

APRIL
2-4
2024



Better Buildings, Better Plants
SUMMIT

LEARN MORE: betterbuildingsolutioncenter.energy.gov/summit

U.S. DEPARTMENT OF
ENERGY



Commercial Sector Meet Up

Wednesday, April 3rd, 2024

9:00 AM – 10:30 am ET

Agenda

- 1** Welcome, Introductions, Award Winner Recognition
- 2** This Year in the Commercial Sectors
- 3** EPA ENERGY STAR Update, Mike Zatz
- 4** Sector Breakouts & Closing

Mandy Mahoney

Director, Building Technologies Office
U.S. Department of Energy

Commercial Better Buildings Team



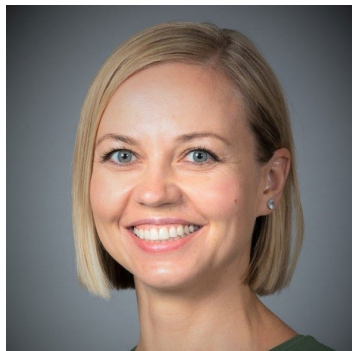
Nathaniel Allen
Commercial Buildings Integration



Hannah Debelius
BCC Technical Assistance Lead
Commercial Real Estate & Utilities Lead



Bri Colon
Higher Education Lead



Marta Drzymala
Healthcare Lead



Sarah Stubbs
Retail, Food Service & Grocery Lead



Jordan Wilkerson
Hospitality Lead

Welcome Partners & Allies!



COLORADO STATE UNIVERSITY



PennState



UNIVERSITY OF VIRGINIA



KAISER PERMANENTE



Urban Land Institute



Urban Land Institute



Congratulations 2023 Better Project and Better Practice Award Winners!

Better Project

EVOQUE  **Cyxtera**



**COLORADO STATE
UNIVERSITY**

PACE
UNIVERSITY

RXR

Better Practice



Wendy's

VORNADO
REALTY TRUST

Marriott
INTERNATIONAL



MGM RESORTS
INTERNATIONAL™



**UNIVERSITY
of VIRGINIA**



**THE UNIVERSITY OF
ALABAMA AT BIRMINGHAM.**

This Year in the Commercial Sectors

Congrats to Climate and Energy Goal Achievers!



BXP

- 60% operational emissions reduction
- 39.2M sq. ft.



ALLEGHENY
COLLEGE

Allegheny College

- 22% energy intensity savings
- 1.3M sq. ft.



Elevance Health, Inc.

- 86% operational emissions reduction
- 6.5M sq. ft.



Columbia Association (second goal)

- 32% energy intensity savings
- 492,000 sq. ft.



RXR

- 60% operational emissions reduction
- 23M sq. ft.



Community College of Allegheny County

- 22% energy intensity savings
- 1.5M sq. ft.

Congrats to Energy and Water Goal Achievers!



KOHL'S

Kohl's, Inc. (second goal)

- 30% energy savings
- 112M sq. ft.



University of Virginia

- 27% energy savings
- 18,500 sq. ft.



MGM Resorts International

- 23% energy savings
- 61M sq. ft.



Wen-GAP, LLC (a Wendy's franchise)

- 22% energy savings
- 54,000 sq. ft.



Morehouse College

- 31% energy savings
- 1.6M sq. ft.



CommonWealth
partners

CommonWealth Partners

- 26% water savings
- 9M sq. ft.



Nike

- 29% energy savings
- 10M sq. ft.



EMPIRE STATE
REALTY TRUST

Empire State Realty Trust

- 27% water savings
- 9M sq. ft.

