

March 2025



Community Health Priorities and Building Performance Policies

IMT, NRDC, Elevate



Acknowledgements

Thanks to everyone at the participating organizations who contributed to this paper. In particular:

Current and Former NRDC Staff: Caroline Keicher, Olivia Walker, and Veena Singla

Current and Former IMT Staff: Louise Sharrow, Alexes Juarez, Jessica Miller, Ella Wetlesen, Alexandra Laney, Caitlin Caplinger, Marshall Duer-Balkind, Rita Perez

Current and Former Elevate Staff: Quinn Biever, Yami Newell, Marisa Joyce, Gustavo Sandoval, Dara Reiff

Community Advisory Committee Members:

- Aretha Berdell (Garfield Park Community Council)
- Chelsea Kirk and Grace Hut (Strategic Action for a Just Economy)
- Courtney Hanson (People for Community Recovery)
- Jonathan Wilson (National Center for Healthy Housing)
- John Bartlett (Metropolitan Tenants Organization)
- Linda Johnson and Christa Hunt (Greater Auburn-Gresham Development Corporation)
- Naomi Davis and Stephan McBride (Blacks in Green)
- Ruth Ann Norton (Green and Healthy Homes Initiative)

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Executive Summary

Building Performance Standards (BPS), a policy type that establishes specific energy and/or greenhouse gas targets that large existing buildings are required to meet, are growing in popularity amongst local and state jurisdictions as a decarbonization tool. Concurrently, awareness is also increasing of the need to ensure that energy policies are addressing community priorities and uplifting issues such as health and affordability in parallel with greenhouse gas reductions. Because BPS policies will result in widespread upgrades to appliances and systems that affect indoor air quality, ventilation, and thermal comfort, there are opportunities to integrate building health considerations into building performance standards. However, no existing BPS includes metrics or parameters that center health outcomes. This project examines this opportunity.

In this project, three national nonprofits convened a Community Advisory Committee consisting of Chicago and Los Angeles community-based organizations and national healthy building nonprofits to solicit community priorities related to health in building decarbonization. Our goals were to: 1) develop policy solutions to increase the cross-cutting impacts of a BPS as it relates to health outcomes; 2) address unintended consequences related to health and affordability; and 3) evaluate companion policies to better address health and affordability inequities. These findings are broadly applicable; however they are also specific to the communities who participated and each community will have locally specific priorities. This document can serve as a starting point for both governments and advocates to craft decarbonization policies that center community priorities, and for insights on how to collaborate across sectors and interest groups.

Report structure

Our report contains specific recommendations to achieve these goals. Section I summarizes the existing literature around buildings, energy, and health. It discusses healthy home principles^[1] that encompass the physical and social aspects of a building that impact resident health. These interact with the social determinants of health^[2], which reflect conditions in the larger environment, such as economic stability and social context. This section also provides examples of energy efficiency and electrification programs which take health into account through whole home assessments, health and safety funding, removing fossil fuel contaminants, and other interventions.

In Section II, we summarize the conversations with the Community Advisory Committee. The committee members' experiences build on the literature-based findings to show the need to emphasize equity in health determinants and outcomes ranging from the presence of moisture and poor air quality to air quality and broader issues that also impact health such as utility burden or housing insecurity. Through a series of conversations and exercises, the Community Advisory Committee landed on four priority areas detailed in the next section.

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1. National Center for Healthy Housing, "The Principles of a Healthy Home", 3/18/25, <https://nchh.org/information-and-evidence/learn-about-healthy-housing/healthy-homes-principles/>.
 2. U.S. Department of Health and Human Services and Office of Disease Prevention and Health Promotion, "Social Determinants of Health", 3/18/25, <https://odphp.health.gov/healthypeople/priority-areas/social-determinants-health>. See also: Cleveland Clinic, <https://my.clevelandclinic.org/health/articles/social-determinants-of-health>.

Advisory Group Priorities:



Housing
stability



Cooling



Energy
Burden



Air quality
and ventilation

Section III provides potential policy solutions organized around these priority areas. It provides additional context for Chicago and Los Angeles, details policy considerations and possible unintended consequences, and discusses what to include in a proposed BPS versus companion legislation.

Takeaways

The conversations arising from the Community Advisory Committee make clear that a BPS alone is not enough, and that complimentary, companion, or prerequisite policies are needed in order for a BPS policy to have a positive community-wide impact on the four health priorities. This is partly because BPS policies typically target large buildings, limiting which neighborhoods and populations directly benefit from building health improvements. It is also due to the interconnectedness of health, affordability, and climate. Despite the typically narrow energy/emission reduction focus of BPS policies, they also can and do impact affordability, displacement, and investment choices in buildings; these factors can impact quality of life and health. First and foremost, by examining these intersections, we want to help prevent BPS policies from causing unintended harms. Second, we want to highlight opportunities to improve health and quality of life through BPS policy levers.

An important caveat to note for this paper – a BPS policy, even coupled with complementary policies, is not a silver bullet for improving health outcomes; no one policy intervention can address all of the multiple and cumulative exposures and resulting health impacts that people experience from living, working, and recreating in buildings. That being said, a BPS can be designed to be a climate policy with a positive influence on the health (and affordability) impacts of buildings themselves, which are not insignificant, especially when viewed as one piece of a much larger health-impacts picture. It is clear that incorporating health, as it is experienced by residents, goes beyond considering just the physical components of a building; it encompasses a holistic understanding of what it means to invest resources to improve housing quality and stability. One committee member explained that while they care about climate, they also want to be sure that “addressing the climate crisis does not result in worsening of our housing crisis.”

It is also clear that not all communities or buildings are the same, and there is no one policy that can cover them all. A BPS can not, and should not, cover every building, so companion policies that touch smaller buildings and other aspects of health, including housing stability, also must be part of a holistic package. We hope this paper gives both advocates and policymakers a useful starting place to build greater engagement around co-designing policies that can address intersecting issues and are tailored to the community.

Policy Priorities

The Community Advisory Committee members raised many health and building policy priorities. The four top priorities described here received the most support and attention. The full report discusses additional areas of concern and potential that were raised by individual members.



Priority 1: Housing stability

Keeping current residents in their homes is a critical health priority. Renovations resulting from BPS compliance have the potential to exacerbate housing instability and associated health problems if displacement risks are not intentionally addressed in policy design. A community engagement process to uplift intersections between a BPS policy and local housing issues can catalyze a discussion and find potential solutions. Just cause eviction and rent stabilization ordinances are strategies to complement a BPS.



Priority 2: Cooling

Deadly extreme heat, exacerbated by climate change, threatens the health of all communities but especially vulnerable and frontline populations. Building or unit-level cooling requirements, following the model of long-established laws requiring rental units be adequately heated in winter, is one promising policy intervention. However, cooling laws also have the potential for unintended consequences for electricity costs and reliability. This can be alleviated by aligning cooling with efficiency, through a BPS or other provisions.



Priority 3: Energy burden

Energy burden is a measure of how much a household spends on energy costs, as a percentage of their income. A household that spends more than 6% of their monthly income on energy costs is considered energy burdened^[3]. For the purposes of this report, the focus was on how to ensure that a BPS does not exacerbate energy burden and ideally improves it, acknowledging that a focus on energy or greenhouse gas savings alone can hide the risks of energy cost increases if they are not explicitly addressed.



Priority 4: Indoor air quality (IAQ) and ventilation

Reduced asthma and improved overall health are top community priorities. For the purposes of this paper, we consider these through the lens of building improvements' ability to impact indoor air quality and related health burdens. Improving air quality is extremely complex and cannot be solved through building interventions alone. However, building interventions can play a part in improving indoor air quality (IAQ) through removing sources of indoor contaminants, and/or improving ventilation to help dilute or

3. Per the ACEEE paper "[Understanding Energy Affordability](#)": "The 6% affordability threshold is based on Fisher, Sheehan and Colton's Home Energy Affordability Gap Analysis. This affordability percentage is based on the assumption that an affordable housing burden is less than 30% of income spent on energy, and 20% of housing costs should be allocated to energy bills. This leads to 6% of an affordable housing burden spent on energy costs, or a 6% energy burden. For more information, see www.homeenergyaffordabilitygap.com/." See also: National Renewable Energy Laboratory. "Household Energy and Transportation Burden," *State and Local Planning for Energy*, accessed 3/20/2025, <https://maps.nrel.gov/slope>.

remove contaminants. As with energy burden, a BPS can take a “Do No Harm” approach to ensure policy implementation doesn’t inadvertently worsen IAQ, and also play a part in improvements as a component of a multi-pronged approach to improving air quality and health.

Introduction

BPS, health, and community

As governments advance building decarbonization, there is a critical opportunity to safeguard and even improve health, equity, and affordability outcomes for vulnerable communities. Buildings have deep health implications for their residents and for climate outcomes; this health-energy nexus should not be overlooked.

A **Building Performance Standard (BPS)** is an outcome-based policy that requires, by specific deadlines, existing buildings of specified sizes and/or types achieve quantified standards of measured building performance across one or more metrics -such as energy use, water use, and/or greenhouse gas emissions. The policies often set long-term and interim targets to provide regulatory certainty and provide multiple compliance pathways to offer flexibility, especially for affordable housing or other priority building types.

Building Performance Standards (BPS) are a relatively new, and increasingly popular, policy approach to improve existing buildings and help local and state governments meet their climate goals. They typically set specific energy and/or greenhouse gas targets for large commercial and multifamily buildings. Because compliance with a BPS will require upgrades to appliances and systems that affect indoor air quality, ventilation, and thermal comfort, there are opportunities to integrate building health considerations into building performance standards. However, it is not yet clear how to best incorporate the opportunities to improve health and affordability outcomes into these policies. While many BPS laws have been passed⁴, as of early 2025 none have yet entered their first compliance period, so the exact impact on health and affordability is not yet known.

It is important that policy designers take into deep consideration the specific needs and priorities of their local communities and work with impacted and frontline residents to craft policies. In some cases, a BPS is not the best option to address a particular issue; instead, a BPS should be advanced in partnership with companion policies or programs to reduce unintended consequences and gain broader support.

Chicago and Los Angeles are both in the process of developing versions of a BPS policy, and both are exploring how health impacts and tenant protections might be incorporated. This project brought together nonprofit organizations serving frontline communities in those cities alongside national healthy housing organizations to weigh in on this topic, as described in our Methodology section, below. This report summarizes the learnings from those discussions, and shares potential policy solutions.

4. For a map and additional details on the policies, see the Institute for Market Transformation “Building Performance Standards” page at <https://imt.org/public-policy/building-performance-standards/>.

