

New Buildings Institute

Annual Report Fiscal Year 2017-18

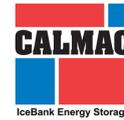
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To see NBI's Case Study of West Berkeley Public Library
visit: newbuildings.org/case-studies

For the next decade and beyond, we will continue to amplify and accelerate the energy efficiency transformation of our nation's buildings. Our work to assist schools, cities and states, and utilities to build extremely efficient buildings, perform deep energy retrofits, and even achieve zero energy performance will remain steadfast.

*Ralph DiNola from blog
"NBI 20th Anniversary: The Arc of Innovation"*

West Berkeley Public Library | Berkeley, CA *Credits: Mark Luthringer, Photography*

Last year, NBI celebrated its 20th anniversary marking steadfast progress in achieving market transformation toward improved energy efficiency in the built environment. **Our founders envisioned a new organization that would be dedicated to advancing codes, conducting research, and developing guidance needed to drive markets in energy efficiency in the building sector.** With the help of our board members and valued sponsors and partners, we have even made strides to achieving market growth in the ultimate efficiency goal: zero energy and zero carbon.

NBI has set in motion a process of research and code development that is revolutionizing standards and practices in the building industry in advanced cities and states. Two decades of effort brought forward some proud moments, as we noted our achievements. (See our special section in this report highlighting some of NBI's key accomplishments.) It seems that at many of the inflection points in building efficiency of the last two decades, NBI had a role:

- **We engaged in development of the 2012 International Energy Conservation Code (IECC) to make historic gains that were 25% to 30% better than previous standards,** and helped achieve adoption of the 2012 IECC as well as even more stringent and innovative energy code requirements in leading states and cities.
- **NBI embarked on advocating for ultra low-energy buildings** by organizing and collaborating on a “Getting to 50” research project that found only 1 in 1,000 buildings met the goal of a 50% reduction in energy consumption for commercial buildings. The project became the genesis of our efforts to provide policy direction and design guidance for vast improvements in building energy performance. **Ultimately, this became our Getting to Zero program strategy at NBI and we released the first study on zero energy buildings in 2012.**
- **We provided the foundation for groundbreaking studies that have transformed the way we evaluate building energy performance, and have improved our understanding of the effects of the built environment on human performance and health.** Measuring the student performance benefits associated with daylighting in the Daylighting in Schools Study, we found that increasing daylighting levels from “average” to “maximum” increased learning rates by 11%. In addition, studies for the U.S. Green Building Council surfaced the discrepancies between modeled energy performance and metered energy performance of LEED buildings. Findings from the *LEED New Construction Measured Performance study* were an important turning point for the industry to increase attention on the continuum from design through operations, laying the foundation for measured energy performance practices and outcome-based performance policies that are being tested and adopted by leading jurisdictions today.

NBI has set in motion a process of research and code development that is revolutionizing standards and practices in the building industry in advanced cities and states across the country.

- **We broke ground with the development of a whole-building prescriptive guide to energy efficiency.** The *Core Performance Guide*, which is used for implementation by seven efficiency programs across the country and became the basis of the 2012 IECC, furthered understanding and application of an advanced integrated design process for small- to mid-sized buildings. We have continued this tradition of developing design guidance with our New Construction Guide, Building Innovation Multifamily Guide, HVAC Primer, and Zero Energy Project Guide, to name a few.
- **With industry leaders, including NBI Fellow Charles Eley, we helped transition the industry approach to efficiency measurement from small, incremental improvement to absolute targets using the Zero Energy Performance Index (zEPI).** By setting an absolute scale, zEPI helps chart a clear course on energy policymaking to both set and track progress toward zero energy goals.

Looking ahead, there is even more critical work to be done in the next 20 years and beyond. Climate change, threats to the environment, shuttering energy efficiency programs in some jurisdictions, and reversing the hard work of federally-sponsored energy efficiency progress are part of a new reality. In the face of these challenges, **we have set our sights on helping leading jurisdictions, institutions and the private sector to achieve their energy and climate goals through better energy performance and grid integration of buildings.** We recognize that we and our partners must act now with great urgency to influence the sustainability outcomes for future generations.

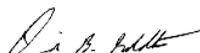
For the next decade and beyond, we intend to amplify and accelerate the energy performance transformation of buildings. We will continue to innovate and evolve in order to expand our influence and impact, while finding new ways to curb carbon emissions from the built environment, grow economic benefits, and make our buildings better places to live, work and play.

NBI is proud to be a catalyst for change to help influence the industry, and we hope our 2017-2018 Annual Report illustrates our accomplishments but also sets the path for future work.

Ralph DiNola, CEO
New Buildings Institute



David B. Goldstein, President
New Buildings Institute



Zero Energy and Zero Carbon Leadership and Market Development

“The business case for making the building net zero energy is that it will not just lower our energy bill, but it also will allow us to put those savings straight back to the top line of our operations budget for maintaining programs for kids.”

Evergreen School District Assistant Superintendent Kathy Gomez

NBI continues to expand the role we play in the development and growth of the zero energy (ZE) and zero carbon buildings market, and expectations for zero energy and zero carbon outcomes are growing exponentially. ZE buildings are ultra-low energy projects that consume only as much power as is generated onsite through renewable energy resources over the course of a year. A zero carbon building is defined as one that is highly energy-efficient and produces onsite, or procures, carbon-free renewable energy in an amount sufficient to offset the annual carbon emissions associated with operations.¹ Grand View Research Inc. forecasts \$78.8 billion of growth in the global net-zero-energy building market by 2025. Our staff is deeply engaged with all aspects of assisting zero energy leaders with access to the latest information and trainings on ZE topics for audiences across the country. Over the last year, we continued research on best practices, produced publications focused on getting individual buildings to zero energy, developed codes and policies for advanced jurisdictions committed to ZE and reduced carbon emissions. We also activated ZE leaders to advocate for zero energy by expanding awareness, sharing knowledge and expertise on ZE goal setting across the United States and Canada.

