GLOBAL X INSIGHTS

Data Center Operators: AI's Underappreciated Winners

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As demand for AI computing explodes, the bottleneck is increasingly shifting from chips to powered, ready-to-use data center capacity. New construction is accelerating, but the time, power, permits, equipment, and transmission access required to bring new capacity online make existing powered facilities strategically valuable. That value should rise further in the age of inference, as AI workloads become more distributed and proximity to user and application traffic increasingly matters.

This creates a compelling setup for global data center operators. They sit at the intersection of scarce infrastructure, rising AI demand, and long-duration customer commitments, offering a differentiated way to access the AI buildout, and in our view, with also less direct exposure to the crowded parts of the mega-cap technology trade.

Key Takeaways

- As AI adoption grows, powered and ready-to-use data center capacity could become an increasingly important part of the AI infrastructure stack.
- Computing needs shifting towards inference should make data center demand increasingly recurring and distributed.
- The Global X Data Center & Digital Infrastructure ETF (DTCR) offers a targeted route into the long tail of AI infrastructure.

Supply Constraints Meet Rising AI Demand

AI's economic value depends on infrastructure that can't be built on software timelines. Models train and run inside powered, cooled, networked data centers that take years – not quarters – to bring online. Power contracts, transmission queues, permitting, equipment lead times now determine what gets built and when. For the next phase of AI growth, the binding constraint is physical.

Demand, meanwhile, is changing shape. Training large AI models drove the first wave of compute growth, but inference is driving the next phase and could ultimately represent a larger opportunity. Unlike AI training, which is driven by model development cycles and research spending, inference occurs every time a model is used, allowing demand to scale alongside adoption.

Training workloads can operate in remote hyperscale campuses optimized for low-cost power and raw computing horsepower. Inference workloads, by contrast, are generally more sensitive to latency, proximity to users, interconnection density, and access to cloud and enterprise networks. In our view, that means the next phase of AI infrastructure demand could extend across both hyperscale facilities built for model training and interconnected smaller data centers that support enterprise deployment and inference workloads.

That distinction is increasingly relevant for investors looking to capture the broader AI ecosystem. Hyperscalers should continue to remain central to AI development and deployment, but at the same time, independent operators and colocation providers play a pivotal role within the AI value chain by supporting where enterprises increasingly deploy AI services: close to end users, connected across multiple cloud environments, and integrated with proprietary enterprise data.

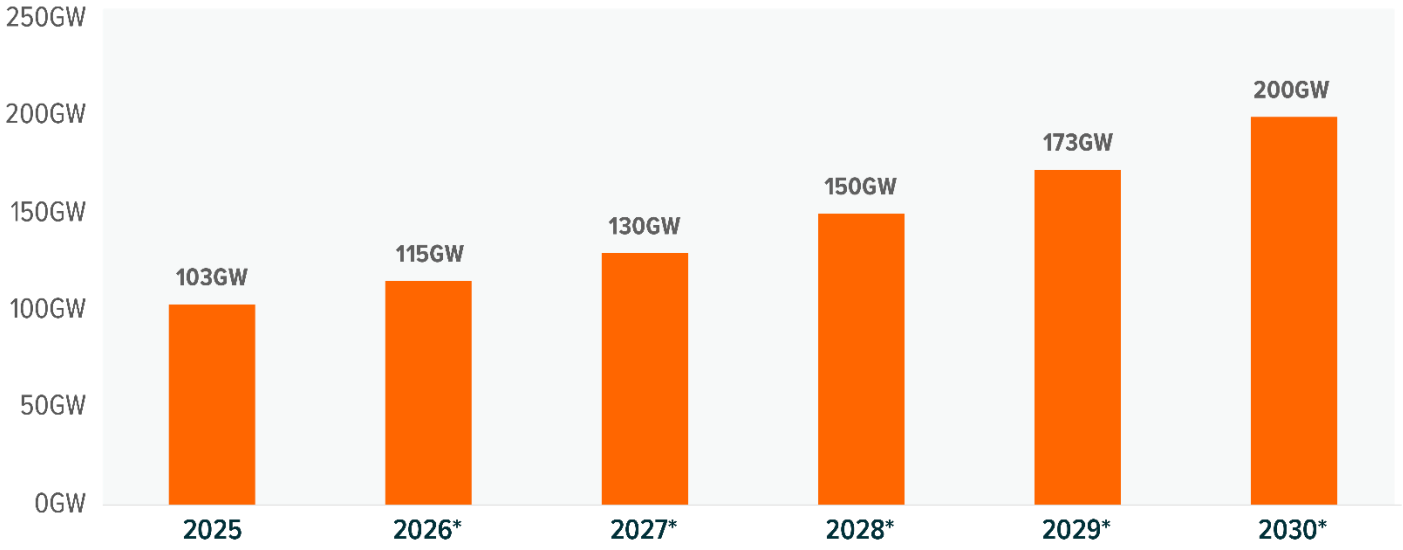
Importantly, these operators tend to allocate capital differently from the hyperscalers. Rather than building speculatively and addressing utilization after the fact, colocation businesses generally expand against signed leases and anchor tenants, which has historically translated into more measured asset growth and steadier paths to monetization. That discipline, combined with tangible asset backing, in our view makes the group one of the more attractive ways to gain exposure to potential AI infrastructure upside.

