

This webinar will introduce the concept of underserved, or equity-eligible, commercial buildings. Speakers will discuss reasons why certain commercial buildings are underserved, common barriers to pursuing upgrades in underserved commercial buildings, and potential strategies for overcoming or addressing those barriers. A focus of this webinar will be understanding how to craft a locally appropriate definition of "underserved commercial" and choosing which segments of building stock and/or community (e.g., by location, ownership type, business/entity type, building size, etc.) to target to maximize the benefits of energy efficiency in your community.



Housekeeping Announcements

- We are recording this webinar and will be making it available to all registrants within a few business days.
- To ask a question during the webinar, please submit it via the Q&A button at the bottom of your screen.
- You can upvote questions in the Q&A box that you would like us to prioritize.
- Use the chat to engage in respectful and productive discussion with other participants.
- Code of conduct: R2E2 will not tolerate behaviors that cause harm or disrupt the learning environment. Please direct message Krista Lee if you feel unsafe in this space. Disruptive participants may be removed from the webinar.

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The Buildings Upgrade Prize (Buildings UP)

Buildings UP is designed to rapidly scale <u>energy efficiency and efficient electrification building upgrades</u> in communities across the country. The prize is envisioned to consist of four phases over approximately five years.

Application support prizes available for new and under-resourced teams.



Phase 1: Concept

- \$22M+ in Prizes to Teams & Technical Assistance
- Applications due by July 18, 2023
- Seeking 20–60 teams to join the "coopetition."



www.heroX.com/buildingsUP

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Prize Goals

Buildings UP aims to address persistent<u>non-technical</u> barriers to improving building energy efficiency and reducing on-site emissions (e.g., administrative, financial, social, and other barriers).

Buildings UP is a capacity-building prize to support teams with solutions that:

- Accelerate building upgrades for efficiency and on-site emissions reductions beyond current best practices in the applicant's identified area of focus
- Demonstrate scalability and replicability across building type(s), climate zone(s), and/or, community type(s)
- Advance holistic and lasting energy efficiency and efficient electrification initiative development
- Benefit underserved communities by ensuring that benefits accrue to equity-eligible buildings*, their occupants, and surrounding communities

*Equity-eligible buildings include buildings in disadvantaged communities; low- and moderate-income (LMI) households; and underserved commercial, nonprofit, and public buildings.

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Example Projects

A rural electric cooperative partners with a local CBO and the county to help LMI single-family home residents



transition from propane heat to efficient electric heat pumps.

A K-12 school district and an energy services company partner to electrify district buildings.



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A CBO in a midsized town in the southeast partners with the local government to bring heat pumps (and air conditioning!) to affordable housing buildings throughout the community.



A national residential property owner teams up with multiple local governments and

utilities on an initiative to electrify its properties in three major markets.



A business improvement district in a large city neighborhood partners with local houses of worship



to bring efficient electric heating and cooling equipment to small businesses.

+Innovations!

Minimum technologies and strategies teams must include in their initiatives:

- Weatherization and envelope improvements (e.g., insulation, air sealing, window improvements) where needed to reduce energy costs
- Efficient electric heating and cooling equipment (e.g., heat pumps and/or heat pump water heaters).

Seeking Innovations to Address Non-Technical Challenges to Widespread Building Upgrades

- Lack of contractor and occupant familiarity with technologies
- High first costs for upgrades, limited short-term payback
- Lack of retrofit materials and equipment
- Insufficient workforce to complete upgrades
- Lack of reach of funding and incentive programs to historically underserved households and building owners
- Inconsistent quality of work and consumer mistrust

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Next Steps for Competitors

- Follow the prize on HeroX.com, read the <u>rules</u>, and review the <u>FAQs</u>
- Register for an informational webinar: May 4, 11 am ET
- Create an account on HeroX and click on the "Solve this Challenge" button
- Team up and submit a Phase 1 "Concept" application via HeroX by July 18, 5 pm ET

Follow <u>www.HeroX.com/BuildingsUP</u> Questions: buildingsUP@nrel.gov

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Considerations for Underserved Commercial Buildings