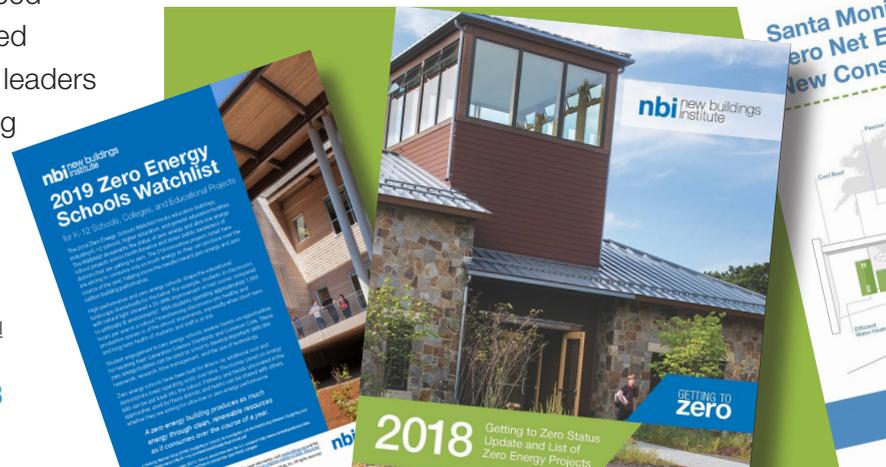
¹ [Zero Carbon Building Standard Canada Green Building Council](#)

Highlights

Release of the [2018 Getting to Zero Status Update and Zero Energy Buildings List](#)² summarizes the growth and trends from nearly 500 certified, verified and emerging zero energy projects. The 2018 list reflects a steep curve upward from our first list in 2012 with the count increasing over 700%. This growth encompasses 45 million square feet of commercial building space, including schools, public buildings, offices and other building types.

Interest in regional and sector breakdowns within the Zero Energy Buildings List have prompted staff to develop a series of Getting to Zero Watchlists. These Watchlists pick one aspect of the data and explore technologies, trends and accomplishments through that lens. We have worked with Northwest Energy Efficiency Alliance (NEEA) to develop the [Northwest Zero Energy Watchlist](#), as well as other regional organizations to develop a [California Zero Net Energy Watchlist](#), a [2019 New York Status Report](#) as well as the [2019 Zero Energy Schools Watchlist](#).

² Certified buildings have been certified zero energy through International Living Futures Zero Net Energy Certification. Energy use data from verified projects have been reviewed by NBI or another third-party as having achieved ZE performance. Emerging projects have a stated ZE goal, but not yet have 12 consecutive months of energy use and generation data.

