

Q2

April – June 2021



building
energy
exchange

● BE-Ex team



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This quarter marks one year of entirely virtual programming as a result of the COVID-19 pandemic and we are pleased to continue to offer an impressive slate of programs, such as the Climate Mobilization Act Series and Radio BE-Ex, and are excited to announce the launch of additional BE-Ex Ed courses and plans for our first in person events next quarter.


March 31, 2021

Climate Mobilization

Act Series:

Keeping PACE with New York City

Our recent program in the Climate Mobilization Act Series, with support from the Natural Resources Defense Council and in partnership with the New York City Mayor's Office of Climate & Sustainability, celebrated the launch of NYC Accelerator PACE Financing, New York City's commercial PACE (C-PACE) program. Our speakers introduced the components of PACE Financing for NYC, highlighting relevant incentive programs for financing energy efficiency and clean energy retrofits.



The screenshot shows a video player interface. At the top right, there is a small video feed of a man, identified as 'Fred Lee'. Below this, the title 'PRESENTATION OVERVIEW' is displayed in bold. The main content area contains a bulleted list of topics. At the bottom, a progress bar shows the video is at 00:00 of a 14:07 duration. The player controls include a play button, a progress bar, a timestamp, and settings icons.

PRESENTATION OVERVIEW

- Where PACE stands today
- Where PACE is headed
- Overview of NYC Accelerator PACE Financing
 - Eligible properties
 - Required documentation
 - Cost-effectiveness evaluation
 - Mortgage holder consent
 - Repayment
- Who benefits?
- How to get started

00:00 14:07



April 27, 2021

Reimagining Midcentury Office Buildings to House the Future

How do we address the most pressing issues facing our city while improving the environment and quality of life for our building residents? During this panel event, an award-winning design team convened to discuss their proposal for upcycling a midcentury office building into a healthy, energy efficient, mixed-use structure. Panelists walked through the process and impact of transforming this underperforming building in the context of climate legislation compliance, COVID-19 pandemic recovery, and use of existing infrastructure to revitalize dense neighborhoods.

► <https://be-exchange.org/reimagining-midcentury-office-buildings-to-house-the-future/>

May 25, 2021

CMA Series: Green Roofs as Equity Infrastructure

New York City has recognized the positive impacts of green roofs in cities through Local Law 92 and 94 requirements and tax abatement incentives — recently enhanced for prioritized districts. Speakers discussed green roof installation, policy requirements, and environmental, building, and health benefits at this CMA Series event.



► <https://be-exchange.org/climate-mobilization-act-series-green-roofs-as-equity-infrastructure/>

column:

Stop, Children, What's That Sound?

by Yetsuh Frank

Managing Director, Strategy & Programs

Building Energy Exchange

In the last week of June, a number of us here at the Building Energy Exchange had begun coming back to the office several days a week. Having only about half the staff on site on any given day made for a surreal atmosphere, as if the year of the office being empty and silent had left a kind of ghost behind – the extra space serving as a subtle but constant reminder of the deep strangeness of the previous months. And then one afternoon the weirdness was amplified as the relative silence of the lightly occupied office was ruptured by our phones all sounding an amber alert.

We've had a lot of alarms in the last year and a half. Whatever part of our psyche absorbs trauma is fairly well bruised at this point—from the death of George Floyd and other police violence, to the serial climate catastrophes striking communities near and far, to the deadly march of COVID around the globe, mutating as it goes. It's fair to say we were all a little tender when the amber alert sounded off

around us. Although a little relieved that the alert didn't involve a missing person, I was surprised to find it was an anxious note from the City of New York asking us to "Conserve Energy," urging "all households and businesses to immediately limit energy usage." Ignoring the churlish responses to this announcement that immediately dominated social media, two things stand out about this alarming alarm: it worked, and the future has arrived (slightly ahead of schedule).

On the first point, Con Edison sent the alert at 4:15 pm because, at around 4:00 pm, demand had breached 12,000 megawatts (MW) and was expected to peak around 12,300 MW between 5:00 and 6:00 pm – the typical time of day for peaks in this season.¹ Following the alert, they reported that demand dropped back down below 12,000 MW. A reduction of 3% might not seem like much – however, the goal here was not dramatic energy savings but rather reducing that dangerous peak in demand that could bring the

weaker portions of the distribution system to its knees, leaving swaths of communities without power. As a result of the amber alert, one of our highest ever peaks didn't result in any brownouts.

As we electrify more and more of our systems, from building heating to electric vehicles, we can expect more such moments of alarm. A major component of preparing for this future is for the utilities to properly upgrade the electrical grid to improve resilience and deal with the intermittent availability of renewables. But buildings also play an absolutely critical role.