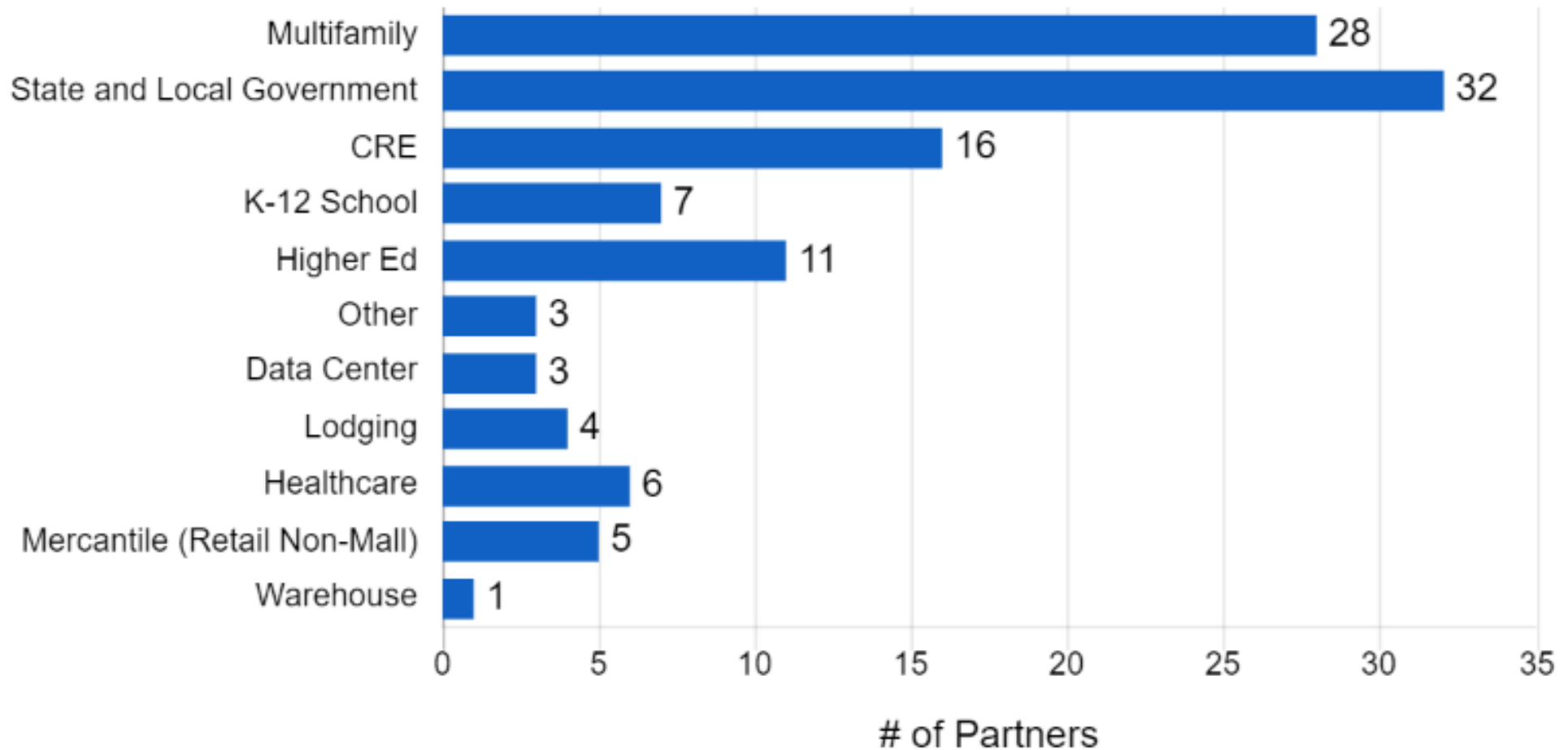


Better Climate CHALLENGE

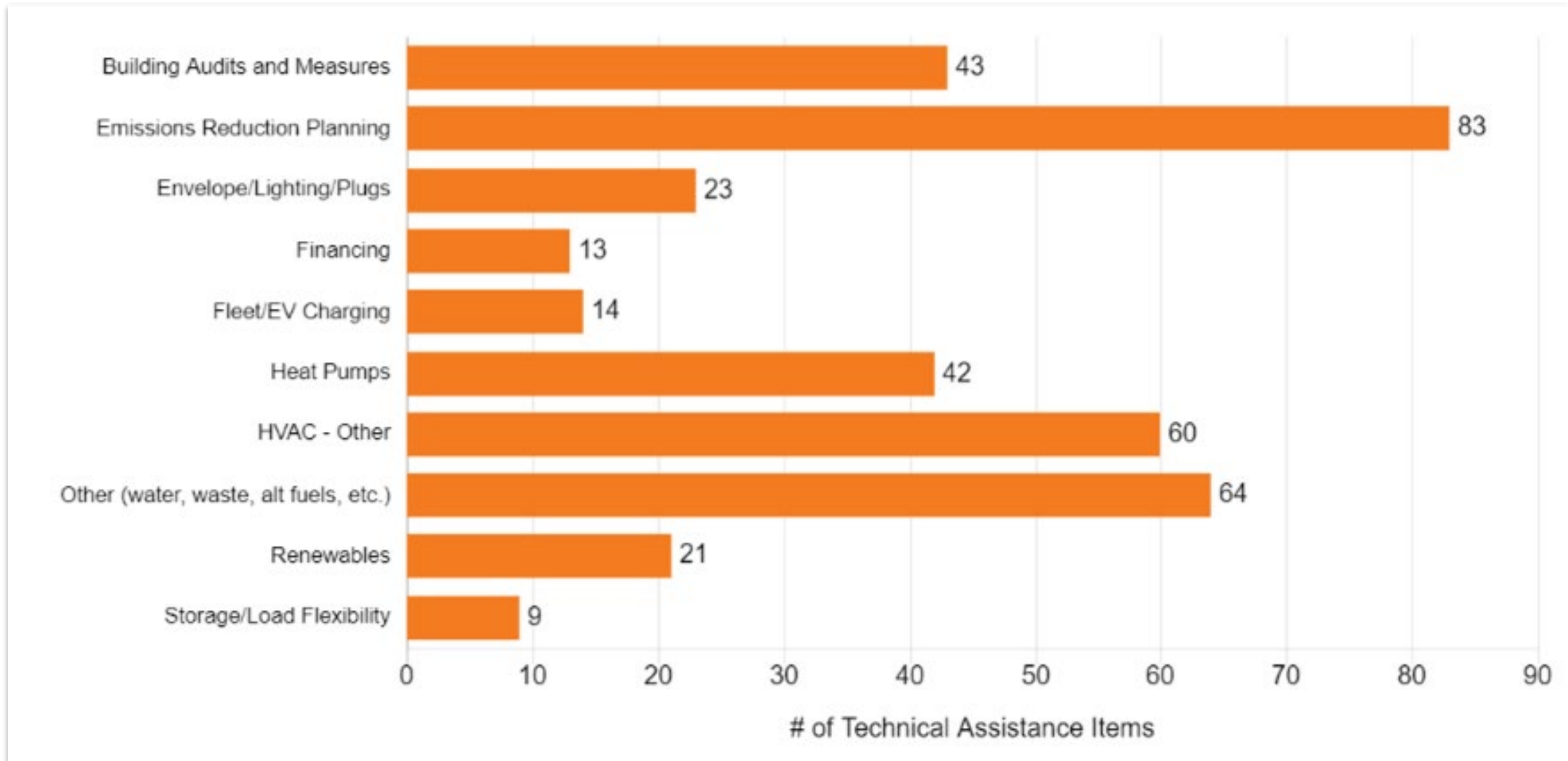
U.S. DEPARTMENT OF ENERGY

Better Climate Challenge – Commercial

Current BCC Partners by Sector



Technical Assistance Topic Areas



Top Trends We're Finding Through Partner Interactions in BCC

- Detailed plans are not yet in place for meeting GHG emissions reduction targets
- Movement from energy audits to decarb audits
- All-electric designs for new construction becoming more prevalent
- Growth in on-site solar installations
- Electrification transition planning is a challenge