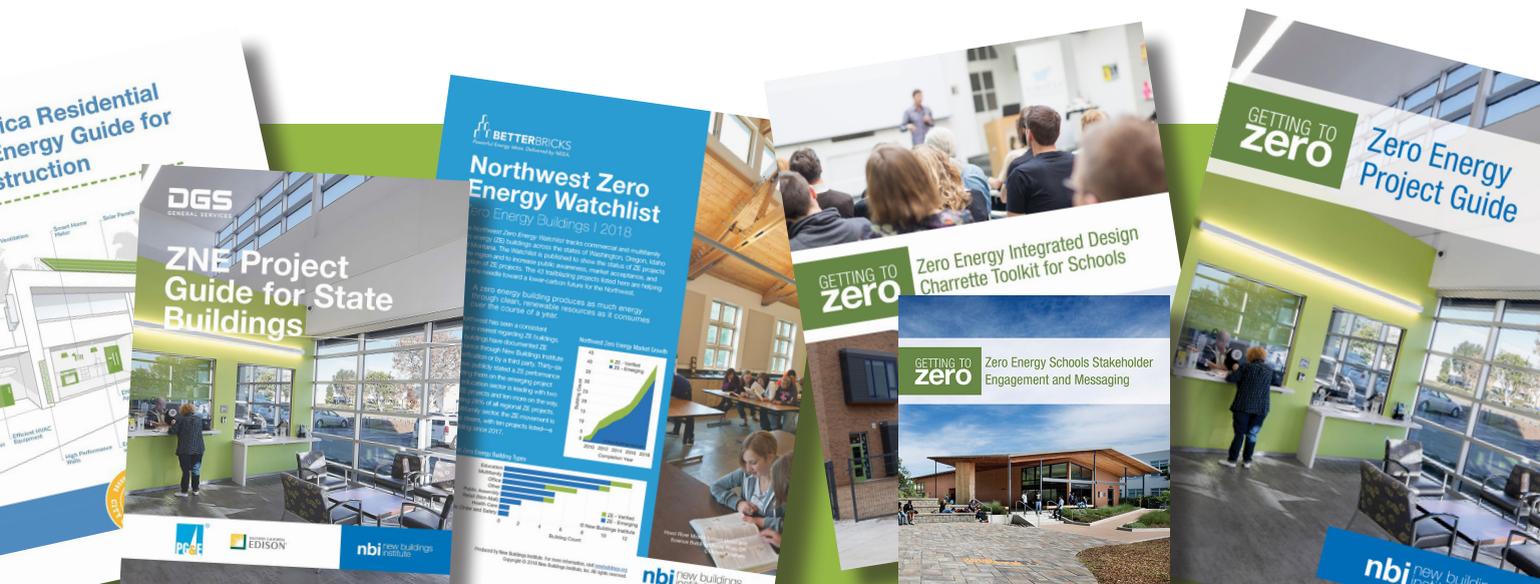


To help the market move further faster, NBI developed and released a series of guides to assist teams from all sectors pursue a path to ZE. The [Zero Energy Schools Stakeholder Engagement and Messaging Guide](#), [Integrated Design Charrette Toolkit for Schools](#), and the [Zero Energy Project Guide](#) were all released in 2017. This series includes templates, checklists, and information for a step-by-step approach on taking ZE from an idea in need of stakeholder buy-in to a finished project operating at ZE performance. In addition, the [ZNE Project Guide for State Buildings](#) was created in collaboration with the California Department of General Services (DGS) to help move California's public buildings to further ZE goals. Project managers can use this resource to gain stakeholder support, select a qualified design team, manage the design and construction process, operate the building as designed, and verify ZE operations.

[The Santa Monica Residential Zero Net Energy Guide for New Construction](#) was developed for local home builders, owners, and developers to better understand how to implement and comply with Santa Monica's new zero net energy (ZNE) ordinance. NBI worked with TRC

to incorporate the code compliance details into the ZNE process. The guide leads users through goal setting, provides information on how to reduce energy loads, select efficient equipment before adding renewable energy, and verifying code compliance.

Zero energy retrofit solutions are needed throughout the built environment, but school buildings are particularly promising. To help enable the public school market achieve ZE goals, NBI led and published [The California K-12 and Community College Zero Net Energy \(ZNE\) Retrofit Readiness Study](#) on behalf of California Public Utilities Commission Energy Division. This market characterization study examines the existing K-14 building stock, as well as the stakeholders' decision-making process, and funding involved in school retrofits in California. The sensitivity analysis in the report uses energy modeling to determine the relative magnitude of the impacts of various building factors that contribute to energy use in schools, including physical building characteristics, operational practices, and occupant schedules. This research also provided an update on the current status of ZNE retrofits in schools in California.





Districts around the country have incorporated NBI's charrettes and trainings in their ZE process and goal setting. We kicked off the 2017-18 fiscal year facilitating a charrette for California's Hermosa Beach Unified School District, a member of the U.S. Department of Energy's Zero Energy Schools Accelerator (ZESA) which NBI staff also supports. Since then, we have been hosting workshops in California, Washington and at USGBC Green Schools events. On behalf of California's investor-owned utilities, we produced the third annual ZE Leadership Awards, recognizing the people moving ZE school projects forward in California, and curated a ZE Schools Resources Hub of guides, research and policy models from districts around the United States.

The 2018 Getting to Zero National Forum, held in Pittsburgh, Pennsylvania, and co-hosted with Rocky Mountain Institute, brought together roughly 400 representatives across energy and building industry professions for three days of knowledge building, solutions development, and partnership and collaboration to bring zero energy and zero carbon buildings to scale. The 2019 Forum, an official follow-on event to the Global Climate Action Summit, is set for Oakland, California, on October 9-11 and will showcase Oakland as a living lab for participants.

NBI is supporting leading states and jurisdiction such as Oregon, the District of Columbia and Providence, Rhode Island, which are implementing ambitious zero energy and zero carbon goals and standards.

In the District, NBI's team worked with city leaders to develop tools and guidance to help local design teams deliver on new ZE goals. Guides were leveraged from NBI's library of publications, including the *Zero Energy Communication Toolkit*, *Zero Energy Project Guide* and *Multifamily Guide*, and customized for the District's regional climate zone information, local policy requirements, and incentive programs.

In Providence, NBI is supporting the RepowerPVD energy challenge program that connects participants with efficiency rebates from their local utility for energy upgrades. NBI trainings and technical support are helping building owners commit to either achieving a 20% reduction in energy use by 2025, or to become the first ZE building in Providence in the "Race to Zero."

In the Northwest, NBI is supporting efforts by the Zero Energy Ready Oregon (ZERO) Coalition and Shift Zero to push forward zero energy and zero carbon goals in Oregon and Washington, respectively. When Oregon Governor Kate Brown signed Executive Order 17-20 in the fall of 2017, she set Oregon on the path to addressing climate change by ramping up efficiency in Oregon's buildings. A new and growing coalition has formed to help accelerate the pace of change and support making the Governor's order a reality. In Washington State, the Shift Zero Washington Initiative is working to a similar end, and focused on making net zero carbon buildings regular practice in the Evergreen State.



At the Getting to Zero National Forum, I connected with people who could assist me in my work right away. Got great new actionable ideas. Multiple experts converged on the same strategies and ideas giving me confidence that the information has validity.

2018 Getting to Zero National Forum attendee



The breadth of topics, approaches and impacts really brought a well rounded coverage to the topic of NZE. Particularly the keynote and the multiple mentions across the event regarding microgrids, district level energy plans and the resiliency of a new system to replace our shoddy existing infrastructure.

