GETTING TO zero

West Berkeley Public Library, Berkeley, CA
Credit: Harley Ellis Devereaux
First Living Building library
Architect: Harley Ellis Devereaux

Zero Energy Policy Provides Multiple Benefits

States, cities, and municipalities across the country are increasingly integrating zero energy building into energy policies, codes, and standards.

Jurisdictions have the potential to rapidly advance local adoption of zero energy (ZE) and zero carbon buildings through codes, policies, outreach, and goal setting for their own building portfolios. Advancing ZE policy means advancing economic development, energy leadership, ingenuity, and resilience. Planning for a ZE future creates practical and achievable energy solutions for residents, and economic and environmental benefits for jurisdictions.

JOBS, SKILLS, AND ECONOMIC DEVELOPMENT

- A $15 million investment in a building retrofit project will create economic opportunity in the building sector supporting approximately 20 jobs. The benefits continue over the following 20 years.
- Create jobs and reduce unemployment by investing in public building energy efficiency retrofits.
- Workforce development opportunities fill emerging ZE professions.
- Increase property values with a higher-quality building stock.
- Create a business-friendly environment to attract companies that provide ZE-related products and services.
- Modernize operations to accelerate business growth to encourage a thriving clean energy industry.

ENERGY INDEPENDENCE & LOCAL RESILIENCY

- Meet energy needs locally to achieve carbon reduction and other sustainability goals.
- Provide a safe harbor during storm events or power outages and recover more quickly.
- Gain budget stability and protection from uncertainty of rising energy costs.

Former California Governor Jerry Brown

HEALTH & PRODUCTIVITY

- Support healthier environments and higher productivity with improved air quality and thermal comfort.
- Create schools and public buildings with lower operating costs, allowing the savings to be used for needed services and programs.
- Reduce the occurrence of extreme weather events.
- Reduce unevenly distributed air quality and improve disadvantaged communities.

Set Big Bold Goals for ZE

According to recent studies, buildings offer the most impactful near-term option for addressing carbon emissions locally. Buildings account for up to 75% of carbon emissions in some cities. Opportunities to reduce emissions from building operations are wide ranging, from stringency in energy codes to policies and incentives that drive deep energy retrofits in existing buildings.

Energy-Efficient Buildings Are More Equitable

Energy-efficient buildings supports all communities and allows city budgets to support their most valued asset, their citizens. When families with limited financial means are burdened with high energy bills, they face the prospect of losing their utility services or, worse, being evicted from their homes. As rising energy costs increase annual building operating expenses, building owners have limited means to invest in their properties while keeping rents affordable, threatening the continued availability of good-quality affordable housing.

Government Buildings Offer Opportunities for Leadership

As governments begin to grapple with strategies to achieve their greenhouse gas emissions targets, they are coming to recognize that their own publically owned portfolio of buildings represent an opportunity to both reduce energy use and to demonstrate leadership in achieving broader municipal sustainability, emissions, and performance goals.

> "Cities are showing they can work together to reduce emissions, save money, and put people to work."
>
> Mayor Rahm Emanuel, Chicago

IDeAs Z2 Design Facility | San Jose, CA
Photo: David Wakely

ZE ACTION PATHS

Jurisdictions have the potential to rapidly advance local adoption of ZE and carbon buildings through codes, policies, outreach, and goal setting for their own building portfolios. The following steps present the most effective options for cities and states to systematically plan and make progress toward comprehensive ZE policy.

1

PUBLIC BUILDING LEADERSHIP: Encourage and support public buildings' deep and continuing energy performance improvement.

2

MARKET LEADERSHIP AND DEVELOPMENT: Reward early adopters of high performing buildings and spotlight success through education and recognition.

3

CODES AND POLICIES: Create public codes and policies that support improved building performance and require enhanced measurement and reporting.

4

FINANCE AND INCENTIVES: Effective financial mechanisms and incentives remove first-cost barriers that can stall projects.

5

CLEAN POWER: Encourage development of clean power options.

RESOURCES

To access NBI's collection of ZE resources, including case studies, research, and tools and guides for getting your project to ZE, visit **gettingtozeroforum.org**.

nbi new buildings institute

New Buildings Institute (NBI) is a nonprofit organization driving better energy performance in commercial buildings. We work collaboratively with industry market players—governments, utilities, energy efficiency advocates and building professionals—to promote advanced design practices, innovative technologies, public policies and programs that improve energy efficiency. We also develop and offer guidance and tools to support the design and construction of energy efficient buildings.