Common Areas of Tech Assistance

- GHG Emissions Reduction Planning
- Building Audits and Measures
- Heating System Electrification
- GHG Accounting and Reporting

GHG Emission Reduction Audits and Assessments and Onsite Renewable Energy and Storage Working Groups Participants



New Resources:

Primers on “**Assembling an Effective Team for Renewable Generation and Storage Projects**” & “**Portfolio Screening and Prioritization**”



~~GHG Emissions Reduction Audit Scope of Work Template~~



Decarbonizing Buildings Thermal Systems - a guide for engineers, architects, and contractors to facilitate the integration of decarbonized building heating systems

Coming
Soon!

Commercial Building Heat Pump Accelerator

Nathaniel Allen

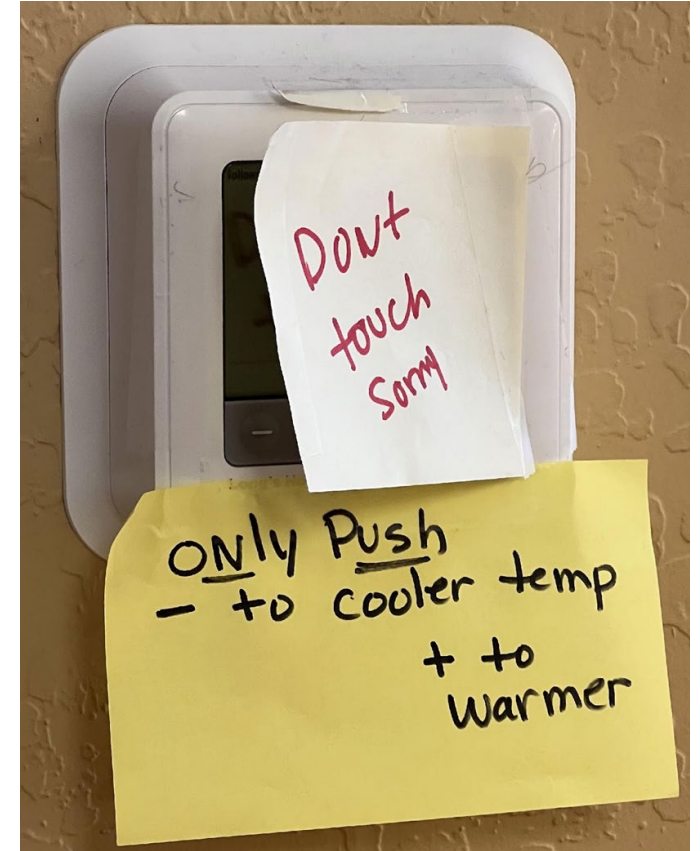
Join the Smarter Small Buildings Campaign

What is the campaign focus?

- DOE-sponsored program managed by Berkeley Lab to promote improved HVAC controls for small/medium buildings
- Applicable to all small/medium buildings with packaged rooftop HVAC

Join as a participant

- Open to owners and operators of small/medium buildings
- Participants receive free technical assistance and resources from Berkeley Lab
- Opportunities for recognition and peer exchange



SmarterSmallBuildings.lbl.gov or contact Nora Hart (norahart@lbl.gov)

Water Savings Network & Waste Reduction Network

Activities

Data Submission | Quarterly Newsletters | Resources and Solutions | Webinars
Peer Exchanges | Working Groups | Environmental Justice



Saving Water

Partners have reported more than 16 billion gallons of water reduction

Carlisle surpassed its 20% water intensity reduction goal by achieving a 28% reduction since 2019