2018 Getting to Zero National Forum attendee

GETTING TO **zero** NATIONAL FORUM 2018



Arc of Innovation: Reflecting on 20 years

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celebrating **20 YEARS**

NBI began in 1997, when a group of energy efficiency industry leaders came together to spark meaningful progress on energy codes after a period of lackluster efficiency improvement. They envisioned a new organization that would be dedicated to advancing codes, conducting research and developing guidance needed to drive energy efficiency in the commercial building sector.

NBI CEO, Ralph DiNola launched our anniversary celebrations with a blog reflecting on the history and future of the organization in its second decade.

Anniversaries provide the opportunity to mark a point in time and provide the space to examine accomplishments, purpose, and vision of the future. Staff and board members, some with NBI since the beginning, are reflecting on why the organization was founded, what we have accomplished in 20 years and how we will continue to drive market transformation going forward. We expect to move into our 21st year of operation expanding and accelerating our impact as we continue to work toward our mission. Our industry-leading Board members and talented staff are the bedrock of our capabilities. Strong partnerships that have been forged with other leading nonprofits helps leverage our individual organizations' strengths and amplifies our collective impacts. We recognize that we and our partners must act now with great urgency to influence the sustainability outcomes for future generations. NBI has made some amazing progress over the years, but recognizes some of our most critical work lies ahead—achieving market transformation of the built environment to zero energy and zero carbon. NBI is proud to be a catalyst for change to help influence the industry.

The early activities of NBI set in motion the process of research and code development that began to revolutionize energy codes, standards and practices in the building industry. NBI started to shake up the status quo and act as a bridge between efficiency and programs and the commercial building sector.

-NBI CEO Ralph DiNola



Jeff Johnson, NBI's Former Executive Director 2000-2005, who passed away doing what he loved, mountain biking in the Columbia River Gorge.

Visionaries usually describe or imagine how things could be, but don't make them happen themselves. Jeff was not content with just the vision, but insisted on making it real.

-NBI Blog "Remembering Jeff Johnson"

To celebrate our 20th Anniversary, we collected stories from our founders and industry luminaries of NBI milestones and achievements over the last two decades.

Below are some excerpts of their contributions. Visit newbuildings.org/20th-anniversary for the full blog series and video interviews.

Excerpt from “[Moving Daylighting into a New Era](#)” from NBI Board Member Nancy Jenkins Ander.

NBI recognized the huge potential represented in Lisa’s (Heschong) early research, that correlated daylighting to productivity. They saw the need to focus and follow-up on the study to deepen the data pool, provide additional rigorous data analysis, scientifically establish correlations that appeared to exist, and proposed a significant research effort to advance this important work.



Excerpt from “[Getting to 50 and Back Again](#)” by former NBI Executive Director and current NBI Senior Fellow Dave Hewitt.

Just a year or two after we got all excited about Getting to 50, we caught wind of this thing called “zero energy” (ZE). I had seen some British examples, but now both California (through the California Public Utilities Commission, or CPUC) and the Northwest (the Cascadia Green Building Council) were talking about buildings that were grid connected but generated enough renewable energy on site to meet their annual needs. In California, NBI Research Director Cathy Higgins, now-retired Senior Project Manager Mark Cherniack, and I began attending meetings to develop California’s Long-Term Energy Efficiency Strategic Plan along with many others.



Facing: NBI former Executive Director and current Senior Fellow, Dave Hewitt with NBI President David Goldstein and NBI Founder Doug Mahone at the 10th Anniversary celebration in 2007.

Above: NBI staff and alumni celebrate the move to Portland in 2015.

Excerpt from “[NBI’s Legacy of Code Advocacy Lives On](#)” by David Cohan, Director of Technical and Policy Analysis at the Institute for Market Transformation.

In recent years, NBI has been everywhere in the code development world, pushing not just for improvements in individual requirements but for major re-organizations of the entire code. Most recently, this took the form of proposing an entire new chapter for multifamily buildings in the IECC. While many people had complained about the inconsistent and illogical treatment of multifamily in the code, NBI was at the forefront of a group of organizations who actually presented a solution. And while the first attempt failed, it greatly raised awareness of all the problems and set the stage for successes in the future. It’s starting to take hold in local jurisdictions.

Excerpt from the blog “[Outcomes Matter](#)” by Ryan Colker, from [The Alliance for National & Community Resilience](#).

Prescriptive and performance based criteria in codes and other policies and programs weren’t enough—a new approach focused on actual, measured outcomes is needed. Such a transition in how buildings are designed, constructed, operated and regulated would require a paradigm shift—one that NBI could lead with the engagement of bright minds and early actors from across the industry. This leadership took the form of multiple forums with industry thought leaders to walk through the steps necessary to make such an approach a reality.