Consider that NYISO,² in their 2021 Power Trends report,³ forecasted several scenarios for future electricity demand and found that a “low load” scenario (with lots of electrification and significant efficiency measures) kept total demand in 2050 close to

today's levels, while the “high load” scenario (with lots of electrification but limited efficiency measures) was more than 40% higher. Put another way, without broad energy efficiency improvements across the state, peak demand will be more than 40% higher than it is today— an almost untenable scenario. The question that then presents itself is of course, *which energy efficiency measures should we prioritize?* Although everything is important—including new, far more efficient equipment like appliances and heat pumps—it is abundantly clear that demand reduction is paramount. On the transportation side, this means that we all need to live closer to one another and work closer to our homes — close enough, in fact, that we don't have to drive to get to work or to grab groceries. To reduce transportation emissions, we need to convert dirty fuel engines to electric. To reduce electricity demand, we need to reduce the miles we travel in vehicles. On



EMERGENCY ALERTS

Emergency Alert

Conserve Energy: NYC is urging all households and businesses to immediately limit energy usage to prevent power outages as the intense heat continues. Please avoid the use of energy-intensive appliances such as washers, dryers, and microwaves. Limit unnecessary use of air conditioning.

... without broad energy efficiency improvements across the state, peak demand will be more than 40% higher than it is today.

the buildings side we see a similar set of needs. The most effective means of reducing demand here is through envelope improvements. The caliber of your building envelope—from the amount and effectiveness of your insulation, to the airtightness of your exterior—has a dramatic impact on your heating demand and an important but less significant impact on your cooling demand. The impact on heating demand will quickly become mission critical for our climate action plans; in that same NYISO report, it is estimated that winter peak demand (largely due to space heating) will exceed the summer peak around 2040—making our building envelopes one of the most important components of climate action.

This is one of the many reasons we have developed primers on the Passive House standard, available at BE-Ex Ed,⁴

as well as numerous other resources to help owners, engineers and architects improve envelopes, like our recently-launched Envelope Showcase exhibit⁵ and March panel event ‘Reimagining Envelopes.’⁶ And it is the reason NYISERDA has made envelope improvements a central component of their new Low Carbon Pathways for Multifamily Buildings incentive program.⁷

People hesitant to add renewables to the grid often point out that this will require more complicated management of resources, but we are already there—with the amber alert in June as exhibit A. As we build out our capacity to provide carbon free energy we must also do everything in our power to lower demand for same- and improving our building envelopes are at the heart of that effort. ■

1 <https://www.nytimes.com/2021/06/30/nyregion/nyc-energy-alert-heatwave.html>

2 The New York Independent System Operator is the non-profit corporation responsible for operating the state electricity grid as well as administering the wholesale electricity market and long-term planning for both.

3 <https://www.nyiso.com/documents/20142/2223020/2021-Power-Trends-Report.pdf/471a65f8-4f3a-59f9-4f8c-3d92754d7de>

4 <https://learn.be-exchange.org/>

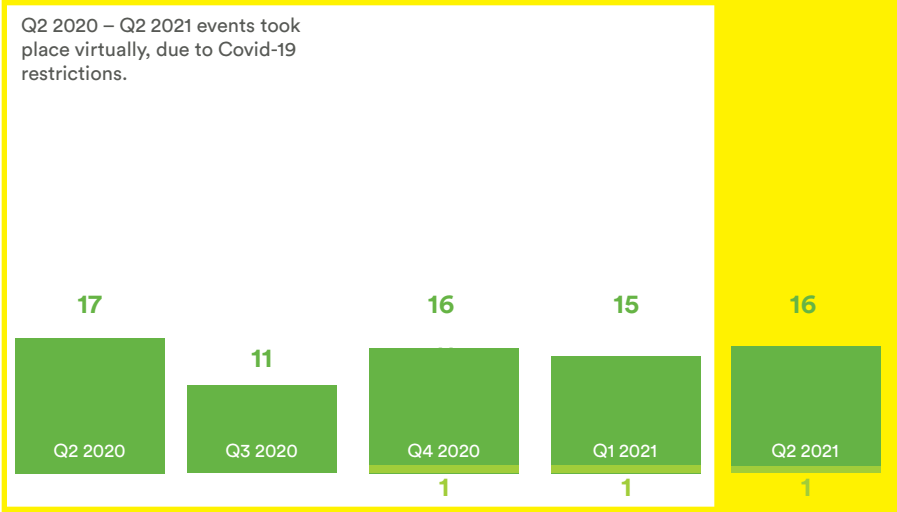
5 <https://be-exchange.org/showcase/envelope-showcase/>

6 <https://be-exchange.org/climate-mobilization-act-series-reimagining-envelopes/>

7 <https://www.nyserda.ny.gov/All-Programs/Programs/Low-Carbon-Pathways-for-Multifamily-Buildings>

We are proud to have offered a successful slate of virtual programs in Q2, covering topics in energy efficiency, high-performance design, financing, climate and equity, and climate policy. We look forward to returning to the space for in-person events safely in Q3.