Reducing Waste

Partners have diverted more than 1.8 million tons of waste from landfills

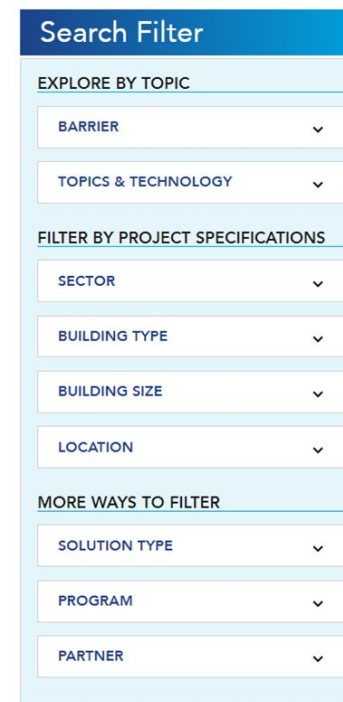
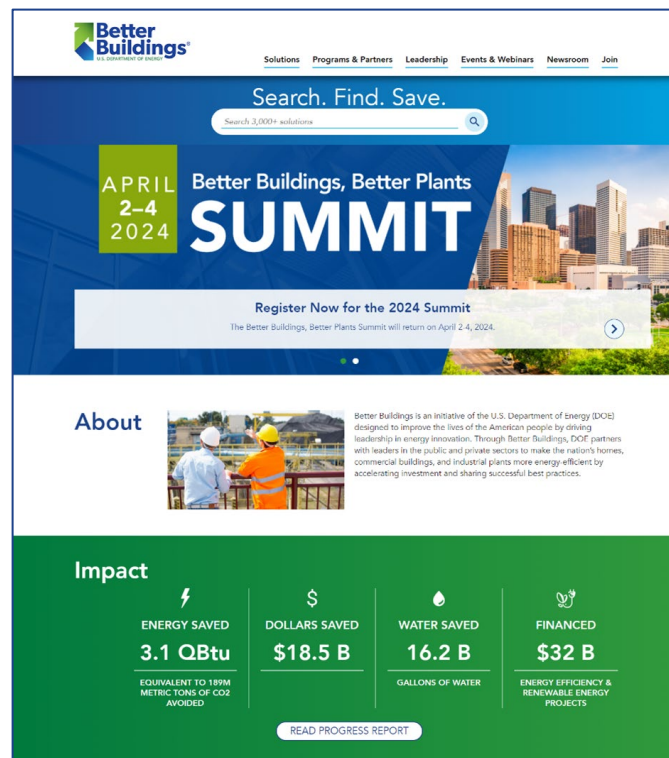
General Motors surpassed its 90% waste diversion goal by achieving a 91% diversion rate since 2019

Better Buildings Solution Center has been UPGRADED

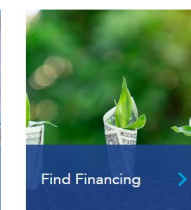
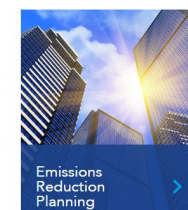
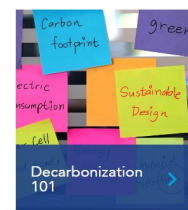
A site-wide refresh of 12,000+ pages, with improved navigation, functionality, and design for an enhanced user experience

New Features include:

- Updated, streamlined main menu navigation
- Upgraded interactive data displays to better showcase our partners' progress
- A powerful, enhanced search platform to more effectively filter 3,000+ solutions to discover the most relevant solutions, technologies, and strategies for your organization
- Additions to the homepage that showcase the \$32 billion impact of the Better Buildings Initiative
- Updated, streamlined Decarbonization Hub with 5 new focus area pages defining different strategies and relevant solutions: Emissions Reduction Planning (ERP), Energy Efficiency, Renewables and Low Carbon Fuels, Electrification, and Carbon Capture, Utilization, and Storage



DECARBONIZATION FUNDAMENTALS



[Betterbuildingsolutioncenter.energy.gov](https://betterbuildingsolutioncenter.energy.gov)

Commercial Sector Happenings on the Solution Center

New Case Studies

- [Marriott Infrastructure Resilience & Adaptation \(MIRA\) Program](#)