Building and Program Innovation



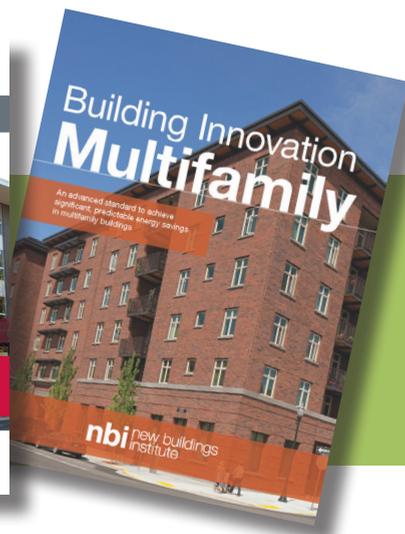
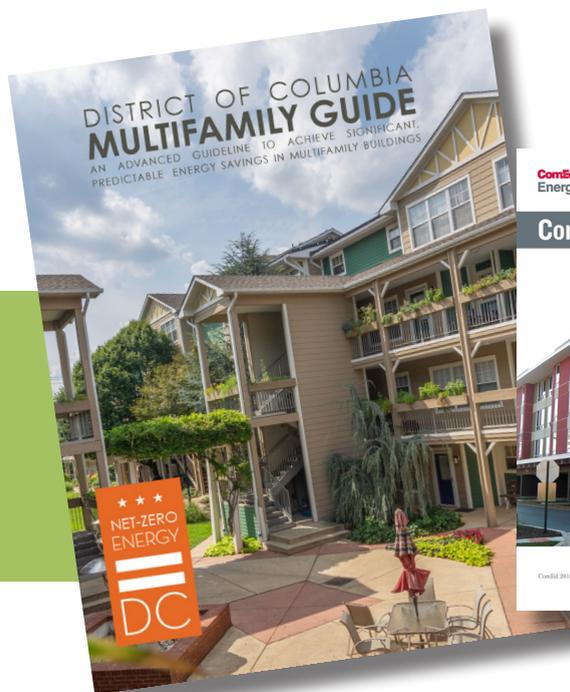
“With the assistance of NBI’s network of energy and facilitation experts, we have been able to help identify expertise to help train state building professionals. The resources shared through NBI’s extensive energy and ZNE research efforts are a great benefit to not only California building professionals, but across the country.”

*Dan Burgoyne, Sustainability Manager,
State of California Department of General Services, Office of Sustainability*

NBI's team of architects, engineers, and researchers work to advance approaches by both the energy and building industries to raising levels of efficiency in buildings. Our Building and Program Innovation efforts include building research, technology assessments, developing standards and tools, and providing direct services such as training and consulting on the technical analyses, tools and guidance that demonstrate feasibility of advanced efficiency measures and practices. The resources developed under this program provide critical support for building owners, practitioners, utilities and jurisdictions that want to create or enhance programs that favor ultra-efficiency in commercial buildings, including multifamily housing.

Highlights

The rapidly growing multifamily building sector represents a major opportunity to advance goals of improved energy performance, better indoor air quality and more comfortable living spaces. To catalyze higher efficiency outcomes, NBI developed and published the [Multifamily Building Guide](#) for new construction projects. The advanced measures described under this multifamily efficiency solution save 15-25% over the 2015 International Energy Conservation Code (IECC) and 20-30% over ASHRAE 90.1-2013. The standard offers a single approach for the unique nature of the multifamily market and has proven to be a popular tool for utilities and local jurisdictions looking to increase multifamily efficiency in their programs. The guide has been adapted by ComEd in the Midwest and with the District of Columbia. NBI also teamed on the development of a version of the guide for the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) due out mid-2019.

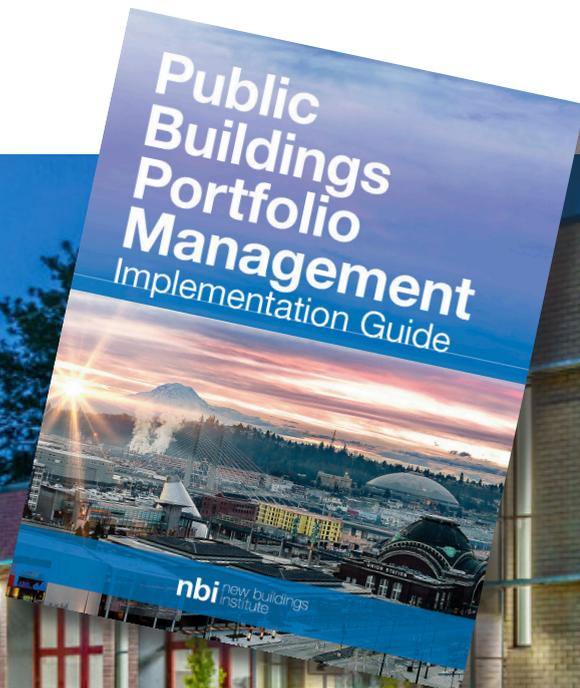


Cities play a critical role in decreasing carbon emissions through improvement of their own building stock. NBI is teaming with experts EcoEdge and Maalka to develop a framework that enables cities to lead by example by focusing on their own building portfolio. The Public Building Portfolio Management process, funded by the U.S. Department of Energy and the Northwest Energy Efficiency Alliance (NEEA), enables small- and medium-sized municipalities to strategically assess the performance of their municipal buildings. Highlights to date include:

The Public Buildings Portfolio Management team has worked with Boise, Tacoma, Cambridge, Providence, Eugene, and Missoula —with more to come—to help track energy consumption across their building stock,

identify prioritized candidate buildings for targeted improvements, and create and implement plans. NBI's FirstView virtual energy auditing and advanced benchmarking tool is used to complete diagnostic analysis of energy data for all buildings in each city.

Case studies from each of the cities working through the program have been developed to help other jurisdictions learn about this process and the opportunities to make progress. The process has been documented in a [Public Buildings Portfolio Management Implementation Guide](#) to help cities develop a plan to achieve deep and ongoing energy reductions in public building portfolios. In addition, a *State and Local Governments Toolkit* was created to give jurisdictions easy access to the resources they need to implement improvements to both their own building portfolios as well as policies that will drive better energy performance in local building stock.



