Urban Land Institute | HEITMAN
A REAL ESTATE INVESTMENT MANAGEMENT FIRM

# INVESTMENT STRATEGIES IN THE AI ERA:

## POWER IS THE NEW LOCATION

A report in the ULI-Heitman Evolving Real Estate Investment Risks and Opportunities series



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Urban Land Institute
2101 L Street, NW | Suite 400 | Washington, DC 20037

**Recommended bibliographic listing:**
Urban Land Institute. *Investment Strategies in the AI Era: Power Is the New Location.* Washington, DC: Urban Land Institute, 2026.

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# Executive Summary

## Investment Strategies in the AI Era: Power Is the New Location



The artificial intelligence (AI) boom is not just a technology story. It is a real estate, energy, and infrastructure story, where access to land, power, and network connectivity increasingly shapes economic growth. Land is increasingly valued not by acreage, but by megawatts. The next generation of winning markets may be defined by power availability as much as population growth. AI may be the catalyst, but power is the constraint.

The rise of AI, and the digital infrastructure it requires, is redefining where value is created across the built environment. Over the past century, location, labor, transportation, and demographics have largely determined investment capital flows. Today, a new factor is rising in importance: access to power. As AI drives unprecedented demand for computing infrastructure, electricity availability is becoming a critical determinant of where buildings are developed, and which markets attract investment. Equally important is the infrastructure needed to deliver that power and transmit the data it enables. Increasingly, the most attractive markets will be those that combine abundant energy resources with strong grid, fiber, and communications connectivity.

The world's leading technology companies are expected to invest hundreds of billions of dollars annually in digital infrastructure, with global expenditure on data centers, compute, and power projected to surpass $7.6 trillion by 2031, with $2.1 trillion attributed to real estate. At the same time, concerns around energy consumption, grid capacity, land use, and the societal implications of AI are prompting increased scrutiny of data center development and renewed calls for AI regulation. Yet the real story extends well beyond data centers. AI is accelerating a broader convergence of digital infrastructure, energy systems, and real estate.

For investors, this is not simply the emergence of another real estate opportunity. It is the beginning of an infrastructure supercycle that is creating winners and losers across sectors, markets, and geographies.

## Key Insights

**1. Power Is Becoming a Competitive Advantage**

Access to reliable electricity is emerging as one of the most important determinants of development, investment performance, and asset value.

**2. The Opportunity Extends Far Beyond Data Centers**

Battery storage, powered land, industrial facilities, workforce housing, and distributed computing infrastructure may all benefit from AI-driven growth.

**3. Every Property Sector Will Feel the Impact**

AI is changing how buildings are financed, operated, occupied, and valued, creating both opportunities and obsolescence risks across office, industrial, residential, retail, and health care real estate.

The question for property investors is how to position portfolios to benefit from the advances in automation investment supercycle.

The rise of AI represents more than the growth of data centers or the adoption of new software tools. It is accelerating a structural shift in how economies function, how cities develop, and how real estate generates value. Investors who understand the emerging relationship between power, technology, and place will be better positioned to identify opportunities, manage risk, and compete in a rapidly changing investment landscape.

AI is often discussed as a technology story. In this report, we argue that it is equally a real estate, infrastructure, and energy story.

The rapid growth of artificial intelligence is driving unprecedented demand for computing power, data storage, and electricity. As a result, power availability is becoming an increasingly important determinant of where development occurs, where value is created, and which markets attract investment.

This report explores the investment implications of that shift. It examines the growth of data centers, the mounting competition for energy resources, and the emergence of new investment opportunities ranging from powered land and battery storage to industrial assets, housing, and distributed computing infrastructure. It also considers how AI may transform the operation and use of buildings, alter occupier preferences, and influence the future development of cities.

For investors, the central question is not whether AI will affect real estate, but where and how its effects will create value, disrupt existing assumptions, and redefine competitive advantage.

**HISTORICALLY:**

**LOCATION**

DROVE VALUE



**WHY IT MATTERED**

Proximity to resources, markets, and opportunities created value.

**TODAY:**

**LOCATION + CONNECTIVITY**

DRIVE VALUE




**WHY IT MATTERS**

Access to people, information, and digital networks multiplies value.

**FUTURE:**

**LOCATION + CONNECTIVITY + POWER**

DETERMINE VALUE



**WHY IT DETERMINES VALUE**

Prime locations with seamless connectivity and reliable, sustainable power create compounding, future-ready value.

# Section 1. The Race for Digital Capacity

## From AI Boom to Infrastructure Supercycle

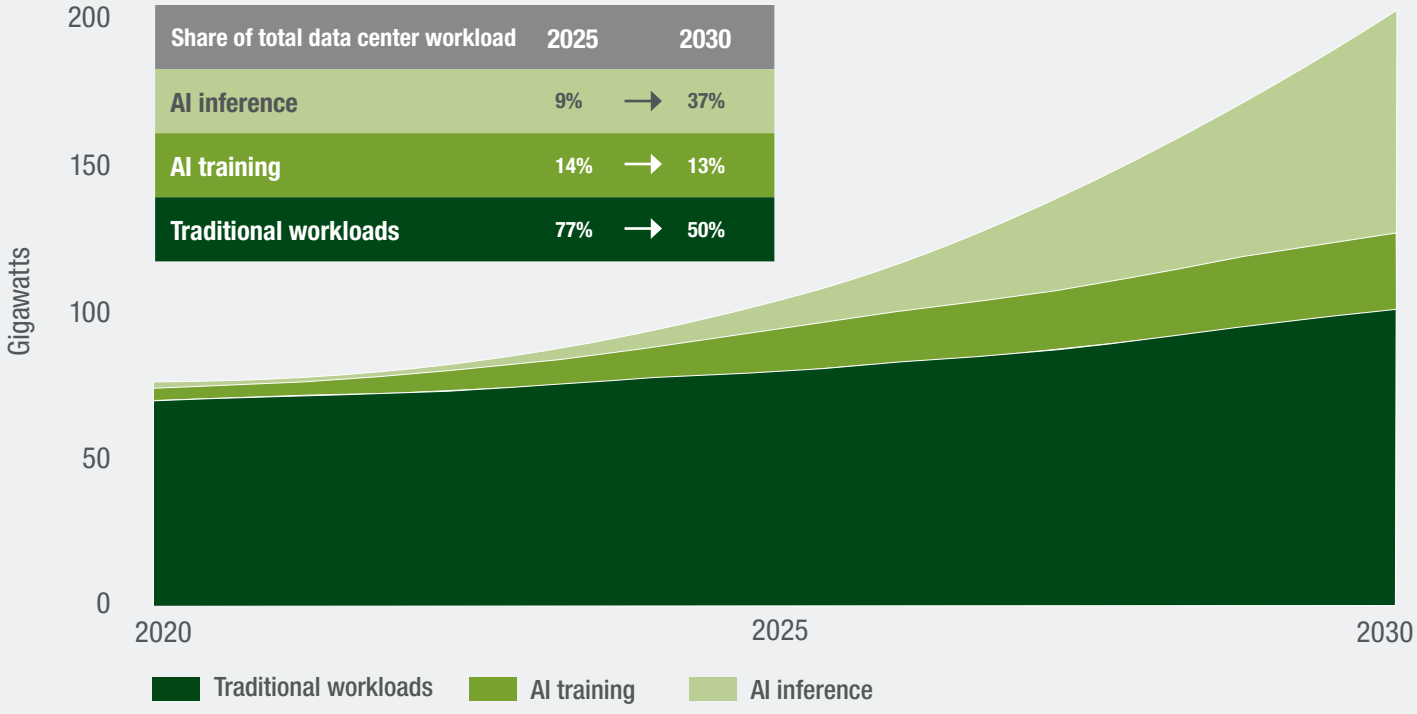


As AI becomes established as one of the defining technologies of our time, data centers are now widely acknowledged as the most important piece of infrastructure in this digital transformation.

Global expenditure on data centers, compute, and power is expected to exceed $7.6 trillion by 2031, with $2.1 trillion attributed to real estate, $5.1 trillion to compute, and $0.4 trillion to power.

The volume of data produced, stored, and processed has increased exponentially since 2010. AI is underpinning this trend, sparked by OpenAI's launch of ChatGPT in 2022. While AI has been quickly gaining daily active users, it only represented about a quarter of all data center workloads in 2025, with model development (also referred to as training) driving most of the demand from the so-called hyperscalers, such as Amazon Web Services (AWS), Microsoft Azure, Google Cloud, Meta, and Oracle.

### Figure 1-1: Total Global Data Center Workloads




*Source: JLL Research, 2025*

However, researchers at JLL project a big shift in 2027, when data center workloads related to the application of AI, known as inference workloads, could overtake training as the dominant AI requirement (see figure 1-1).

The sheer scale of AI-led investment has already led to warnings of a "bubble" and comparison with the dotcom boom and bust of the late 1990s. The interviewees for this report—drawn from the technology, real estate, and infrastructure industries—acknowledge the likelihood of "winners and losers" among the AI developers. From a real estate investor perspective, AI bubble risk manifests in tenant concentration risk. Tenancy for U.S. hyperscale data centers emanates from seven companies (Apple, AWS, Meta, Google, Microsoft, IBM, and Oracle). Should one or more of these tech giants withdraw from the AI race, backfilling data center vacancies could be costly and protracted.

Constraints related to access to reliable power are slowing the development of data centers globally. This could, in the view of several interviewees, at least partially counteract the risk of overinvestment. This highlights the critical role energy plays in the development of data centers that support AI through storage and processing. In many cases, these delays can last for years.

AI's growth depends not only on continued investment in infrastructure, but also on widespread implementation of AI tools and systems by businesses. Enterprise adoption of AI remains at an early stage, making it difficult to forecast its long-term effects with certainty—and yet momentum is growing. For example, in April 2026, Anthropic reported that over 1,000 organizations spent more than $1 million annually on its Claude platform, doubling in less than two months. However, as JLL's research suggests, it will take years for companies to understand and implement AI. As a result, its full impact is unlikely to be felt until after 2030 (see figure 1-2).

## WHERE THE AI ECONOMY GETS BUILT

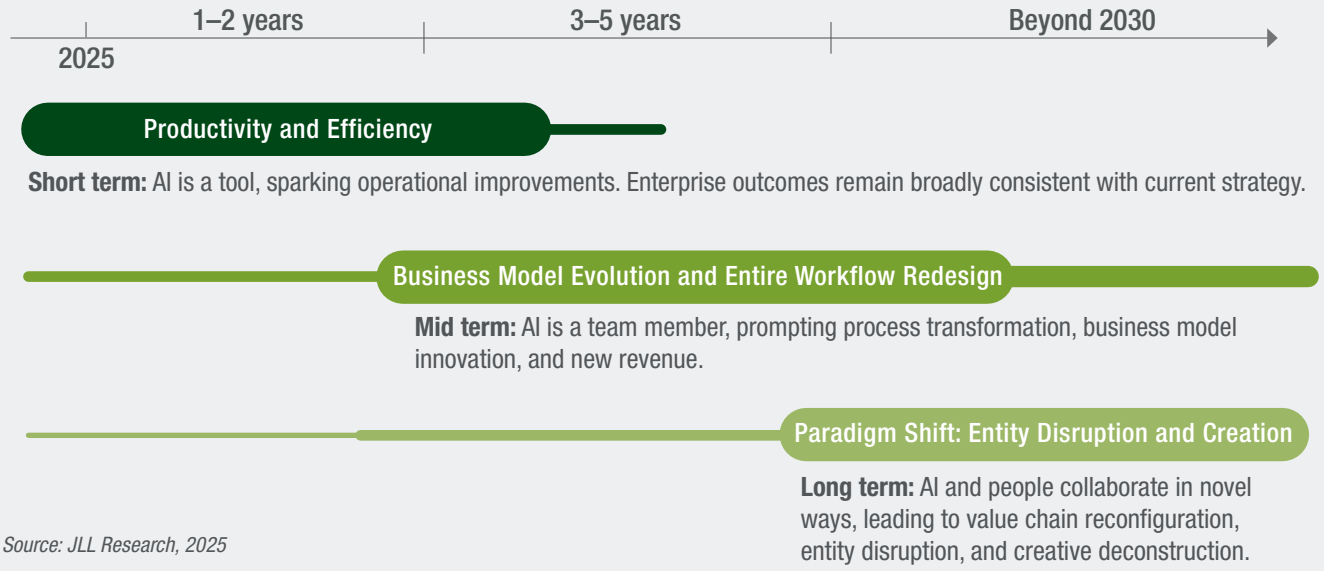
Though uncertainty exists over the pace of AI growth, investors recognize digitalization as one of the megatrends shaping the global economy. At the same time, data centers have emerged as the preeminent sector in another important trend—the blurring of boundaries between real estate and infrastructure.