Story in Data: The Data Center Opportunity

1. **Global Capacity Must Roughly Double by 2030 to Meet Demand**: Global data center capacity is projected to rise from ~103 GW in 2025 to ~200 GW by 2030 – a 14% compound annualized growth rate (CAGR) and nearly 100 GW of incremental capacity.[1] Cloud, AI training, and the accelerating inference wave are converging into a single digital infrastructure supercycle.

DATA CENTER CAPACITY EXPECTED TO DOUBLE AS AI COMPUTING DEMANDS GROW

Existing Global Data Center Capacity

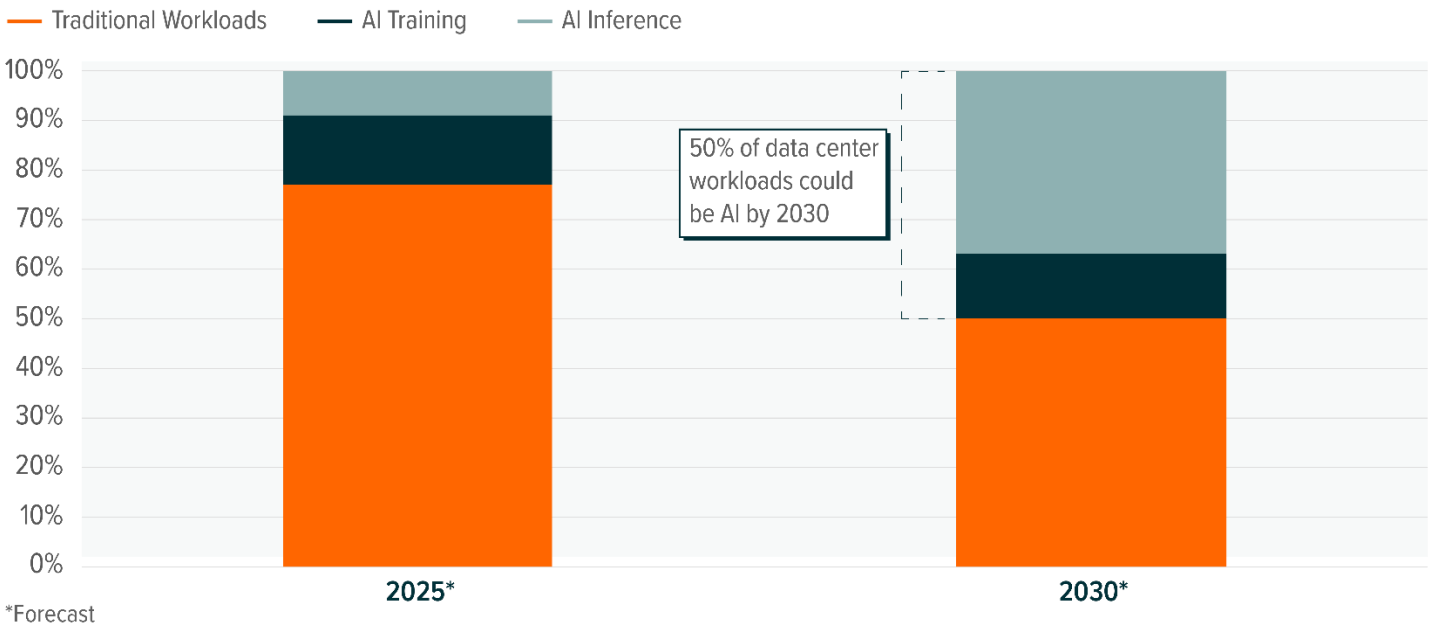


*Forecast
Source: JLL Research. (2026, January 6). 2026 Global Data Center Outlook.