Our hope is that governments can use this document as a starting point for centering community priorities in decarbonization policies, and that community groups see new connections and solutions across issues that can bolster their advocacy. These suggested policy solutions are not meant to be copied and pasted wholesale into a BPS; rather, they are a menu of ideas that can be adapted to the local context through robust community engagement, partnerships, and shared decision-making^[5]. Some options are meant as companions to a BPS and some as a way to improve a BPS itself. The energy efficiency and healthy building sectors have long advocated for the benefits of an integrated “whole home” approach, and the results of Community Advisory Committee discussions only underscore the importance of integrating all these components.

Methodology

The Natural Resources Defense Council (NRDC) partnered with Elevate and the Institute for Market Transformation (IMT) to administer this project. Together, these organizations (the project team) created the project structure and then invited partners to be a part of the Community Advisory Committee. This committee was composed of staff from national and community-based organizations (CBOs) focused on building decarbonization, health, and affordable housing. Because health and buildings have a wide-ranging impact on other issues, even organizations that do not have a stated focus on health have perspectives that are vital to this conversation. Only CBOs providing services to Los Angeles and Chicago were invited to the Community Advisory Committee due to the project’s goal of producing actionable policy recommendations for both localities. CBO participants included:

- **Chicago:** Blacks in Green (BIG), Garfield Park Community Council (GPCC), Greater Auburn-Gresham Development Corporation (GAGDC), Metropolitan Tenants Organization (MTO), People for Community Recovery (PCR)
- **Los Angeles:** Strategic Actions for a Just Economy (SAJE)

Green & Healthy Homes Initiative (GHHI) and National Center for Healthy Housing (NCHH) contributed a national perspective on public health. Community Advisory Committee members gathered information on the priority of healthy building issues from colleagues and the communities they serve, participated in committee meetings, reviewed and provided feedback on the report recommendations, and discussed how to use the report as an advisory tool.

The committee held six, one-hour virtual meetings from September 2023 to March 2024. Committee members received \$4,500 stipends for their participation. The meetings involved structured prompts and questions designed to allow the participants to speak about the health and housing challenges faced by the communities they serve. The participants used online collaboration tools such as Padlet, Jamboard, and word clouds, as well as discussion and storytelling, to identify priority issues of concern and potential solutions. The project team also held one-on-one conversations with some participants to ensure their feedback was included.

Before the meetings began, the project team compiled a review of literature around healthy buildings and reviewed relevant policy examples. In parallel with the committee meetings, the project team consolidated feedback, drafted this report, and periodically brought report sections to the committee members for feedback and review.

5. For more on community engagement, seek out resources such as IMT’s Community Engagement Framework. <https://imt.org/community-engagement/framework/>

Section I. Literature Overview of Buildings and Health

A large body of research exists looking at the intersections of health and buildings, especially health and energy in buildings. This section reviews the major learnings from this research.

Americans spend up to 90% of their time indoors[6]. As climate change increases severe weather, people will spend more time indoors, understanding the effect of the indoor environment on our health is increasingly important. Buildings have the potential to both negatively affect our health as well as protect and improve it. Because the buildings we live, work, and play in can range from century-old structures to new developments, it's critical to understand how different building components relate to human health.

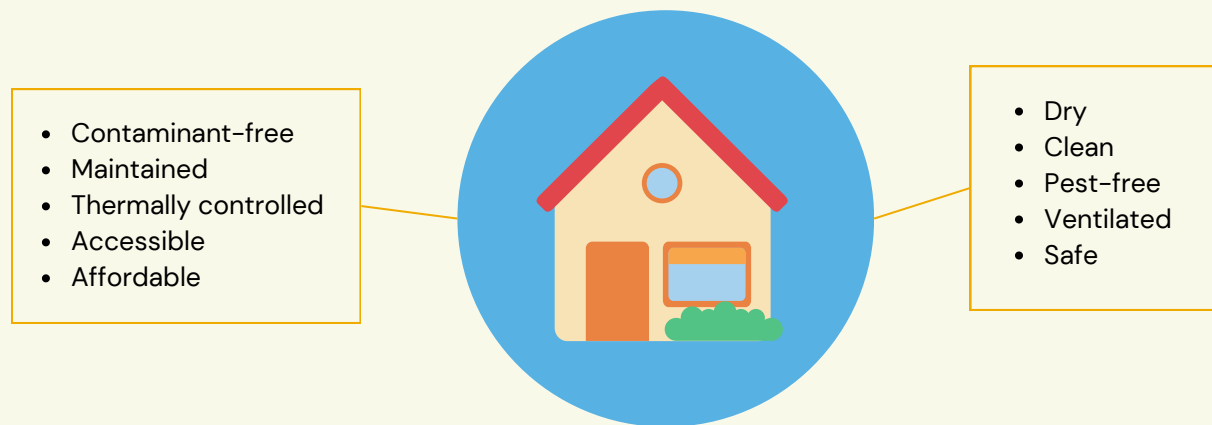
It is also critical to recognize that no building performance policy can fix all of the health issues that stem from humans spending the majority of their time inside buildings. Indoor Air Quality (IAQ) is very complex, and is comprised of multiple exposures from building materials, appliances, furniture, paint, etc., coupled with external factors. Superb ventilation cannot keep people safe from outdoor air pollution (often a result of energy production, car exhaust, nearby freeways, warehouses, ports, industrial facilities, etc.). Removing a gas burning stove or other gas-fueled appliance can eliminate one source of indoor air pollution, but it does not remove the rest. Cumulative impacts, or the collective impacts from all pollution sources in a community, are often felt hardest by communities of color and low-income families[7]. In the United States, people of color are 1.5 times more likely than white people to live in areas with poor air quality and to suffer the many health problems associated with it[8]. A BPS policy, even coupled with complementary policies, is not a silver bullet for improving health outcomes; no one policy intervention can address all of the multiple exposures from buildings and the areas in which they are located. That being said, a BPS can be designed to be a positive influence on the health impacts of buildings themselves, which are not insignificant, especially when viewed as one piece of a much larger health-impacts picture.

The following are intersections of buildings with human health as described in the literature. These intersections acted as a foundation for discussions with the Community Advisory Committee by helping the project team understand the realities of frontline communities relating to healthy housing and housing habitability.

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6. U.S. Environmental Protection Agency, "Indoor Air Quality", 3/18/25, <https://www.epa.gov/report-environment/indoor-air-quality>.
 7. For examples of cumulative impacts in policy, see examples such as Colorado (<https://www.nrdc.org/bio/ella-norman/cumulative-impacts-rulemaking-colorado-must-not-fail-communities>) and Chicago (https://www.chicago.gov/city/en/depts/cdph/supp_info/Environment/cumulative-impact-assessment.html).
 8. U.S. EPA, "Integrated Science Assessment for Particulate Matter", December 2019 EPA/600/R-19/188. See also the American Lung Association, "State of the Air", 2020 and 2024; and Natural Resources Defense Council, "Clean Air", 3/18/25, <https://www.nrdc.org/issues/clean-air>.

Definitions of a healthy building

There are many aspects of a healthy building. The National Center for Healthy Housing (one of the Committee members) describes [10 principles that make up a healthy home](#)[9]. These principles are that a home should be:



The Green and Healthy Homes Initiative, which participated in the Community Advisory Committee, adds “energy efficient” as a core principle as well[10]. The [Harvard’s School of Public Health ‘9 Pillars of healthy buildings’](#) has some overlap with the NCCH and GHHI principles but adds items such as water quality, air quality, noise, and lighting & views[11].

These components all aim to reduce health impacts such as headaches, respiratory problems, asthma, heat stroke and death, elevated blood pressure, stress, mental health disorders, and more. Many of these items have a clear connection to energy systems in a building. HVAC systems can affect moisture, air quality, and temperature levels. Ventilation systems, weatherization, and lighting types are all energy systems that also overlap with health. Building materials that may be used during construction or retrofit such as paint, wood, or even furniture can contain hazards such as lead[12], asbestos[13], radon[14], VOCs, formaldehyde, and more, which can lead to a range of symptoms from respiratory irritation to increasing cancer risk. On top of this, climate change interacts with and exacerbates many of these issues, from increasing flood events that create moisture and mold problems, to extreme temperatures or wildfire smoke that reduces the ability to use ventilation to treat indoor air quality.

9. National Center for Healthy Housing, “The Principles of a Healthy Home”, 3/18/25, <https://nchh.org/information-and-evidence/learn-about-healthy-housing/healthy-homes-principles/>.

10. Green and Healthy Homes Initiative, “10 Elements of a Green and Healthy Home”, 3/18/25, <https://www.greenandhealthyhomes.org/home-and-health/elements-green-healthy-home/>.

11. Harvard T.H.Chan School of Public Health, “The 9 Foundations of a Healthy Buildings”, 3/18/25, <https://healthybuildings.hsph.harvard.edu/about/9-foundations-of-a-healthy-building/>.

12. U.S. Environmental Protection Agency, “Protect Your Home from Sources of Lead”, 3/18/25, https://www.epa.gov/lead/protect-your-family-sources-lead#sl-home_.

13. U.S. Environmental Protection Agency, “Learn About Asbestos”, 3/18/25, https://www.epa.gov/asbestos/learn-about-asbestos#find_.

14. U.S. Environmental Protection Agency, “Radon”, 3/18/25, <https://www.epa.gov/radon>.

Buildings also contribute to social determinants of health^[15]. These are conditions in the larger environment that impact health outcomes and include economic stability, education access and quality, neighborhood and built environment, healthcare access and quality, and social and community context. Building upgrades can improve some of these determinants, but also could put others at risk through displacement, which disrupts economic and community stability. Knowing that low-income neighborhoods or communities of color may face more risks from these social determinants—due to systemic issues such as segregation and disinvestment—only increases the need to work directly with these communities to understand the priorities that address issues holistically, and ensure that potential risks from upgrades are anticipated and addressed.

Health-energy nexus

Particular building components or energy efficiency measures are often directly connected to both energy and health impacts, so that energy retrofits can be leveraged to improve health. HVAC systems, which typically make up the largest portion of building energy use, are a prime example. They affect health through dictating whether the building can maintain an appropriate temperature, the potential to reduce IAQ through effective ventilation or contribute to poor IAQ through directly producing indoor air quality pollutants such as via combustion of natural gas in a furnace. Energy efficiency measures can improve air quality by installing more efficient and less leaky equipment that can provide better thermal comfort for less energy, or by electrifying and replacing combustion equipment with cleaner options. However, it is important that projects are carried out properly to ensure that weatherization does not trap poor air inside, or that construction projects do not generate respiratory irritants such as particulates or contaminated dust which can be harmful to both workers and residents.

