



SUPPORTING DECARBONIZATION

Zoning Strategies and Approaches

Zoning updates can support the goals of building owners and cities pursuing sustainable real estate.

Because buildings contribute 40 percent of the world's CO₂ emissions, they are an essential target of many decarbonization initiatives—a cause with which zoning reform can assist by encouraging the development of greener buildings.

Zoning initiatives that create specific standards for low-carbon design, development, and operation are already in development or in place in some locations, actively supporting development of greener buildings.

Following are common decarbonization goals of zoning updates:

- **Advancing net zero carbon standards** through strengthening low-carbon building requirements;
- **Encouraging development that includes trees, shade structures, and reflective surfaces;** and
- **Promoting the development or redevelopment of buildings that achieve green building standards** specified by certification programs.

Examples of zoning reforms to promote low-carbon buildings are as follows:

- **Comprehensive zoning overhauls** allow cities to reconsider which low-carbon building standards new construction or major renovations must adhere to.
- **By-right zoning** can ensure proven high-performance building strategies or net zero technologies do not require special review.
- **Overlays** allow municipalities to incentivize or require aspects of high-performance buildings in certain areas, including by achievement of low-carbon building certifications.
- **Floating zones** can set standards for efficiency and performance of future properties while providing flexibility on requirements, such as height and width.
- **Zoning incentives** can set net zero carbon and energy standards in exchange for incentives, such as additional height or floor area.

Zoning and Decarbonization

PROFILE: Strengthening Low-Carbon Building Requirements in Boston

The Zero Net Carbon Building Zoning Initiative of the Boston Planning and Development Agency has a goal to develop a zero net carbon standard for new construction to contribute to the city's goal of carbon neutrality by 2050.

If the current goals of the initiative are adopted, the resulting zoning would ensure that zero net carbon buildings use an established minimum standard for on-site renewable energy, give rewards for innovation, and provide transparency in complying with the resulting regulations.

Key goals of the zoning initiative include the following:

- Constructing new municipal buildings to a zero net carbon standard,
- Adopting a zero net carbon standard for city-funded affordable housing,
- Strengthening low-carbon building zoning requirements to a zero net carbon standard,
- Investing in energy efficiency and renewable energy, and
- Developing a carbon emissions performance standard to decarbonize existing large buildings.

Guidance on Updating Zoning

Based on best practices from around the state, the Massachusetts Area Planning Commission compiled the *Climate-Smart Zoning and Permitting: Net Zero Playbook* to help municipalities develop zoning and permitting approaches that facilitate low-carbon or net zero buildings. [Learn more.](#)

PROFILE: Advancing Carbon Neutrality through Density Bonuses in Arlington County, Virginia

Arlington County has set a 2050 carbon neutrality goal, and buildings have become a key target because 58 percent of the county's greenhouse gases are generated by buildings. The primary tool to advance building sustainability is the Green Building Density Incentive Program, which has gone through multiple iterations since its inception in 1999.

As of 2022, the latest additions include the following:

- Leadership in Energy and Environmental Design (LEED) Gold is now the minimum level of green building certification required to receive bonus density.
- Baseline items that address specific energy measures, including energy- and water-efficient appliances, electric vehicle charging, and renewable energy are included.
- Additional baseline community sustainability priorities include equity, human interaction with nature, and light pollution reduction.
- Energy Star Building Certification (or equivalent) must be achieved post-occupancy, with increasing levels of compliance stipulated for higher floor/area ratio (FAR) levels.