2. **Demand Mix Shifts Toward Inference**: Inference could overtake training around 2027, with AI representing ~50% of all data center workloads by 2030.[2] Training can sit in remote campuses, but inference depends on latency, connectivity, and proximity to users. As AI deployment expands, demand may increasingly extend beyond hyperscale campuses toward interconnected colocation and metro-area infrastructure, bringing a broader range of digital infrastructure providers into focus.

AI COULD REPRESENT HALF OF ALL DATA CENTER WORKLOADS BY 2030, LED BY INFERENCE

Data Center Workload Split

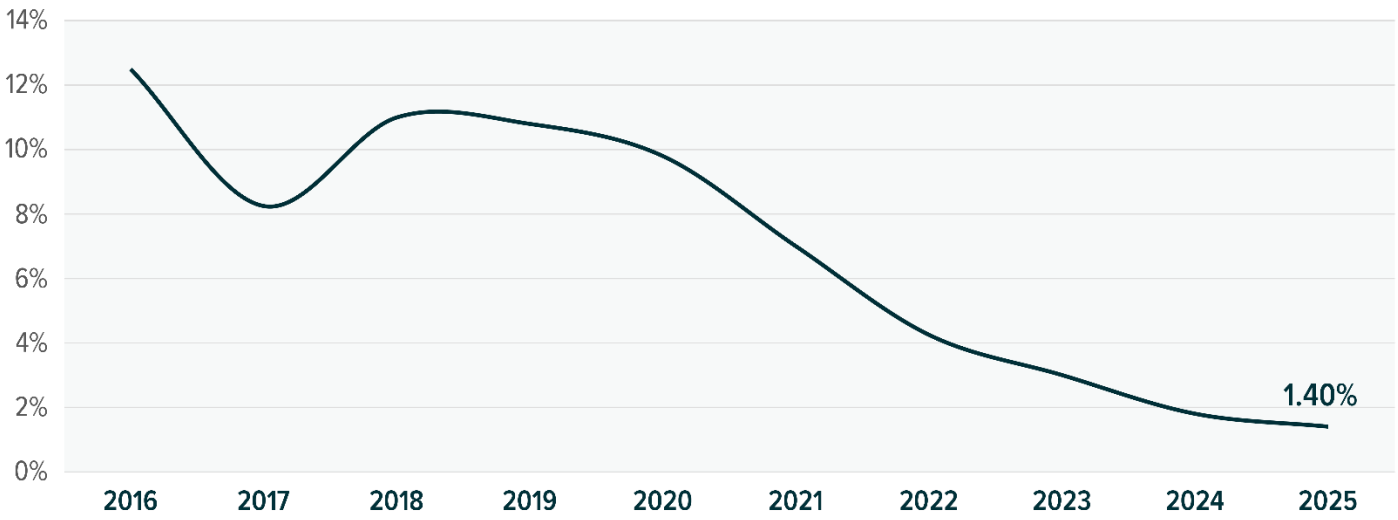


*Forecast
Source: JLL Research. (2026, January 6). 2026 Global Data Center Outlook.