Carolin Tolentino ACEEE Carolyn Conant ACEEE Amber Wood ACEEE

Residential Retrofits for Energy Equity

Buildings UP The Buildings Upgrade Prize

Meet Your Presenters



Carolin Tolentino, Research Analyst, ACEEE



Carolyn Conant, Technical Assistance Coordinator, ACEEE



Amber Wood, Program Director, ACEEE



Residential Retrofits for Energy Equity (R2E2) is a new nationwide initiative that provides trainings to state, local, and tribal governments as well as community-based organizations and other partners to jumpstart energy upgrades for affordable housing that will lower utility bills, reduce greenhouse gas emissions, improve residents' health, create good-paying local jobs, and help advance racial equity. R2E2 is supporting the Buildings Upgrade Prize by providing training and technical assistance to applicants and awardees.



Learning goals

By the end of this session, you should be able to:

- Outline why underserved commercial buildings are a priority building category for upgrades
- Understand what types of buildings and locations can be considered 'underserved commercial' to inform building upgrade program design
- Understand barriers to upgrades in this building category and options for overcoming those barriers
- Learn from case studies and resources currently available
- See how local jurisdictions are centering equity in building upgrade programs supporting underserved commercial buildings
- Begin crafting a locally appropriate definition of underserved commercial for your community, and begin choosing which segments to target
 - (E.g., Based on location, ownership type, business/entity type, building size, community-serving businesses, etc.)

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Buildings UP Scoring Overview

Phase 1 Concept Plans (due July 18) are scored against scoring statements under each prize criterion.

One narrative is required for each criterion. The summation of narratives constitutes the Concept Plan.

This training is applicable to the following criteria:

- > Assessing & Prioritizing Challenges
- Addressing Challenges Through Innovation: Initiative Scope and Impacts
- > Achieving Equitable Building Upgrade Strategies

Buildings UP Scoring Criteria (equally weighted)

- 1. Assessing & Prioritizing Challenges
- 2. Addressing Challenges Through Innovation: Initiative Scope and Impacts
- 3. Scaling & Replicating Innovation through Community Involvement
- 4. Demonstrating Capabilities & Team Characteristics Critical for Success

5. Achieving Equitable Building Upgrade Strategies (additional criterion: Equity-Centered Innovation Pathway)

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Official Buildings UP Rules: https://www.herox.com/BuildingsUP/resource/1152

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Activity #1 - tell us about yourself

Which of the following best describes your organization?

- Government
- Non-government organization
- Foundation
- Corporate
- Consultant
- Community-based organization
- Utility

What buildings are the focus of your programs and policies?

- Single-family Homes
- Multifamily Homes
- Commercial
- A combination

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Starting with People

Underserved people include Black, Indigenous, and people of color communities; low-income communities; frontline communities; environmental justice communities; and other historically excluded and/or systemically excluded groups.



Communities

- Systemically marginalized communities are those most impacted by community decision making while denied involvement in mainstream economic, political, cultural, and social activities and whose life outcomes are disproportionately negatively affected by social structures.
- Under-resourced communities have high proportions of low- and middle-income residents and generally receive a below-average quality and amount of services and financial resources from government and the private sector.
- Frontline communities include the populations most impacted by multiple and cumulative sources of pollution and climate impacts due to proximity to toxic factories, fossil fuel refineries, neighborhood oil drilling, freeways, and other polluting facilities, often without access to clean drinking water or public investment.

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Equity-Eligible Commercial Buildings in the Buildings Upgrade Prize

- Buildings located within CEJST- and/or DOE-designated Justice40 census tracts, federally recognized tribal lands, and U.S. territories
- Underserved commercial, nonprofit, and public buildings
 - Buildings used by small disadvantaged businesses
 - Buildings used by businesses that serve disadvantaged communities
 - **Title I schools or schools** with high percentages of students qualifying for free and reducedcost lunch, high percentages of students from low-income families, or located in rural or remote areas
 - Buildings used by nonprofit organizations that provide localized community services
 - Buildings that provide critical community services
 - Buildings designated or planned to be designated for use as **resilience hubs or disaster shelters**
 - Other commercial or nonprofit buildings defined as equity-eligible through community input

See Section 3.5 of the Buildings UP Official Prize Rules on herox.com/BuildingsUP for more details

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Activity #2: What term do you use?

