

Q3

July – September 2021

● BE-Ex team



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This quarter, we were pleased to welcome the BE-Ex community back to our space for a number of programs, including the launch of the Architects Advisory Council Report and Envelope Showcase Exhibit. Hosted both online and in person, the hybrid format fostered vibrant panel discussions at the Exchange while maintaining an expanded virtual audience from around the globe.

September 22, 2021

Climate Mobilization

Act Series:

**Integrative Environmental
Justice**

With support from the Natural Resources Defense Council and in partnership with the New York City Mayor's Office of Climate & Sustainability, BE-Ex hosted a discussion with policy experts about how New York City's environmental justice (EJ) laws will impact decision-making and planning across the City, particularly with respect to the built environment, and why energy efficiency and decarbonization efforts should be prioritized for EJ neighborhoods.





July 29, 2021

Anatomy of an Energy Efficient Building: Envelope Showcase Launch

Currently installed at the Exchange in downtown Manhattan, the Envelope Showcase takes a deep dive into the building envelope, detailing system principles, building strategies, and market-ready technologies that effectively reduce energy use, in the context of New York City's climate action targets and statewide electrification goals. To celebrate the launch of this exhibit, BE-Ex convened project teams to discuss five case studies that explore the real-life applicability of the principles and building solutions outlined in the exhibit's core content.

► <https://be-exchange.org/anatomy-of-an-energy-efficient-building-envelope-showcase-launch/>

September 14, 2021

Contracts, Climate, & Compliance Workshop

With AIA New York and ASHRAE New York, BE-Ex hosted a workshop discussion with architecture industry experts on the legal risk and responsibility of high performance design and construction, and improving compliance with NYC climate legislation. This workshop follows actionable steps outlined by BE-Ex's Architect Advisory Council.



► <https://be-exchange.org/contracts-climate-compliance-workshop/>

column:

Toward Holistic Performance Advancements in the green building movement

by Yetsuh Frank

Managing Director, Strategy & Programs
Building Energy Exchange

Thought leadership within the green building community has largely been a story of incremental increases in complexity—a continual reappraisal of the boundaries of our concerns. In the very early years many green building advocates focused on individual homes by developing various types of low impact bubbles—from insulated yurts to earthships, most of which simply ignored the concept of community. Many of these advocates came out of the conservation movement that dominated early environmental protest in this country and implicit in this focus on remote houses was the idea that cities were the real source of environmental degradation. But an off-the-grid existence is not a viable option at scale so the question becomes how best to organize our communities. And it turns out that—in contrast with low-density, car-dependent suburbs—cities, configured and managed effectively, are a solution to climate change, land conservation, water efficiency, health,

equity, and just about every other metric of import.

When I entered architecture school in the early 90s the old focus on remote lodges had produced a belief in passive systems, placing (misplacing?) our hopes on the ability of things like thermal mass and natural ventilation to fully replace mechanical systems. Those of us that focused on the environmental impact of buildings were disconnected from one another and tended to focus on our favorite subjects, whether that was exterior solar shading or wastewater. The introduction of LEED was instrumental to changing this paradigm. LEED required us to focus on not just our pet issues but all the major aspects of a given building—from water and energy to materials and waste. And basically any building could be the focus of environmental improvements, not just the homesteads of hermits. Critically, we were asked to measure the use of resources and no longer just rely on our instincts, or—a

favorite among architects—diagrams of magic ventilation arrows. As IBM's Dr. W. E. Deming put it in another context, "In God we trust; All others bring data." But perhaps most importantly, LEED connected us with one another. If much of the time since has been spent arguing with each other about the efficacy or importance of this or that component of LEED there is no denying that it revealed a tribe to itself and gave us something approaching a common language.