The cost of energy also has an impact on health. For example, many residents face a “heat or eat” dilemma which can force them to make the difficult choice of whether to skip healthy food or medical care to pay an energy bill. Efficiency retrofits should reduce energy burden, but cost reductions should not be assumed to happen automatically—energy audits and project plans should intentionally calculate cost alongside energy and carbon savings. In addition, if building upgrades required by a policy have significant upfront costs, there is a risk of the owner passing on those costs to the tenants through rent increases. Rent increases in the residential sector create direct effects on health by causing stress on the renter, which may cause hypertension or other ill effects. Rent increases can also decrease a renter’s ability to buy healthy foods or even force a resident to move out. Displacement can cause stress, disrupt medical treatment and social networks, interrupt education and contribute to job loss.

15. U.S. Department of Health and Human Services and Office of Disease Prevention and Health Promotion, “Social Determinants of Health”, 3/18/25, <https://odphp.health.gov/healthypeople/priority-areas/social-determinants-health>. See also: Cleveland Clinic, <https://my.clevelandclinic.org/health/articles/social-determinants-of-health>.

Electrification and health

Electrification may affect health by improving indoor air quality and thermal health. According to the [California Air Resources Board](#), fossil fuel burning inside the home can decrease indoor air quality if not properly ventilated[16]. Fossil fuel appliances like gas stoves are known to emit respiratory irritants and toxic gases such as nitrogen oxides, carbon monoxide, and benzene[17]. Gas stoves often do not have filtration equipment or ventilation requirements, so there is little or no protection from these pollutants. Replacing gas stoves with electric options can improve indoor air quality by removing one source of respiratory irritants[18].

Electric heat pumps are a contaminant-free and highly efficient alternative to gas or oil-fired heating systems. They also have the added benefit of providing both heating and air conditioning, therefore improving thermal comfort and health. Of course, the resident still has to pay for that electricity use—another reminder of how concerns such as affordability and energy burden tie directly into other health concerns.

Energy efficiency programs and health

Many energy efficiency programs already address health concerns, and can offer insights into possible policy solutions. Energy efficiency has long been promoted in the U.S. through utility programs and the federal Weatherization Assistance Program. However these programs were often constrained in their impact because of the problem of [deferrals](#)—homes that have health and safety issues such as mold or asbestos that must be addressed before energy measures can be installed[19]. Dedicated funding to help address health and safety issues is becoming more common, but is needed in vastly larger quantities to effectively address the need.

Some utility and nonprofit programs go beyond basic health and safety issues to offer comprehensive “healthy home” programs which take a more comprehensive approach. Such programs intentionally address energy efficiency improvements alongside upgrades targeting health including air filtration or healthy materials. Locations across the country are starting to use programs and policy to target GHG emissions, IAQ, pollutant exposure, and utility funding for healthy and safety[20].

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16. California Air Resources Board, “Zero-emission space and water heaters FAQs”, 3/18/25, <https://ww2.arb.ca.gov/our-work/programs/building-decarbonization/zero-emission-space-and-water-heat-standards/faq>.
 17. Brady Anne Seals and Andee Krasner, “Health Effects from Gas Stove Pollution”, RMI, 2020, <https://rmi.org/insight/gas-stoves-pollution-health>. See also Yannai S Kashton et. al., “Gas and Propane Stove Combustion from Stoves Emits Benzene and Increases Indoor Air Pollution”, Environmental Science and Technology, 57(2023): 9653-9663, <https://pubs.acs.org/doi/pdf/10.1021/acs.est.2c09289>.
 18. There are multiple types of electric stoves but all have emissions than gas stoves. For more on the differences, see for example this CNET guide: <https://www.cnet.com/home/kitchen-and-household/deciding-between-an-induction-or-electric-stove-what-to-know-first/>.
 19. Metzler et.al., “Midwest Energy Efficiency Alliance Deferrals Workshop”, 3/18/25, <https://www.meeaconference.org/sites/meeaconference.org/files/Metzler-Katrina-Workshop-C3.pdf>.
 20. Some examples include the [provisions for health and safety funding](#) in Illinois’ 2021 Clean and Equitable Jobs Act, Philadelphia Energy Authority’s [Built to Last program](#) which brings together multiple programs including health into one offering, the U.S. Department of Housing and Urban Development’s Healthy Homes program, and the Green and Healthy Homes Initiative [pioneering program model](#).

Health metrics

Identifying measurable and standardized metrics can be a barrier to incorporating health in energy programs and policies. Health outcomes arise from a complicated mix of cumulative impacts and multiple exposures. Individual health metrics are also constrained by privacy concerns. These difficulties mean that it is more common to use health inputs as proxies, for example using indoor air quality measurements as a proxy for expected asthma outcomes. However even these inputs, such as levels of particulate matter or chemicals in the air, can be technically difficult and expensive to measure. In addition, for many of these indoor pollutants there are no clearly established level thresholds of what amount of a specific contaminant is considered “healthy,” further complicating the setting of standards and metrics when compared to the typical BPS metrics of energy use intensity, electricity use, and carbon emissions – which are clearly defined and easily measured. This is why including IAQ into a performance and metric-driven standard such as a BPS is so far only theoretical, and therefore untested, and would require creative approaches and holistic thinking to overcome the challenges we’ve touched on. Section III will discuss potential solutions in more detail.



Section II. What We Learned in Conversation

From the very first Community Advisory Committee meeting, it was clear that buildings, health and affordability are inextricably linked. To solve these challenges, we need to think concurrently about multiple solutions, such as a BPS and health-based building certifications. Participants expressed that preserving existing buildings is a priority and noted that many of their community members live in (or own) smaller buildings that would not typically be covered by a BPS, reinforcing the need for companion policies that could improve those buildings.

Initially, the Community Advisory Committee identified three themes that intersect with BPS policies:

- Equity in health outcomes (for children, disadvantaged groups, low-income residents)
- Health concerns related to air quality
- Tenant rights/anti-displacement

Several participants also raised concerns around asthma and specific housing problems such as mold, lead, radon, asbestos, and pests. The image below shows a word cloud reflecting some of what was discussed.



Our goal in these meetings was to come to consensus on the shared priorities that of multiple communities. The project team worked to narrow down these broad priorities to actionable policy actions. We asked the participants to identify the health exposures and outcomes they see in their communities. The most common responses were:

- **Exposures:**
 - Utility burden
 - Housing insecurity
 - Moisture/dampness/leaks
 - Lead
- **Outcomes:**
 - Asthma
 - Mental health impacts

Additional exposures and outcomes mentioned include, including mold, rodents, gas stoves, safety inside and outside the home, temperature, flooding, cancers, heart disease, developmental concerns, and heat- or cold-related diseases. Having established a clearer picture of the many overlapping issues of concern, we turned to solutions. We asked the participants what programs, policies, or approaches in any arena that have shown success and could serve as general models for BPS or other health & energy policies. Their answers, below, showed the diversity of solutions as well as potential pitfalls to be avoided.

- **Tenant organizing.** Tenants organizing together, informally or through associations, ensure landlords are following the laws, and organizing for better laws and protections.
- **Renter pressure for repairs:** Two Los Angeles programs: an automatic home inspection program, and the [Rent Escrow Account Program \(REAP\)](#), which gives a formal structure for tenants to withhold rents until the landlord makes certain repairs.
- **Mortgage assistance and housing counseling.** These are federal programs.
- **Home improvement programs.** Federal, city, nonprofit, and utility programs for weatherization, home improvement, roof and porch repair, and housing repair for seniors, including senior landlords.
- **Funding lotteries.** Many highly beneficial programs have large gaps between funding availability and participant demand. Properly allocating this limited funding is a central aspect of program design. Lotteries, such as used in Chicago’s roof and porch repair program, is one method to address fairness but it can also create uncertainty and may not address equity.
- **Code compliance.** A focus on code compliance and enforcement can help maintain a baseline of safe homes, addressing in particular absentee owners and deferred maintenance. In some programs building in code compliance reduces administrative burden, other programs choose not to look at code violations in order to reduce barriers to participation. Careful participant engagement and program design can help determine what path to take, or whether a stand-alone code-focused program is most needed. The shortage of building inspectors indicates a growing need in this program area[21].
- **Tenant-focused programs.** Many programs are for homeowners and are less likely to reach low-income renters. Additional attention must be paid to ensure tenants can access similar support. One example of this is in the [California Energy Commission's Equitable Building Decarbonization Program](#), which includes protection against rent increases and displacement following renovations. For programs like these, however, success will ultimately depend on how effectively they are enforced.
- **Incentive navigation.** Simply providing incentives does not guarantee they reach those in need. Additional support to ensure incentives are accessible have proven useful. These can include “one-stop shop” programs, centralized incentive directories, or program navigator staff[22] among other solutions.

21. International Code Council, “The Future of Code Officials”, August 2014, <https://media.iccsafe.org/docs/ICC-NBIS-Future-Of-Code-Officials.pdf>.

22. Healthcare provides one model of incentive navigator programs, such as Get Covered Illinois. <https://www.illinois.gov/news/press-release.30123.html>

- **Rental assistance.** Providing direct monetary assistance to cover rent benefits both the landlord and the tenant. While expensive, it has immeasurable impacts on health as well as affordability. A number of model rental assistance programs were introduced in response to COVID-19, though none were large enough to meet demand and many are no longer in operation[23].
- **Trusted and embedded partnerships.** Time and again the importance of using trusted partners to overcome barriers of government distrust, and of building long-term relationships rather than short term transactions was emphasized as a key component of successful programs.
- **Training partnerships.** Many local community colleges and technical schools may have construction or other trade programs, which can be leveraged to provide both workforce training and capacity for programs, often at reduced rates.
- **Holistic planning.** When approaching policy, a potential pitfall is to focus only on the passage of the initial ordinance and neglect the entire picture of enforcement, companion programs, and more. Better planning and also engagement throughout the process, not just during initial policy passage, can help counteract this difficulty.

The project team aggregated these examples, the priorities raised in prior meetings and ideas from our initial literature review, to develop a collection of potential policy and program solutions. These were organized by which outcome they addressed and how they relate to a BPS policy. Some approaches could be integrated directly into a BPS policy, while others require a policy or program that is separate from a BPS policy but implemented in parallel. Using a Jamboard, the committee indicated which options were of most interest to their community. There was a wide range of interests reflecting the diversity of participant focus areas. While there was no single policy solution “frontrunner,” participants agreed on four top policy priorities:

- Policies to address housing stability (encompassing affordability and other tenant protections)
- Mechanisms within a BPS to protect against energy burden
- Cooling requirements/heat protection policy considerations
- Options to improve indoor air quality

Section III explores possible policy solutions in more detail.

