

Viabile But Not Preferred: Why Warehouse Conversions Won't Quench Data Center Demand

January 8, 2025 Matt Wasielewski, National

Demand for computing power to fuel the artificial intelligence revolution has fueled an immense need for new data centers just as industrial developers find themselves with an excess of land and warehouse space.

Some major players, including Prologis, the world's largest industrial developer, have pushed into the data center market to capitalize on the moment. Conversions have been floated as a way to redirect excess industrial space, but the projects are expensive and difficult to do at scale.

"A common piece of feedback I've gotten is that once a company does an industrial-to-data center conversion, that will be the last one they do. It ends up being a little bit more of a headache," said Carl Beardsley, who heads the national capital markets data center team at JLL.

The intricacies make conversion costs prohibitive in most markets, but explosive demand and limited power availability is leading developers to press forward on retrofits in the country's data center hubs like Northern Virginia and Chicago, even if it's begrudgingly.

"If it's a competitive market with no land, it's viable. But it's never the preferred way to go about it," he said.

Data centers have forever served as the backbone of the internet, becoming all the more critical as more data moved into cloud services and streaming video supplanted cable. But the demand boom created by the nascent generative artificial intelligence industry requires computing capacity at multiples of what it takes for Netflix to store the latest season of *Squid Game*.

A veritable arms race is underway for computing power, with Microsoft committing to spending \$80B on data center investment this year to keep up with its AI ambitions. There simply isn't enough server rack space to meet today's demand, Beardsley said.

"There have been tenants that gave back big blocks of space, and that space is quickly reabsorbed by somebody else, sometimes within days," he said.

Vacancy was at a record low 3% nationally in the middle of last year, despite total inventory doubling over the last four years, according to JLL. Nearly all of the record 1.3 gigawatts of new capacity that came online in the first half of 2024 was preleased.

Absorption in the first half of 2024 was 2.8 GW, a new record and a ninefold increase from 2020. Demand in key markets like Northern Virginia, Atlanta, Chicago, Dallas-Fort Worth and Northern California remains brisk.

Industrial-to-data center conversions are more likely to happen in those major markets where vacancy is tightest and available land for new developments is practically nonexistent.

Last month, Prologis announced it had sold a Chicago warehouse that it is converting into a data center in partnership with Skybox Datacenters.

The 190K SF property, purchased by Australian firm HMC Capital, was converted from a warehouse to a powered shell in 2021 before the joint venture opted to further develop the asset into a turnkey data center, Prologis Global Head of Data Centers Chris Curtis said in an email.

The conversion required extensive upgrades, including to the electrical and fiber infrastructure and the property's mechanical, electrical and plumbing systems. Prologis leveraged its relationships with utilities to bring sufficient power to the site.

The sale comes roughly six months after Prologis launched its data center vertical. The company is aiming to develop roughly 20 data centers globally over the next four years, Curtis said. Securing power contracts is a key facet of Prologis' data center strategy, Curtis told Bisnow in *July*. The industrial giant launched with 1.3 GW of power commitments globally and was negotiating an additional 1.5 GW.

The focus on energy capacity was illustrative of what drives data center transactions today.

"Whether you've got power determines whether or not you have a site of value for a data center user," said Reid Goetz, senior vice president at Hillwood Properties, the real estate investment firm led by Ross Perot, Jr.

Goetz oversees development at AllianceTexas, a 27K acre, master-planned development that is a logistics and data center hub in the Dallas-Fort Worth region with tenants including Meta and Amazon.

The plans for AllianceTexas also include apartments, retail and office space to supplement the industrial campuses. If Hillwood had access to more power at the property, it would be building more data centers, Goetz said.

Tech tenants are looking to sign deals with landlords who can guarantee power within the next two years. Sites that already have power access are the "holy grail" for tenants and developers, Goetz said. The amount of energy required to train a large language model or generate an image is massive in comparison to what's needed to power the online tools and services that currently dominate the internet, like streaming video and cloud storage.

Access to power has become the bottleneck to development, with operators desperate for more electricity entering partnerships with utilities to revive mothballed nuclear reactors and pouring billions into new modular nuclear power tech research.

"There are very few companies in the world that can sign an agreement that will get an energy producer comfortable with building a nuclear power plant, because the sheer scale of that is so tremendous," said Haynes Strader, chief development officer at Skybox Datacenters. "The fact that these companies are stepping up and making these commitments is a hugely positive sign."

But the upgrades to the energy grid that will be needed to power the generative AI boom will take years to execute, and tech firms are looking for space today.

A decade ago, data center site selection prioritized location, aiming to put servers around population hubs to ensure speedy internet service.

Today, site selection is about access to power above everything else, said Adam Kramer, a data center development specialist who recently joined Panattoni Development Co. to launch the firm's push into the sector.

"When I was doing site selection before, it was about the eyeballs. Today, it's about electrons," Kramer said.

That limited power availability makes industrial-to-data center conversions more viable in the most competitive data center markets, sources said.

But there are very few industrial properties in those markets that not only have the right features for conversion but are also vacant. Converting a property can be expensive and generally can't be standardized.

A distribution center's walls and roof are unlikely to have been built to handle data center loads. Interior drainage systems need to be moved outside and paved truck courts have to be replaced with energy infrastructure.

Each site presents unique challenges to developers whose preference is for standardization. More conversions will be announced in 2025, but the sector's inclination towards scalable, plug-and-play data centers frequently makes new construction a more attractive option with a limited difference in cost.

"It may be just as expensive, or nearly just as expensive, to tear it down as it is to retrofit," Strader said.