Possibly the greatest ongoing challenge for LEED has been incorporating our ever-increasing understanding of building impacts. The first big item on this list was climate change. It is easy to forget that in 1998 when LEED was first rolled out to the public climate change was not the highest priority among mainstream environmentalists. Lower energy use in buildings was more

often argued for on the basis that it would improve local air pollution, limit ozone depleting materials, and reduce our dependence on "foreign oil." As our understanding of the primacy of climate change impacts grew the entire point structure of LEED credits was revamped. Early in the new century we also began to better understand that where buildings were located was often more important than how they performed. A 2007 article in Environmental Building News laid out the transportation energy intensity of buildings, connecting the dots between an office park in the suburbs and the people who drive to and from it across its entire lifecycle. The location, all by itself, has an energy intensity attached to it, even if the building itself uses no energy at all. (A 2018 update of this seminal EBN report can be found [here](#).) This also led to significant changes in the LEED rating system (with more points allocated for buildings in

The increased adoption of building performance standards, and laws that regulate carbon emissions like New York City's Local Law 97, are further evidence of a growing emphasis on actual rather than estimated performance.

urban locations and access to public transportation) and certainly impacted the USGBC's decision to develop the LEED for Neighborhood Development standard in 2010. Many of us would argue that these measures didn't go far enough, or weren't integrated with each other well enough. I would argue, for instance, that an individual building in a location that doesn't meet the pre-requisites of the LEED-ND standard, shouldn't be eligible for LEED-Platinum status.

On the energy front, it has long been clear that LEED certification was no guarantee of deep energy efficiency. Many LEED buildings performed well. Many did not. LEED probably deserves some criticism on this front, but many of the problems stem from preexisting barriers to high performance in the real estate sector. The split incentives between the owners of office buildings and their tenants, comes to mind. As well as the way in which our energy codes allow designers to trade performance in one area with another without any requirement to stay beneath an absolute threshold.

This blind spot within LEED has led to the stunning growth of performance standards like Passive House that virtually guarantee dramatic (and measured) reductions in heating and cooling energy in residential buildings. The increased adoption of building performance standards, and laws that regulate carbon emissions like New York City's Local Law 97, are further evidence of a growing emphasis on actual rather than estimated performance.

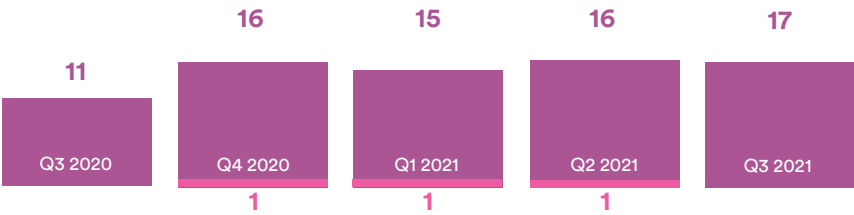
More recently (but long before the Covid-19 pandemic) we have seen an increased emphasis on the public health impacts of the design of buildings and communities. Aspects of LEED always included nods to individual health impacts, but an improved understanding of how the built environment impacts the health outcomes of whole populations has transformed our sense of both what is possible, and what is effective. The 2010 publication of New York City's Active Design Guidelines were critical to this trend because it was one of the first projects that connected a vast sea of public health research to design measures that had been shown to statistically and meaningfully improve the health of communities. This focus on the public health of a community rather than just the individual health outcomes of one building's occupants has reshaped the industry. In turn, the Covid-19 pandemic has further amplified the role of buildings in supporting health and provided us with a new conundrum- with many balancing the need for more fresh air against the additional energy use this requires.

And what's next? Even as we embrace the idea of measuring the carbon emissions (rather than the energy used) of our buildings, we also need to incorporate the embodied carbon of the materials we use to build and renovate them. There hasn't been much regulation in this space but it is definitely coming and will add yet one more facet to the ever increasing complexity of what constitutes a green building. ■

After a year of entirely virtual programming due to COVID-19 restrictions, we were thrilled to welcome our community back to our space in Q3 of 2021 in a hybrid format, offering both in-person and online attendance.

BE-Ex hosted events

Q3 2020 – Q2 2021 events took place virtually, due to Covid-19 restrictions. In Q3 2021, 4 events were hybrid (online and in person).