BE-Ex hosted events



BE-Ex developed events

diversity goals

- 1. No all male panels
Q2 number: 0
- 2. 50% female speakers across BE-Ex events
Q2: 44%



average number of days on calendar, BE-Ex events

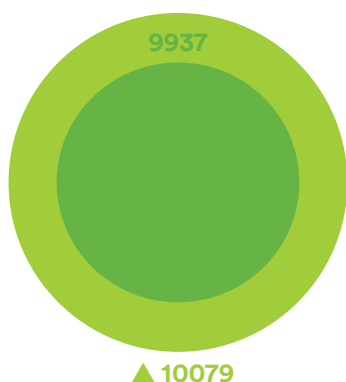


average attendance, BE-Ex events

● audience

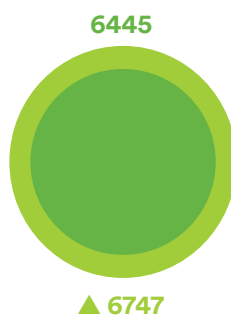
BE-Ex surpassed the 10,000 landmark for newsletter subscribers in Q2 of 2021. Website downloads were driven by the release of our Low Carbon Multifamily Retrofit Playbooks, and the Multifamily Passive House: Connecting Performance to Financing report. In addition, the LL97 Carbon Calculator, and other Climate Mobilization Act resources, continue to drive significant web traffic.

newsletter subscribers

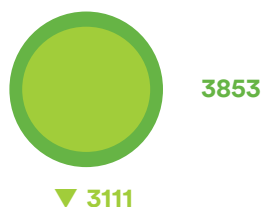


■ Q1 2021
■ Q2 2021

social media followers



resource downloads



program audience geographic distribution



19,471

unique website sessions in
Q2 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.**

The start of 2021 marks our second year of production and our first year with sponsorship from National Grid. This year, we've also launched Field Notes: a Radio BE-Ex production celebrating Building Energy Exchange's 10-year anniversary by inviting past board directors and industry leaders who played a central role in the development of the Building Energy Exchange to share their professional history and plans for the future.

Q2 2021 | series events

April 13	Navigating Climate Risk with Fiona Cousins
May 4	Investing in Holistic Climate Solutions with Jamal Lewis
May 20	Building Retrofits as Climate Action with Carl Elefante
June 1	Passive House Design with Stas Zakrzewski
June 17	The Power of Daylight with Susan Ubbelohde
June 29	Social Equity and Daylighting with Lisa Heschong

Women in Sustainability and Energy (WISE) Series

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: in 2021, the WISE Series is honored to be supported by series sponsors Sive, Paget, & Riesel (SPR Law), ConEdison, and Gotham 360, in addition to program sponsors ChoShields Studio, EN-POWER Group, and NYSERDA.

Our virtual events this year have included monthly media clubs for facilitated community conversation and "Ask Me Anything" events interviewing industry leaders.

Q1 2021 | series events

April 1	Ask Me Anything with Laurie Schoeman
May 18	Media Club: Inclusive Climate Action

► <https://be-exchange.org/our-series/>



**New from NAPHN
and BE-Ex:
On-Demand Passive
House Training
Pathway**

North American Passive House Network (NAPHN) and Building Energy Exchange are proud to announce a new, coordinated on-demand Passive House training pathway for all industry stakeholders.

Ranging from introductory to advanced, this array of online modules provides a pipeline for developing a comprehensive understanding of high-performance building principles, concepts, and strategies.

Education on Passive House principles has been uniquely successful in changing the way industry professionals understand energy consequences of building design & construction. With these courses, BE-Ex and NAPHN seek to rapidly increase training and upskilling opportunities to meet the aggressive carbon reduction commitments of New York State.

Access additional resources and course registration information here: <https://be-exchange.org/insight/naphn-be-ex-launch-online-passive-house-education-pathway/>.

July 29, 2021

Anatomy of an Energy Efficient Building: Envelope Showcase Launch

Installed at the Exchange and available online, the Envelope Showcase takes a deep dive into the building envelope. Joined by three envelope case study representatives, the launch event highlights envelope-focused building strategies that improve energy efficiency and occupant health and wellness while reducing operational costs. This showcase is the first in a series based on the building systems of the 2020 Anatomy of an Energy Efficient Building exhibit.