The vast capital expenditure on data centers, currently driven by the hyperscalers, is clearly influencing the sector's shift from niche to mainstream.

Tech capital spending contributed as much as 45 percent of gross domestic product (GDP) growth in the United States in the first three quarters of 2025. Since then, the economic impact of the data center buildout has become even greater. The four largest global technology companies—Amazon, Google, Microsoft, and Meta—have indicated that their combined capital expenditure (capex) will exceed $800 billion in 2026, focused primarily on data center infrastructure. That is roughly double the 2025 levels and about 3.5 times the spending seen in 2024. The capex share of their operating cashflow reached above 60 percent in 2025 at $449 billion in capex and is expected to outpace cashflow by the end of 2026 at $805 billion in capex (see figure 1-3).

### Figure 1-2: AI's Impact

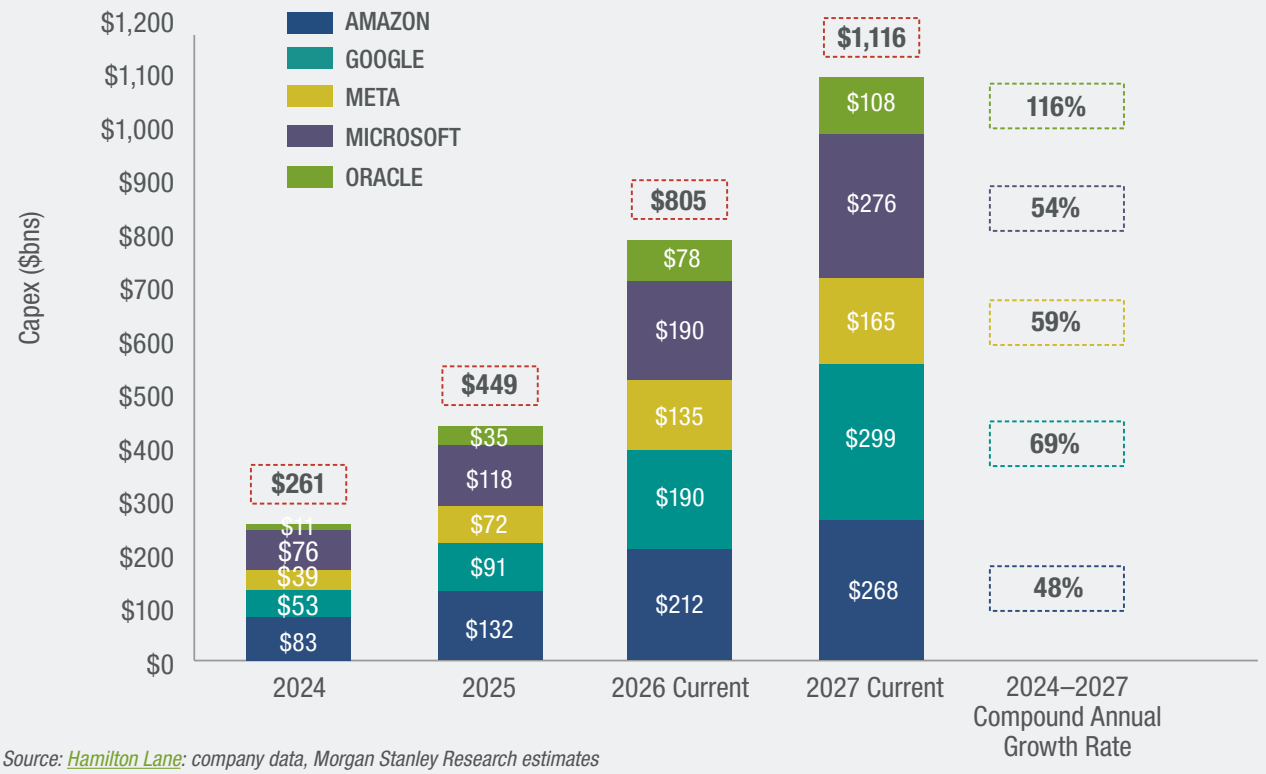
AI will have its greatest impact across three stages, with timing varying by industry and role.




*Source: JLL Research, 2025*

## Figure 1-3: Hyperscaler Capex Projections

Morgan Stanley now sees hyperscaler capex approaching $800 billion/$1.1 trillion in 2026/2027 versus $765 billion/$950 billion previously.




*Source: Hamilton Lane: company data, Morgan Stanley Research estimates*

Despite lingering doubts over whether business value and profits can be directly tied to AI implementation, the future of data center growth, at least in the next five years, will continue to be driven by hyperscale cloud expansion and AI demand. According to JLL, global data center capacity could double to 200 gigawatts (GW) by 2030, which would equate to demand for roughly 2 percent of global energy capacity.

The tech and real estate players canvassed for this report noted that demand for computing power and data storage is still growing by up to 30 percent per year. Indeed, a study by McKinsey suggests that as digital transformation accelerates, data centers are becoming "the backbone of the digital economy," supporting not only AI workloads but also other functions, such as real-time analytics, video and music streaming, file storage and sharing, and digital public services. Therefore, the expansion of the data centers sector is not wholly reliant on enterprise AI adoption, important though it is.

## DATA CENTERS TODAY: INSATIABLE DEMAND

Following the launch of ChatGPT in 2022, user demand for data centers has been dominated by AI companies, served by large multi-billion dollar hyperscale data centers.

The relentless pace of AI-fueled expansion has resulted in extended lead times, limited availability of skilled trades, and escalating development costs in primary markets. Between 2020 and 2025, the average global data center construction cost increased from $7.7 to $10.7 million per megawatt, equating to a compound annual growth rate of 7 percent. For 2026, JLL is forecasting the average global cost will increase 6 percent to $11.3 million per megawatt, raising barriers to entry and increasing the strategic value of developers and investors with secured land, power, and supply chain relationships.

### The Next Wave Will Be Inference

As AI becomes more widely used, demand for inference—the computing power needed to run AI applications—is expected to grow faster than demand for training AI models. Unlike training, which often requires huge amounts of computing power in a small number of locations, inference can take place closer to where users and businesses need it.

This could lead to a more distributed data center landscape, with greater demand for smaller facilities in or near cities, colocation sites, and clusters of GPU-enabled computing capacity. These facilities could emerge as a new type of investment opportunity alongside traditional large-scale data centers. Existing property owners may also benefit, as assets with available power, connectivity, and proximity to end users become attractive locations for AI infrastructure, creating new revenue streams and offering a faster path to deployment than greenfield development.

# Types of Data Centers

## Hyperscale data centers: 100 MW–1 GW+

Hyperscale data centers are the largest facilities, developed primarily by major technology companies to support cloud computing and AI services. Because AI workloads require vast amounts of power and are less sensitive to latency, the delay between a request and its response, these campuses are increasingly being built in regions with lower land and energy costs rather than near major cities. As a result, locations such as Texas and the U.S. Midwest have become leading hubs, while India and Malaysia are emerging as important international markets. These facilities are often built at a massive scale, with capacities measured in hundreds of megawatts or even gigawatts, and are designed to support the rapid growth of AI and cloud infrastructure.





## Enterprise and colocation data centers: 2 MW–20 MW

Enterprise and colocation data centers support the data storage and computing needs of businesses, governments, and other organizations. Colocation facilities provide shared infrastructure where multiple customers lease space, while enterprise facilities are typically dedicated to a single organization. Although cloud adoption has reduced demand for some enterprise facilities, organizations in highly regulated sectors such as government, finance, and health care continue to require secure and controlled environments. Modern colocation providers now play a critical role in enabling connectivity, data exchange, and digital ecosystems rather than simply housing servers.

## Edge data centers and inference compute: 50 kW–2 MW

Edge data centers and inference infrastructure bring computing capacity closer to end users, supporting applications that require real-time processing and low latency. Typical use cases include industrial automation, connected devices, content delivery, and AI-powered services. These facilities are generally located in towns, cities, and network hubs where strong connectivity is available. Growing demand for AI inference is expected to increase the need for smaller, distributed data centers near population centers, although large-scale deployment of micro and modular edge facilities remains at an early stage.



## GOVERNMENT POLICY SHAPING AI AND DATA CENTER GROWTH

Governments are emerging as important market movers, preparing for an increasingly data-driven future. Across the regions, policymakers view compute capacity and digital infrastructure as strategic national assets, essential to economic competitiveness and security. This recognition is reshaping regulatory frameworks, investment incentives and cross-border data flows, helping build momentum behind data center development but also adding to the pressure on the grids that power it.

As public services, including defense, health care, and finance, become increasingly digitalized and AI-driven, governments are placing more emphasis on data sovereignty, seeking to ensure that sensitive, valuable data remain subject to domestic law. Many jurisdictions now mandate that public-sector—and in some cases, private-sector data generated within their borders—be stored and processed locally. These requirements are accelerating the need for large-scale domestic data-center capacity and, in several markets, contributing to new restrictions on foreign ownership of critical digital infrastructure or on exports of semiconductors.

To meet this need, governments have introduced policies aimed at expanding sovereign AI capabilities, and, consequently, they have become a significant influence on digital infrastructure markets.

## DATA CENTERS: THE WIDER IMPLICATIONS

Data centers' broader economic impact is substantial, although not always easy to quantify. According to PwC research for the Data Center Coalition, data center–related employment in the United States grew by 60 percent between 2017 and 2023, reaching 4.7 million jobs, while the sector's contribution to GDP more than doubled from $355 billion to $727 billion. The AI boom has accelerated this trend further, with data centers and related technology investments accounting for a significant share of U.S. private domestic demand growth in 2025. However, while data center development generates substantial construction and supply-chain employment, the long-term operational workforce of modern hyperscale facilities remains relatively small relative to the scale of capital invested.

Despite these employment characteristics, data centers can generate meaningful benefits to host communities through tax revenues, infrastructure improvements, and broader economic activity. PwC estimates that the sector's fiscal contribution to federal, state, and local governments increased by 146 percent between 2017 and 2023, reaching $162.7 billion annually. In Virginia, the nation's largest data center market, the industry supports approximately 74,000 jobs and contributes $9.1 billion in GDP each year. Communities such as Loudoun County have used data center tax revenues to help fund schools, transportation improvements, and public services while reducing pressure on other local tax bases. Similarly, emerging hyperscale data center locations such as Abilene, Texas, have likewise pointed to the potential for substantial long-term fiscal benefits from large-scale data center projects, although the magnitude and timing of those benefits can vary depending on development incentives, infrastructure requirements, and local tax structures.

The rapid expansion of digital infrastructure has also intensified debate around the broader societal and community impacts of data center development. In some markets, proposed projects have faced increased scrutiny from residents, regulators, and utility providers regarding electricity demand, transmission capacity, water consumption, land use, noise, and the potential effects on local utility costs. These concerns exist alongside growing recognition of the economic and technological importance of digital infrastructure. As AI adoption accelerates and demand for computing capacity increases, balancing economic development objectives with community, environmental, and infrastructure considerations is likely to become an increasingly important policy challenge. Separately, the growing capabilities of AI systems have contributed to broader discussions among policymakers, researchers, and industry participants regarding AI governance, safety, and regulatory frameworks, which could influence the pace and location of future infrastructure development.