23. Rebecca Schapiro et. al., in a paper published in *Housing Policy Debate*, found that “participants receiving rental assistance had lower odds of reporting housing instability, low quality housing, lack of autonomy related to housing, and some measures of housing unaffordability compared to those not receiving assistance”. (House Policy Debate. 2021 Jan 8;32(3):456–472. doi: [10.1080/10511482.2020.1846067](https://doi.org/10.1080/10511482.2020.1846067)). The U.S. Department of the Treasury created the Emergency Rental Assistance program during COVID-19 to support housing stability and prevent evictions and also produced reports on the impacts of that assistance (<https://home.treasury.gov/policy-issues/coronavirus/assistance-for-state-local-and-tribal-governments/emergency-rental-assistance-program>). Additional evaluations have been produced by, for example: Center on Budget and Policy Priorities (<https://www.cbpp.org/research/housing/research-shows-rental-assistance-reduces-hardship-and-provides-platform-to-expand>), Harvard Joint Center on Housing Studies (https://www.jchs.harvard.edu/sites/default/files/research/files/harvard_jchs_short_term_era_benefits_airg_ood-obrycki_2022.pdf).

Section III. Policy Solutions Aligned with Community Priorities

The goal of this project was to identify both the needs of frontline communities and possible policy solutions related to a BPS. Once the Community Advisory Committee identified four priority policy solutions, the project team investigated each in more depth to make it actionable as part of a holistic BPS policy approach. The proposed solutions, below, incorporate learnings from the literature research and from the Community Advisory Committee discussions.

These policy solutions encompass 1) items to include within a BPS law or regulation, 2) separate or “companion” legislation that is included as part of a BPS strategy, and 3) other approaches such as complementary programs. While these opportunities are promising, they must be responsive to political strategy and realities. For example, companion legislation can be important, but if there is no chance of it passing, then the associated community priorities will not be met. On the other hand, including too many items within a BPS itself can risk making the legislation too complicated or contentious to pass. These considerations are discussed in more detail with each set of policy solutions.



Housing stability

Both the literature and the Community Advisory Committee discussions underscored that keeping current residents in their homes is a critical health priority that could be directly impacted as a result of a BPS. Improved housing stability can have several positive effects on public health by reducing the stressors associated with housing insecurity:

- **Mitigation of homelessness.** Stable housing is foundational to individuals' and families' overall well-being, and preventing homelessness through eviction protections can have far-reaching benefits for public health.
- **Reduced stress and anxiety.** Protection from rent hikes and eviction without legitimate cause provide a sense of security and stability for tenants, leading to improved mental well-being.
- **Support for vulnerable populations and reduced strain on social systems.** Just cause eviction and rent control ordinances often include provisions to protect vulnerable populations, such as low-income households, seniors, and individuals with disabilities, from unjust displacement. By safeguarding these individuals' housing stability, such ordinances contribute to better health outcomes and reduce the strain on social support systems.
- **Community cohesion and social support.** Stable housing fosters community cohesion and social support networks as well as continuity of local health services, which are all essential for maintaining overall well-being. Housing stability measures help preserve these networks by preventing the disruption of forced displacement and enabling residents to remain connected to their communities, neighbors, and support systems.

Housing preservation is essential for housing stability, affordability and decarbonization. Building a new home can have major climate implications due to the embodied carbon of building

materials[24]. The effects are worse if that construction also involves demolition and discarding of an existing home. **Preservation** also tends to be less expensive than new construction; it keeps rents and home prices lower and maintains affordability in an area[25].

Given that BPS can lead to significant building renovation, a BPS policy has the potential to exacerbate housing instability if displacement risks are not addressed. On the other hand, a community engagement process to uplift intersections between a BPS policy and local housing issues can help generate potential solutions. When our Community Advisory Committee considered what housing stability measures would best tie into a BPS, just cause eviction and rent control ordinances emerged as leading strategies.

Policy responses

Just Cause Eviction Legislation

“Just cause eviction” laws set parameters on when landlords are allowed to evict tenants, the goal being to ensure that evictions are based on legitimate grounds rather than arbitrary decisions. In cities with a just cause eviction ordinance, evictions are limited to certain causes such as nonpayment of rent or owner move-in. The hope for just cause eviction legislation in the context of BPS is that it would prevent displacement resulting from landlords evicting tenants as part of retrofits or as a way to get new, higher-paying tenants.

In a city under a just cause eviction ordinance, landlords have the right to evict tenants with “at-fault just cause” such as non-payment of rent or owner move-in or “no-fault just cause” such as intent to demolish the building or government order to vacate. The exact definitions of at-fault or no-fault just cause are at the discretion of the regulatory body passing the legislation. Just cause eviction ordinances often also include specific requirements for eviction notices and protections for tenants against retaliation by the landlord when defending themselves within the parameters of a just cause eviction ordinance. Several U.S. cities and states have enacted just cause eviction laws, each tailored to local contexts and housing challenges. Examples include:

- Seattle, Washington[26]
- Los Angeles, California[27]
- Oakland, California[28]
- State of Colorado[29]

24. Embodied carbon refers to the carbon emissions throughout the lifecycle of a material, from harvest or production to disposal. For more, see Chris Magwood et.al., “The Hidden Impact of Residential Construction”, RMI, 2023, <https://rmi.org/insight/hidden-climate-impact-of-residential-construction/>.

25. Mark Treskon and Sara McTarnaghan, “Preserving Affordable Housing: What Works”, *Urban Wire*, 8/25/2016, <https://www.urban.org/urban-wire/preserving-affordable-housing-what-works>. See also <https://www.preservationcompact.org/>.

26. Seattle Department of Construction and Inspections, “Just Cause Eviction Ordinance”, 3/18/25, [https://www.seattle.gov/sdci/codes/codes-we-enforce-\(a-z\)/just-cause-eviction-ordinance](https://www.seattle.gov/sdci/codes/codes-we-enforce-(a-z)/just-cause-eviction-ordinance).

27. Los Angeles Housing Department, “Just Cause for Eviction Ordinance”, 3/18/25, <https://housing.lacity.gov/residents/just-cause-for-eviction-ordinance-jco>.

28. City of Oakland, “Read the Just Cause for Eviction Ordinance”, 3/18/25, <https://www.oaklandca.gov/resources/read-the-just-cause-for-eviction-ordinance>.

All of these laws include “substantial renovation” as an exception to the policy. This means landlords are allowed to evict tenants if they are making major changes to their building—potentially, the kind needed to comply with a BPS law. The specific definition of substantial renovation may vary but often includes reference to the amount of time renovation would take, and the requirement for permits to be secured for the work.

The project’s two focus cities, Chicago and Los Angeles, are tackling this issue in different ways. Our Chicago-based Community Advisory Committee member, MTO, is actively advocating for a new local just cause eviction ordinance, to prevent evictions and provide relocation assistance when displacement happens. On the other hand, our LA-based Community Advisory Committee member, SAJE, is focused on changing the substantial renovation loophole in LA’s existing just cause law as part of their mission to prioritize equitable implementation as well as decarbonization[30]. This loophole has resulted in the lawful eviction of tenants in rent-stabilized units for minor renovations, followed by the unit being made available at market-rate. Closing the loophole before the passage of a BPS reduces the ability of landlords to use BPS required renovations as an excuse for evictions and displacement. Cities currently exploring just cause eviction legislation should consider omitting substantial remodel as a basis for eviction.

To better protect renters, SAJE is recommending removing the major renovation loophole as a lawful just cause in Los Angeles’ just cause eviction legislation. SAJE and other Los Angeles based organizations prioritized the closure of this loophole as a companion motion that would precede the passage of a BPS.

Several other cities in Southern California have closed the substantial remodel loophole, including South Pasadena[31] and Claremont[32].

Rent control and stabilization

Rent control is a policy tool aimed at regulating if and how much a landlord can increase the rent for covered properties. Typically implemented in areas with high housing demand and limited supply, rent control aims to protect tenants from excessive rent increases and ensure housing affordability. In the context of BPS, the idea is that rent control would prevent landlords from passing down excessive costs of the improvements made to their properties to the tenants, resulting in displacement or increased housing burden.

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29. Colorado General Assembly, “HB24-1098, Cause Required for Eviction of Residential Tenant”, 2024, <https://leg.colorado.gov/bills/hb24-1098>. See also: Mary Salmonsens, “Colorado’s for-cause eviction bill signed into law”, Smart Cities Dive, 5/3/24, <https://www.smartcitiesdive.com/news/colorado-for-cause-eviction-bill-signed/715120/>.
 30. Strategic Actions for a Just Economy, “Decarbonizing California Equitably”, October 2023, <https://www.saje.net/wp-content/uploads/2023/09/Decarbonizing-California-Equitably-Report-1.pdf>.
 31. Amber X. Chen, “Stronger tenant protections go into effect today in South Pasadena”, *Los Angeles Public Press*, 12/15/23, <https://lapublicpress.org/2023/12/stronger-tenant-protections-go-into-effect-today-in-south-pasadena/>.
 32. Steven Felschundneff, “Council approves restrictions on no-fault evictions”, *Claremont Courier*, 5/11/23, <https://claremont-courier.com/latest-news/council-approves-restrictions-on-no-fault-evictions-73672/>.

Los Angeles already has rent control in the form of its Rent Stabilization Ordinance (RSO). The RSO is a local law aimed at protecting tenants from excessive rent increases and arbitrary evictions. Enacted in 1979, the RSO generally applies to rental units in the city of Los Angeles that were built before 1978. Under the ordinance, eligible rental units are subject to limits on annual rent increases, which are typically tied to the Consumer Price Index (CPI). Chicago is unable to pass rent control legislation due to preemption at the state level. In cases like this, just cause eviction policies can leverage the principles of rent control in their structure as a legal path to protect tenants from rent increases. For example, just cause eviction policy language can include some limits on the scale or timing of rent increases, or (as in LA) require landlords to pay relocation fees to tenants if they're unable to afford a rent increase.³³ Examples of rent stabilization ordinances include Oakland, CA^[34] and New York City, NY^[35]. To read more about the intersections of tenant protection policies and building decarbonization, and for more examples of just cause eviction and rent control policies, see [SAJE's report, "Decarbonizing California Equitably."](#)

Strategy on stand-alone policy vs parameters integrated in a BPS

There are two routes a city could take to ensure these types of housing stability policies are in place for a BPS: cities could pass them as stand-alone policies in advance of or at the same time as BPS passage, or choose to integrate the protections directly into BPS language. The first option of a city-wide stability policy provides greater protection but if that is not achieved, then the latter option of integration can be a backstop to provide stability to at least the large buildings covered by BPS.

Passing housing stability measures in advance of a BPS ensures that they are in place and enforced before the start of BPS-required upgrades. Additionally, doing so would protect the many tenants who are living in smaller buildings not covered by a BPS. This strategy will be most successful if energy and environmental groups are able to much more closely integrate with housing experts and advocates than we typically see, in order to confidently ensure that companion policies are functioning as intended.