GRIDOPTIMAL™ BUILDINGS INITIATIVE

The proliferation of solar energy resources on buildings is creating an urgent need for new near-term solutions to address the challenges resulting from grid integration of distributed energy production and storage, and capitalize on opportunities for market transformation. In partnership with the U.S. Green Building Council (USGBC), NBI is leading a national coalition of utilities, design firms and others committed to better integrating buildings into utility grid management strategies. The [GridOptimal™ Buildings Initiative](#) will support least-cost decarbonization by developing metrics that define the grid-friendliness of a building resulting in more effective grid operation.

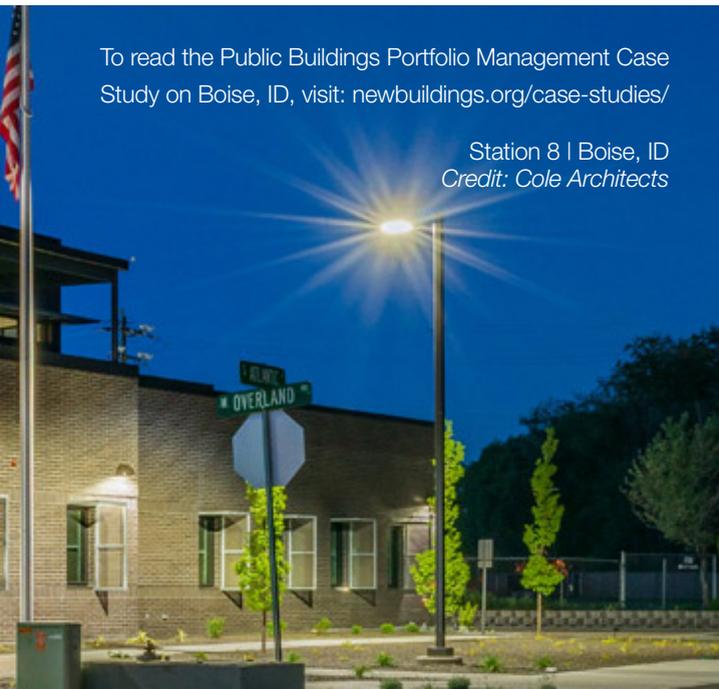


Leading in L.A. is a major research project responding to the critical need to greatly reduce energy use in California's existing commercial buildings with cost-effective and scalable solutions. Specifically, this effort is examining opportunities for wider adoption of integrated shading products and lighting and plug load systems and controls, which potentially could reduce whole building energy use by up to 32%. Working with prominent energy efficiency entities TRC and Lawrence Berkeley National Laboratory, the project is now in its second year of lab testing, field demonstration, and extensive market and policy adoption strategies that will target both the LA basin and the state as project results are completed. It is funded by the California Energy Commission's EPIC program and led by NBI.

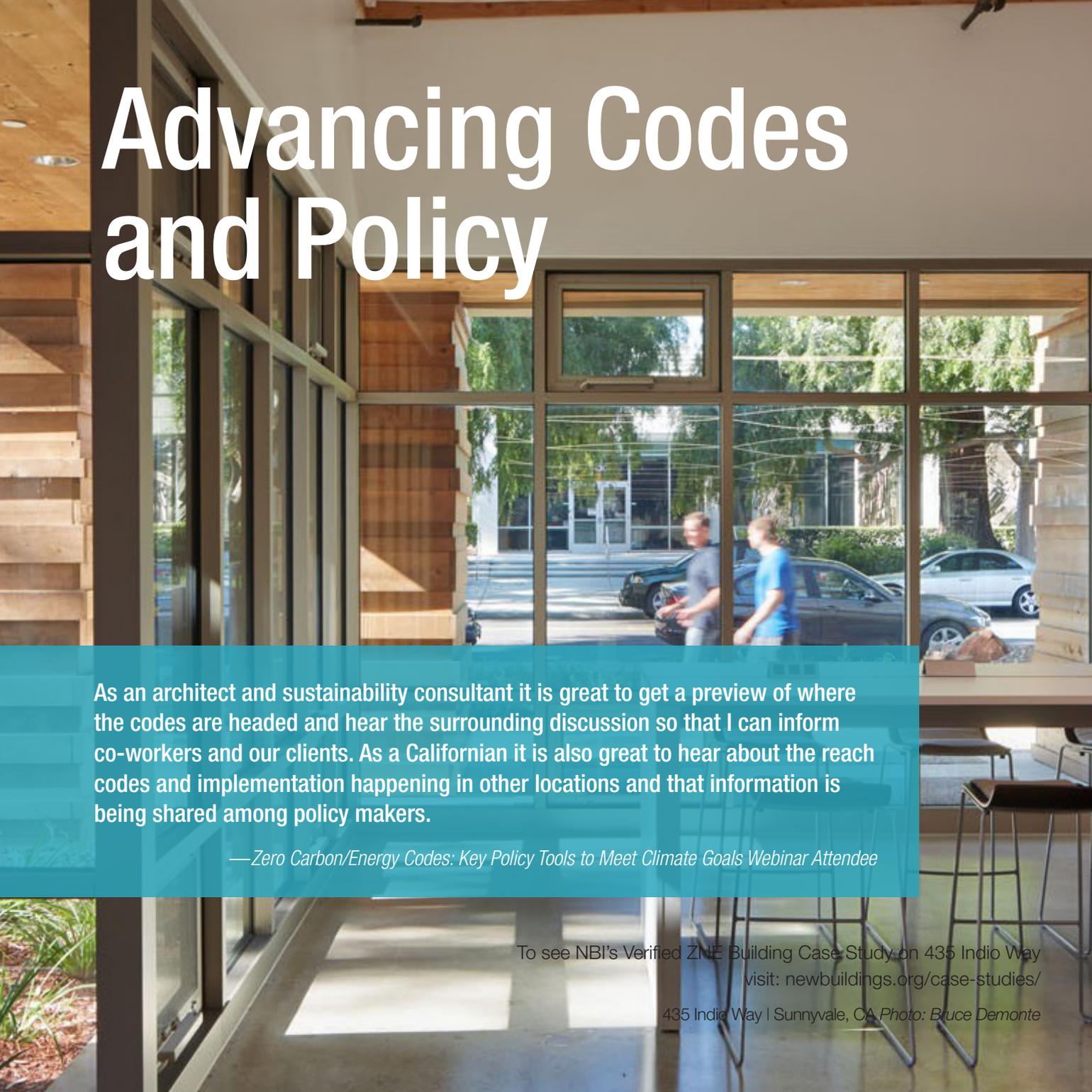
The [Research Gap Analysis for Zero-Net Energy Buildings](#) project in California asks: where are the technology priorities and gaps to help get to zero energy buildings, and where is further investment needed? We know that without upgrading our existing buildings to higher efficiency technologies we have zero hope of getting to ZE—or at least ultra-low energy performance—and our carbon reduction targets. We also know that there are many roads to retrofits but rapid scaling relies in part on the commercialization of new technologies, integrated applications of existing products, and pure research and development. The outcomes of this study confirm that the market changes we are seeing related to growing applications for controls and grid-friendly buildings are on the right track, but that significantly faster deployment is needed. The project was led by Itron, and included the work of NBI, Electrical Power Research Institute, Integral Group, Davis Energy Group, and UC Davis for the California Energy Commission (CEC).