The search for available power, land, and connectivity is also expanding the range of locations being considered for large-scale digital infrastructure investment. While established data center markets continue to attract substantial development, growth is increasingly extending into secondary, tertiary, and some rural markets where power availability, connectivity infrastructure, and development timelines may offer advantages. This trend challenges traditional assumptions that the most attractive locations are necessarily those closest to major population centers and may create new opportunities for investment in infrastructure, industrial development, housing, and local services. However, outcomes are likely to vary by market and will depend on factors including power generation and transmission capacity, workforce availability, community support, and the ability to sustain long-term economic growth beyond the initial development cycle.

Recognizing the consumers' rising concerns about electricity rate increases associated with growing AI and data center power demand, the White House introduced the Ratepayer Protection Pledge in March 2026. The pledge requires participating companies to fund the generation, transmission, and infrastructure investments needed to support their facilities rather than shifting costs to utility customers. Initial signatories included Amazon, Google, Meta, Microsoft, OpenAI, Oracle, and xAI. The initiative aims to maintain affordable electricity rates while supporting continued investment in AI, data centers, and grid reliability. Whether the pledge actually protects ratepayers depends on enforcement and on the companies following through on the energy investments they promise.



# Section 2: Power Is the New Geography of Growth

## Access to Energy Is Reshaping Real Estate Markets



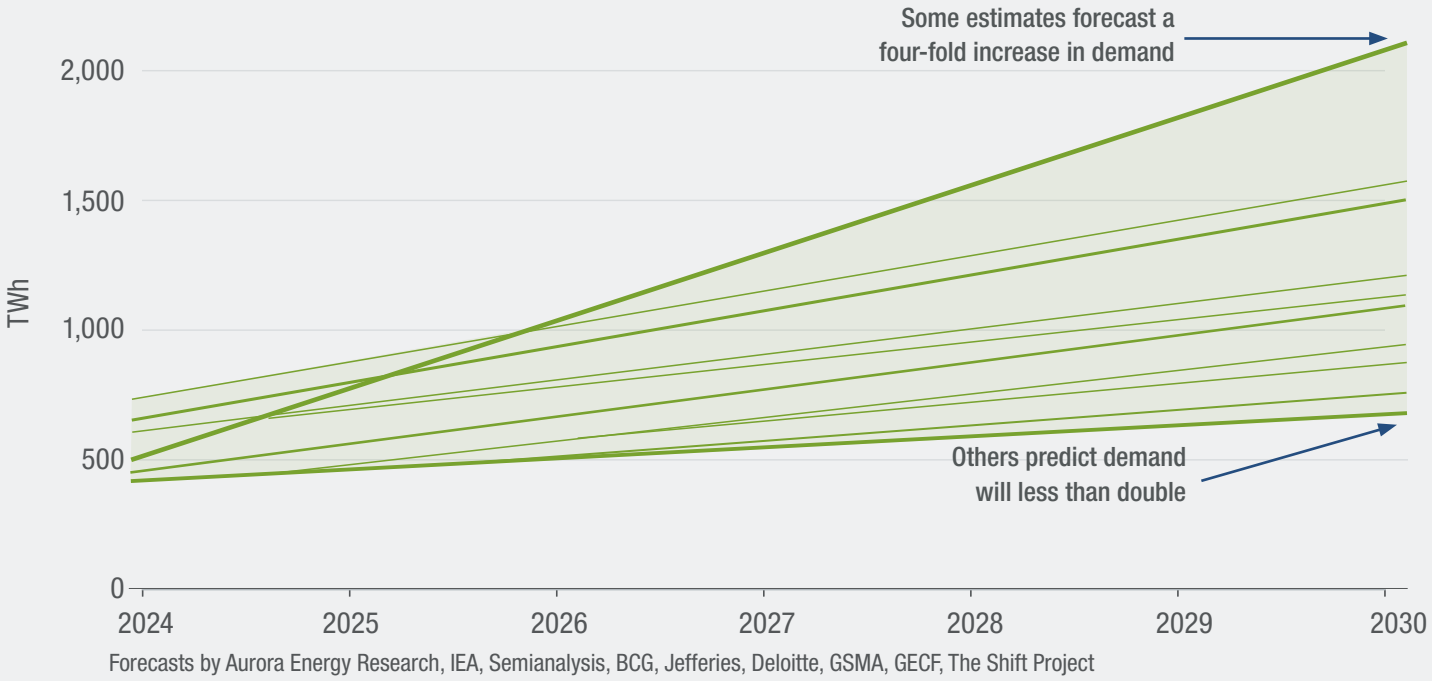
Though data center capacity has been expanding, supply is not keeping pace with demand. Data centers consume a vast amount of global electricity, which is why the limitations of energy infrastructure around the world have become the biggest barriers to expansion.

One indication of the sheer scale of the challenge came in autumn 2025 when OpenAI CEO Sam Altman reportedly set a target for the organization of 250 gigawatts of data center capacity by 2033—equivalent to one-third of peak power demand in the United States.

Energy demand forecasts vary widely (see figure 2-1), but access to power is acknowledged by many of the interviewees for this report as the single most important factor in the location of a data center.

### Figure 2-1: Data Center Power Demand Forecasts

Estimated annual electricity from data centers to 2030, terawatt hours (TWh)




*Source: Aurora Energy Research*

Reliability of power supply is directly related to a data center's uptime—the percentage of time it remains operational—and, as a result, the guarantees provided to tenants. Sites located near dual feeds, substations and diverse transmission lines are likely to benefit from improved resilience. Available megawatts, both current and in the future, are also an essential consideration impacting future scalability of site capacity. Land may be positioned well in proximity to urban demand, but grid constraints and bottlenecks from surrounding utilities invariably present a challenge.

In addition, the impact of accelerating power demand is reverberating beyond data centers and into the broader industrial and manufacturing sectors. As data centers, advanced manufacturers, and other energy-intensive businesses compete for available power capacity, access to reliable electricity is becoming an increasingly important constraint on development and economic growth in some markets. As a result, markets with abundant power resources, robust transmission infrastructure, and available grid capacity may enjoy a growing advantage in attracting investment and capturing future real estate demand.

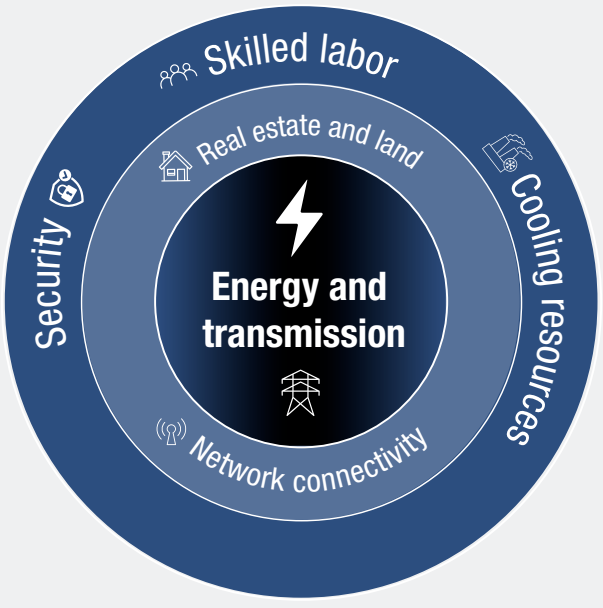
## FACTORS SHAPING SITE SELECTION

> **In the AI economy, power availability increasingly determines where capital flows.**

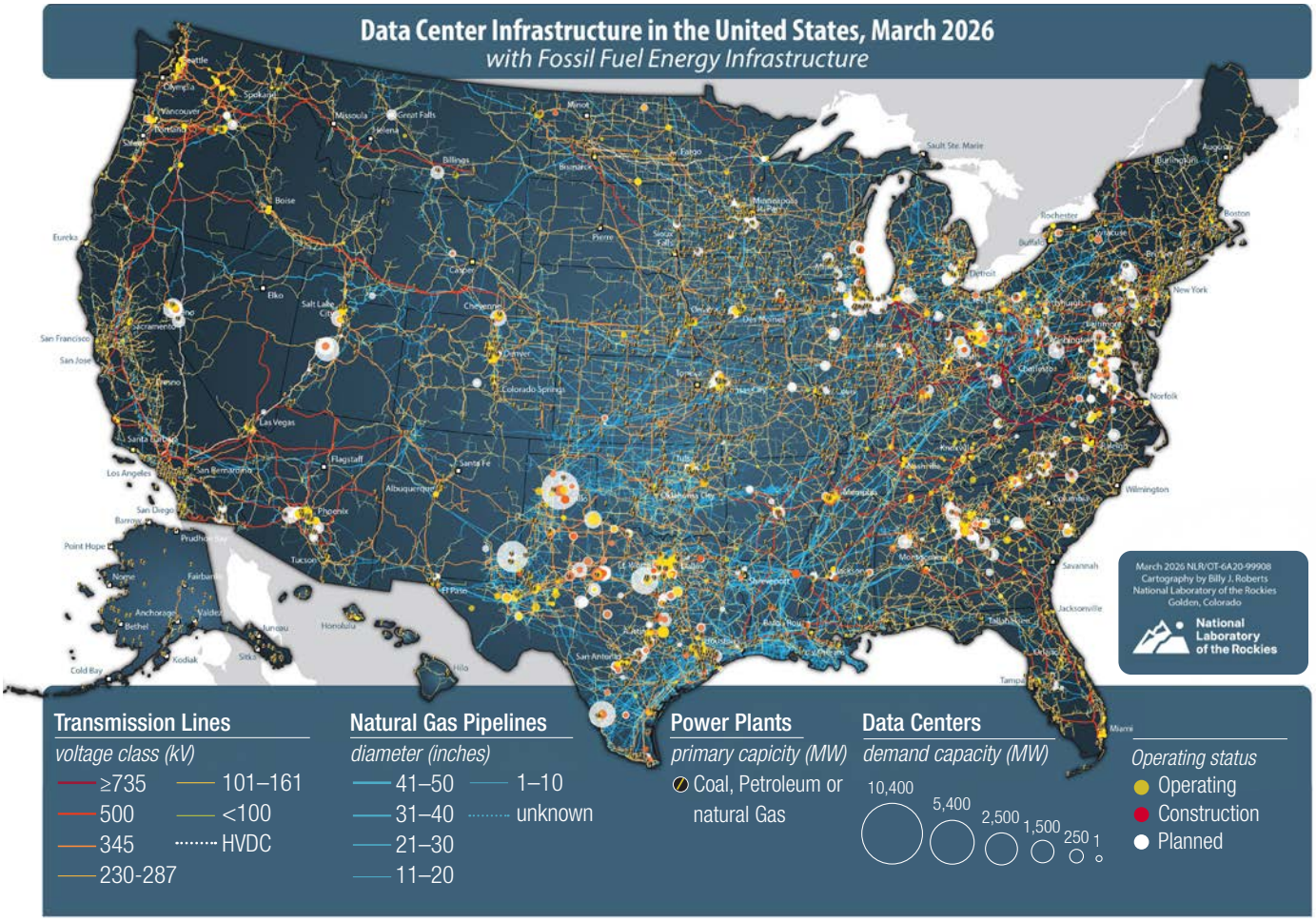
The current global data center footprint has been centered around intense demand for processing power (compute) and high volumes of data traffic movement, alongside strong corporate needs for reliable IT infrastructure. But as land and power availability in established "tier one" markets decreases and new data center models—incorporating greater interconnectivity—and edge networks emerge, a wider range of factors will dictate future site suitability.