3. **Vacancy Is Already Near Record Lows**: North American data center vacancy across primary data center markets fell to 1.4% by year-end 2025 – even as new supply came online.[3] Demand is absorbing capacity faster than it can be delivered, which could continue to support favorable pricing and leasing dynamics for existing facilities.

U.S. DATA CENTER VACANCY RATES REACH RECORD LOWS

U.S. Data Center Vacancy in Primary Markets

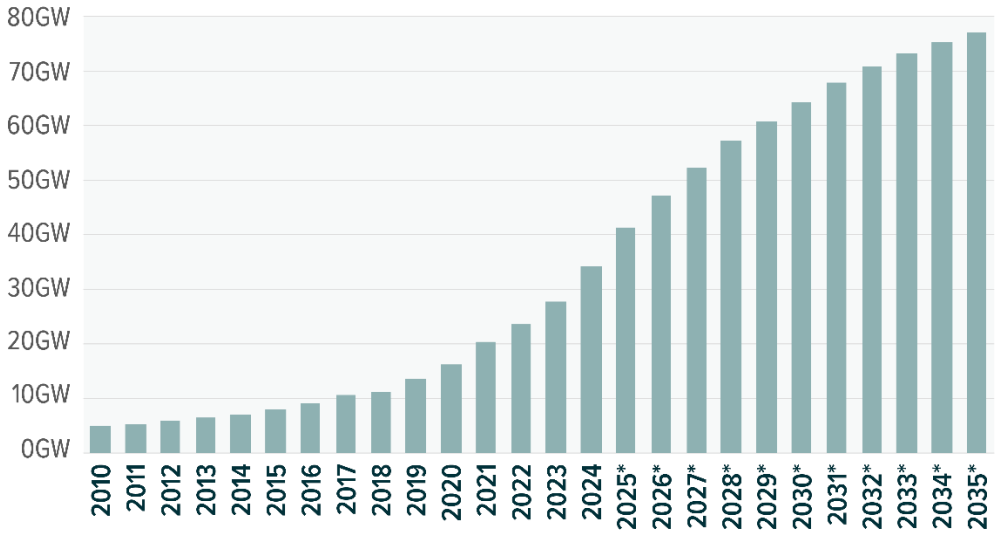


Source: Avison Young. (2026, January). Data Center Market Update Q4 2025.

4. **Power Is the Real Bottleneck**: In major markets like the U.S., new data center supply is becoming harder to deliver. Traditional 12-to-18-month timelines no longer apply for large AI campuses, with projects requiring multiple substations and interconnection timelines stretching to 24, 36, or 48-plus months when new high-voltage transmission or incremental generation is needed.[4] As a result, existing powered and operational capacity may become increasingly valuable, particularly in markets where access to power and transmission infrastructure is limited.

POWERED DATA CENTER CAPACITY IN THE U.S. SET TO DOUBLE OVER THE NEXT DECADE

U.S. Data Center Power Load



Time to Build (~3 to 6 years)

Building a data center typically takes 12-36 months from planning to commissioning, but the full development cycle including site selection, permitting, and construction often runs 3-6 years

Interconnection Wait (~4 to 8 years)

U.S. data center grid interconnection timelines have lengthened to roughly five years from request to commercial operation. In Northern Virginia, delays can reach 7+ years

