



On October 12, 2023, BE-Exers Paul Rivers and Hailey Moll attended the Northeast Sustainable Energy Association's (NESEA) 2023 BuildingEnergy NYC, a one-day networking conference and trade show presenting best practices, lessons learned, and innovative technologies in the design, construction, engineering, policy, and finance fields. NESEA works to advance a more sustainable, healthy, and resilient built environment through cross-disciplinary community cultivation that promotes knowledge sharing, collaboration, and learning.

The theme of this year's BuildingEnergy NYC was **Deconstructing Decarbonization**. With improving technology, historic federal investment, and growing mobilization in the private sector, the time is now to dissect and accelerate building decarbonization strategies at every step in the process, from policy design to technology and capital deployment. This theme of deconstruction was felt throughout the day, with sessions that dove deep into all aspects of decarbonization and a buzzing, productive energy amongst the attendants, speakers, and organizers.

Optimism and hope professed by keynote speakers <u>Heather Clark</u> and <u>Jamal Lewis</u> set the tone for the day's conversations. Clark, Director for Building Emissions in the White House Climate Policy Office, described solving the climate crisis as our generation's

"moonshot." Consequently, President Biden has set ambitious emissions reductions goals, including a <u>carbon pollution-free power sector by 2035</u>. She additionally announced the exciting launch of the Department of Energy's eighth and final Energy Earthshot, <u>The Affordable Home Energy Shot</u>, which boldly aims to cut the costs of energy efficient upgrades in the affordable housing sector in half and reduce utility bills by 20%. Achieving these critical and formidable goals will require monumental effort, and, in the words of Jamal Lewis, "courageous action." According to Lewis, Director of State & Local Policy for the Mid-Atlantic and South at Rewiring America, courageous action is "taking action in the face of fear." We do this, he said, because of our belief that the result is worth it. That result being our collective vision for an equitable transition to a decarbonized world. Charged with these inspiring calls to action, everyone jumped into the 'how's' of realizing this vision and the 'when's' for moments of courageous action.

Here are some of the most impactful lessons that were shared over the day.



BE-Ex staff Paul Rivers (left) and Hailey Moll (right) with NESEA Executive Director, Florence MacGregor.

## A key component to deconstructing decarbonization is the vital importance of data.

At the <u>Finance Low-Carbon Multifamily at Scale Using Data and Program Innovation</u> session, speakers Jennifer Leone, Samantha Pearce, and Molly Simpson described how we can better size a problem using data, but that it is crucial we collect data that is meaningful, nuanced, and tangibly informative. Instead of measuring energy cost and use, we should determine and measure what *actually* drives them. Data will also help us understand the impacts of electrification in the decarbonization process. At the <u>Will Heat Pumps Break the Grid? Here's Real Data!</u> session, Nicole Ceci from Steven Winter

Associates, Inc. (SWA) asserted that building consultants must reevaluate their current metrics for estimating electrification's impacts on the grid and energy savings to ensure greater accuracy and usefulness. Ultimately, once we collect and analyze data, we must act on our understanding and swiftly implement. Collect the right data, not for its own sake, but to inform our actions and strategies such that we can more effectively and expediently progress towards our goals.

- <u>LEARN MORE!</u> Read the <u>Multifamily Passive House: Connecting Performance to Financing</u> report to learn more about leveraging data to finance high-performance multifamily buildings.
- <u>LEARN MORE!</u> Check out the <u>Heat Pump Planner</u>, a tool developed in partnership with Steven Winter Associates and NYSERDA, to help homeowners learn more about heat pump technology, the types available, and questions to ask an installer.

## We must work collaboratively and inclusively throughout the decarbonization process.

At the keynote address, Jamal Lewis impressed upon us all that "an equitable transition is about the process, not the end goal." As such, deconstructing decarbonization means centering equity from beginning to end, from policy, to design, to workforce development, and construction. At the Further Together: Unlocking the Most Benefit by Collaborating in Decarbonization session, speakers and key players in the Crescent Farms Community Solar Project, Dr. Demetrius Carolina Sr. and Russell Wilcox, shared their insights on best practices for expanding clean energy access, particularly in disadvantaged communities. Community-based projects and researchers often draw data from tenants and residents without continually engaging them on insights and solutions. It is therefore vital that organizations seeking projects in local communities be 'culturally competent' in their communication to community members, coupling their climate and energy goals with local issues and partnering with local leaders. We should highlight project benefits to community members in terms that meaningfully resonate with them, such as energy savings, future benefits for their children, or correlating existing issues with project solutions. Advancing equity in our external communities ultimately starts from within. Organizations should establish strong diversity, equity, and inclusion initiatives and examine their current practices to reduce harms to staff from historically disadvantaged groups. NESEA held its first-ever diversity caucus at the conference, which presented a great opportunity for individuals to share their lived experiences and for knowledge sharing of innovations for supporting a diverse workforce.

## Clear communication and coordination across design, construction, and operation is needed.

At the Tales from the Trenches: Passive House Ventilation Commissioning Best Practices session, passive house experts at SWA, Michael Schmidt and Luis Aragon explained that we have the technologies to decarbonize, but we need to bridge the gaps between design, construction, and operation through open channels of communication between all parties involved on a project. Refining the design after viewing the expected placement of all the building elements in shop drawings enables contractors to avoid making mistakes right at the outset of construction and results in a more effective building layout. At the operation stage of a project, speakers at the Turning Building Supers into Energy-Saving Superheroes! session stressed the need for energy professionals and consultants to provide dedicated, on-site, and consistent engagement with building managers and engineers to combat inertia in the space. As newer systems are brought online in our buildings, supers must be properly informed on how to use and maintain them. Developing robust pathways to communicate the benefits of workforce development, financing, and incentive programs directly to building engineers and managers will help support building staff and facilitate a project's success.

- **LEARN MORE!** Attend a future session of our <u>Passive House Training Series</u> or take a course from <u>BE-Ex Ed</u>, our online learning platform, to learn more about the fundamentals of Passive House design.
- **LEARN MORE!** Need help explaining a particular high-performance building system or solution? Explore our <u>Tech Primers</u>.



Senior Building Systems Engineer at SWA, Luis Aragon, speaking about the key components of energy recovery ventilation.

## Without resiliency, we cannot have the clean energy transition.

Said by speaker Matthew McCue at the <u>Grid-Interactive Efficient Buildings: How Smart Buildings are Decarbonizing NYC</u> session, this final lesson is perhaps the most holistic and all-encompassing of the decarbonization process. Whether more frequent shocks through extreme weather events, or a change in baseline conditions that place increasing stress on our infrastructure and residents, these changing pressures will require a necessary emphasis on resilient planning and design. As more renewables displace fossil fuels from the grid, we need our buildings to buffer that grid instability – we can do this with cleaner and smarter technology. Grid interactive efficient buildings are one exciting example of this. They are energy efficient, connected between the grid, smart with analytics to optimize efficiency and occupant preferences, and flexible with loads and storage to reduce, shift, and modulate energy use. Our buildings must be capable of meeting customer needs, efficient, built to withstand changing climatic conditions, and healthy and affordable for all its occupants. To amend the collective vision spelled out by Lewis, we must equitably transition to a decarbonized world that is resilient to today's conditions and adaptable to the future.

• **LEARN MORE!** Watch a recording of our <u>Grid-Interactive Building Showcase</u> event with NYSERDA to dive deeper on the topic of GEB.

This year's BuildingEnergy NYC was full of important lessons and strategies to deconstruct and accelerate building decarbonization. It was a great event, and we look forward to attending next year!

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