To read the Public Buildings Portfolio Management Case Study on Boise, ID, visit: newbuildings.org/case-studies/

Station 8 | Boise, ID
Credit: Cole Architects



Advancing Codes and Policy



As an architect and sustainability consultant it is great to get a preview of where the codes are headed and hear the surrounding discussion so that I can inform co-workers and our clients. As a Californian it is also great to hear about the reach codes and implementation happening in other locations and that information is being shared among policy makers.

—Zero Carbon/Energy Codes: Key Policy Tools to Meet Climate Goals Webinar Attendee

To see NBI's Verified ZNE Building Case Study on 435 Indio Way
visit: newbuildings.org/case-studies/

435 Indio Way | Sunnyvale, CA Photo: Bruce Demonte

As pressure mounts for cities and states to address the impacts of climate change, energy codes and policies have emerged as a crucial lever in transforming markets for high performance buildings. NBI has been advancing national and local building energy codes for over two decades, and our research, analysis and implementation expertise is a leading resource. Buildings generate up to 40% of carbon emissions in the U.S. and as federal policy lags, NBI's policy experts and technical staff are stepping in to provide support for cities and states working locally to meet their climate action goals.

Highlights

Improved building codes and policy, as well as resulting carbon emissions reductions, can be hampered by federal preemption of designated “covered products,” explains NBI Codes and Policy Director Jim Edelson in a white paper synthesizing the challenge, [*Federal Preemption as a Barrier to Cost Savings and High Performance Buildings in Local Energy Code*](#). Federal preemption rules won't allow cities and states to prescribe higher appliance and HVAC efficiency than federal minimums even though products with high levels of efficiency already dominate their markets. Higher efficiency levels in windows, walls, lighting, etc. have advanced leaving a growing percentage of building energy use derived from preemption-covered products, including appliances and heating and cooling systems. That means efficiency gains in 78% of energy use in residences and 59% in commercial buildings is fully preempted by

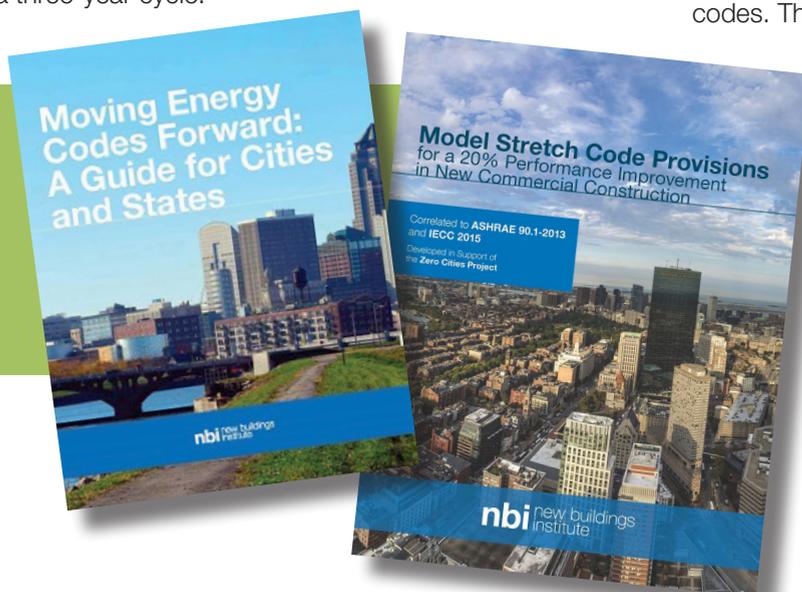
federal standards, according to studies. NBI is working to spotlight this issue and the white paper lays out models for overcoming preemption.