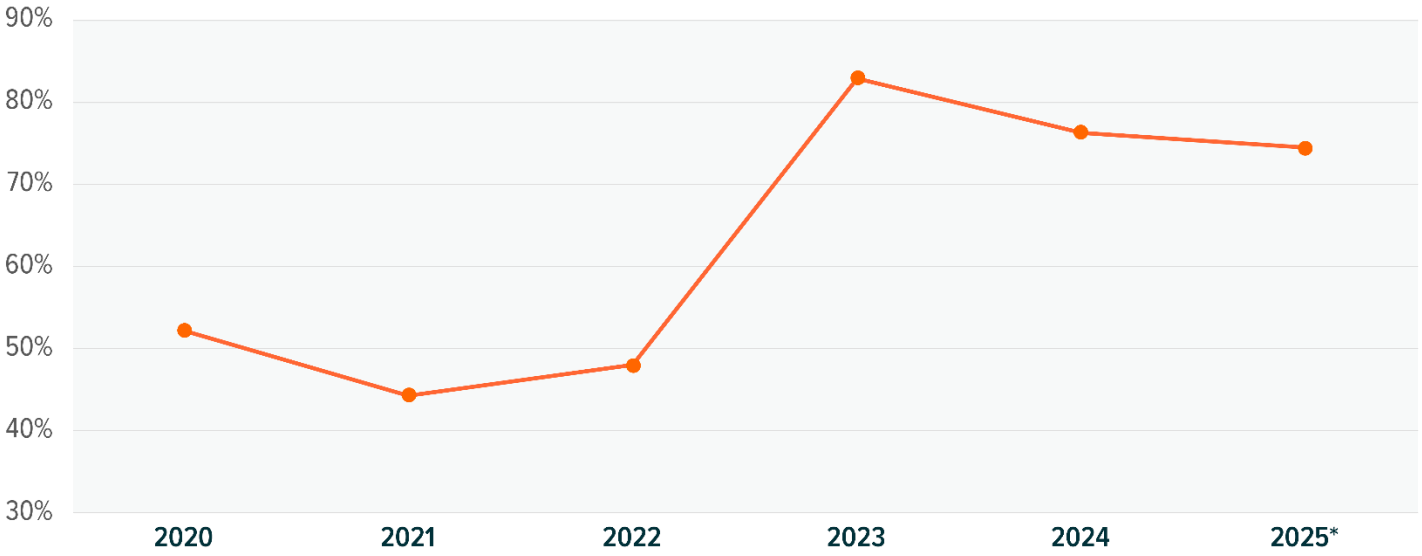
*Forecast

Source: Bloomberg NEF, DC Byte (n.d.) U.S. Data Center Power Load. Accessed on May 10,2025.

5. **Pre-Leasing Turns Scarcity into Revenue Visibility**: Preleasing is expected to remain in the mid-70% range, compared with the historical 40% to 50% norm.[5] That suggests operators are able to secure demand years before capacity is delivered and are not merely building speculative capacity into an AI hype cycle.