If an overarching housing stability policy cannot be passed, a city might choose to integrate these protections directly into a BPS. Under this strategy, protections could be tailored to specific building types that must comply with a BPS, such as large multifamily buildings, and



33. Lindsey Duvall and David Foster, "Advancing Tenant Protections: Just Cause Eviction Laws", National Low Income Housing Coalition, 2/7/23, <https://nlihc.org/resource/14-1-advancing-tenant-protections-just-cause-eviction-laws>.

34. City of Oakland, "Learn more about allowable rent increases", 12/17/24, <https://www.oaklandca.gov/resources/learn-more-about-allowable-rent-increases>.

35. New York City Mayor's Public Engagement Unit, "Rent Stabilization", 3/18/25, <https://www.nyc.gov/site/mayorspeu/programs/rent-stabilization.page>.

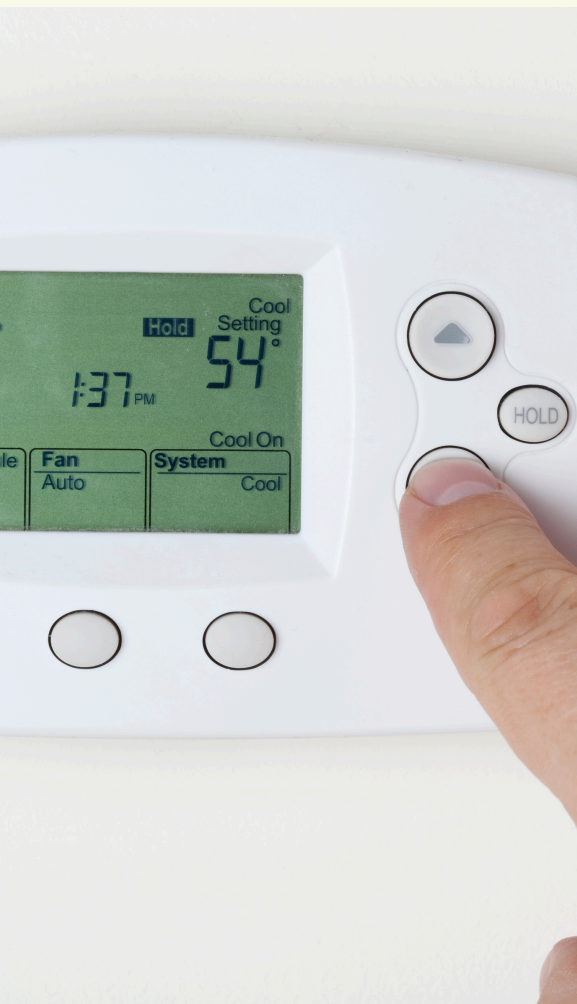
further restrictions on rent increases and evictions could be tied directly to things like accepting local government support for renovations. However, integrating housing stability measures into a BPS ordinance could risk these protections getting cut or otherwise watered down in the process of policy and rulemaking negotiations.

Cooling

Heat waves are actually the deadliest form of extreme weather in the U.S., killing more people each year on average than floods, tornadoes, and hurricanes combined.³⁶ Chicago, for example, has experienced several deadly heat waves in the last decades with tragic consequences. These events are becoming more common^[37] and more dangerous^[38] due to climate change. For older adults, just eight hours indoors at temperatures above 78.8 °F (26 °C) can increase core body temperature and signs of cardiovascular strain—potential precursors to heat-related illness or death^[39].

High temperatures can cause immediate dangers, such as:

- Heat cramps, heat exhaustion, heatstroke, and hyperthermia
- Exacerbation of chronic conditions such as heart disease, respiratory conditions such as asthma, cerebrovascular disease, kidney disease, and diabetes-related conditions
- Increased adverse pregnancy outcomes (e.g. preterm births)
- Increase the chance of emergency room visits for schizophrenia, suicidality, and other serious mental health conditions^[40]
- Death



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36. National Weather Service, “Weather Related Fatality and Injury Statistics,” accessed March 29, 2024, <https://www.weather.gov/hazstat/>.
 37. Yale School of the Environment, “Climate Change Added 26 Days of Extreme Heat Over the Last Year”, E360 Digest, 5/29/24, <https://e360.yale.edu/digest/extreme-heat-report-2024>. See also: Project Drawdown, “Understanding – and correcting – Earth’s troubling climate trajectory”, 8/23/23, <https://drawdown.org/insights/understanding-%E2%80%93-and-correcting-%E2%80%93-earths-troubling-climate-trajectory>.
 38. Nina Lakhani, “Heat deaths surge in the US’s hottest city as governor declares statewide ‘heat emergency’”, The Guardian, 8/13/23, <https://www.theguardian.com/us-news/2023/aug/13/phoenix-heat-tsar-cooling-shelters-heatwaves>.
 39. Robert D. Meade et al., “Effects of Daylong Exposure to Indoor Overheating on Thermal and Cardiovascular Strain in Older Adults: A Randomized Crossover Trial,” *Environmental Health Perspectives* 132, no. 2 (2024): 027003, <https://ehp.niehs.nih.gov/doi/10.1289/EHP13159>.
 40. Kristie L. Ebi et al., “Hot Weather and Heat Extremes: Health Risks,” *Lancet* 398, no. 10301 (2021): 698–708, [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(21\)01208-3/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(21)01208-3/fulltext).

Access to affordable, dependable cooling can be a matter of life or death[41]. This is especially true for older adults with existing cardiopulmonary conditions and the very young[42]; low-wage workers who spend their days in the heat[43]; and low-income communities and communities of color that have been disproportionately burdened by the ongoing impacts of racist practices and policies such as disinvestment and redlining[44]. Lack of green space, low rates of A/C prevalence, and high energy costs all disproportionately impact these communities. Most of these health problems and deaths are preventable by reducing heat exposure. While this conversation is largely focused on homes, it is relevant to other types of buildings as well, particularly public schools which often have very low rates of air conditioning[45].

Policy responses

Many areas have low rates of air conditioning due to generally mild historic temperatures (e.g. Seattle)[46] or an older building stock (e.g. Chicago). Residents and governments in these locations are grappling with the best ways to encourage or require better access to air conditioning in response to changing conditions. Renters in particular can struggle to access A/C due to lack of control over their HVAC systems. Public cooling centers, the most common policy response to-date, are insufficient to meet the need. Additionally, the presence of air conditioning and heat vulnerability are not typically distributed equally throughout the city[47], with low-income residents less likely to have air conditioning. The increasing availability of heat pumps, which can provide both heating and cooling from the same unit, are also changing the calculation around feasibility of cooling policies.

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41. For just a few examples of deaths resulting from extreme heat and lack of air conditioning, see: Anita Snow, “Heat deaths of people without air conditioning, often in mobile homes, underscore energy inequity”, Associated Press, 8/2/24, <https://apnews.com/article/extreme-heat-deaths-air-conditioning-095cc1820abab04ed9729c6de73f21ce>; Cooked, directed by Judith Helfland, Kartemquin Films, <https://cookedsurvivalbyzipcode.com/>; Joe Ward, “City’s Minimum Heating and Cooling Laws Could Change After 3 Die in Rogers Park Senior Building During Heat Wave”, Block Club Chicago, 5/25/22, <https://blockclubchicago.org/2022/05/25/citys-minimum-heating-and-cooling-laws-could-change-after-3-die-in-rogers-park-senior-building-during-heat-wave/>.
 42. Center for Disease Control, “Heat and Older Adults”, 3/18/25, <https://www.cdc.gov/heat-health/risk-factors/heat-and-older-adults-aged-65.html>.
 43. Natural Resources Defense Council, “Yes, Workers Need OSHA’s Protection from Deadly Heat”, 7/18/24, <https://www.nrdc.org/bio/juanita-constible/yes-workers-need-oshas-protection-deadly-heat>.
 44. National Community Reinvestment Coalition, “Redlining and Neighborhood Health”, 3/18/25, <https://ncrc.org/holc-health/>. See also: NCRC, “The Temperature of Disinvestment”, 7/7/22, <https://ncrc.org/the-temperature-of-disinvestment-examining-urban-heat-islands-and-historically-redlined-communities/>.
 45. Sequoia Carillo, “A heat wave, and lack of air conditioning, disrupt school districts nationwide”, National Public Radio, 9/6/23, <https://www.npr.org/2023/09/06/1197726025/a-heat-wave-and-lack-of-air-conditioning-disrupt-school-districts-nationwide>.
 46. Hannah Weinberger, “Seattle is no longer the U.S.’s least air conditioned big city”, 12/29/22, <https://www.cascadepbs.org/environment/2022/12/seattle-no-longer-uss-least-air-conditioned-big-city>.
 47. See for example this analysis from the New York City Council on “Mapping Heat Inequality”: <https://council.nyc.gov/data/heat/>.

While there are numerous laws requiring heating in the winter, there is less precedent for cooling requirements[48]. Only a few cities require that landlords actually provide air conditioning:

- **Dallas, TX:** their code states that an owner “shall provide and maintain in operating condition, refrigerated air equipment” and also includes a maximum allowable indoor air temperature of 85 degrees[49]
- **Palm Springs, CA**[50]
- **Montgomery County, MD**[51]
- The states of CA and FL recently attempted to introduce cooling policies, but the proposed bills did not pass[52]

It is more common that city codes set requirements for air conditioning equipment that already exists in the apartment to be maintained in working condition. In some cases, this includes a maximum allowable temperature for those homes. However, this type of code doesn’t require that landlords add air conditioning to a unit that does not already have it, or apply that maximum temperature to units that do not currently have air conditioning. Examples of this type of policy are below.

- The **State of Arizona** makes explicit the expectation that A/C units must be maintained “where such units are installed or offered”[53]
- Phoenix, AZ adds maximum allowable temperatures on top of the state requirement[54]
- The **District of Columbia** also mandates maximum temperatures during the summer months[55].

A few other types of policies and programs exist throughout the country.

- **Clark County, Nevada** includes a requirement for newly constructed 3+ unit residences in their building code that units “shall be designed in a manner such that an interior temperature can be maintained between 68°F and 85°F, by the use of active or passive heating or cooling systems”[56].

