

# ZERO CODE

## A Powerful Tool to Advance Health and Equity

PHOTO: KENNETH KELLY, NREL



Only by embracing an equitable policy development process can jurisdictions ensure new policies or requirements truly support local residents' needs and avoid perpetuating inequitable development practices.

Across the US, cities, counties and states are exploring strategies to decarbonize buildings while simultaneously advancing health and equity goals for their communities. The new [Zero Code Framework](#)—a means to achieve new commercial and multifamily construction that incorporates highly-efficient design and on-site or off-site renewable energy—can be a powerful tool to advance local health and equity priorities. This document describes options within the Zero Code Framework that can support equity and public health goals, and best practices for adoption to center the needs of historically-marginalized residents.

### EQUITY AT THE CENTER

Jurisdictions should engage community members at the earliest stages of program or policy design. In working with local community organizations, local officials should consider the following principles and lessons learned from other equitable building decarbonization efforts\*:

► **BUILD TRUST:** In many cases, community-based organizations and local residents may be skeptical that their views and needs will be considered due to a history of being sidelined in policy decisions. By being flexible, listening and letting community groups lead, local officials can build the trust needed for true collaboration.

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# Health and Equity Benefits of the Zero Code



The new **Zero Code Framework**—a means to require new commercial and multifamily construction that incorporates highly-efficient design and on-site or off-site renewable energy—can be a powerful tool to advance local health and equity priorities.

## A MORE EQUITABLE WAY TO PAY FOR NEW ENERGY SUPPLIES

With the Zero Code Framework, jurisdictions can ensure that the costs of new energy infrastructure required to support new construction are borne in part by developers, not just ratepayers. This frees up scarce public dollars for retrofits and clean energy deployment in low- and moderate-income housing.

## LOCAL JOB CREATION

With the Zero Code Framework, jurisdictions can advance local renewable energy development, creating jobs and employment opportunities for local workers.

## LOWER OPERATING COSTS FOR MULTIFAMILY BUILDINGS

Zero Code-compatible buildings can be made affordably and provide affordable housing options, with lower energy bills to keep costs down for residents.

## GENERATING FUNDS FOR LOCAL EQUITY PRIORITIES

The Zero Code Framework includes a Renewable Energy Investment Fund (REIF) option, by which developers can pay into a fund in lieu of installing on-site renewables or purchasing off-site renewables. Local officials can design the REIF so that revenue is used to support local equity and public health priorities, such as community-based clean energy, efficiency improvements or building electrification for low-income housing.

### ► DEMONSTRATE ACCOUNTABILITY EARLY:

Following through on early commitments—no matter how small—helps demonstrate local officials will hold themselves accountable to agreements made with community-based organizations, which in turn will contribute to relationship-building and help deepen trust.

### ► PROVIDE COMPENSATION:

Taking the time to weigh in on a new policy or program takes time and resources, and for many community-based organizations and community members, both are in critically short supply. Cities, counties and states should compensate community members for their time and insights to ensure they can fully participate in the process.

► **COMMIT THE TIME:** True community engagement results in better policy outcomes, but it takes time. Local officials need to build in sufficient time and resources for deeper and continued community engagement to ensure the best possible outcomes.



# Health and Equity Benefits of the Zero Code

PHOTO: MARCELA GARA, RESOURCE MEDIA



Throughout the country, people of color and communities living on lower incomes are exposed to disproportionately higher amounts of air pollution and suffer the worst of these health impacts.

## HEALTHIER HOMES AND WORKPLACES

Local jurisdictions have many policy tools to encourage decarbonization of the building sector, including bans on gas hook-ups, efficiency and electrification requirements, and more. The Zero Code Framework is one mechanism that jurisdictions can use to require new commercial and multifamily buildings that are energy efficient and powered by local renewable energy. This can have major public health benefits, especially for communities that suffer the worst impacts from air pollution—including communities of color and low-income communities.

## BUILDINGS AND POLLUTION

The fossil fuels burned to power buildings - both at power plants and at the building site - are major contributors to air pollution associated with negative health impacts. They emit harmful pollutants inside and outside buildings and homes, including nitrogen dioxide, ultrafine particles, carbon monoxide, nitric oxide carbon dioxide and volatile organic compounds (VOCs) such as benzene and formaldehyde. Exposure to

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# Health and Equity Benefits of the Zero Code

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these pollutants exacerbates asthma, decreases lung functioning, and can lead to heart attacks and strokes. Outdoors, nitrogen dioxide and VOCs contribute to ozone, or smog. Carbon monoxide can also impair brain function and be fatal, and some VOCs can damage the central nervous system or cause cancer. Throughout the country, people of color and communities living on lower incomes are exposed to disproportionately higher amounts of air pollution and suffer the worst of these health impacts. A few sobering statistics:

- People of color are 61% more likely to live in a county with unhealthy air than white people, and are three times more likely to live in a county that failed all three air quality grades.
- Children who grow up in homes with gas stoves are 42% more likely to develop asthma symptoms. Gas burned indoors is especially dangerous for kids whose families live in smaller spaces like apartments that have less ventilation.
- Pollution from burning gas to generate energy and heat homes and businesses in 19 states and D.C. caused more deaths than coal in 2017.
- Overall, air pollution from burning fossil fuels is responsible for almost a fifth of premature deaths globally, including about 350,000 in the U.S. alone in 2018.

For more information, visit [zero-code.org](https://zero-code.org) or email [info@architecture2030](mailto:info@architecture2030).

## ***\*Resources Consulted:***

Community-Led Planning for Carbon Neutrality in Seattle's Residential Sector, Seattle Working Group, 2020

Zero Cities Project Report, Zero Cities Project, 2020

NAACP Guidelines for Equitable Community Involvement, May 2021, NAACP

Equity and Buildings: A Practical Framework for Local Government Decision Makers, June 2021, Urban Sustainability Directors Network

