



Logical Buildings and AvalonBay Partner with Groundbreaking for Indoor Lithium Battery Storage at Avalon White Plains

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WHITE PLAINS, NY AI innovator Logical Buildings, in collaboration with AvalonBay Communities, Inc., has installed the first indoor lithium-ion battery storage unit in New York State at Avalon White Plains, a 407-unit luxury rental property at 27 Barker Ave.. in White Plains, NY. The circa 2008 master-metered building is now benefiting from a demand-response initiative in which a 144kW battery bank discharges at peak hours to support the electricity grid when under stress; and re-charges at off-peak times to take advantage of low cost, low carbon emission power. Another advantage is the battery is able to serve as a generator in the event of power outages.

“This is a game-changing technology that will mitigate power outages during peak hours, not only benefiting the building but the entire city of White Plains,” said Jeff Hendler, CEO of Logical Buildings. “The fact that AvalonBay is the first in the entire state to debut this technology is a testament to the organization’s commitment to decarbonization and sustainability.

“The Northeast has traditionally lagged behind the West Coast in battery installation and AMI meter-based grid responsive building technology. But this project paves the way for buildings in the region to take advantage of the most efficient battery tech.”

The indoor installation of the lithium-ion battery, which is comparable in size to two side-by-side refrigerators, required new safety guidelines commensurate with the revolutionary technology. Building codes were updated and an intensive review process initiated by the City of White Plains included industry peers and utility provider Con Edison. With unwavering support from NYSERDA, Logical Buildings was able to navigate funding and permits from the various entities. Moreover, through the leadership demonstrated by AvalonBay and Logical Buildings, it is anticipated similar indoor battery installations will be implemented in other high-density areas throughout the state, including New York City.

Hendler continued, “In addition to taking pressure off the grid and contributing to de-carbonization, the program is providing significant savings in utility costs at the building. We have worked with AvalonBay on several utility grid-resiliency programs over the years, but this was an especially cooperative endeavor that will have far-reaching benefits for their properties and beyond.”

On July 27, the battery participated in a two-hour demand-response event called by local utility, Con Edison. The building provided ~100kW from discharging the battery and another ~50kW by reducing

demand from other systems, such as cooling and lighting. This is an example of one way the battery contributes to grid stability when demand is highest.

AvalonBay purchased both the Stem battery and its proprietary Athena AI software analytics systems to reduce daily peak demand through charging and discharging. Logical Buildings worked with Stem to integrate the demand-response signals being received by its SmartKit AI™ software into battery demand-response algorithms that automatically optimize battery discharge during four-hour load reduction windows.

“The battery system transforms Avalon White Plains into a hybrid smart building, which intelligently sources power from the grid and onsite battery based on multiple parameters, including electricity pricing, billing demand, building systems, and grid conditions,” said Abhay Ambati, senior VP technology services at Logical Buildings. “Beyond adding resiliency and cost savings for the Avalon community, the battery will support important environmental, social and governance (ESG) goals, such as the installation of electric vehicle (EV) charging stations.”

“With the White Plains battery, we have reached another important milestone in our decarbonization journey,” said Mark Delisi, VP of corporate responsibility and energy management at AvalonBay. “The future of AvalonBay is one that will source clean, renewable energy for our communities in combination with onsite storage. We learned a great deal in partnership with Logical Buildings, STEM, and NYSERDA, which will serve us well in future applications.”

Immediately after going live in June during the first heatwave of the summer, the lithium-ion battery was able to offer 50kW of demand reduction at the building for two consecutive days. It is anticipated the battery will deploy at least four times per month over the summer

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