Smart Energy Decisions  
Sustainable Endowments Institute  
The Real Estate Roundtable  
U.S. Green Building Council  
Urban Land Institute  
Vizient

### KEY

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Partners with a \* have taken the Better Buildings Challenge  
Partners with a + have taken the Better Climate Challenge  
Partners with names in italics are new to Better Buildings

## ENDNOTES

1. U.S. Environmental Protection Agency, 2024. Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2022 U.S. Environmental Protection Agency, EPA 430R-24004.
2. Calculated using the National Renewable Energy Laboratory (NREL) ComStock™ tool. 2024. Developed with funding from the U.S. Department of Energy (DOE). <https://www.nrel.gov/buildings/comstock.html>.
3. National Association of Manufacturers, 2024. "Facts About Manufacturing - Expanded." <https://nam.org/manufacturing-in-the-united-states/facts-about-manufacturing-expanded/>.
4. U.S. General Services Administration. Operational Carbon. Sustainable Facilities Tool. Retrieved from <https://sftool.gov/learn/about/659/operational-carbon>.
5. Calculated using U.S. Energy Information Administration. 2018. Commercial Buildings Energy Consumption Survey, <https://www.eia.gov/consumption/commercial/data/2018/index.php?view=consumption> and U.S. Environmental Protection Agency ENERGY STAR Portfolio Manager Greenhouse Gas Emissions Technical Reference. 2021. <https://portfoliomanager.energystar.gov/pdf/reference/Emissions.pdf>
6. U.S. Energy Information Administration (EIA). 2018 Commercial Buildings Energy Consumption Survey (CBECS): Principal Building Activities, Health Care. Retrieved from <https://www.eia.gov/consumption/commercial/data/2018/bc/pdf/b8.pdf>.
7. U.S. Environmental Protection Agency, 2024. Energy Use Intensity (EUI). <https://www.energystar.gov/buildings/benchmark/understand-metrics/what-eui>.
8. Canary Technologies, 2024. Sustainability in Hotels: How the Industry is Going Green. Available at: <https://www.canarytechnologies.com/post/sustainability-in-hotels#:~:text=Sustainable%20hotel%20practices%20are%20not,support%20certified%20sustainable%20travel%20options>
9. The Princeton Review. 2024 College Hopes & Worries Survey Report. Retrieved from <https://www.princetonreview.com/cms-content/2024-college-hopes-worries-survey-report.pdf>.
10. U.S. Environmental Protection Agency. (2011). Energy efficiency programs in K-12 schools: A guide to developing and implementing greenhouse gas reduction programs. [https://www.epa.gov/sites/default/files/2015-08/documents/k-12\\_guide.pdf](https://www.epa.gov/sites/default/files/2015-08/documents/k-12_guide.pdf)
11. U.S. Environmental Protection Agency, 2024. "45 States, Large Metro Areas Submit Climate Action Plans Under President Biden's Climate Agenda." <https://www.epa.gov/newsreleases/45-states-large-metro-areas-submit-climate-action-plans-under-president-bidens>.
12. U.S. Department of Housing and Urban Development, 2024. Multifamily Energy Savings (MES) Notice. [https://www.hud.gov/program\\_offices/comm\\_planning/environment\\_energy/mes\\_notice](https://www.hud.gov/program_offices/comm_planning/environment_energy/mes_notice)
13. Calculated using U.S. Energy Information Administration 2018 Residential Energy Consumption Survey (RECS).
14. U.S. Department of Energy, 2023. Comprehensive Annual Energy Data and Sustainability Performance, Table A-4 and Table A-2. <https://ctsedweb.ee.doe.gov/Annual/Report/Report.aspx>