PRE-LEASING HAS CONTINUED TO RISE AS CAPACITY BECOMES SCARCE

U.S. Data Center Primary Market Preleasing Rate

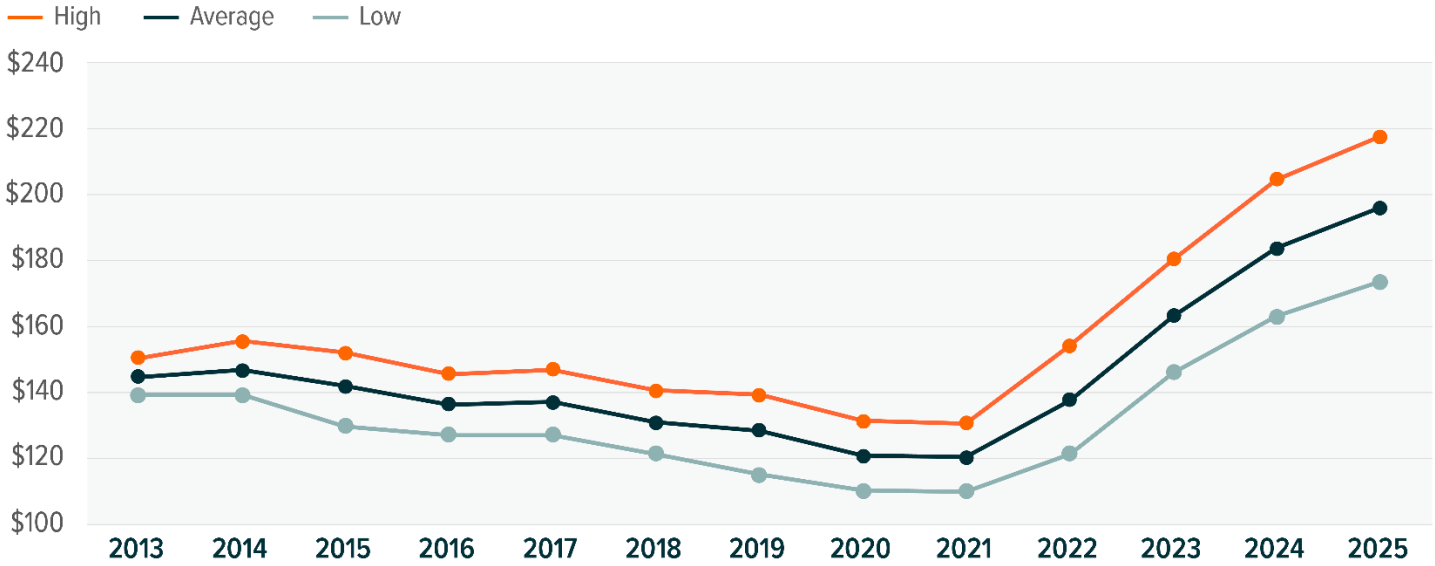


*Forecast
Source: Ng, M., Smith, M., & Frantz, J. M. (2025, December 18). Americas Data Centers: Initiating Coverage – Buy DLR; Neutral EQIZ, IREN. Goldman Sachs Research.

6. **Rents Have Increased Because Capacity Is Scarce**: North American lease rates rose +6.5% year-over-year (YoY) to $194.95/kW/month in 2025, the fourth consecutive annual increase.[6] Growth has moderated from prior years' spikes but remained well above historical averages – a clear signal of pricing power against record-low vacancy.