BE-Ex developed events

diversity goals

- 1. No all male panels
Q3 number: 0
- 2. 50% female speakers across BE-Ex events
Q3: 48%



average number of days on calendar, BE-Ex events

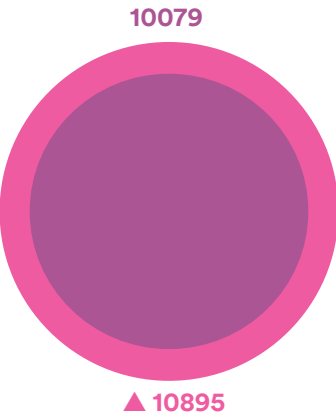


average attendance, BE-Ex events

● audience

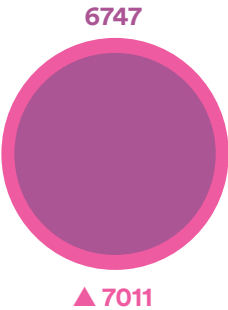
The BE-Ex audience continued to expand in Q3, surpassing 7,000 social media followers and nearly doubling the number of Radio BE-Ex listeners.

newsletter subscribers

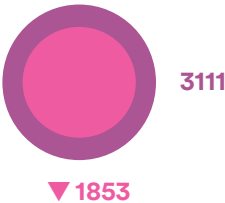


■ Q2 2021 ■ Q3 2021

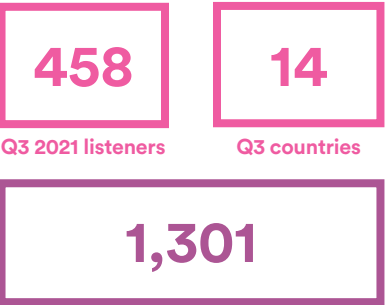
social media followers



resource downloads



radio be-ex listeners



unique website sessions in
Q3 2021

Radio BE-Ex

Radio BE-Ex is a live podcast series by Building Energy Exchange that features industry leaders working at the intersection of buildings, energy, and sustainability. The Radio BE-Ex theme for 2021 is **Radical Scale: the people, processes, and technology that will ensure the built environment meets the needs of the future.**

- Building Retrofits as Climate Action with Carl Elefante
- Passive House Design with Stas Zakrewski

Women in Sustainability and Energy (WISE)

The Women in Sustainability and Energy (WISE) series, founded in 2015, is an inclusive platform for all people to learn from experienced leaders, to share knowledge, and to advance equity in the workplace. WISE has been received with overwhelming support from the sustainability & energy community, and continues to adapt its programming to meet the needs and interests of community members.

- July 15, 2021: WISE Media Club: FEW Nexus and Next Generation Infrastructure
- August 3, 2021: The Future of New York Climate Policy
- August 26, 2021: WISE Trivia Night: Summer Edition

Climate Mobilization Act Series

With support from the Natural Resources Defense Council (NRDC) and in partnership with the Mayor's Office of Sustainability and the NYC Accelerator, the Climate Mobilization Act Series demystifies New York State's leading climate policy and connects building industry stakeholders with relevant solutions.

- September 22, 2021: CMA Series: Integrative Environmental Justice

Beyond Zero Series

The Beyond Zero Series, supported by NYSEERDA, celebrates climate friendly projects across the State of New York that improve the health, affordability, and resiliency of communities. With the first program scheduled for Q4 2021, this educational series will highlight successes, strategies, incentives, and goals for accelerating building decarbonization and optimizing carbon neutral design and construction.

Climate Week 2021

at BE-Ex

From live panels and Climate Week TV studio sessions to hundreds of on-demand classes at BE-Ex Ed, Building Energy Exchange was proud to participate in this year's Climate Week 2021, a week-long showcase of climate action from September 20th to 26th, hosted by the Climate Group in New York City.

At the State and City level, New York took center stage, announcing a series of ambitious building decarbonization and clean energy initiatives.

Here at BE-Ex, every week is climate week. We are hopeful to see policy advancements and advocacy efforts from New York at the State and City level that align with our mission to reduce the effects of climate change by improving the built environment.

Read our full recap of Climate Week 2021 here:
<https://be-exchange.org/insight/climate-week-nyc-state-city-policy-recap/>

October 6, 2021

Beyond Zero Series: Big Buildings, Big Impacts

In collaboration with NYSERDA, BE-Ex is pleased to announce the first program of the Beyond Zero Series, focused on high-impact, high-profile carbon neutral new construction projects: Sendero Verde, a revolutionary multi-building project in East Harlem; and 425 Grand Concourse, a mixed-use, mixed-income development in the Bronx. Panelists will present lessons learned during design & construction and discuss Passive House design and affordable housing solutions.