Do you use 'underserved commercial' for this kind of work? What term do you use?

- Underserved Commercial
- Under-resourced Buildings
- CommunityAnchorInstitutions
- Disadvantaged Commercial
- Other





Residential Retrofits for Energy Equity









- New construction (built after 2020) will make up an increasingly larger share of total buildings, and we must ensure it is efficient
- But the reality is that existing buildings, represented by the blue area, will remain the great majority of the building stock as far out as 2050. It is crucial that we decarbonize our existing buildings
- Buildings UP hopes to help address this massive opportunity in existing buildings





Residential Retrofits for Energy Equity



You can identify equity-eligible commercial buildings by using:

- 1. Federal mapping tools that designate disadvantaged areas. Links are included on the Resources slide at the end of this presentation.
- 2. Definitions of underserved commercial included in section 3.5, or pages 17-18, of the official prize rules.

Defining Underserved Commercial Locally



3. A locally developed definition of underserved commercial in your community.



Residential Retrofits for Energy Equity

Motivations for Scaling Upgrades

- Aligning energy & climate goals to reduce GHG emissions
- Address energy burden; promote energy equity
- Improve indoor air quality
- Enhance resilience of buildings and communities
- Job creation and economic development
- Promote social equity
- Build wealth; pathways to economic prosperity
- Better work with and serve communities
- "It's the right thing to do"



- To better understand how communities can address energy efficiency upgrades across these very different types of underserved commercial buildings, R2E2 held 14 interviews with:
 - Community-based Organizations
 - Jurisdictions
 - Utilities, and
 - Non-profits about their programs that have focused on this segment of buildings and communities.
- We heard common themes in terms of motivations for scaling upgrades:

Obstacles for Scaling Upgrades

- Financing
- Relationships
- Workforce
- Knowledge, Awareness, Education
- Time, Capacity
- Outreach and Engagement



Financing

- Upfront cost, Lack of access to capital, Lack of sustainable or long-term funding
- Making the business case to building owners and occupants

Relationships

- Mistrust of utilities
- Suspicion of hidden costs accompanying free services

Workforce

- Insufficient contractor/energy advisor workforce
- Lack of technically skilled workforce
- Workforce that is not reflective of the communities being

served

Knowledge, Awareness, Education

Lack of awareness/expertise: why energy efficiency is important, what to do, where to start

Time, Capacity

Lack of dedicated staff; insufficient staff capacity Lack of time or complications caused by long project timelines

Outreach and Engagement

Unsure how to tailor outreach and engagement strategies of existing programs to underserved communities



Common Gaps in Program Models for Underserved Commercial

- Not going beyond an energy assessment or direct install measures
- Insufficient financing and rebates
- Lack of culturally appropriate service models and community outreach and engagement tactics
- Lack of data
- Lack of alignment between city and utility goals, strategies, and service offerings

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- Not going far enough
 - Offerings limited to education, a free energy assessment, or direct install measures not enough to achieve meaningful savings
- Insufficient financing and rebates
 - DIY measures undertaken by small businesses are often ineligible for rebates
 - Many programs lack sufficient long-term, dedicated funding to make them sustainable beyond the lifespan of a grant/finite funding source
- Lack of culturally appropriate service models and community outreach and engagement tactics
 - Insufficient program offerings to support the needs of specific sectors like nonprofits, schools, or houses of worship
- Lack of data
 - To identify underserved commercial buildings
 - To indicate community-specific needs
 - To track follow-through with upgrades
- Lack of alignment between city and utility goals, strategies, and service offerings
- Leaves it up to entities seeking upgrades to navigate multiple, complicated, and sometimes contradictory offerings
- Initiatives can also be inhibited by restrictive or unsupportive local or state policy and regulatory environments

Suggested Solutions

- Provide in-depth support
- Plan for innovative financing
- Reduce the burden of participating
- Ensure broad stakeholder involvement
- Involve the community in initiative design