[*Taking the \(Fuel\) Blinders off Energy Codes \(Part 1 and 2\)*](#) are two NBI white papers that make the case for reconsidering energy code metrics due to shifts in the policy drivers of these codes. Co-authored by NBI staff Alexi Miller and Jim Edelson, the papers make clear that we need to expand our focus and consider the societal and global impacts of energy usage at the building and expand code metrics from energy to an emissions basis, and propose an emissions-centric metric for energy code adoption. Current thinking indicates three aspects of a potential zero energy or zero carbon code: first, zero energy construction code strategy where projects are required to demonstrate that submitted building plans are designed to achieve a zero energy outcome. Second, zero energy outcome policy is a building energy policy requiring buildings to demonstrate zero energy use based on measured building performance outcome, and third, zero carbon code or policy that calls for the elimination of building-level combustion, OR a move from energy cost/site/source metrics to carbon, or even broader GHG, emission metrics.

M[oving Energy Codes Forward: A Guide for Cities and States](#) leverages our deep experience with stretch code development and adoption into guidance for local governments providing resources and examples of advanced code adoption. These critical steps to achieving significant code improvements through the adoption of stretch codes offers a practical framework for implementing advanced codes and outcome policies. Any jurisdiction with climate action plans that set targets to cut carbon emissions from buildings must address energy codes as a critical part of a carbon reduction strategy. For example, the City of Boulder has set a goal of reaching zero energy construction through building and energy codes by 2031. Achieving the GHG reduction targets requires moving the City's energy code to a Net Zero Energy Code by 2031. As a result, the city has developed an energy code roadmap that incrementally increases energy efficiency and carbon reduction requirements for residential and commercial structures on a three-year cycle.

Even cities are currently working with the pilot Zero Cities Project to develop a policy roadmap to a zero-carbon building sector by 2050. In support of this project, NBI has developed stretch code provisions, aimed at 20% and better efficiency than current national model energy codes. The measures are intended to serve as a bridge between highly prescriptive energy codes and the more descriptive technical guidance used to explain fundamental approaches to ultra-low and zero energy buildings. Cities which can use part or all of the measures described in [Model Stretch Code Provisions for 20% Performance Improvement in New Commercial Construction](#) to increase code stringency, adopt a stretch code strategy in conjunction with utility or other incentives, or include in zoning policy.

Massachusetts, California and Rhode Island came out on top in ACEEE's [2018 State Energy Efficiency Scorecard](#). The three states ranked high on six categories including advancing building energy codes. This year, the *State Energy Scorecard* metric for assessing the effectiveness of local energy codes included the NBI-developed [zEPI Jurisdictional Score](#). This method uses a framework for calculating scores for entire states based on their adopted energy policy, and taking into account statewide energy codes and local stretch codes.



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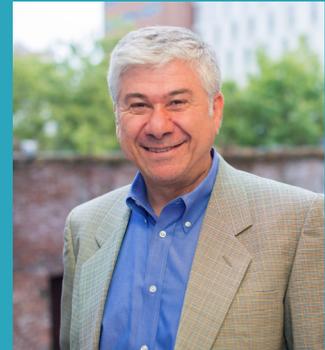
*Chief of Engineering
U.S. Green Building
Council*

Michelle Thomas

*Senior Manager
Southern California Edison*

Remembering George Malek

We were deeply saddened by the passing of George Malek, Director of Energy Efficiency Services at Commonwealth Edison (ComEd). George managed the implementation of ComEd's Energy Efficiency Program since 2008 and worked for the company for more than 20 years. He was also a long-time Board Member at NBI and played a vital role in moving the organization to a position of greater intellectual leadership and financial stability.



Senior Fellows



R.K. Stewart

Senior Fellow since 2012



Charles Eley

Senior Fellow since 2014



Dave Hewitt

Senior Fellow since 2015

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Amruta Khanolkar
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Mark Lyles
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Reilly Loveland
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Alexi Miller
Senior Project Manager



Jackie Waadevig
Office Administrator



Connie Umphress
Communications Manager

As of 12/18

FY 2017–18

Audited Financial Statements

	FY 2017-2018	FY 2016-2017
ASSETS		
Cash	1,085,893	1,676,123
Receivables	931,038	484,058
Other Assets	60,533	70,351
<i>Total</i>	<i>2,007,464</i>	<i>2,230,532</i>
LIABILITIES & NET ASSETS		
Current Liabilities	942,018	570,598
Net Assets	1,135,446	1,659,934
<i>Total Liabilities & Fund Balance</i>	<i>2,007,464</i>	<i>2,230,532</i>
REVENUES		
Sponsorships & Grants	736,137	1,548,085
Project Revenue	2,203,371	1,686,137
Product Revenue	1,399	7,630
Other Income	8,784	8,371
<i>Total Revenues</i>	<i>2,949,691</i>	<i>3,250,223</i>
EXPENSES		
Program Expenses	3,031,536	2,179,581
Administrative Expenses	337,433	467,792
Development Expenses	105,210	79,788
<i>Total Expenses</i>	<i>3,474,179</i>	<i>2,727,161</i>



Vision

We believe in a built environment that makes a positive contribution to a sustainable society through dramatic improvements in energy performance.

Mission

NBI takes leading-edge practices and technology applications for high performance buildings and translates them into innovative and practical solutions for the energy efficiency and commercial building industries.

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Photo: Ed Massey