October 13, 2021

**Modeling the Future:
Integrating Energy
Performance for Carbon
Reduction & Compliance**

Following actionable steps outlined in the BE-Ex Architect Advisory Council (AAC) 2020 vision document, *Who Cares About Energy Codes? The Architect's Guide to New York City's Aggressive Carbon Reduction Code*, BE-Ex, AIA New York, and ASHRAE New York will host a workshop on using energy modeling as a tool for design, construction, and NYC energy code (Local Law 32) compliance.

► <https://be-exchange.org/modeling-the-future-integrating-energy-performance-for-carbon-reduction/>

November 3, 2021

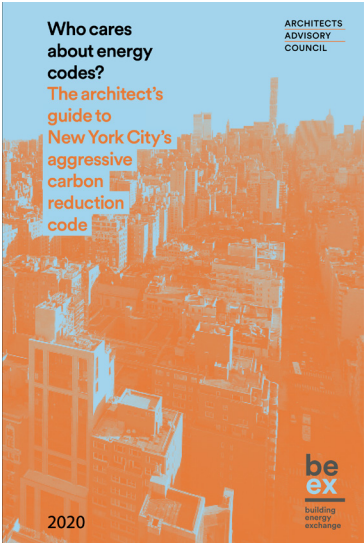
**Climate Mobilization
Act Series: What About
Affordable Housing?**

New York City is set to release new guidance for affordable housing to comply with New York City's Local Law 97. During this panel event, experts will provide an overview of these new considerations and highlight how meeting the City's building emissions requirements can act as a springboard to comfortable, healthy, and low carbon buildings for underserved communities.



► <https://be-exchange.org/climate-mobilization-act-series-what-about-affordable-housing/>

completed



report
**Architect Advisory Council
Report**

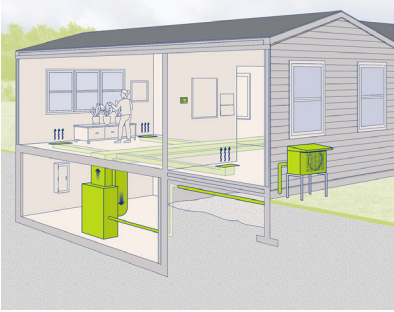
BE-Ex's Architect Advisory Council provides actionable guidance to radically adapt the architectural profession and meet New York City's climate goals in this vision document, *Who Cares About Energy Codes? The Architect's Guide to New York City's Aggressive Carbon Reduction Code*.

exhibit
**Anatomy of an Energy
Efficient Building:
Envelope Showcase**

Expanding on one of the core systems outlined in the 2020 Anatomy of an Energy Efficient Building Exhibit, the latest showcase installed at BE-Ex takes a deep dive into the building envelope, detailing system principles, building strategies, and market-ready technologies that effectively reduce energy use.



upcoming



webpage Heat Pump Planner Tool

Expanding on the Heat Pump Planner report developed with Steven Winter Associates and NYSERDA, explore the Heat Pump Planner webpage to learn about heat pump technology and determine the best heating and cooling system for your home.



modules Passive House Modules

Available on BE-Ex Ed and building off of the Passive House Primer course, these four modules take a closer look at the key principles of the high-performance building standard: airtightness, energy recovery ventilation, insulation & thermal bridging, and windows & doors.

This quarter, we had the opportunity to showcase published projects both online and in physical form at the Exchange, and look forward to continuing these valued connections with both our local and global communities.

programs (online)

WISE Media Club: FEW Nexus and Next-Generation Infrastructure

July 15th

Passive House Primers

July 20th, August 17th, September 8th

Climate Mobilization Act Primers

July 22nd, August 19th, September 16th

Architect Advisory Council Launch

July 22nd

Anatomy of an Energy Efficient Building: Envelope Exhibit Launch

July 29th

WISE: The Future of New York Climate Policy

August 3rd

WISE Trivia Night: Summer Edition

September 8th

Contracts, Climate & Compliance Workshop

September 14th

Climate Mobilization Act Series: Integrative Environmental Justice

September 22nd

project status

Q3 2021

- Architect Advisory Council Report
- Envelope Showcase Online Exhibit
- Passive House Technical Modules
- Heat Pump Planner microsite
- Empire Building Challenge Research Roundtables

Ongoing

- Decarbonizing New York City Offices: Resources and Training
- EGC Training: High Performance Buildings & Climate Resilient Building Design
- HPD LL97 Affordable Multifamily Roadmap – Case Studies & Best Practices Manual