- **Energy and transmission availability:** Access to reliable, cost-effective, and sustainable power is a critical requirement for data center development. Equally important is the infrastructure needed to transmit and distribute that power. As a result, available grid capacity, transmission connectivity, substation access, and interconnection timelines are often the primary determinants of site viability.
- **Real estate and land:** Suitable land with appropriate zoning for data center development is essential. Sites should also offer sufficient acreage and expansion potential to accommodate future capacity growth and additional power infrastructure.
- **Network connectivity:** Access to high-capacity fiber networks, multiple internet service providers (ISPs), and redundant routes are critical for performance, reliability, and resilience.
- **Proximity to demand and skilled labor:** Locations near major demand centers can reduce latency and improve service delivery, while access to a skilled workforce supports construction, operations, and maintenance. This factor can be secondary for some hyperscale developments if power availability is significantly better in a more remote location.
- **Cooling resources:** Cooling requirements remain important, but advances in cooling technologies, particularly direct-to-chip liquid cooling, can significantly reduce water consumption and lessen dependence on local water resources. As a result, water availability is becoming a less restrictive siting factor in many markets, provided sufficient cooling infrastructure can be deployed.
- **Security and risk:** Sites should have low exposure to natural disasters and other physical risks while supporting robust security, reliability, and business continuity measures. Extreme risks can disqualify a site, but among otherwise viable locations, this is often a secondary differentiator.

### What Shapes Data Center Site Selection?



## Figure 2.2: Data Center Demand Capacity by County




*Source: National Laboratory of the Rockies*

These forces are already shaping the distribution of the data center infrastructure in the United States, as shown in figure 2-2.

> **The old rule was "build near demand." The new rule is "build near energy and connectivity." AI could reverse decades of economic centralization by shifting competitive advantage toward markets with abundant power resources, available transmission capacity, and strong digital infrastructure rather than labor abundance.**

## INFRASTRUCTURE LANDSCAPE

The challenge with energy infrastructure is often less to do with power generation, according to some interviewees, than it is around aging grids and the transmission of that power to end users.

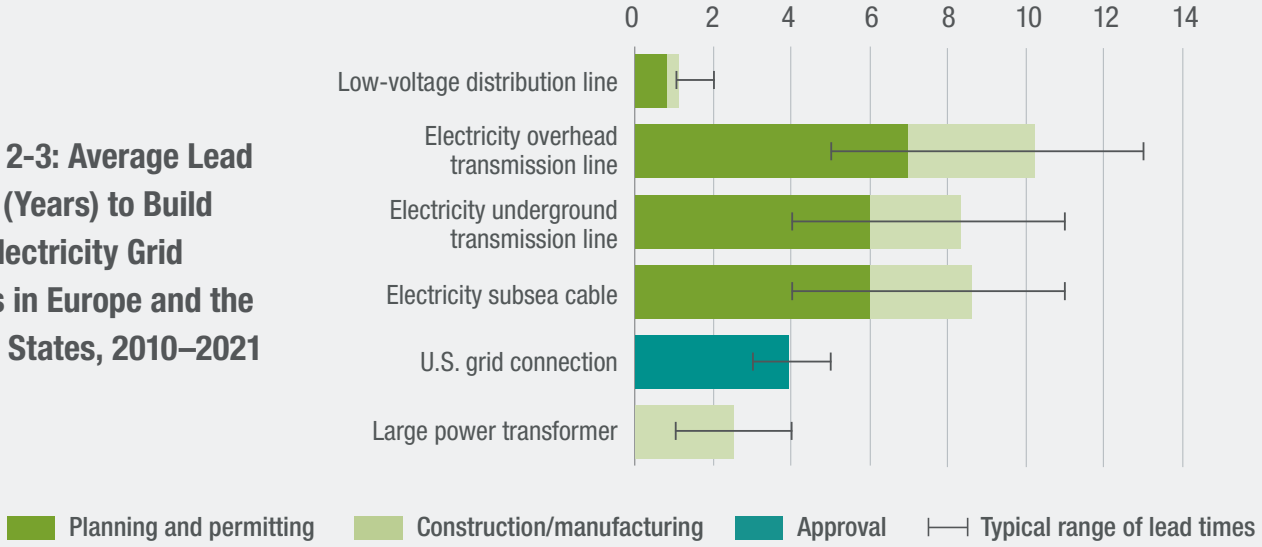
Public grid operators, even those with degrees of privatization, have an inherent desire to keep energy prices low, which may delay upgrades and make them less responsive to surges in demand, and not just from AI. Progressive electrification in such areas as electric vehicle adoption and smart buildings is putting pressure on grids globally.

Europe's aging power grid, for example, reportedly requires trillions of dollars in investment to meet the rise in green energy outputs and increasing demand. Other mature economies, such as the United States and Japan, are facing similar challenges, as much of their grid was built between the 1950s and the 1980s, with large portions of the transmission and distribution networks exceeding their original design lives already.

Building new electricity grid assets takes years (see figure 2-3) and grid capacity is often cited as one of the main constraints to data center development, significantly delaying project timelines. As public grids struggle, private investment in renewables, energy storage, and other grid infrastructure is increasing. Independent power producers, infrastructure funds, and private equity-backed utilities now own and operate a greater percentage of generation and transmission with guaranteed capacity or dedicated supply for data centers. The surge in demand and new private sector agreements, especially direct ownership or dedicated supply, have also introduced regulatory challenges in managing broader market access and competition.

Meanwhile, a mismatch exists between old and new energy infrastructure. Legacy gas and coal assets often remain crucial for grid stability, but their carbon intensity limits future investment, while clean energy dominates project pipelines due to regulatory incentives. However, many clean energy

**Figure 2-3: Average Lead Times (Years) to Build New Electricity Grid Assets in Europe and the United States, 2010–2021**




*Source: IEA, 2023*

sources face intermittency issues, where energy cannot be generated continuously (because of a lack of sun/wind), and the current storage solutions are not yet economical. One other core consideration in strategic planning is the gap between the long development times for transmission compared with the shorter build times for many energy sources, which can leave oversupplied and stranded generation in some regions if not addressed.

A growing number of policymakers, utilities, and market participants view energy efficiency and demand-side management as the fastest and cheapest way to improve grid capacity. As the industry waits for grid expansion and reinforcement, investing in efficiency improvements and flexibility is becoming an increasingly important part of the solution to the power availability problem.

## THE AI GROWTH PARADOX

Many of the companies building the AI economy have committed to ambitious climate goals, improving energy efficiency and increasing their reliance on renewable and low-carbon power. Yet rapidly growing demand for computing capacity is making these objectives more difficult to achieve. As AI scales, the industry faces a fundamental challenge: balancing unprecedented growth in digital infrastructure with rising expectations around sustainability. At the same time, investors, regulators, and local communities are increasingly scrutinizing sustainability claims, arguing that efficiency metrics such as PUE and the use of renewable energy credits may not fully reflect the broader environmental impacts of data centers, including electricity consumption, water use, embodied carbon, transmission requirements, and electronic waste. As a result, access to low-carbon power and the infrastructure required to deliver it may become an increasingly important determinant of where future data center development occurs.

Google continues to pursue its goal of operating on 24/7 carbon-free energy across all grids where it operates by 2030, while Microsoft remains committed to becoming carbon negative, water positive, and zero waste by 2030. Meta achieved net zero emissions across its global operations in 2020 and now matches 100 percent of the electricity used by its data centers and offices with clean and renewable energy, while targeting net zero emissions across its value chain by 2030. Amazon, through The Climate Pledge, has committed to achieving net zero carbon emissions across its operations by 2040 and has become one of the world's largest corporate purchasers of renewable energy. In Australia alone, Amazon recently expanded its renewable energy portfolio to nearly 1 GW of capacity, including significant investments in solar, wind, and battery storage projects that support both grid reliability and future data center growth.

These industry leaders continue to make measurable progress. Google reported that it reduced data center energy emissions by 12 percent in 2024 compared with 2023, despite a 27 percent increase in data center electricity demand, largely due to the addition of new clean energy resources. More broadly, operators continue to improve the energy efficiency of facilities through advances in cooling systems, server utilization, and infrastructure design. Leading hyperscale operators now routinely achieve power usage effectiveness (PUE) ratios near 1.1, compared with industry averages that historically exceeded 2.0.

As AI adoption accelerates and data centers become one of the fastest-growing sources of electricity demand globally, the tension between rising power demand and decarbonization objectives is becoming increasingly apparent. Access to reliable power remains the primary constraint on future development, but access to low-carbon power may become an increasingly important source of competitive advantage as companies seek to meet sustainability commitments and navigate growing stakeholder scrutiny.

## ENERGY SOURCES AND TECH DEVELOPMENT

Markets and governments are still grappling with the question of how to power the growth of data centers. Per the International Energy Agency, the globe's data centers are currently powered as follows: 27 percent renewables, 26 percent natural gas, 30 percent coal, and 15 percent nuclear. In the near term, renewables are expected to meet nearly half of incremental data center electricity demand, while natural gas and coal together provide more than 40 percent of additional supply. Nuclear power plays a more limited role initially but accelerates after 2030 as new capacity comes online. By 2035, the data center power mix is projected to be roughly 30 to 40 percent renewables, 25 to 30 percent natural gas, 15 to 20 percent coal, and about 20 to 25 percent nuclear power, reflecting a more diversified and lower-carbon generation mix (see table 2-1).

But against a backdrop of differing regulatory barriers across the world, the interviews indicate a more nuanced outlook for energy sources in the sector.

**Natural gas** remains an important option because it is relatively fast to deploy and offers consistent baseload energy. It is regarded by some interviewees as a stop-gap measure to cover peaks in demand while more strategic nuclear and renewable energy solutions are established. For example, a 1,200-megawatt natural gas power plant is being built outside Milwaukee to support "the world's most powerful AI data center" for Microsoft. Though Microsoft has pledged to match each fossil fuel–derived kilowatt hour with carbon-free energy put back into the grid, the company admits it is not yet possible to power this project with renewable alternatives. Meta's new data center in Louisiana requires three additional natural gas plants, totaling nearly 2,300 megawatts—not quite offset by 1,500 megawatts of new renewables Meta is pledging to bring to the grid. Other operators are also investing in gas infrastructure, while exploring alternative, fossil fuel-free energy sources and carbon capture technologies.

**Solar, wind, and hydro** are the most widely adopted renewables, with costs becoming increasingly attractive on the back of new innovations and large-scale manufacturing. However, solar and wind are intermittent baseload power generators, which is a challenge for assets requiring reliable, uninterrupted energy at all times, and are hard to scale, with 1 gigawatt needing thousands of acres. These sources tend to work best for the smaller data centers, with the largest deployment of solar at 180 megawatts for Switch's Las Vegas SUPERNAP data center campus. However, a number of operators are seeking partnerships with energy providers to tap into renewables. In Portugal, for example, the 1.2-gigawatt Start Campus Sines has partnered with Energias De Portugal to align its power demand with new, nationwide large-scale solar and

### Table 2-1: Global Data Center Energy Mix (~2035, Base Case)

| Source | Share (approx.) | Anticipated trend |
|---|---|---|
| Renewables | 30–40% | ↑ rising |
| Nuclear | 20–25% | ↑ rising |
| Natural gas | 25–30% | ↔ stable |
| Coal | 15–20% | ↓ declining |

*Source: IEA, 2025*

wind capacity build-outs around the country. Battery storage is becoming an increasingly important complement to renewable generation, helping manage intermittency, improve resilience, and reduce energy costs by shifting consumption away from peak pricing periods. Advances in storage duration are expanding the practical use of renewable power and creating new investment opportunities across both energy and real estate, as we examine in Section 3.

A more promising direct connection to data centers is hydro power, which has consistent baseload power. However, there are currently few hydro plants big enough to meet the demand of large data centers, although this might be starting to change. For instance, Google and Brookfield Asset Management have signed a framework agreement to deliver up to 3,000 megawatts of hydroelectric capacity across the United States, with the first contracts executed for two sites in Pennsylvania.

