Retrofit Playbook
for Large Buildings

Program Summary
Planning for Net-Zero: The Retrofit Playbook for Large Buildings with New Empire Building Challenge Multifamily Winners

Program Brief

On June 11, 2024, NYSERDA, BE-Ex, RMI, and Urban Land Institute hosted the launch of the Retrofit Playbook for Large Buildings, showcasing replicable approaches for low-carbon retrofits from cohorts of the Empire Building Challenge. Additionally, NYSERDA announced its newest cohort of the Empire Building Challenge, featuring a number of leading affordable and low-to-medium income housing projects.

The Empire Building Challenge (EBC)
is a $50 million NYSERDA program that accelerates the decarbonization of tall buildings through public-private partnerships to bring scalable carbon-neutral retrofit approaches to the New York market.

Retrofit Playbook for Large Buildings
is a knowledge-sharing platform dedicated to supporting building owners, operators, and their design and engineering teams in creating cost-effective, long-term decarbonization strategies for large buildings.

Program Highlights

Through presentations given by RMI, participants learned about a proven decarbonization planning approach that integrates technical solutions with pragmatic asset management strategies known as Resource Efficient Decarbonization (RED). This approach is rooted in the EBC. With support from NYSERDA, EBC partners are implementing demonstration projects showcasing best in class decarbonization strategies that can be widely adopted to advance the State's ambitious climate goals. The continued sharing of partner lessons-learned on the new Retrofit Playbook for Large Buildings will create pathways for others to replicate successes and develop high-quality, low-carbon buildings of the future.

Participants then heard from the latest multifamily real estate owners participating in EBC, who are finding solutions to decarbonization challenges across the multifamily building market—from senior housing and affordable residential facilities, to market rate condos and mixed use buildings.

Following the one-hour hybrid segment of opening remarks and presentations, in-person participants met with EBC partners and asked questions about their decarbonization projects in facilitated discussions with leaders from NYC Housing Preservation & Development (HPD), NYS Homes and Community Renewal (HCR), NYC Mayor's Office of Climate and Environmental Justice (MOCEJ), NYSERDA, and RMI.

Program Takeaways

EBC Cohort 3 Winners

Riseboro Community Partners & Steven Winter Associates

Joint Ownership Enterprise NYC & MaGrann Associates

HANAC & Steven Winter Associates

Ascendant & MaGrann Associates

JP Morgan Chase & RE Tech Advisors

First Service Residential & Jaros, Baum & Bolles

Syracuse Housing Authority, Hydronic Shell & Taitem Engineering

WinnDevelopment & RMI

Chartered Properties & Sunamp

Fairstead & Kelvin Systems

Sisters of Charity HDC, Ettinger Engineering Associates & KOW Building Consultants

Presentations

Brett Bridgeland
Principal, Carbon Free Buildings
RMI

Opening Remarks

Michael Reed
Acting Head of Large Buildings
NYSERDA

Joe Chavez
Deputy Director,
Resilient & Efficient Buildings
NYC MOCEJ

Moderators

Jennifer Leone
Chief Sustainability Officer
NYC HPD

Samantha Pearce
Vice President of Sustainability
NYS HCR

Joe Chavez
Deputy Director,
Resilient & Efficient Buildings
NYC MOCEJ

Cost shifting between owner and tenant is an emergent challenge. As buildings are electrified as a solution to decarbonization, costs could be transferred in either direction between owners and tenants, such as switching cooling from through-wall A/Cs to centralized or switching heating from centralized to unitized heat pumps.

Consider the tenant's experience early in the design process. Yield strong consideration to rent price stablization to ensure tenant support, and provide them with expanded opportunities for input and buy-in regarding the changes being made to their homes.

Numerous factors can cause major variations in future cash flow projections. This makes planning and modeling difficult for consultants and capital planners. Some examples include utility price escalation, escalating construction costs, discount rates, and precise timing of incoming capital.

Being reactionary is no longer an option. Every decision for buildings must now consider Local Law 97 and potential fine exposure. In light of this, building decision makers must think a few steps ahead and leverage proactive planning tools such as the resource-efficient decarbonization approach.

A phased approach to projects requires resources and time to develop a scope around numerous unknowns that can be difficult to account for. Better tools are needed to conduct charettes and complex analyses for under-resourced buildings, particularly affordable housing, as costs are not well understood and technological and political factors are difficult to anticipate in the long-run. Phasing approaches and timing will vary by typology and investment triggers. For affordable housing, for example, phasing will likely be aligned with 15-year recapitalization cycles. A good project keeps the door open to better future options, and won't fail due to external factors. A sensitivity analysis can be a great tool to understand how external factors can affect scope choice.

Design charrettes are a powerful tool and great advantage in project planning, but early collaboration and an open mind are prerequisites. Having all voices in the room during the charrette process—including consultants, finance, asset managers, ownership, tenant representatives, building staff, and contractors— will ensure that all aspects of a proposal can be considered, and that the proper constraints are applied to foster pragmatic, creative problem solving. As various technologies are weighed, identifying a champion on the ownership team to conduct a review with consultants is a key strategy to receive leadership buy-in. Maintain an open mind, and be prepared to pivot from your original ideas if the potential outcomes shift.

Want to review your plan with our experts? Request a design charrette.