

## In climate change fight, 1st indoors lithium-ion battery unit in NY comes to White Plains

The future in the fight against climate change could sit on the ground floor of a luxury high rise in White Plains.

At least that's what an artificial intelligence company and a real estate concern are banking on.

AI innovator Logical Buildings and real estate company AvalonBay Communities have teamed up to place an indoor lithium-ion battery storage unit inside Avalon White Plains, a first in New York.



A bank of lithium batteries in the basement of Avalon Bay.

Logical Buildings CEO Jeffrey Hendler believes this is first battery unit of its kind inside a multifamily complex on the entire East Coast.

The 407-unit residential building, situated in the city's downtown, offers a pool, fitness center, lounge, playground and now an indoor battery storage unit the size of two refrigerators meant to support the electric grid when it's under stress. It's another tool that can be used to reduce emissions and provide another form of energy, officials from both companies said.

The battery at the Avalon discharges at peak hours during the day and recharges at night during off peak hours, Hendler said. At its maximum, the battery can power one-fourth of the building for at least a couple hours, Hendler said, an "amazing feat."

The battery was used last Thursday and Friday for a few hours on a planned schedule, Hendler said, with heat index temperatures reaching triple digits.

A couple of weeks ago, Con Edison, which provides electricity for White Plains, only notified the Logical Buildings a couple hours prior its electric

grid was strained. From there, a signal was sent to the battery unit, which provided a significant amount of power for two hours.



Avalon Bay in White Plains, NY.

The battery has been activated at least half a dozen times this summer, said Abhay Ambati, Logical Building senior vice president, technology services. The battery unit is expected to be used year-round, he added.

The battery has turned the Avalon into a "hybrid smart building," Ambati said. The building can pull energy from the grid and onsite battery based off several parameters, he said, including electricity pricing, building systems and grid conditions.

The bank of batteries was installed at the Avalon White Plains, located at 27 Barker Avenue, this spring in a small room that was previously used for storage. While other battery banks, most common lead acid, has been used to help power buildings in the northeast, lithium-ion provides more power in a smaller space, Hendler said.

With a string of heat waves this summer, the battery has met expectations, Hendler said.

"The summer's been really exciting to see the battery in action doing it's job," he said. "Nobody hears it, nobody sees it, it's just automated doing its job behind the scenes."

*Continued on Page 2*

## In climate change fight, 1st indoors lithium-ion battery unit in NY comes to White Plains

Hendler said his company worked with Avalon to find the ideal building where they could launch this pilot battery system. Before the system was put in place, the company needed to “teach” the battery to perform, he said.

The net cost of the battery system, including supply and installation, was about \$105,000 following rebates from New York State Energy Research and Development Authority, Ambati said.

Because the battery was going to be placed inside a building that people live in there were strict safety guidelines that had to be followed and building codes had to be updated, Logical officials said.

Ambati said Logical's clients are interested in battery storage for their new or existing buildings and the company is working with the Department of Energy and General Services Administration on grid-interactive energy efficient buildings that include the use of batteries.

### Key weapon in climate change war

Mark Delisi, AvalonBay's vice president of corporate responsibility and energy management, called the innovation “essential” to reversing the course of climate change. Solar and wind can only get companies so far, he said.

“It's what has to happen in a built environment,” Delisi said. “We have to have renewable energy, we have to source renewable energy or we have to produce it on site therefore the battery is essential because the sun doesn't shine and the wind doesn't blow all day long around the clock.”

Battery energy like at the Avalon has been slow to reach the northeast even as it expands rapidly on the west coast. But Delisi believes its acceleration in this part of the country is underway. Costs are decreasing while the technology is only improving, he noted.



A lithium battery controller in the basement of Avalon Bay

Delisi said the Avalon is looking at the systems that could eventually provide power through battery throughout the day instead of just a few hours.

Hurdles remain, he said, like dealing with regulations that need to catch up to technology and finding ways to integrate it into different buildings. Delisi wants the Avalon to be a model for other buildings, whether it's AvalonBay or wide business community.

“Carbon reduction, emission reduction, climate tackling stuff, this environmental, social and corporate governance is multi sectors coming together,” Delisi said. “One of the bigger hurdles is getting the sectors together to work together toward these common goals.”