Many other big tech-owned hyperscalers are also signing offsite renewable power purchase agreements (PPAs) across their broader business to offset data center carbon emissions.

**Nuclear** is re-emerging as a part of the solution, offering reliable, large-scale, and low-carbon baseload electricity. Many nuclear facilities that were nearing retirement or had already been retired are coming back online, often with the capital backing from tech companies. Meta, Microsoft, and Google have all signed agreements that promise to revive nuclear power plants across the United States. Looking ahead, small modular reactors (SMRs) could provide a supply of privately distributed energy, combining a relatively small physical footprint with significant power output, which could serve hyperscale assets in the next decade. AWS and Talen Energy, for example, partnered to supply 1,920 megawatts of nuclear power to Amazon's AI data centers by 2032. The companies are also codeveloping SMRs to add new carbon-free electricity to the regional grid.

Meanwhile, the more distant opportunity, nuclear fusion, presents the potential for near-limitless, abundant energy with little waste, where long-term breakthroughs in this field could drastically lower the cost of energy.

# Section 3: The Next Generation of Real Estate Opportunities

## How Can Real Estate Investors Participate?



Data centers are judged to offer among the best investment prospects in 2026, according to *Emerging Trends in Real Estate*®, the annual survey of real estate leaders published by ULI and PwC. Data centers have been at or near the top of the sector rankings for several years and in all three regional editions of the research: North America, Europe, and Asia Pacific.

The growing appeal of data centers has been reflected in pricing with the sector no longer trading at a cap rate premium over traditional real estate. Operating fundamentals are improving, with rents in the United States—the world's largest data center market—rising.

According to JLL's latest data, North American data center rents have risen by nearly 70 percent since 2020, or around 9 percent annually, with landlords achieving similar increases on renewals. New leases commonly include 3-plus percent annual escalators and few concessions, while JLL expects this momentum to continue through 2030 amid around 1 percent vacancy and a pipeline that is around 95 percent precommitted.

Data center performance has been strong. According to MSCI, data centers have generated annualized returns of 23.8 percent since 2011, based on a study of $122 billion of assets owned by 584 companies and closed-ended private capital funds. Such long-term performance compares with an 18.1 percent return from global private equity funds, 12.1 percent for infrastructure assets and 10.1 from public equities.

The global data center sector is estimated to grow at a 14 percent compound annual rate over the next five years, which could result in 100 gigawatts of new capacity coming online including hyperscale, colocation, and company-owned facilities. According to research by JLL, this equates to roughly $2 trillion in data centers, made up of $1.2 trillion in real estate asset value creation and a need for $870 billion of new debt financing. According to Goldman Sachs, the aggregate AI expenditure over the next five years could total to $7.6 trillion, with $5.1 trillion for compute, $2.1 trillion for data centers, and $0.4 trillion for power. The United States alone is expected to spend over $1 trillion in 2026 and sustain that spend plus more over the next few years.

The big question for the real estate industry is how it can participate in what has been described as "an infrastructure investment super-cycle" in a way that manages risk and maximizes return.

## BREAKING DOWN BARRIERS TO ENTRY

The capital deployed by institutional real estate investors into data centers is small to date. Most institutional investors that have entered the market have done so on the equity side alongside a specialist operator in a joint venture, or they have financed the debt on data center buildouts.

While investors see the opportunity in investing in data centers, the barriers to entry are high. A real estate investment manager interviewed for this report noted concerns: "with an investment horizon of seven years, you need to ask yourself, what is liquidity like? Who would you sell the asset to in seven years' time? What would the market be like then?" Other concerns include the potential for an AI bubble, as discussed earlier in this report, challenges in future-proofing data centers given ongoing advancement in data center construction techniques, and the ongoing capital expenditures needed to manage obsolescence. "The sector is evolving rapidly, and generalist investors often underestimate the complexity," says one infrastructure specialist. "Some have already exited after realizing the steep learning curve."

In addition, as the scale of new data centers grows, investors wrestle with the fact that the check size for a single hyperscale data center is equivalent to the gross size of a traditional real estate fund. Further, the hyperscaler customer base is small and highly demanding, making it difficult for newcomers to gain traction without scale and expertise, according to an infrastructure investor. Even so, as the interviewees for this report point out, the sector is shifting from niche to mainstream, with investment managers actively investigating ways of adding data centers to their portfolios.

The array of data center investment options is widening. Though hyperscale data centers have dominated the headlines over the past year or so, another emerging trend in the sector is the combination of enterprise data center use cases and ultra-low latency inference compute. The build-out here will be in colocation facilities, small edge data centers, or even inference compute clusters just costing tens to hundreds of millions. For most traditional real estate investors, these smaller data centers and inference compute clusters represent more manageable amounts of capital—compared with the hyperscale facilities—and thus are an interesting point of investment entry.

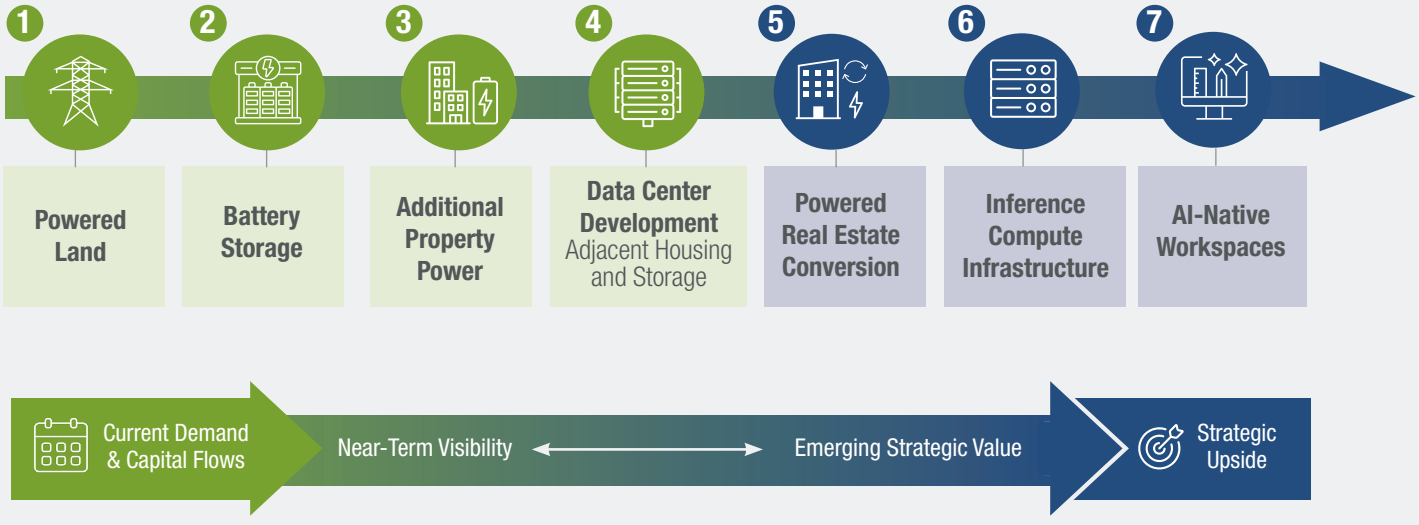
## THE AI REAL ESTATE OPPORTUNITY SET

Data centers are lauded by many investors as a compelling combination of infrastructure, real estate, and technology, but the scale of investment is an important consideration, which explains why some are drawn to the individual component parts and associated land uses rather than the sector itself.

### Investment Opportunities

**CURRENT OPPORTUNITIES**
Supported by current demand, capital flows, and AI infrastructure needs

**EMERGING OPPORTUNITIES**
Investment potential emerging with demand patterns still developing



Energy infrastructure and the provision of powered land are widely regarded as fertile areas for real estate players to explore. Traditional sectors such as industrial and housing are also part of the digital infrastructure growth story. "If you're not with the major players but want to benefit from the AI/data center boom, you need to look at adjacents," says one interviewee. While data centers remain the most visible manifestation of AI's impact on real estate, the broader opportunity set is expanding. High-conviction investments today center on power availability and supporting infrastructure. Emerging themes, including AI-native workspaces, inference compute, and stranded powered real estate conversion may represent the next generation of AI-driven real estate demand as adoption moves from model training to widespread deployment.

## CURRENT OPPORTUNITIES

### Powered Land

As the demand for AI processing, cloud platforms, and hyperscale computing continues to outpace supply, land with available power has emerged as the pinch point—with prices in many data center markets escalating over the past year.

> **Land is no longer valued by location alone. Increasingly, it is valued by the megawatts attached to it.**

Industrial sites in Northern Virginia's Loudoun County are trading at more than $4 million per acre but the value is not in the land alone—it is in the power behind it and therefore the speed to market.

Such is the extreme pressure on the grid from the major data center locations that alternative sites offering power access within 18 to 36 months are highly sought after, prompting significant investment from owner-operators and developers in secondary markets.

Land with favorable zoning, environmental clearances, and water access is reportedly being acquired in all-cash deals. States and regions with streamlined permitting—such as Texas, parts of Scandinavia, and the United Arab Emirates—are becoming increasingly popular.

The strategy for a growing number of real estate players is to team up with local developers, buy land in strong data center markets, secure permits and power, and potentially stay on as a joint venture partner or sell the land with the power. But there are caveats, particularly in the United States.

Land near substations, solar farms, and hydroelectric facilities is commanding premium prices, often double or quadruple its costs a few years ago. Sites in secondary U.S. markets, such as Salt Lake City, Des Moines, and Reno, are seeing 20 to 40 percent annual price increases due to power constraints elsewhere.

One U.S.-based interviewee says it was "easy" for a "typical land speculator" looking for a high yield return over the past five years because there were no power constraints. But now there will be "a lot of losers" who have bought land where power is delayed, or there may be not enough water, or regulations have changed and turned against data centers. "People are going to get stuck with the land for longer than they thought."

Another U.S. interviewee believes the risks associated with powered land in the United States are too high. "Twenty-four months ago it was an opportunity, but it was a steep learning curve and now it is too late. Returns have been watered down by what the risk profile has become."

Though there are doubts about the risk and returns from powered land in the United States, most of the interviewees believe, as one says, "this game is going to roll for a few years." Indeed, research published by Hines makes a strong case for this subsector, particularly in Europe. Based on an assumption that 3 to 4 megawatts of power capacity requires an acre of land, the investment manager estimates that 40,000 acres of powered land—almost 2 billion square feet—are needed globally to support current projections for data center growth over the next five years.

The projections reflect the fact that the United States represents about 60 percent of overall operating capacity while Europe is closer to 20 percent and Asia 15 percent. There is a game of catch-up to be played. Given that it is less saturated than the United States, Europe could more than triple its current data center capacity by 2030 according to the more bullish forecasts. Not everyone accepts that the rate of growth will outpace the United States, but Hines argues European investment in specific areas, such as cloud services, will underpin overall data center growth and, in turn, demand for powered land.

The research also anticipates ancillary demand from other users, including "neo-cloud" firms that lease access to cloud computing, which would spill over into colocation facilities and smaller-scale bespoke data centers developed by third-party owners/operators.

Data center capacity projections are clearly open to debate. But the interviewees agree that powered land is evolving beyond a speculative play into something more sophisticated, where real estate players will require on-the-ground knowledge of local markets and permitting while working closely with utilities and new energy providers to obtain sufficient commitments.

## Heitman's Perspective: Strategic Opportunities in the AI Era

Technology is one of the defining catalysts for change in our time, and data centers sit at its core. While many investors want exposure to this long-term opportunity, success depends on investing in the right parts of the data center ecosystem. Real estate investors who understand evolving property demand are well positioned to capture value.

The hyperscale data center boom is creating intense demand for land and power, often in rural markets. This expansion creates opportunities beyond the data centers themselves, including warehouse, industrial outdoor storage, workforce housing, and supporting retail needed to serve construction and operations.