New Implementation Models

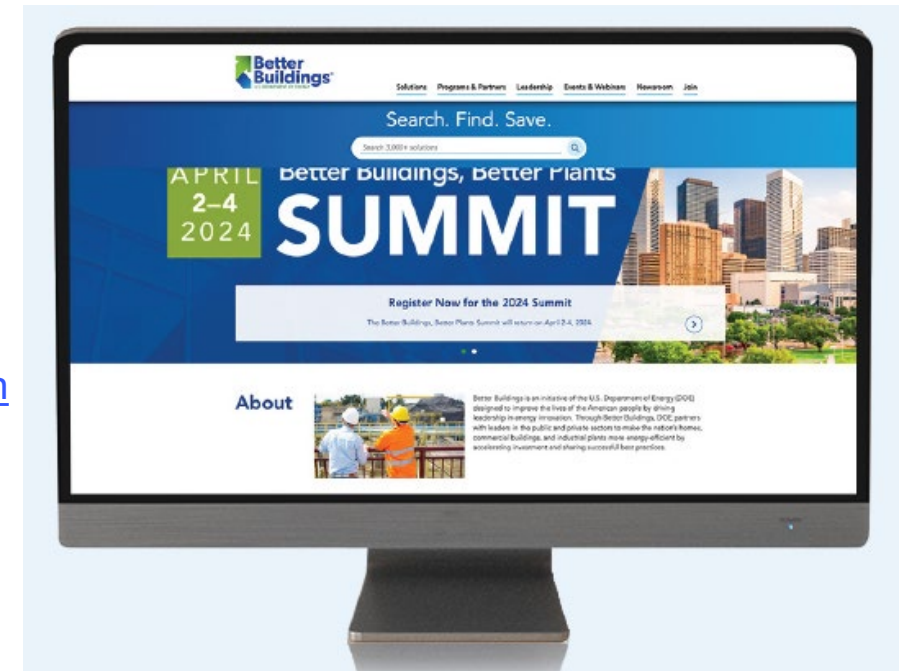
- [Pace University: Coordinated Energy Management Strategy](#)
- [Wyndham Hotels & Resorts: Wyndham Green Program](#)
- [Smart Labs Program at the University of Virginia](#)
- [MGM Resorts' Landscaping and Irrigation Methods to Reduce Water Consumption](#)

New Showcase Projects

- [Neema Hospitality Water Conservation Program](#)
- [MGM Resorts' 100-MW Solar Array: Climate Action Through Solar Farming](#)
- [Loews Miami Beach Hotel Laundry Efficiency](#)

New Solutions-at-a-Glance

- [Allina Health: Climate Risk Assessments](#)
- [Credit Human Making Large Strides with Waste Management](#)
- [LBA Realty: A Comprehensive, Building-Level Approach to Reducing Energy and Emissions](#)
- [Paramount Pictures: Implementation of Smart Flooring System](#)
- [Whole Foods: Alternative Refrigerants and Energy Efficient HVAC Systems | Better Buildings Initiative](#)