- While there is no one-size-fits-all solution for these obstacles, we heard some common themes across existing initiatives for how to tackle some of these challenges.
- Provide in-depth support
 - 1x1 advising, long-term relationships with building owners/occupants pursuing upgrades, ongoing education about opportunities
 - Assistance navigating multiple program offerings, rebates, and incentives
- Plan for innovative financing
 - Reduce upfront cost and overall cost to building owners and occupants to the greatest extent possible
 - Offer unsecured, low- or no-cost loans to assist with financing
 - Consider braided funding opportunities
- Reduce the burden of participating
 - Make all materials accessible to a broad audience (avoid jargon, provide

materials in languages other than English) and ensure easy access to information (including translation and interpretation)

- Aid with grant writing and accessing funding
- Ensure trainings and technical assistance are responsive to people's work schedule constraints (e.g., how can small businesses step away in the middle of the day?)
- Tap into existing community infrastructure to give people the information that they need in a setting that's convenient to them
- Ensure broad stakeholder involvement
 - Successful initiatives will take a broad approach to improving building efficiency, and should include involvement from stakeholders from community-based organizations, different levels of government, project implementers like weatherization and electrification contractors, and others.
- Involve the community directly in initiative design
 - Initiatives will not be successful if they are not designed to meet the selfidentified needs and priorities of the groups you are looking to serve and engage with

The Importance of Community

- Go to your communities and listen; don't expect the community to come to you
- Partner with minority-serving entities and have relationships with groups that are embedded within and trusted by the communities you want to work with
- Take time for robust and culturally relevant and accessible community engagement
- Be okay with not being the expert, and bring in the people or groups with the appropriate on the ground expertise for the communities you're working in
- Have community voices at the table in the design process as early as possible <u>and</u> throughout the process; **you will only learn how to serve underserved communities from those communities themselves**
- Talk with the people who do the work <u>before</u> determining metrics of success they will know best what success actually looks like
- Be open to including other community priorities in the project plan beyond your initial vision
 - E.g., one health center retrofit project did a year of community engagement and ended up including other services like cooking classes based on community priorities

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Across the board, what we heard most in those interviews with underserved commercial program implementers was how crucial it is to involve input from communities in the design and implementation of services. Specific lessons learned and advice included:





The project helps reduce the energy burden on nonprofits, empowers organizations to serve as a resource for their constituents, and demonstrates the value in delivering climate action to every community through:

- Providing both consulting services and financial support for upgrades
- 15 community centered organizations spanning 11 Chicago neighborhoods
- Case studies detailing each participant, energy upgrades, and cost savings

Boulder County PACE

- PACE Small Business Equity Program
- Refrigeration and restaurant equipment grant
- Multi-lingual
- Acquires equipment for businesses



https://pacepartners.com/small-business/

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Boulder County's <u>Partners for a Clean Environment (PACE</u>) program was redesigned about 5 years ago to specifically focus on underserved, hard-to-reach businesses

- Developed a locally-specific definition of underserved commercial
- Incorporated racial equity by gathering data that showed that most minorityowned small businesses were restaurants
- Hired Spanish-speaking staff and made all materials and services available in Spanish
- Covers 70% of project cost upfront
- Manages logistics of upgrades; coordinates with contractors through technical assistance
- **Partners** with the Latino Chamber of Commerce for community engagement and outreach
- Partners with their utility on additional EE pilot programs, such as swapping out fluorescents



Energize Denver Ordinance is Denver's benchmarking and building performance standard to enhance existing commercial buildings

As part of this, they wanted to determine how to support underserved "Equity Priority Buildings" through:

- A locally-specific definition of underserved commercial
- Criteria for compliance assistance for the Energize Denver Performance Policy
- Additional support/resources in the form of long-term free compliance assistance including multi-lingual support
- One of the keys to Denver's success is that they hired an Equity Administrator to support their work