As AI adoption expands, enterprises are increasingly deploying inference workloads closer to end users, driving demand for private, low-latency compute environments. Edge data centers, colocation facilities, and enterprise AI infrastructure represent an emerging investment opportunity, particularly when supported by experienced operators and scalable power capacity.

**The question is no longer whether real estate investors will be affected by AI. It's whether their portfolios are positioned to benefit from the ways AI is reshaping demand for space, power, and connectivity.**

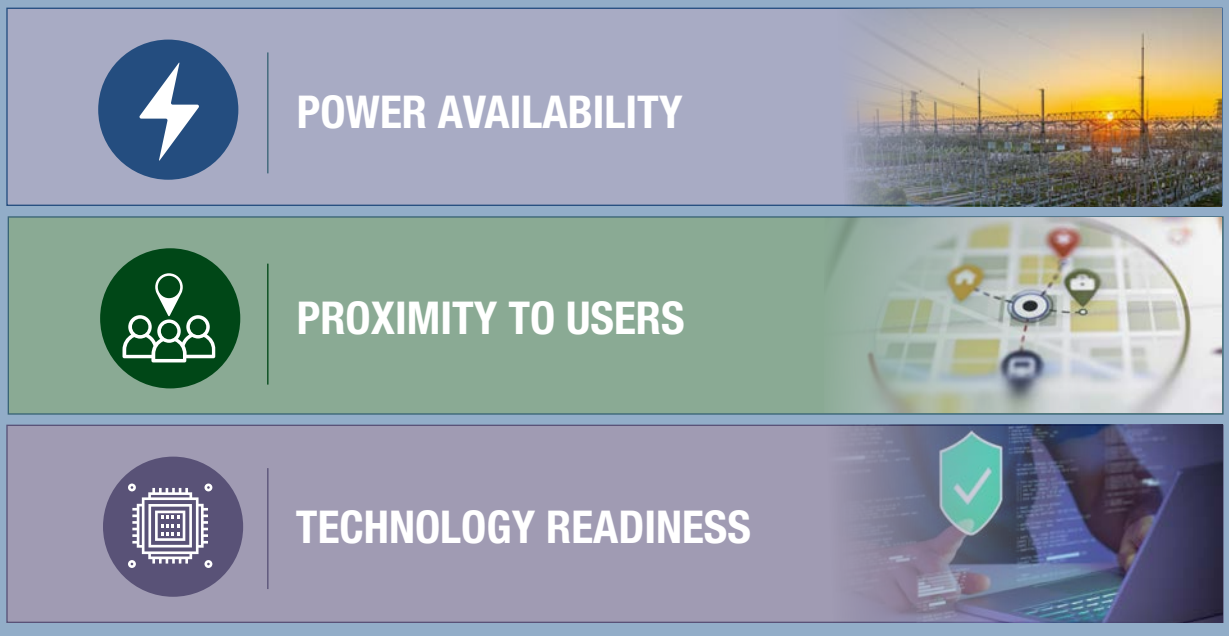
As AI infrastructure becomes more distributed, value is increasingly shifting toward locations that can provide power-ready environments for compute deployment. Properties with available electrical capacity, whether greenfield sites or existing facilities with power, are well positioned to benefit from growing demand for edge and AI infrastructure, particularly in markets where new power supply is constrained.

The implications extend beyond data centers and edge infrastructure. As technology becomes more deeply embedded in business operations, demand is likely to favor industrial assets with significant power capacity and automation capabilities. Across multifamily, retail, and office sectors, properties that can support advanced connectivity, smart-building technologies, and emerging AI applications may be better positioned to attract tenants and generate stronger long-term performance.

The opportunity extends beyond occupancy demand. As power becomes a strategic resource, property owners may benefit from hosting energy infrastructure such as battery storage systems or participating in energy-sharing arrangements that generate incremental income while supporting grid resilience.

In the years ahead, real estate value is likely to be increasingly shaped by three factors: power availability, proximity to users, and technology readiness. Assets aligned with these trends should be better positioned to attract capital, support evolving occupier needs, and benefit from the long-term growth of the digital economy. Equally important may be assets with the potential to be repositioned, upgraded, or redeveloped to meet these emerging requirements, creating opportunities for both equity and debt investors to unlock value through transitional strategies.

### The New Drivers of Real Estate Value:



## Battery Storage

**Battery storage is rapidly evolving from supporting infrastructure into a real estate opportunity.**

With electricity demand surging and new power plants, substations, and transmission lines taking years—and billions of dollars—to build, utilities are turning to battery storage as the fastest, lowest-cost alternative to traditional grid upgrades.

Battery storage has become essential to the modern grid. It can balance supply and demand, absorb excess solar and wind, deliver fast power during grid stress, and reduce outages during extreme weather. Batteries also cut costs and emissions by replacing fossil fuel peaker plants while providing critical grid services like frequency regulation, voltage support, and backup power.

The U.S. Energy Information Administration expects 24 gigawatts of new utility scale battery capacity to come online in 2026 alone. A clear example is New York City's ConEd, which avoided a $1.2 billion substation upgrade in Brooklyn and Queens by investing in batteries, energy efficiency programs, microgrids, and local solar generation instead.

Storage systems range from small, onsite installations at factories, hospitals, data centers, and warehouses to massive utility scale "battery farms" measuring hundreds of megawatts. Large projects such as California's 680-megawatt Menifee Power Bank and Australia's 560-megawatt Collie Battery demonstrate how quickly storage is scaling.

This rapid buildout is creating new opportunities for land and property owners. Utilities and developers lease underused land—often near substations or transmission lines—to host battery systems. The developer finances, builds, and operates the project, while the landowner earns passive income without making a capital investment.

Minnesota is a leading U.S. example. Xcel Energy's Capacity*Connect program, approved in April 2026, will deploy up to 200 megawatts of batteries by 2028 across commercial and industrial sites, backed by roughly $430 million in payments to participating property owners.

Battery deployment is accelerating nationwide, with active markets in California, New York, Pennsylvania-New Jersey-Maryland (PJM), New England, and Minnesota, and fast growing momentum in Texas, Illinois, Missouri, and the Pacific Northwest. Industrial sites, self storage facilities, parking lots, and land near congested substations are especially valuable. Additionally, some property owners and tenants are adding batteries to store electricity when power is cheap or plentiful and discharge it when demand peaks to save on energy costs.

Batteries are now core grid infrastructure in the United States, and well located land parcels suitable for energy storage are increasingly valuable. As the grid is rebuilt for a high demand, electrified future, it's happening one battery site at a time.

## Additional Power Requirements for Light Industrial and Manufacturing

Many institutional investors see industrial and manufacturing assets as the biggest direct beneficiaries of excess power and infrastructure upgrades. However, such assets do not need to be near data centers and can be located instead in areas with less competition for power.

Increasingly, factories and industrial warehouse assets are implementing more automation and robotics operations, requiring a resilient power source for high-throughput operations in the range of 1 to 5 megawatts (1,200 to 6,000 amps) or the equivalent of 800 to 4,000 homes. This is significantly less power than a 100-megawatt hyperscale data center, the equivalent of 80,000 homes, but an amount that does require utility involvement and approval.

When supply chains were disrupted, the desire for onshoring and the demand for U.S. manufacturing facilities that need 5 to 20 megawatts of power has grown, leading to premiums for manufacturing facilities with the required power supply. With the advance of AI, manufacturing productivity has grown faster than the economy overall, reinforcing the need for technology-driven strategies and more power. AI-enabled automation and robotics could help offset labor shortages while improving efficiency in high-value sectors, but first the power must be there.

Industrial tenants are asking for more power to run their operations. A few years ago, utilities would increase their capacity but now with the shortage of power, gaining access to more power can be challenging. Industrial assets with higher power capacities will attract a wider range of tenants who need the extra power for automation (see figure 3-1).

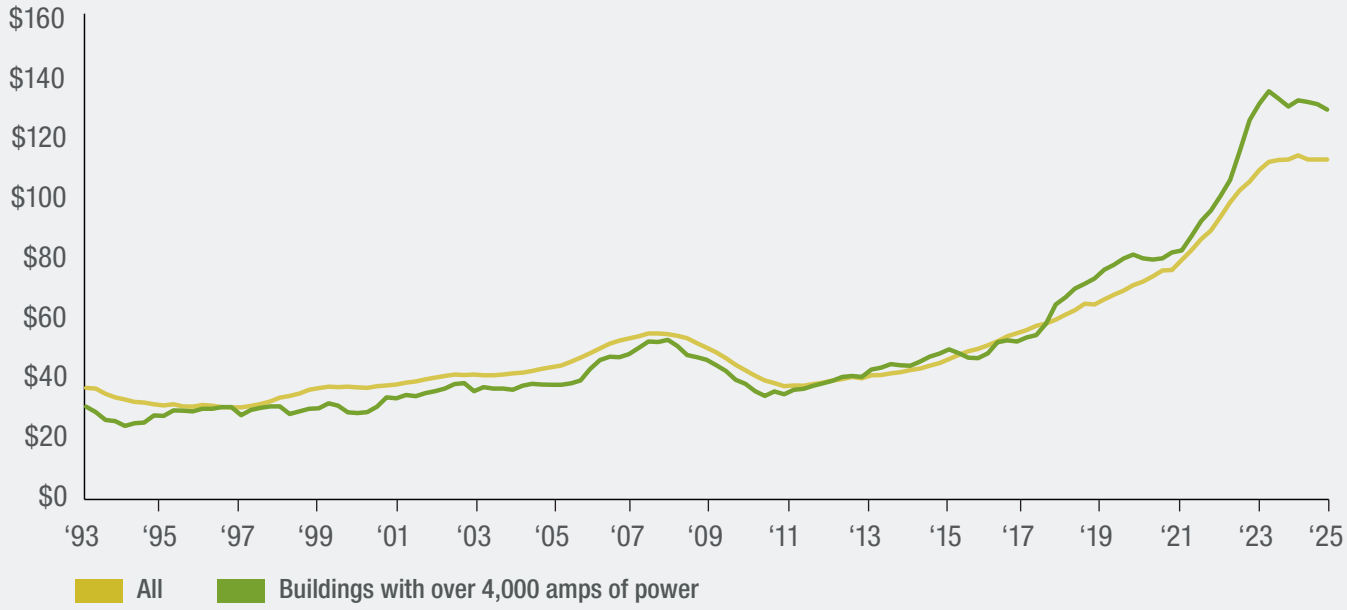
## Short-Term Housing for Data Center Developments

One significant consequence of the latest generation of data center mega-campuses in remote rural areas in the United States is the pressing need for short-term housing for thousands of construction workers. There has been a swift response from specialist developers, such as Target Hospitality, Civeo, and Corporate Mobile Housing, once best known for providing workforce housing for the oil and gas industry. These developers are now turning their attention to the big data center projects, which have been commissioned with extremely tight deadlines at a time when there is a severe shortage of skilled construction labor.

By and large, the promised solution is a self-contained town with basic retail and hospitality services. It alleviates, if not eradicates, the labor shortage by giving contractors and project owners a competitive edge in attracting workers during the construction period. And yet a wider housing concern is raised by the development of mega-campuses in places such as Holly Ridge, Louisiana, the Texas Panhandle, and North Dakota. As one interviewee asks, "What about housing for people who work in data centers in the middle of nowhere?"

## Figure 3-1: High-Powered Industrial Assets Command an Increasing Premium

Sales price per square foot: warehouse and distribution centers




*Source: Global Real Estate Overview 2025, J.P. Morgan*

There is no ready answer, partly because of the sector's pace of growth but also how it has evolved in the AI era. For years, housing was manifestly a nonissue when the rhetoric around data centers was that they provided relatively few permanent jobs—a frequently aired reason for local community opposition. That is no longer necessarily the case.