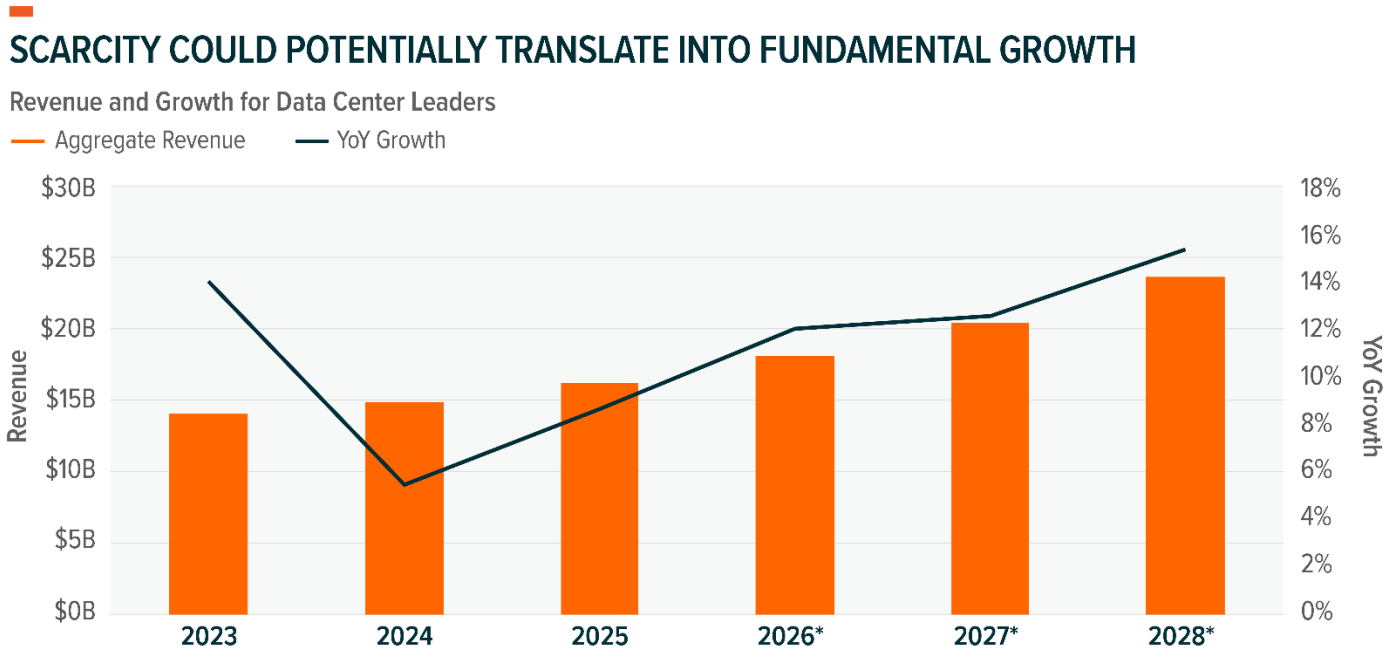
RENTAL RATES IN PRIMARY U.S. DATA CENTER MARKETS HAVE INCREASED

Asking Rental Rates for 250-500 KW



Note: Primary U.S. datacenter markets as defined by CBRE are Northern Virginia, Dallas-Ft. Worth, Silicon Valley, Chicago, New York Tri-State, Phoenix, Atlanta, and Hillsboro.
Source: CBRE. (2026, February 25). North America Data Center Trends H2 2025.

7. **Data Center Fundamentals Set for Growth:** The combination of rising rental rates (+6.5% YoY), mid-70% pre-leasing, and 1.4% vacancy produces what is, in our view, a contracted, multi-year revenue and earnings runway for scaled data center and digital infrastructure companies. In our view, that is what makes the group distinct, with AI-linked top-line growth supported by real estate investment trust (REIT)-style cash flows and asset backing.



*Consensus Estimates

Figure shows aggregate data for the top five data center companies in the Solactive Data Center REITs & Digital Infrastructure Index: Equinix, Digital Realty, NextDC Ltd., Applied Digital, and Keppel Data Center REIT. Source: FactSet Research Systems. (n.d.). Data as of May 5, 2026.

Conclusion: Data Centers Are the Toll Booths of the AI Age

AI runs on infrastructure that is hard to replicate, slow to build, and increasingly pre-leased. As inference scales and AI moves deeper into the enterprise and consumer lives, operators that own powered, permitted, well-connected capacity are positioned to monetize one of the innovation cycle's most important bottlenecks. In our view, data center operators offer investors a differentiated way to access the AI buildout – asset-backed, contractually supported, and structurally scarce.

Related ETFs

DTCR – Global X Data Centers & Digital Infrastructure ETF

Click the fund name above to view current performance and holdings. Holdings are subject to change. Current and future holdings are subject to risk.

Footnotes

1. JLL Research. (2026, January 6). 2026 Global Data Center Outlook.
2. Ibid.
3. Avison Young. (2026, January). Data Center Market Update Q4 2025.
4. Belfer Center. (2026, April 20). Data Centers and Large-Scale Electric Growth: The Virginia and Texas Experiences.
5. Ng, M., Smith, M., & Frantz, J. M. (2025, December 18). Americas Data Centers: Initiating Coverage – Buy DLR; Neutral EQIZ, IREN. Goldman Sachs Research.
6. CBRE. (2026, February 26). Fast-Growing North American Data Center Market Set Records in 2025

Glossary

AI Inference: the process of running a trained AI model to generate outputs (predictions, text, images, decisions) from new inputs. Distinct from training, which is the process of building the model in the first place. Inference is more continuous and latency-sensitive than training.

Interconnection: the direct physical or virtual linkage of networks, clouds, and customers within a data center, enabling private, low-latency data exchange. A core driver of metro data center economics.

Pre-leasing: the percentage of new data center capacity contracted to customers before construction is complete; a leading indicator of demand visibility.