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48. See, for example: Li Xhou, “The US is failing renters during extreme heat waves”, *Vox*, 7/12/24, <https://www.vox.com/climate/360019/climate-extreme-heat-ac-cooling-policy>.
 49. City of Dallas, “Code Compliance Chapter 27 Housing Standards Manual”, 3/18/25, <https://dallascityhall.com/departments/codecompliance/DCH%20documents/docs/Chapter%2027%20Reference%20Manual%20%282%29%20%28003%29.pdf>.
 50. City of Palm Springs, “Chapter 8.04 Uniform Codes: Article 1 Building Codes”, *Code of Ordinances*, 12/12/24, <https://ecode360.com/42995690>.
 51. County Council for Montgomery County, Maryland, “Bill 24-19”, 2/25/2020, https://apps.montgomerycountymd.gov/ccllms/DownloadFilePage?FileName=2620_1_10500_Bill_24-19_Signed_20200302.pdf.
 52. Elaine S. Povich, “States Look to Help Tenants Pay for Air Conditioning as Weather Warms”, *Stateline*, 9/19/22, <https://stateline.org/2022/09/19/states-look-to-help-tenants-pay-for-air-conditioning-as-climate-warms/>.
 53. Arizona Legal Center, “A/C is an Essential Need: Arizona Tenant Rights with Air Conditioning”, 5/15/20, <https://arizonalegalcenter.org/arizona-tenant-rights-with-air-conditioning/>.
 54. City of Phoenix, “Sec 39-5 Electrical, plumbing, and mechanical systems; health and safety conditions”, Municipal Code, <https://phoenix.municipal.codes/CC/39-5>.
 55. DC Department of Buildings, “DC Housing Code Standards”, <https://dob.dc.gov/service/dc-housing-code-standards>.
 56. Clark County, NV, “22.02.067-Interior temperature in dwelling units”, *Code of Ordinances Title 22*, https://library.municode.com/nv/clark_county/codes/code_of_ordinances?nodeId=TIT22BUCO_CH22.02B_UADCOCLCO_22.02.067INTEDWUN#:

- The [State of Oregon](#) passed a law covering the tenants right to use their own A/C units without landlord prevention^[57]
- The state of [Washington](#)^[58] provides programmatic support incentivizing mobile A/C units, and also ensures that Low Income Home Energy Assistance Program ([LIHEAP](#)) energy assistance funds can be used towards cooling bills

There are also legislative approaches more focused on utilities rather than buildings that were outside the scope of this project. These include policy and regulations which address reliability to ensure the grid continues to function at times of high A/C usage, and also shutoff protections during extreme heat^[59] (similar to what exists in some areas during the winter, or a new 2024 Illinois state law^[60]).

Policy considerations

While the benefits of more air conditioning are clear, there are a number of unintended consequences to consider.

- Poorly designed laws risk causing major increases in energy costs, energy burden, and carbon emissions if they result in landlords buying the cheapest available inefficient window A/C units. Heat pump units are much more efficient and can replace heating as well as cooling equipment, but have higher upfront equipment and installation costs.
- Sudden demand for A/C may overburden the grid during peak demand moments, therefore raising the risk of power outages (which can threaten residents who rely on electrically powered medical equipment or need refrigeration for their medications).
- Landlords who must comply with cooling requirements may seek to recoup their costs through rent increases.

Any policy response must consider how to incentivize the selection of efficient A/C units, ideally heat pumps, while providing appropriate time and support to facilitate adoption. In addition, even the presence of an efficient A/C unit may be insufficient if the resident cannot afford the energy to run it. For this reason, ensuring appropriate bill assistance or adjusted electricity rates is also vital.

Strategy on stand-alone policy vs parameters integrated in a BPS

A BPS provides a strong starting point for cooling policies, because it already incorporates efficiency requirements which can offset some of the unintended consequences described above. A BPS law with an emissions target and/or very stringent EUI targets is the best fit as it will likely result in building owners converting to heat pumps, which provide efficient air conditioning in addition to heating. Moving from window/portable A/C units or older central units to efficient heat pumps will

57. Oregon Health Authority, "Tenants Have the Right to Install Portable Cooling Devices", <https://www.oregon.gov/oha/HSD/OHP/Tools/Tenant-Rights-Cooling-Devices.pdf>.

58. Hannah Weinberger, "New WA program gives low-income renters access to A/C", *Cascade PBS*, 7/25/22, <https://www.cascadepbs.org/environment/2022/07/new-wa-program-gives-low-income-renters-access-ac>.

59. Center for Energy Poverty and Climate, "Crisis in Energy Affordability, summer Shutoff Protections and Bill Support Fail to Adapt to a Warming World", July 2024, <https://energyprograms.org/wp-content/uploads/2024/07/shutoffprotections.pdf>.

60. Amanda Vinicky, "From Utility Shutoff Moratoriums to Air Conditioning Rules, Chicago and Illinois Lawmakers Preparing for Increasingly Hot Temperatures", WTTW, 6/19/24, <https://news.wttw.com/2024/06/19/utility-shutoff-moratoriums-air-conditioning-rules-chicago-and-illinois-lawmakers>.

reduce energy costs in the summer months and allow for more comfortable and safe indoor temperatures. This is the best-case scenario for energy burden and grid concerns.

Integrating cooling when an owner is already required to electrify does not significantly increase the cost to building owners because it is using the same equipment. A “Do no harm” perspective on a BPS for this particular issue would be to ensure the policy and all associated support encourage heat pump upgrades wherever possible. A BPS could also explicitly state that a building is not in final compliance if cooling is not present. As a minimum “Do no harm” step, all BPS laws with energy use intensity metrics should provide clear guidance on how to account for added energy use from installing cooling where none existed before. Since the introduction of cooling equipment in buildings where not even window units were present before could increase energy use. This could put a building’s compliance status at risk unless clearly accounted for. It would be counterproductive in a health context to penalize owners for adding cooling, as long as they are selecting efficient cooling equipment.

However, there are reasons to pursue cooling through companion policies rather than as part of a BPS. As is true for all the policy options covered here, a BPS only reaches a small portion of buildings and therefore separate legislation would be needed to ensure access to cooling for all residents. This is where something that incorporates cooling into building code, as in the examples provided above, may be more beneficial as it applies to all building types. Yet the code alone does not do a good job of accounting for equity and costs, so would need to be paired with something else to help with efficiency and costs. Local communities may have different preferences over which benefit is the highest priority. Phasing in requirements, for example the Chicago example below of starting with certain subsets of buildings, is another option.

Air conditioning is, of course, not the only response to extreme heat. Weatherization, trees and green roofs, increased cooling centers, and many more options should not be ignored. The model that cities such as Phoenix are taking of appointing a city official to focus specifically on heat can help integrate the many different components into an integrated strategy[61].

Chicago and Los Angeles

- The state of California has recommended that lawmakers adopt a maximum indoor temperature[62].
- Los Angeles County and City have both filed initial motions to study or consider a cooling policy[63].
- Chicago recently passed a limited cooling ordinance applying only to “indoor common gathering

61. Nina Lakhani, “Heat deaths surge in the US’s hottest city as governor declares statewide ‘heat emergency’”, The Guardian, 8/13/23, <https://www.theguardian.com/us-news/2023/aug/13/phoenix-heat-tsar-cooling-shelters-heatwaves>.

62. California Department of Housing and Community Development, “Policy Recommendations: Recommended Maximum Safe Indoor Air Temperature”, 2025, <https://www.hcd.ca.gov/sites/default/files/docs/policy-and-research/plan-report/ab-209-policy-recommendations.pdf>.

63. LA City Clerk, “Council File:23-0453”, 6/5/23, <https://cityclerk.lacity.org/lacityclerkconnect/index.cfm?fa=ccfi.viewrecord&cfnumber=23-0453>. LA County, “Revised Motion by Supervisors Hilda L. Solis and Lindsey P. Horvath, Establishing a Safe Maximum Temperature Threshold for Rental Units”, 1/23/24, <https://file.lacounty.gov/SDSInter/bos/supdocs/188021.pdf>.

spaces” of large apartment buildings and buildings that house seniors[64]. In summer 2023, Chicago completed a [“Heat Watch” assessment](#), which gathered data to support exploration of a more comprehensive cooling ordinance or to include cooling measures in a BPS[65].



Energy burden

Energy burden is a measure of how much a household spends on energy costs, as a percentage of their income. This metric reflects the impact of energy costs when a household has less available income, and can show the geographic distribution of where homes are struggling the most with energy costs. Energy burden has been studied for years, and is starting to gain more prominence in policy and utility conversations. The impact on health has been extensively documented[66] and occurs in a number of ways:

- **The “heat or eat” dilemma.** High energy costs force choices between paying bills or buying sufficient and healthy food, medicine, or other purchases that influence health, including doctor visits.
- **Mental health burden.** This can come from the stress of unpaid bills and the mental load of that decision making.
- **Risky health decisions.** These include activities such as reducing energy usage below healthy limits in order to manage bills (e.g. heating a home with an open oven door, thereby introducing toxins and risk of fire; not using air conditioning during heat waves; or limiting use of electrical healthcare equipment).
- **Unpaid bills.** These can lead to service shut-offs or evictions.

As one committee member noted: “the whole-home approach is vital: energy burden leads to a worse diet, [which] leads to more health issues.”

Policy responses

Energy burden is a two-sided equation: the level of income and the cost of energy. Policies that address the former (universal basic income, workforce support, wage protections, etc.) can help reduce energy burden, but are beyond the scope of this project. Energy burden is an issue throughout the United States independent of BPS policies, and there are many programs attempting to address it—most prominently energy efficiency programs and federal and utility energy assistance programs.

Efforts focused on utility rates, while less common, are also gaining more traction. For our purposes, we are focusing only on the impacts of BPS on energy burden, and policy mechanisms that address this interaction. It is also important to note the difference between ensuring that a policy does not increase energy burden, versus a policy that reduces the burden residents are already facing.

64. Chicago Department of Buildings, “2022 Cooling Ordinance”, https://www.chicago.gov/city/en/depts/bldgs/supp_info/cooling-requirements.html.

65. Chicago Department of Public Health, “Cool Chi”, https://www.chicago.gov/city/en/depts/cdph/provdrs/environmental_health/supp_info/heat-watch-2023.html.

66. See the American Council for an Energy Efficiency Economy energy burden topic page, and scholars such as Diana Hernández, Tony Reames, Carlos Martín, and more. <https://www.aceee.org/energy-burden>

From a BPS perspective, the main concern is the former— ensuring that the BPS policy does not make things worse, while ideally also making things better.

A BPS policy can affect energy burden at the household level in a number of ways.

- A BPS focused on energy efficiency is likely to improve energy burden, by reducing energy usage and, therefore, energy costs. In cases where the tenant pays the utility bills, the tenant will see cost decreases.
- A BPS focused on electrification may or may not improve energy burden. Switching from gas to electricity for heating will often reduce energy bills in total, but not always. The current and future price of electricity as compared to the price of gas in the area, the number of fixed charges on each bill, the technology chosen, and the availability of energy assistance programs tied to electricity versus gas can all affect this calculation. Additionally, sometimes electrification will save money over the lifetime of the equipment but will increase costs in the early years.
- Certain equipment and metering setups, quite common in older gas-heated buildings, are more prone to negative energy burden outcomes. This is because of the increased possibility that a BPS retrofit could result in the cost of a particular end use moving from an apartment owner's bill to a tenant's bill. In many cases, particularly in Chicago, older buildings have a single centrally-powered gas heating system (e.g. a boiler) that is paid for by the owner, though they may pass on those costs via the rent. In those cases, tenants typically pay only their electric bills or maybe a bill for a gas stove as well. If this system is converted to individual electric equipment tied to a tenant electric meter, such as heat pumps, the tenants are likely to bear the new expense if safeguards are not put in place.