One of the highest profile developments embodies the new challenge here. The $500 billion Stargate program, starting with its flagship project in Abilene, Texas, before developing five other sites across the United States, will create over 100,000 jobs during the construction and operations phases. Stargate will reportedly create 1,700 construction and permanent jobs in Abilene, a town of just 126,000 residents. Housing providers, such as DataCenterPads and Nika Corporate Housing, are rushing to deliver homes in and around the town—both short-term modular solutions and permanent housing for the ongoing operations workforce. DataCenterPads acknowledges that the project is creating "unprecedented housing demands in the Abilene market."

With such mega-campuses, the long-term jobs and housing implications are difficult to assess. But they are likely to create opportunities in the short term as the technology and real estate industries become interwoven.

## Storage for Data Center Developments

During development, data centers require a lot of materials and equipment. Demand has risen for data center adjacent warehouse and industrial outdoor storage (IOS) to stage construction materials and maintenance equipment.

The rapid expansion of data center infrastructure is creating a new and durable demand driver for industrial real estate, particularly warehouse assets that support construction, operations, and supply chain requirements. Markets across the Central United States and the Sun Belt are especially well positioned to benefit, given their growing concentration of data center development and associated economic activity.

Public research from Cushman & Wakefield shows data center-related occupiers accounted for 14.4 percent of industrial leasing across six major U.S. data center markets in 2025, up 44 percent year over year, with every 100 MW of new development associated with roughly 365,000 square feet of industrial take-up.

Similar trends are occurring for IOS, as one interviewee, head of commercial investment research, notes, "across our industrial portfolio, we've been doing a lot of leasing to data center buildout companies. We're currently investing in industrial outdoor storage across Virginia."

Investing in IOS can be a hedge as "the capital expenditure here is much lower than for a data center, and the use of the sites is flexible," he says, meaning it can be repurposed for other use cases, should the pace of the data center buildout begin to slow.

## EMERGING OPPORTUNITIES

### Powered Real Estate Conversion

Existing or purpose-built industrial buildings such as warehouses, manufacturing plants, powered shells, or former industrial campuses, that can carry unusually high electrical load, heavy floor loading, and industrial cooling, are conversion candidates for AI compute or expansion candidates for colocated industrial plus compute.

On the smaller compute scale, obsolete office, big-box retail, and parking podiums in fiber-rich metro areas could be converted to urban inference and edge compute.

However, the initial cost savings from retrofitting may not compensate for inefficiencies down the line, says an investment manager, adding: "The only case where this is not true [is] if there is a speed-to-market advantage, or a planning issue that prevents you from developing a new building."

There is no doubt that the pace of expansion is prompting experienced data center operators in the major markets—where land and power constraints exist—to venture into conversion, as one interviewee says, "cannibalizing other industrial uses."

According to a study of the U.K. market by Savills, 415 acres of industrial land have been repurposed for data center use since early 2024, driven by the surging demand for edge computing, cloud services, and AI applications. This is a fraction of the United Kingdom's urban industrial stock, clearly in the realm still of an emerging opportunity and arguably indicative of the complex challenge in converting to data center use.

The case for repurposing is that many existing warehouses, whether in the United Kingdom or elsewhere, already benefit from existing utility connections, including power and fiber infrastructure. They are, therefore, potentially suitable for conversion to smaller edge data centers.

For the owners of powered assets, repurposing offers a chance to diversify their holdings into a sector with higher rents on long-term leases. But this will be predominantly restricted to edge data centers rather than the larger facilities that are increasingly developed by the hyperscalers on remote greenfield sites. Even then, there are important cost considerations, including installing advanced cooling systems and the likelihood that power capacity will still need to be upgraded.

In the same way that the modern specification required from AI workloads may preclude the retrofitting of old data centers, not all buildings will be suitable for repurposing.

### Excess Property Power for Inference

As inference compute, designed to run trained models and return results in real time rather than train them in remote campuses, grows in importance, an opportunity is emerging for urban property owners. Buildings with surplus electrical capacity can monetize that excess power by leasing a small amount of space for inference compute clusters ranging from around 50 kilowatts to several megawatts.

Alternative power resources may become increasingly valuable. Underutilized electric vehicle (EV) charging infrastructure can contribute spare capacity, while onsite battery storage can help meet the growing energy requirements of inference workloads, enhancing operational flexibility and resilience. These relatively small amounts of power can support local compute clusters that enable nearby urban applications, such as autonomous vehicles or smart building operations, while contributing to distributed networks of inference capacity.

This concept is already expanding into the residential sector. In the United States, a homebuilder, Nvidia, and a startup have joined forces to pilot a distributed AI infrastructure model that transforms residential communities into networks of small, wall-mounted data centers to harness excess residential power capacity to support smaller compute loads.

### High-Quality Office Space for AI-Native Companies

While AI is often viewed as a headwind for overall office demand, in some cases it can create a selective opportunity for investment in high-quality assets. AI-related employment growth and industry clustering could strengthen demand in key technology markets, particularly San Francisco. Moreover, if AI lowers barriers to firm creation and accelerates business formation, the resulting growth in AI-native companies could offset, and potentially exceed, the reduction in office demand associated with automation in other sections of the market.

AI-native workspaces will require physical offices and collaboration environments designed around how AI companies and AI-augmented teams actually work.

# Section 4: The Built Environment Rewired

How AI Is Reshaping Work, Buildings, and Cities



Digitalization is accelerating across the global economy, driving a surge in demand for data centers that is already having a direct and far-reaching impact on the real estate industry. Investors are reassessing portfolio composition and capital allocation, increasingly factoring the growth of AI and the evolving energy landscape into their decisions.

At the same time, technology is not just influencing *what* decisions are made—it is reshaping *how* they are made. It is also transforming how buildings are operated, managed, and ultimately used. The effects extend well beyond individual assets, beginning to alter the dynamics of entire neighborhoods and cities. This section highlights key examples that illustrate the scale and speed of the changes now underway.

## AI AND REAL ESTATE WORKFLOWS

At the most granular level, AI is reshaping the processes that underpin every stage of the investment lifecycle. Early adoption has largely focused on optimizing existing workflows, automating routine tasks and generating deeper insights, delivering measurable gains in productivity and efficiency. According to JLL, 88 percent of investors, owners, and landlords reported piloting AI in 2025, increasing from just 5 percent in 2023. With its ability to process vast volumes of data at speed, AI is becoming embedded across the real estate investment value chain, from investor engagement and due diligence, through to the operation and management of assets within standing portfolios.

**The built environment rewired:**
AI's impact on work, buildings, and cities

**Workflows**
Optimizing real estate workflows to improve productivity and efficiency

**Buildings**
Redefining how people use space, transforming the purpose of buildings

**Cities**
Reshaping economic and societal trends that drive urban development

| | |
|---|---|
| **Capital raising** | Real estate investment managers are increasingly leveraging AI to raise capital and attract the right partners. AI tools can help identify a shortlist of high-potential investors, segment the audience, produce deal-specific insights, personalize outreach, and predict funding success rates. Automated investor profiling and sentiment analysis are also used to tailor pitches and communications. Managers use a variety of platforms to present data-driven opportunities to capital providers, or to position outreach strategies and marketing materials more effectively. |
| **Due diligence and transactions** | AI is reshaping the role of real estate investment analysts by automating many of the industry's most time-consuming tasks. Its ability to aggregate and analyze large, diverse datasets is now applied across core processes, including market research, opportunity screening, due diligence, valuation, and underwriting. As a result, analysts are spending less time on manual data collection and financial modeling, and more on interpreting outputs, stress-testing assumptions, and forming investment views. The role is shifting toward higher-value activities such as strategy, risk assessment, and deal judgement, placing greater emphasis on experience and stronger commercial insight.<br><br>A variety of technologies have been developed to assist with investment decision-making, providing AI-driven valuations and market forecasts to support due diligence, and using predictive analytics to identify opportunities and forecast asset performance. Some platforms also help investors prepare for future AI capabilities by integrating fragmented datasets into a single, AI-ready data layer that can be used in portfolio-level analysis, risk modeling, and scenario testing. |
| **Construction and redevelopment** | Despite growing interest in AI within the construction sector, adoption remains relatively limited. According to a survey conducted for the United Kingdom's Royal Institution of Chartered Surveyors (RICS) *AI in Construction* report in 2025, around 45 percent of respondents reported no AI use in development projects, while just under 12 percent use AI regularly in specific processes and only 1 percent have deployed it at scale.<br><br>However, in other areas of real estate investment, AI adoption has accelerated rapidly, and construction is expected to follow a similar trajectory. RICS survey respondents anticipated the greatest impact in areas such as project and document management, predictive scheduling, resource optimization, and risk modeling, highlighting significant untapped potential. |
| **Leasing** | AI adoption in leasing and tenant management has quickly moved into the mainstream. AI-powered tools are now widely used to screen tenants, deliver virtual tours, and provide 24/7 support through chatbots. Asset managers are also leveraging predictive analytics to optimize rental pricing, forecast growth, and identify tenants at risk of churn.<br><br>There already are widely used platforms, especially in multifamily housing, that can handle inquiries, conduct background checks, schedule viewings, and manage follow-ups, effectively acting as a virtual leasing agent. Most users report improved lead-to-lease conversion rates, and many operators now view AI as essential to maintaining a competitive edge. |
| **Operations, property, and facilities management** | AI is increasingly being adopted across building operations although implementation is often focused on specific tasks rather than full-scale transformation. One of the most established applications of AI in property and facilities management is energy and building performance optimization. Such technologies use machine learning to analyze HVAC data and external factors (e.g., weather, utility tariffs, grid carbon intensity, and occupancy patterns) to adjust building systems in real time, with reported reductions in energy use and associated carbon emissions. This approach is often paired with a virtual building engineer that offers conversational interaction, allowing facility managers to ask for energy forecasts, performance updates, or system changes. Instead of manually programming automation, managers now supervise a digital operator. |

Overall, while AI is becoming embedded across the real estate investment lifecycle, its impact remains dependent on the human element. AI can inform investment decisions and risk assessment while delivering data-driven insights to enhance trust between investors and managers or improve communication between owners and occupiers. However, meaningful impact depends on how effectively these tools are applied by people, with human judgement remaining central.

The effectiveness of AI is also closely tied to the availability and quality of data. Many applications rely on inputs from smart meters, building management systems, occupancy sensors, and environmental monitoring of a building, alongside external datasets such as market, demographic, and economic data—much of which can be fragmented or incomplete. While AI is already delivering targeted efficiencies, its longer-term impact is likely to depend less on the technology itself and more on how effectively organizations align data, processes, and people around it.

## AI AND THE PURPOSE OF BUILDINGS

The real estate industry is deploying AI at scale when it comes to optimizing existing workflows. Most of the use cases described in this report focus on making current processes faster and more efficient. However, this represents only the first wave of AI adoption. Many interviewees for this report believe AI will fundamentally reshape the economy and society, driving new business models, redefining how people interact, and ultimately influencing how buildings are designed, delivered, and used. They predict that the growth of AI will not directly reduce demand for space, but will raise expectations around asset quality, flexibility, and technological capability, with implications for both new development and the repositioning of existing stock On-prem data centers will continue to grow in volume—albeit far outpaced by hyperscalers—as businesses are increasingly concerned about data security, latency, and the rising cost of using data center infrastructure located elsewhere. As a result, a future-proof space may include greater server capacity, faster connectivity, on-site energy generation, and battery storage to remain attractive. As these shifts unfold, real estate is likely to evolve in response to changing patterns of demand, occupancy, and user expectations, with implications across all asset types.

### Office Sector

AI is unlikely to eliminate the need for offices. Instead, it is likely to accelerate the divide between highly adaptable, future-ready buildings and those at increasing risk of obsolescence.

JLL's latest research reinforces this picture, finding that AI is likely to drive greater divergence in office markets rather than a uniform reduction in demand. While automation may reduce headcounts in some functions, AI can also create new roles, meaning the impact will vary significantly by industry, occupation, and location.