Scaling Underserved Commercial Building Upgrades

- Build a team
- Engage with the community
 - Listen to those from the community, both residents and leaders, to understand what is needed
 - Consider compensating them, if possible
- Establish collaborations among stakeholders
 - Establish partnerships among the many organizations
 - Include residents/community leaders, local governments, housing authorities, developers, financiers, utilities, community-based organizations, environmental justice organizations, and owners
- Incorporate strategies to meet community goals
- Educate residents, building owners, contractors, and suppliers
- Secure funding and financing
 - Create and offer attractive financing options
 - Braid complementary funding streams

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Based on the case studies and interviews, scaling underserved commercial building upgrades includes the following

Learning goals/Takeaways

- Outline why underserved commercial buildings are a priority building category for upgrades
- Understand what types of buildings can be considered "underserved commercial" to inform building upgrade program design
- Understand barriers to upgrades in this building category and options for overcoming those barriers
- Learn from case studies and resources currently available
- See how local jurisdictions are centering equity in building upgrade programs supporting underserved commercial buildings
- Begin crafting a locally appropriate definition of underserved commercial for your community, and begin choosing which segments to target
 - (E.g., Based on location, ownership type, business/entity type, building size, community-serving businesses, etc.)

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We hope you takeaway why certain commercial buildings are underserved, common barriers to pursuing upgrades, and potential strategies for overcoming or addressing those barriers.

Upcoming Webinars

- April 28 Training Webinar, 1 pm ET
 Drivers of Energy Efficiency in Affordable Housing
- May 4 Informational Prize Overview Webinar, 11 am ET
- May 10 Training Webinar, 1:30 pm ET • Choosing your Building Upgrade Zone
- May 11 Training Webinar, 12 pm ET
 - Building Upgrades: An Opportunity for Workforce
 Development and Economic Inclusion
- June 13 Informational Prize Overview Webinar, 2 pm ET



Scan to view additional details and register for training webinars.

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Office Hours

• Tuesday, May 2, 12:30 ET

- · Topics covered:
 - Introduction to community-driven planning
 - Accessing funding sources for building upgrades
 - Energy efficiency programs 101
 - Prize and application questions

• Monday, May 15, 2:30 ET

- Topics covered:
 - Considerations for underserved commercial buildings
 - Drivers of energy efficiency in affordable housing
 - Prize and application questions



Scan to view additional details and register for training webinars.

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Resources

- Am eren Illinois' SMB offerings for 'Em power' communities. <u>https://www.am erenillinoissavings.com/business/industry-solutions/small-business/</u>
- Boulder County PACE Sm all Business Equity Program. <u>https://pacepartners.com /sm all-business/</u>
- City & County of Denver Under-Resourced Buildings. <u>https://www.denvergov.org/Governm ent/Agencies-Departm ents-Offices/Agencies-Departm ents-Offices-Directory/Clim ate-Action-Sustainability-Resiliency/High-Perform ance-Buildings-and-Hom es/Energize-Denver-Hub/Buildings-25000-sq-ft-or-Larger/Perform ance-Requirem ents/Equity-Priority-Buildings
 </u>
- Elevate's Chicago Non-profit Pilot with Com Ed. <u>https://www.elevatenp.org/m ulti-fam ily-energy-savings/</u>
- U.S. Departm ent of Energy Justice40. https://www.energy.gov/diversity/justice40-initiative
- Neighborhood Power Project. <u>https://illinoisgreenalliance.org/neighborhoodpowerproject/</u>
- Pepco's Sm all Business and Energy Advance program s. <u>https://hom eenergysavings.pepco.com /m d/business/sm all-business/sm all-business/sbea</u>
- Public School Carbon Free Assessm ent work in Illinois through Ameren. <u>https://sm artenergy.illinois.edu/public-schools-carbon-free-assessm ent-program /</u>
- TVA Community Centered Growth (CCG). <u>https://energyright.com/business-industry/community-centered-growth/</u>
- TVA Equity Action Plan. <u>https://www.tva.com /inform ation/equity-action-plan</u>
- Clim ate and Economic Justice Screening Tool (CEJST). <u>https://screeningtool.geoplatform.gov/en/#3/33.47/-97.5</u>
- Energy Justice Mapping Tool Disadvantaged Communities Reporter.<u>https://energyiustice.eqs.anl.gov/</u>

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