None of these outcomes are inevitable; all can be addressed with planning and will. Policy exists to encourage actions that prioritize efficiency and minimizing tenant costs. In order for a BPS to follow a “Do no harm” philosophy, it must consider how to address each of these scenarios within the law or regulations. Some potential options include:

- Providing clear utility allowance guidance and support for subsidized housing through technical manuals and any BPS support or hubs, or through close coordination with the local housing authority.
- Considering utility allowance-like policies for unsubsidized housing that pair the addition of a new tenant-paid electric expense with rent reductions to offset the burden.
- Including energy cost and usage in benchmarking policies, to provide more transparency to tenants and better tracking of cost changes in response to a BPS. Unfortunately, while this seems like a simple idea, it is actually more difficult to achieve in practice and currently we are not aware of any jurisdiction that requires energy cost benchmarking^[67]. Voluntary disclosures could be a potential starting place, and conversations with utilities can help elucidate the range of possibilities in a given jurisdiction.

67. Utility data systems often maintain energy usage and energy cost in different databases, making it hard to calculate and disclose in the same system as aggregated energy data, and most benchmarking laws would need to be updated to give authority for energy cost data to be included.

- Offering alternative compliance options tied to resident energy costs. Most BPS policies offer compliance pathways for buildings of a certain type (e.g. affordable housing) or with unique characteristics that make standard compliance more difficult. There is potential to include energy cost as a metric in an alternative route that would not be feasible in the standard pathway.
- Mapping and analyzing local energy burden can be a useful first step to tailor policies. Multiple tools exist for this purpose, including the [Greenlink Equity Map \(GEM\) tool](#).

Policy considerations

The main consideration when addressing energy cost is to ensure that the balance isn't shifted so strongly towards cost that energy and carbon savings are no longer part of the goal. Clear communications are also important, as the relationship between energy usage, cost, and carbon savings is variable and can be confusing. Oversimplification of benefits can result in policymakers, advocates, owners, or residents assuming that carbon savings automatically result in energy burden reductions, and not taking the time to address energy costs directly.

Strategy on stand-alone policy vs parameters integrated in a BPS

As described above, energy burden is a problem that goes far beyond a BPS and has a suite of potential policy and programmatic options. For a policy that aims to target the intersection of energy burden and a BPS, integrating into the BPs makes the most sense, but maintaining and expanding strong energy efficiency and bill assistance programs is also vital.



Indoor air quality (IAQ) and ventilation

Several Community Advisory Committee members observed that “visible” issues such as mold are much more likely to attract the attention and concern of residents than invisible ones, like the presence of the harmful gas NO₂. While both of these examples can impact IAQ, ‘visible’ issues cause more immediate stress and urgent action—and are often viewed as standalone issues instead of part of a larger cumulative IAQ burden. A lack of hot water is more immediately felt and seen than invisible pollutants from a gas stove. However, invisible issues have visible impacts. Childhood asthma is one such example, and definitely an area of high concern for the Committee participants, making IAQ a top priority. However, we acknowledge that IAQ and related public health issues, such as asthma, cannot be addressed through building improvements alone.

IAQ is a result of the interactions between indoor contaminants and outdoor air quality and the effectiveness of ventilation and filtration systems (mechanical or natural) to dilute and remove contaminants. Section I of this report includes a robust discussion of how some common contaminants in buildings can negatively impact health outcomes.



Policy responses

A holistic policy strategy for IAQ must include prevention (ban toxic chemicals and substances), protection (regulate specific pollutants, e.g. NoX, ground level ozone), and reduction (e.g. replacing fossil fuel burning equipment, increasing electric vehicles). A BPS policy must, at a minimum, ensure it is not creating new air quality issues. In addition, it can help address indoor aspects of reduction and prevention of some sources of building level pollutants through ventilation and filtration requirements and equipment changes. Because regulation of IAQ is so complex and mostly untested, robust tracking and measurement wherever possible can help evaluate success.

Removal

A BPS can be set up to encourage electrification and therefore the removal of contaminant-causing fossil fuel combustion, such as gas stoves and other combustion appliances within living spaces. In the context of a BPS policy, moving towards the elimination of combustion appliances is most effectively done by selecting a metric that is tied to onsite greenhouse gas emissions. IMT's model BPS law recommends that jurisdictions pair an onsite GHG metric with an energy efficiency metric, in order to encourage efficient electrification. This will help ensure that low-income residents are not subject to increased energy costs due to the selection of inefficient electric equipment that may meet a GHG metric but may otherwise not perform well (such as electric resistance heating). Of course, there are ways to encourage electrification outside of a BPS, such as through building energy codes, zero emissions appliance standards, and clean heat standards. Considering how these types of new construction interventions and BPS policies will interact during the policy design process is also critical to ensure building owners and residents have longer-term certainty about how their homes will operate^[68].

Ventilation and filtration

In 2020, IMT collaborated with the International Well Buildings Institute on a [policy brief](#) to explore how indoor air quality can be incorporated into a building performance standard^[69]. That brief proposes using two time-tested, accessible methodologies as part of a BPS: the direct measurement of CO₂ as a proxy for contaminant levels in a space and to assess overall IAQ,

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68. A number of papers for the ACEEE Summer Study on Energy Efficiency in Buildings discuss this interaction with the BPS and codes or BPS and New Construction, for example: Amy Boyce et al., "The New Challenge for New Construction: The Intersection of Energy Codes and Building Performance Standards", https://files.newbuilding.s3.amazonaws.com/wp-content/uploads/2022/09/9-0613_0868_000238-NewChallengeforNewConstruction.pdf; Michael Rosenberg et al., "Bridging the Gap: Aligning Building Energy Codes with Existing Building Performance Standards", https://www.aceee.org/sites/default/files/proceedings/ssb24/assets/attachments/20240722163135640_c02b15d1-076f-49b2-a7eb-27b0b837de4f.pdf; and Kimberly Cheslak et al., "Performance Based Approaches to Energy Codes and BPS – Results of Jurisdiction Pilots", https://www.aceee.org/sites/default/files/proceedings/ssb24/assets/attachments/20240722160734690_0f7c78c3-f7db-432c-8284-80603e0a53d7.pdf.
69. Institute for Market Transformation, "Building Performance Standard Module: Ventilation and Indoor Air Quality", 2021, <https://imt.org/resources/building-performance-standard-module-ventilation-and-indoor-air-quality/>.

and also using the [ASHRAE Standards 62.1 and 62.2](#) to assess the effectiveness of a building's mechanical ventilation design.

CO₂ is much easier and cheaper to measure than other contaminants, such as NO₂, but can still show how well air is being circulated and refreshed within the building. Many experts feel that this makes it a useful metric for assessing IAQ. However, the scientific community is not in full agreement on the utility of this metric, so more research and engagement in a local context could be useful for implementers[70]. Measuring and reporting CO₂ can be a first step before moving towards targets and standards, similar to how benchmarking provides the data needed for a BPS.

ASHRAE 62.1 and 62.2 are nationally recognized standards, which are already familiar to building designers, engineers and operators. These standards go beyond measurement and require specific building components. While ventilation system design is not typically monitored by local jurisdictions, it is a part of a number of performance standards such as [LEED for Existing Buildings](#) and the [WELL Building Standard](#). This could make it easier for the building community to adopt, though it also can require upgrades that are prohibitively expensive for older buildings. Again, tradeoffs such as this are areas that require local engagement to determine the best balance.

A different model of addressing IAQ directly, has been produced by the Johns Hopkins Bloomberg School of Public Health with their [Model Clean Indoor Air Act](#)[71]. Inspired more by airborne infectious diseases such as COVID-19 than energy concerns, it nonetheless would address the contaminants we've focused on here, another reminder of how interrelated building issues can be. That model act focuses on measurement and reporting, inspections, and includes a process for incentivizing owners to make improvements that will result in healthier indoor air.

The EPA also provides guidance on indoor air quality for energy and health, although it is focused on weatherization interventions in single family homes and is, therefore, less relevant to the BPS context of larger buildings[72].

Building codes are also a path to address ventilation and air quality, as this is already part of the purpose of code. There may be opportunities in a jurisdiction to improve the code in this regard or improve the awareness and enforcement of existing code requirements.

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70. For a bit more on the debate, see the above referenced IMT paper as well as the following: Health Canada, "Residential IAQ guidelines: Carbon dioxide", 3/19/21, <https://www.canada.ca/en/health-canada/services/publications/healthy-living/residential-indoor-air-quality-guidelines-carbon-dioxide.html>. ASHRAE, "Position Document on Indoor Carbon Dioxide", 2/2/22, https://www.ashrae.org/file%20library/about/position%20documents/pd_indoorcarbondioxide_2022.pdf. Mark J Mendell et. al., "Carbon dioxide guidelines for indoor air quality: a review", J Expo Sci Environ Epidemiology, 2024 Jul;34(4):555-569, doi: 10.1038/s41370-024-00694-7.
 71. Johns Hopkins Bloomberg School of Public Health – Center for Health Security, "Model Clean Indoor Air Act", <https://centerforhealthsecurity.org/our-work/research-projects/indoor-air-quality/model-clean-indoor-air-act>.
 72. US Environmental Protection Agency, "Energy Savings Plus Health: Indoor Air Quality Guidelines", <https://www.epa.gov/indoor-air-quality-iaq/energy-savings-plus-health-indoor-air-quality-guidelines>.

Policy considerations

The main consideration, as with many of the suggestions in this report, is balancing the impact of the proposed measure with cost and complexity. It is critical to weigh additional policy requirements against potential unintended consequences, particularly for smaller and less resourced owners. Furthermore, including additional metrics in the context of a BPS adds costs to the implementation resources needed by local governments. Expanding BPS requirements should be accompanied by an expansion of offered support. Examples might include [high performance building hubs](#) that support the real estate transition and have programs specific to affordable housing, no-to-low-cost financing options, and alternative compliance pathways. However, we don't advocate for the use of alternative compliance paths to get around components of a BPS that are high community priorities. This is why the creation of a [Community Accountability Board](#) or similar governance body with strong community engagement is key throughout regulation development^[73].