EPA ENERGY STAR Updates

Mike Zatz, U.S. Environmental Protection Agency



ENERGY STAR Buildings Update

U.S. Environmental Protection Agency
April 2024





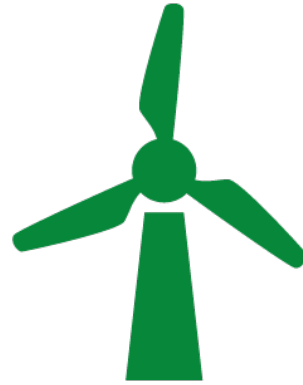
NextGen

CERTIFIED BUILDING | 2024

ENERGY STAR NextGen Criteria



Efficiency
ENERGY STAR
certification



Renewable Energy
Procure 30% of energy
from renewable sources



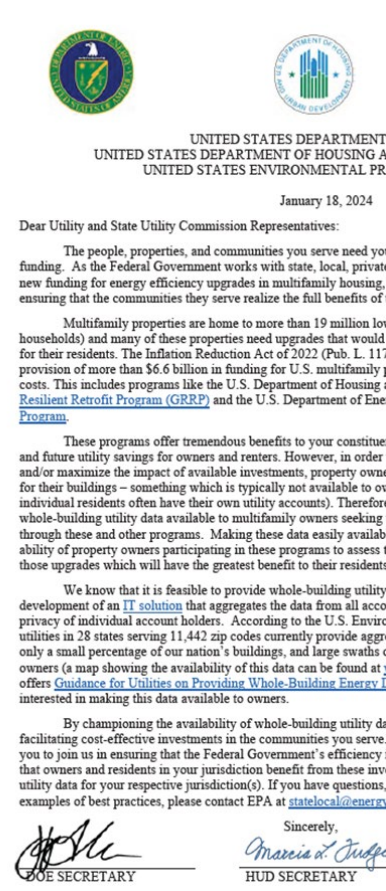
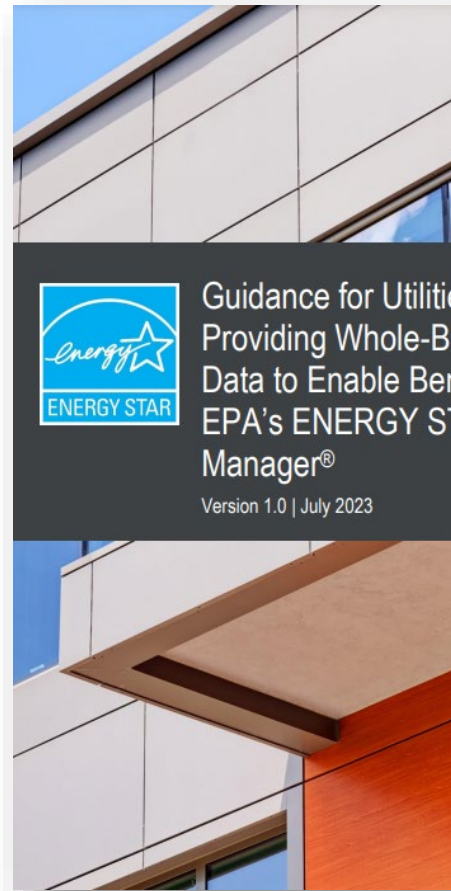
Emissions
Meet target for onsite
GHG emissions
(adjusted for building
type and location)

Launching September 2024 - Follow progress and get updates at
www.energystar.gov/nextgenbuildings



Whole-Building Energy Data Campaign

Building owner/manager-centric campaign where EPA assists owners/managers in making the case to decision makers on the need for whole-building energy data.



Multitenant Buildings and Federal Incentives

Why Providing Whole-Building Energy Data Is More Critical Than Ever

Funding Opportunities Require Whole-Building Data

A growing number of funding opportunities for improving building energy performance provide incentives to building owners based on their whole-building energy use, typically documented in EPA's ENERGY STAR® Portfolio Manager tool. However, in most of the country, owners of multitenant buildings can only access partial building data, because the energy used in their tenant spaces is billed separately to individual tenants. Obtaining consent from each tenant to access their energy use information is burdensome for owners and tenants alike, especially in large buildings that could have hundreds of tenants. As a result, these building owners often lack a way to access the complete energy use of their buildings, which is a prerequisite for many funding opportunities. Without this data, owners will face significant barriers to (or in some cases be barred from) participating in incentive programs that together provide billions of dollars of funding and incentives for improvements of these buildings.

The Potential Impacts Are Widespread

This issue affects owners of multitenant buildings, including office buildings, multifamily housing buildings (apartments and condominiums), warehouses, and more, as well as the tenants and residents in these buildings. Collectively, these property types constitute a large percentage of the floor area and energy use of commercial and multifamily buildings nationwide.