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

May 20, 2021

**Radio BE-Ex: Building
Retrofits as Climate Action
with Carl Elefante**

For Radio BE-Ex, a live podcast series featuring industry leaders working at the intersection of buildings, energy, and sustainability, Architect Carl Elefante, FAIA, FAPT, LEED AP, highlights AIA's commitment to climate action and the central importance of retrofitting existing buildings in addressing climate change.

► <https://be-exchange.org/radio-be-ex-carl-elefante/>

July 22, 2021

**Architect Advisory Council
Launch**

In collaboration with AIA New York we are celebrating the launch of 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*, with a discussion of how the building design & construction industry must adapt to meaningfully address the climate crisis.



► <https://be-exchange.org/architect-advisory-council-launch/>

completed

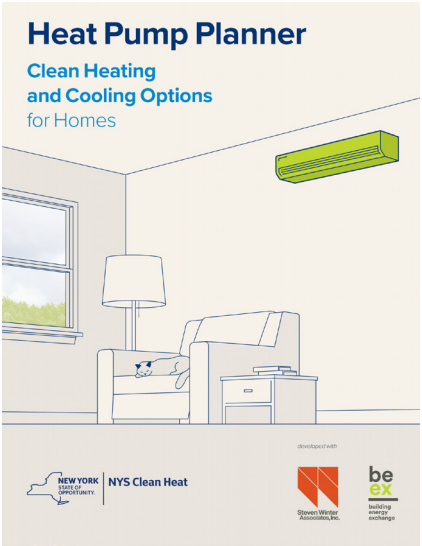


report
Decarbonizing New York City Offices: Industry Survey Report

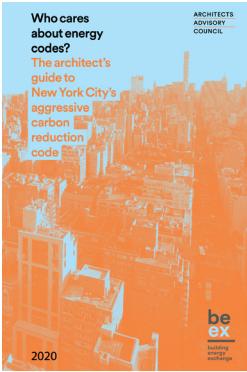
This report summarizes feedback from key commercial real estate industry stakeholders with knowledge of or influence over the tenant leasing process, space design, and operations, surveyed by the Decarbonizing New York City Offices project team. Report findings provide insight into the market, including COVID-19 impacts and energy efficiency trends, along with next steps for improving decarbonization strategies.

report
Heat Pump Planner

This comprehensive report provides guidance for homeowners looking to learn more about heat pumps: from the basic value and purpose to planning strategy and considerations for optimal heat pump installation. This planner covers a number of building types: one-story, two-story, manufactured/mobile, apartment, and townhomes.



upcoming



report
Architect Advisory Council Report

The Architect's Advisory Council highlights a necessary and radical shift of the architectural profession to address the effects of climate change, and provides actionable guidance to adapt the profession, process, and practice of architecture to meet New York City's climate goals.



primer
Passive House Construction Primer

The Construction Primer is ideal for general contractors, sub-contractors, property owners, managers, developers, and anyone interested in gaining an introduction to high-performance construction concepts.

While this year has required some adjustments to the norm, it has fueled us to continue providing resources and programs that are needed to advance New York's climate and equity goals.

programs (online)

WISE "Ask Me Anything" with Laurie Schoeman

April 1st

Radio BE-Ex: Navigating Climate Risk with Fiona Cousins

April 13th

Climate Mobilization Act Primers

April 22nd, May 27nd

Reimagining Midcentury Office Buildings to House the Future

April 27th

Passive House Primers

April 29th, May 25th

Radio BE-Ex: Investing in Holistic Climate Solutions with Jamal Lewis

May 4th

Climate Mobilization Act Series: Applying for LL97 Adjustments

May 11th

WISE Media Club: Inclusive Climate Action

May 18th

Radio BE-Ex: Building Retrofits as Climate Action with Carl Elefante

May 20th

Climate Mobilization Act Series: Green Roofs as Equity Infrastructure

May 25th

Radio BE-Ex: Passive House Design with Stas Zakrzewski

June 1st

Climate Mobilization Act Series: Keeping PACE with NYC

June 15th

Radio BE-Ex: The Power of Daylight with Susan Ubbelohde

June 17th

project status

Q2 2021

- Heat Pump Planner
- Decarbonizing New York City Offices: Industry Survey Report

Q3 2021

- Architect Advisory Council Report
- Envelope Showcase Online Exhibit
- NYSDA Multifamily Typology Passive House Playbooks
- Passive House Construction Primer
- Passive House Technical Modules

Ongoing

- Decarbonizing New York City Offices: Resources and Training
- EGC Training: High Performance Buildings
- Brochure: Buildings of Excellence Awards
- Report: Commercial Data Into Action
- HPD LL97 Affordable Multifamily Roadmap
- BE-Ex Ed Course Development

45

Target number days
for event on calendar