Maintaining resident privacy is also a potential challenge in tracking health outcomes, due to concerns (real or perceived) about violating HIPAA and other privacy protections. While measuring direct health outcomes would be the clearest way to ensure improvements, all of the solutions proposed here focus on measuring the building at an aggregate level, rather than measuring people individually. This should mitigate any privacy concerns.

Chicago and Los Angeles

In 2024, Chicago introduced the Clean and Affordable Buildings Ordinance, which if passed would limit emissions of fuels used in new construction. As this would result in new buildings being all-electric, much of the conversation in the campaign has focused on health concerns from burning gas in homes. Committee member People for Community Recovery (PCR), in particular, has raised resident health concerns in this context and in others around electrification, such as the utility commission's [Future of Gas proceedings](#). Coalitions working in both cities on building policy have raised the need for measurement and tracking of air quality and health as a community benefit and a policy accountability metric.

One committee member pointed out that Chicago's building code does not require bathroom or kitchen ventilation if there is an operable window in the room. While this wasn't raised by as many participants, fixing the code to require mechanical ventilation in these spaces could certainly help alleviate mold and improve health.

Strategy on stand-alone policy vs parameters integrated in a BPS

The considerations around IAQ are similar to the other policy options in that inclusion in a BPS reaches only covered buildings while a stand-alone policy or code intervention can have a wider reach. However, including explicit IAQ and ventilation requirements just within in a BPS may help the BPS policy gain a broader base of support and provide "proof of concept" for monitoring and testing indoor air quality levels, which could ultimately strengthen the case for passing other policies that address community priorities.

73. Institute for Market Transformation, "Community Accountability Board Toolkit", 2024, <https://imt.org/resources/community-accountability-board-toolkit/>.

The large buildings covered by a BPS are also usually better positioned to implement ventilation solutions than smaller properties, so focusing on BPS first may alleviate some of the affordability issues that small landlords may face, including technology and worker skill set availability.

For further consideration

This report focused on the four top priorities selected by the Community Advisory Committee, but smaller numbers of participants also raised a number of interesting and relevant potential solutions.

Habitability

Some committee participants raised concerns about a lack of basic housing habitability. Committee members shared that existing laws and codes often go unenforced, allowing some landlords to neglect the health and safety conditions of rental homes—leaving broken windows unfixed, not maintaining heat or other equipment, and more. One committee member who runs a tenant assistance hotline observed, “Habitability is a huge concern... basic code compliance: people don’t have heat, hot water...they have pests and asbestos.” While tenants should technically have recourse to hold landlords accountable for basic health and safety with existing laws, they often do not because they are afraid of retaliation, harassment, or eviction (which is also unlawful but frequently occurs). There may also be a lack of trust in city systems, especially if the code enforcement system doesn’t have a good record of protecting tenants. This feeling of disempowerment can directly impact mental health and result in worse health outcomes. This is clearly a health issue and it is easy to imagine it becoming a BPS issue as well. Two potential policy options to help address this issue are:

- **Rental licensing and proactive inspections:** Many of the habitability concerns are also building code violations, but in most places, there is no strong system to monitor ongoing code compliance in a building in the absence of complaints being raised. Existing buildings often are neglected in favor of new buildings due to inadequate staffing of inspectors or department priorities. One way to address this is to establish a proactive code enforcement program that requires regular inspections of buildings[74]. There is also the option to require licensing for rental buildings, with inspections and code compliance as a part of license granting and renewal. Boulder, CO’s Smart Regs is an example of a licensing program[75], and Los Angeles has a proactive inspection program[76]. Such a licensing program would need to consider the balance of limiting pass-through costs of upgrades and providing financial support to small limited-income owners. This is also a program type for which success is entirely reliant on the strength of enforcement.

74. See, for example: Chicago Healthy Homes Coalition, “Chicago Proactive Rental Inspection Pilot Proposal”, <https://www.tenants-rights.org/wp-content/uploads/2022/03/PASH-Healthy-Homes-Pilot-Proposal-whitepaper.pdf>.

75. City of Boulder, “SmartRegs Compliance”, <https://bouldercolorado.gov/smartregs-guide>.

76. Los Angeles Housing Department, “Systematic Code Enforcement Program”, <https://housing.lacity.gov/rental-property-owners/inspections-and-fees>.

- **Right to counsel** for tenants in housing court: Unlike criminal court, there is no “public defender” equivalent in housing court. If tenants want legal representation in a dispute with a landlord, they must pay for that themselves. Housing courts tend to be more beneficial for landlords than tenants, reflecting the disparity in legal representation. While this has drawn attention recently related to evictions, it came up in our conversations around issues of housing habitability. The ability to confidently raise these issues in housing court (in jurisdictions where housing court exists) and better enforce the existing laws could go a long way to empower tenants to advocate for their own health at home. Legal issues in housing that came up as needing support included concerns about tenants’ ability to organize to advocate for themselves, and legal difficulties for seniors aging out of housing and leaving vacancies. Chicago implemented a pilot program providing right to counsel and is pursuing legislation[77]. LA County already has a right to counsel[78], and LA City has an Eviction Defense program which provides free legal aid but does not currently guarantee it as a right[79].

Other policy solutions

- **Clean Heat Standard/ Gas Phase Out:** These are policies that aim to address climate through buildings differently than a BPS[80]. They focus on specific fuels or appliances and may reach a different group of buildings than a BPS. They are likely to face similar tradeoffs and should also be carefully designed to maximize benefit alongside affordability and access.
- **Whole Home Assessments:** A constant refrain throughout our meetings was how interconnected building issues are. While it may be easiest from a programmatic or policy context to focus on one specific issue such as insulation or electrification, the lived experience in a home does not experience things in isolation. A whole home assessment examines things like water, solar, and health and safety alongside typical energy efficiency measures. Using such assessments in more programs opens the possibility to address a building holistically and ensure

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77. Information on the pilot can be found on the Chicago Department of Housing website (<https://www.chicago.gov/city/en/depts/doh/provdrs/renters/news/2022/april/the-chicago-department-of-housing-announces-right-to-counsel-pil.html>) and an evaluation of the pilot was completed in November 2024 (Law Center for Better Housing, 2024, <https://lcbh.org/independent-evaluator-finds-right-to-counsel-pilot-creates-greater-access-to-justice-for-chicago-renters/>.) An ordinance has been introduced but not yet passed (Grace Asiegbo, “Mayor sets sights on enriching right to counsel for Chicago tenants in eviction court”, Injustice Watch, 10/31/23, <https://www.injusticewatch.org/civil-courts/housing/2023/right-to-counsel-expansion-chicago/>)
78. Los Angeles County Consumer & Business Affairs, “Tenant Right to Counsel Program”, <https://dcba.lacounty.gov/trtc/>.
79. Stay Housed LA, “Apply for Legal Help”, <https://www.stayhousedla.org/get-legal-help>. See also: LA City Clerk, “Council File:18-0610-S3”, 3/18/25, <https://cityclerk.lacity.org/lacityclerkconnect/index.cfm?fa=ccfi.viewrecord&cfnumber=18-0610-S3>.
80. Northeast Energy Efficiency Partnerships et. al., “Decarbonizing Buildings: How States Can Set the Table for Success”, June 2024, https://neep.org/sites/default/files/media-files/neep_2024_decarbonizing_buildings_table_for_success_final_0.pdf.

proposed measures work together^[81]. Policymakers have the opportunity to encourage, require, and/or fund such assessments in government, utility, and nonprofit programs.

- **Expanding cost-effective parameters:** When the costs of improving buildings are considered or evaluated, they are often limited to immediate costs of construction and short-term paybacks through energy savings. There is enormous value in employing a wider lens, or a “systems approach,” to cost considerations so that longer term costs, such as those posed by climate change damage and mitigation can be weighed against the cost of upgrades.
- **Accessibility and aging in place:** Participants said these topics could and should be addressed as upgrades and retrofits occur. It is an area in need of further research, but there may be opportunities in the code or in other laws to improve accessibility along with other concerns.
- **Assistance programs:** Financial support for rent, bills, property taxes, mortgages, small repairs, etc., are nothing new but the relevant programs are perennially underfunded compared to the demand. Any policy would benefit from more funding mechanisms to deepen and expand such programs.
- **Support for owner-occupied homes:** Much of this paper has focused on renters as those most impacted, but frontline homeowners also need support. Community Advisory Committee members raised the importance of aging in place and the intergenerational wealth transfer that comes from maintaining the value of a home, as well as the challenges faced by small building owners who are both low-income residents and landlords struggling to maintain their building post-Covid. Targeted support to these groups has positive impacts on the individual and on the community by preventing vacancies and preserving affordable housing.
- **Subsidized housing pilots:** Government-subsidized housing has many housing stability protections already and is more closely governed by cities than market-rate housing. This could make it a good housing type in which to pilot additional requirements to demonstrate the effectiveness of energy and health requirements while minimizing the risk of unintended consequences. Learnings from a pilot can inform an overall policy and has the added benefit of benefiting some of the most marginalized renters first. HUD and local housing authorities may already have some decarbonization and/or healthy building goals in place and can partner with a city to incentivize and accelerate those commitments.

81. For a case study of the Philadelphia Built to Last program example, see: C40 Cities, “Community-Driven Building Retrofit Programs”, <https://c40.my.salesforce.com/sfc/p/#36000001Enhz/a/Vo000000454L/qAb4qXLVdeM7labjqR.4tHIPFC3iyCcWzFu8ZQfS674>.

Conclusion

The results of this project make clear that the definition of health goes beyond the physical components of a building to encompass a holistic understanding of health and housing. Affordability and mental health concerns are just as important to communities as asthma rates and are also a health issue in their own right. Improved health – encompassing physical, mental, and economic components – is an outcome that all communities desire. As one committee member put it, we care about climate, and we also want to be sure that “addressing the climate crisis does not result in worsening of our housing crisis.”

It is also clear that communities and buildings are unique, and there is no one policy that can cover them all. A BPS cannot, and should not, cover every building nor every aspect of health impacts stemming from buildings. However, the benefits that a BPS aims to create should be striven for in other ways for other building sectors, and a BPS should be viewed as one tool in a wide and multifaceted toolbox for improving building-related health and affordability outcomes for communities. We hope this paper gives both advocates and policymakers a useful starting place to consider policy design elements that can address these intersecting issues. The ideas included here can serve as the basis for greater engagement and hopefully creativity and collaboration on solutions that work best for each community. The interconnectedness of health, buildings, and community issues is perhaps the greatest lesson to be taken from this work, as well as the reminder that equity does not happen by accident; it requires specific attention and intentional centering. There are many more components not covered in this report that nonetheless impact health, buildings, and BPS policies, from specific issues such as a just workforce transition to process questions of how to truly co-create responsive policy. We encourage continued learning and connecting to expand the reach of equitable decarbonization policies.