Multitenant Building Owners May Miss Out on Billions of Dollars of Funding

The Opportunities

The Inflation Reduction Act and Bipartisan Infrastructure Law include several funding opportunities for building upgrades. However, since many of these opportunities provide funding based on before-and-after measurement of whole-building energy usage, owners of multitenant buildings may be unintentionally excluded in places where this data is not readily available. The opportunities include, but are not limited to, the following:

- **179D Energy Efficient Commercial Buildings Tax Deduction Expansion.** Commercial and multifamily buildings demonstrating a measured post-retrofit reduction in whole-building energy use of 25% or more can receive a tax deduction of up to \$5 per square foot, with no cap on the total.
- **\$1 Billion HUD Green and Resilient Retrofit Program.** Affordable multifamily housing properties may be eligible for grants and loans from the U.S. Department of Housing and Urban Development for energy efficiency and resiliency projects. To receive funding, they will need to will need to track pre- and post-retrofit whole-building energy performance.
- **\$4.3 billion Home Efficiency Rebate Program.** Multifamily properties demonstrating a measured post-retrofit reduction in whole-building energy use of 15% can receive rebates up to a maximum of \$400,000 per building.

See the appendix for examples of the amounts of incentives available for select sample buildings.

Key Highlights

- Most Inflation Reduction Act and Bipartisan Infrastructure Law funding opportunities for buildings require whole building data for measurement and verification.
- Multitenant buildings like offices and multifamily housing may be unable to access federal funding due to data access challenges.
- State and local governments, and utilities, can make this data available to building owners.

Equity Implications

Both the Inflation Reduction Act and the Bipartisan Infrastructure Law seek to drive significant improvements in building energy performance in historically marginalized communities. Whole-building energy data may increasingly become an equity issue, since building owners and communities without access to this data face barriers in benefiting from opportunities to upgrade their buildings and reduce energy use, costs, and burdens.

EPA United States Environmental Protection Agency

Multitenant Buildings and Federal Incentives | July 2023



ENERGY STAR Portfolio Manager®

Upgrade

- Largest upgrade in over a decade – supported by funding from the Inflation Reduction Act of 2022.
- User-Driven
 - 6-Month effort to gather stakeholder input.
 - Listening sessions with key groups (ENERGY STAR Award Winners, Real Estate Roundtable, BOMA, NAREIT, ULI, AHLA, local/state policymakers, etc.).
 - Open call for input from all users via webform.
- Enhancements rolling out starting in 2024 and continuing for several years. 2024 Enhancements include:
 - Green power tracking (RECs)
 - Emissions tab
 - Spanish language capability

Overview of Proposed/Envisioned Enhancements

Enhancement Category	Enhancement Item
Emissions Tracking	Use of custom emissions factors/forecasting emissions
	Refrigerant tracking
	Green Power tracking
Benchmarking and Building Performance Standards (BPS): Enhancements for Building Owners	Building system/equipment tracking
	Tracking progress against Building Performance Standards
	Tracking compliance with benchmarking/BPS Laws
	New BPS-specific calculations
Portfolio Manager User Interface Refresh	Storing additional information on energy and water meters
	Expanding goal-setting/tracking functionality
	Updates to reporting
Additional Items	Additional functionality for program/policy administrators, Portfolio Manager “Lite” interface, Spanish interface and user support, updates to property sharing process
	Other enhancements yet to be identified through stakeholder engagement

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Homepage - www.energystar.gov/buildings

Portfolio Manager - www.energystar.gov/benchmark

Training - www.energystar.gov/buildingstraining

Help - www.energystar.gov/buildingshelp



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Download **Whova** from the App Store or Google Play and search for the event "Better Buildings Summit"

Sector Breakouts

(if you are a Better Project/Practice Award
Winner, please stay for a brief photo)

Sector Breakout Rooms – please follow your sector teams!

- **Commercial Real Estate and Utilities** to stay in **Senate** for breakout discussion
- **Healthcare and Higher Education** to move to breakout room **Statler**
- **Hospitality and Retail, Food Service & Grocery** to move to breakout room **Pan American**