According to JLL, AI does not only affect the size of the workforce—it also reconfigures and augments existing roles, reshaping the profile of office workers. Repetitive, structured tasks can be automated, reducing the need for human involvement, while more emphasis is placed on critical thinking, creativity, and collaboration.

With AI beginning to reshape the profile of office workers, repetitive, structured tasks can be automated, and more emphasis will be placed on critical thinking, creativity, and collaboration. Space requirements will change—there will be less need for individual desks, with offices becoming more about human interaction, innovation, face-to-face connection, and cultural cohesion. High-quality tenants will prioritize tech-enabled, cybersecure, and sustainable space that aligns with their wider corporate strategies. At the same time, non-prime office assets face an elevated risk of obsolescence without the capital required to reposition, modernize, or adapt them for evolving occupier and technology requirements.

In addition, AI is driving the growth of a new tenant base: smaller, fast-scaling technology and AI companies, whose outputs are increasingly decoupled from headcounts, and whose space requirements are inherently dynamic. As one investment manager notes, "AI adoption means that micro and small companies can create very meaningful outcomes; the next wave of businesses won't need the same office space." This places new demands on landlords, who must be agile not only in building design and functionality, but also in lease structures.

This trend can be seen already in places such as San Francisco, a market in which AI-related companies already occupy more than 7 million square feet of office space, or London, where AI-led firms accounted for 34 percent of tech office take-up in 2025 and have leased around 1.5 million square feet since 2015. CBRE's data suggest these occupiers tend to favor flexible, high-quality space, as they scale rapidly and require agility, aligning with JLL's view that AI-driven workforce uncertainty is increasing demand for flexibility. However, CBRE's research also indicates that many AI companies ultimately grow out of flexible space as they mature and move into more traditional offices, reflecting evolving operational needs.

### Residential Sector

In contrast to office properties, AI is unlikely to fundamentally change the demand for residential buildings—people will always need places to live. Instead, its impact is likely to be felt in property operations and renter experience through heavier reliance on technology. Multifamily owners are beginning to deploy AI to automate routine property management tasks, including responding to resident enquiries, scheduling tours, screening prospective renters, and processing maintenance requests.

Over the longer term, AI will begin to influence the design and functionality of residential buildings. It will move from being reactive toward anticipating issues—e.g., predicting equipment

## How AI Changes the Purpose of Buildings

From single-purpose spaces to connected, intelligent environments

| Sector | Traditional Purpose | AI-Era Purpose |
|---|---|---|
| Office  | Employee workspace | Collaboration, innovation and secure digital workspace  |
| Retail  | Point of sale | Customer experience, fulfillment and AI-enabled personalization  |
| Healthcare  | Diagnosis and treatment | Flexible clinical care supported by AI-assisted diagnostics and monitoring  |
| Industrial  | Storage and manufacturing | Production, storage and fulfillment supported by AI and robotics  |
| Residential  | Housing | Housing supported by AI-enabled services, maintenance and connectivity  |
| Self-Storage  | Storage space | Self-service storage with AI-assisted leasing and customer support  |

failures before they occur—or learning the residents' behavior to optimize the indoor environment and energy consumption. Smart sensors, AI-enabled monitoring, and intelligent home technologies—from voice assistants to automated energy management and security systems—are expected to become increasingly embedded into homes. AI also has the potential to accelerate assistive technologies, supporting people with additional care needs to live independently for longer.

AI adoption is likely to raise expectations around digital connectivity, resilience, and technological capability in residential assets. As with other sectors, investors may increasingly differentiate between buildings that can support these technologies and older stock that is more difficult or costly to retrofit.

## Retail Sector

The role of physical retail is likely to continue evolving as AI accelerates digitalization and further integrates online and in-store experiences. AI is already enabling more sophisticated e-commerce through personalized marketing, dynamic pricing, and predictive demand forecasting, increasing pressure on retailers to make physical stores more experiential and service oriented. As a result, retail assets are increasingly being positioned around brand engagement, convenience, and customer experience—particularly in prime, high-footfall locations where stores can function as both showrooms and fulfilment hubs.

AI's ability to process large volumes of real-time data also has significant implications for retail strategy and asset performance. For landlords, this creates opportunities to make better decisions about tenant mix and building layouts. Cushman & Wakefield predicts that investors will increasingly benefit from adaptable, multi-purpose assets that can respond to rapidly evolving occupier and customer needs, supported by deeper AI-driven insights. Retailers can also use AI to analyze customer movement, purchasing behavior, dwell times, and inventory patterns. For example, IKEA restaurants have deployed an AI-powered monitoring system to track what types of food are left by customers, using this data to prevent waste and inform future orders.

## Logistics and Industrial Sectors

The impact of AI on logistics and industrial real estate is likely to extend well beyond operational efficiency, reshaping both occupier requirements and the physical specification of assets. Companies are deploying AI to optimize inventory management, automate warehouse and manufacturing processes, improve

route planning, and mitigate labor shortages. Amazon, for example, operates over one million robots globally across its fulfillment network, using them for tasks such as inventory storage, picking, sorting, and packaging. Siemens has partnered with NVIDIA to test humanoid robots at its factory in Erlangen, Germany—HMND 01 Alpha is designed for industrial environments that can adapt to different operational tasks in real time. Some manufacturers are even investing in so-called "lights-out" or "dark factories" that keep the production line running 24/7 with little involvement from human workers. Xiaomi Smart Factory in China, for instance, uses AI to manage and perform the entire manufacturing process, producing roughly one smartphone every second.

Many logistics companies are also experimenting with robot and drone deliveries, a trend likely to drive demand for smaller, urban distribution hubs. Market activity in Los Angeles already shows strong demand for last-mile industrial assets under 100,000 square feet, reflecting the growing importance of rapid local delivery networks. One of the emerging occupiers of these spaces is Serve Robotics, whose fleet of more than 500 robots operates across the city on behalf of Uber Eats and DoorDash. The company uses micro-depots to store, charge, maintain, and dispatch its robots, typically choosing high-density, walkable neighborhoods with suitable pavement infrastructure that allows the robots to move efficiently and safely through the city. In the United Kingdom, Amazon is the first retailer to launch a drone delivery service for packages under five pounds. Previously drones have been trialed for blood deliveries across London or sending packages to remote Scottish islands; however, this is the first time this technology has been used for everyday shopping. Although the service is at an early stage of testing, examples from Texas, Arizona, and Florida show that scaling it up is possible. There are concerns about noise, privacy, and airspace congestion—but if this is the way in which goods will be delivered in the future, real estate owners and occupiers will need to start thinking about potential collection points or even rooftop drone landing areas.

This trend is expected to drive demand for well-located, high-specification logistics and industrial assets capable of supporting increasingly technology-intensive operations. Buildings will need to accommodate advanced automation and data infrastructure. According to Savills, occupiers are starting to prioritize strong digital connectivity, reliable and scalable power supply, as well as layouts that enable robotics. Specifications often include higher eaves for multilevel automation systems or smoother floors to aid robot mobility.

## Health Care Sector

In health care, AI will transform the diagnostics, clinical services, and care delivery, both from the patient and practitioner perspective. These changes are becoming particularly important in the context of aging populations, rising health care demand, and labor shortages. According to PwC's *Future of Health Study*, by 2035, health care is expected to become hyper-personalized, digitized, and AI-enabled, with providers already investing in remote monitoring, home-based care, and digital infrastructure that extends care delivery beyond traditional hospital environments. This could gradually shift demand toward smaller, community-based and more adaptable health care facilities, while reducing reliance on some large-scale settings.

Gensler highlights the importance of flexible health care design, especially as medical technologies and care needs evolve faster than the typical lifespan of buildings. The firm is already exploring how AI can inform health care planning



and design through predictive analysis of patient volumes, workflows, and resource requirements.

In short, future health care real estate is likely to be more distributed, digitally integrated, flexible, and operationally data driven.

## AI AND THE FUTURE OF CITIES

**The next generation of winning cities may not be those with the largest populations, but those with the deepest reserves of power, connectivity, and digital infrastructure.**

The adoption of AI is already influencing economic and societal trends. There is no doubt that this will have an impact on cities and urban development, not in a single transformation, but through the cumulative effect of changes across work, leisure, mobility, infrastructure, energy systems, and public services. The most immediate impact will be on how cities function, but the longer-term patterns may affect the entire urban form.

### Digital and Energy Infrastructure

AI-driven economies require significant computing power, data processing, and connectivity, increasing the need for data centers, fiber networks, and resilient power infrastructure. This could strengthen the importance of cities and regions with immediate access to power, giving additional advantage to locations that until now have been considered as secondary. Cities that lost out on deindustrialization may gain relevance again. Pittsburgh, Pennsylvania, is a good example: after it lost much of its steel industry, the city tried to reinvent itself through academia and robotics although growth remained slower than locations such as San Francisco or Seattle. Now the region's old infrastructure is becoming valuable again because of the data center demand: former industrial sites, large transmission connections, existing grid infrastructure, and land availability are giving the area a significant advantage. The data center developments can increase the local tax base, boost municipal revenues, and create greater differences in fiscal conditions across regions.

Some experts see AI as a catalyst for the development of "smart cities" that run much more efficiently, using digital infrastructure to optimize transport systems, transit routes, energy management, and public services. AI-enabled city systems can ease congestion by adjusting traffic lights in real time, or stabilize energy grids by better balancing demand and supply. However, data-driven urban planning will require significant data inputs, which means installing a vast number of receptors across cities—cameras, weather monitoring, occupancy sensors on public transport, or hospitals. This can raise some important questions about privacy and cybersecurity that will need public trust to succeed.

### Demographic Shifts

The AI-driven evolution of work can also reshape the demand for primary versus secondary locations. If productivity becomes less tied to large workforces and fixed office footprints, people might be increasingly driven toward more affordable, less dense "tier 2" cities, according to many of the experts interviewed for this report. "I would be nervous about the traditional central business districts," says one. "As an investor, I'd spend more time thinking about secondary and tertiary cities."

The growth in remote work and less reliance on human labor might change the population distribution; however, the evolving demographic make-up of modern societies might also impact how primary locations operate and how they remain competitive. Says one industry expert, "The most economically productive cities in the world have a fertility rate of sub-one—the future of workforce will rely on mass automation, AI, robots. If not, immigration will be absolutely necessary."

Some interviewees believe that following demographic trends may future-proof their investments against the "AI bubble" potentially bursting. They cite senior living as an example of a sector that will remain in demand regardless of the technological trends.

### Changing Urban Use Patterns

Cities in the age of AI are likely to be used differently from how they have been over the past few decades. As more work and shopping move online, people will be more likely to spend less time commuting or running daily errands, and more time using cities for social, cultural, recreational, and experiential activities. Interviewees believe that city centers might see a shift toward more flexible, mixed-use environments centered on in-person interaction and community connection. Residential neighborhoods are likely to see more activity in the daytime, driving demand for smaller, local services. Real estate developers and local authorities will put more emphasis on placemaking and investing in public spaces.

In an AI-enabled economy, the most successful cities could be those that offer what technology cannot: opportunities for meaningful human interaction and a strong sense of place. Perhaps the role of urban areas will shift from acting as centers of production and consumption to facilitating human connection, creativity, culture, and shared experiences.

Regardless of how the future unfolds, AI will remain a defining force shaping the built environment. For real estate investors, the challenge is not to predict one outcome, but to prepare for a range of possible pathways. Scenario planning and flexibility will become increasingly important sources of resilience. Those who build optionality into their investment strategies, asset management plans, and portfolios will be best positioned to navigate uncertainty and capture the opportunities that emerge. As one interviewee says, "Because no one can predict what will happen, there is a huge need for businesses to be able stress test and plan for a range of scenarios."

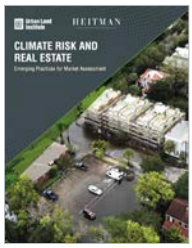
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