RBC Global Asset Management

Data centres and the power imperative

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While geopolitical shocks capture headlines, the largest structural shift underway in infrastructure is quieter and more durable: a historic reallocation of institutional capital toward physical assets, driven by AI-linked power demand and the recognition that concentrated equity exposure carries under-appreciated risks.

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The numbers are striking: Consensus expectations for 2026 capital spending by the five largest hyperscalers were revised upward to US$677 billion at the start of this year, from US$536 billion in the prior estimate – a revision made before the Iran conflict began.[1] Management consulting firm McKinsey & Company (McKinsey) estimates that nearly US$7 trillion in data centre investment may be needed through 2030 to keep pace with the demand for compute power.[2] In the PJM region – the largest competitive electricity market in North America, named for covering Pennsylvania, New Jersey and Maryland – independent analysis attributed approximately 75% of the region's increased capacity payments for 2025/2026 directly to data centre demand, an uplift of US$9.3 billion.[3] Power demand in the United States, which grew below 1% annually for nearly 15 years, is now projected to accelerate to more than 3% annually.

Grid congestion: The real bottleneck

The grid was not designed for this surge in power demand. Grid connection queues of up to 10 years exist in the most sought-after data centre markets. Powered land in Northern Virginia, Frankfurt, Amsterdam, London, Dublin, and Singapore is effectively sold out at any reasonable construction timeline. The bottleneck is not computational capability, and it is not capital. It is the physical grid infrastructure required to deliver reliable, firm power at the scale these facilities require.

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The market's response to this constraint is instructive, and it has direct implications for asset design and underwriting. Data centre operators are increasingly pursuing behind-the-

[1] Lascelles, E., and J. Nye. "MacroMemo: March 24 - April 13, 2026 - US." RBC Global Asset Management, March 25, 2026. #MacroMemo - March 24 - April 13, 2026
[2] Noffsinger, Jesse, Mark Patel, Pankaj Sachdeva, Arjita Bhan, Haley Chang, and Maria Goodpaster. "The Cost of Compute: A $7 Trillion Race to Scale Data Centers." McKinsey & Company, April 28, 2025. https://www.mckinsey.com/industries/technology-media-and-telecommunications/our-insights/the-cost-of-compute-a-7-trillion-dollar-race-to-scale-data-centers.
[3] Cembalest, Michael. "Fighting Worlds: 16th Annual Energy Paper." J.P. Morgan Asset & Wealth Management, March 3, 2026. https://privatebank.jpmorgan.com/nam/en/insights/latest-and-featured/eotm/annual-energy-paper.

meter solutions – dedicated power generation co-located with or directly contracted to the data centre, bypassing the congested grid interconnection queue entirely. The regulatory architecture is catching up. In January 2026, the Federal Energy Regulatory Commission (FERC) accepted the a new framework from regional operator Southwest Power Pool related to high-impact large load interconnection – closing the last major gap among U.S. grid operators on standardised cost causation – creating a 90-day expedited pathway for data centre operators who pair their load with dedicated on-site or nearby generation.[4] The bilateral structure fully assigns new generation and transmission costs to the data centre operator rather than socialising them across the grid. This is a structural shift in how power-hungry loads are expected to connect to the grid, and it will accelerate as queues lengthen and ratepayer protection becomes a political prerequisite for new large-load additions.

This theme extends beyond the U.S. and is occurring globally:

- Germany's power grid regulator, the Bundesnetzagentur, has been actively consulting on load-differentiated grid tariff mechanisms that would allocate reinforcement costs to large industrial consumers — a framework that, if finalised, would explicitly shield residential tariffs from data-centre-driven grid upgrades while exposing hyperscale loads to cost-causation pricing.
- Meanwhile in Spain, the competition regulator (Comisión Nacional de los Mercados y la Competencia, CNMC) has opened a formal review of Spanish electricity company Red Eléctrica de España's (REE) transmission allowances for the 2026-2031 regulatory period, with the regulator explicitly linking compensation to delivery performance — the first such mechanism in continental Europe for a regulated transmission network.
- And in Ontario, Canada, the Energy Board's 2026 transmission rate framework introduces performance-linked allowances for electricity distributors, with ongoing proceedings directly relevant to large-load interconnection delivery.[5]

Implications for infrastructure investors

The implications for infrastructure investors are threefold. First, regulated transmission assets in high-data-centre-density corridors are beneficiaries of the congestion – they are the physical systems that create the scarcity value that makes behind-the-meter solutions attractive in the first place. Second, contracted generation platforms with the operational capability to structure complex, multi-party power agreements – the business model of companies like Pattern Energy, combining utility-scale renewable generation with dedicated transmission – are structurally differentiated from merchant developers who lack that integrated capability. Third, the data centre power story is not a simple demand tailwind; it is a congestion story, and the assets that benefit are those inside the bottleneck, not downstream of it.

The J.P. Morgan annual energy analysis makes an important moderating observation: the data centre power impact on electricity prices is real but geographically concentrated rather than uniformly national.[6] In regions where generation is abundant and grid investment has kept pace with demand, data centre entry has had limited price impact. In constrained regions, it has been the dominant factor in capacity payment escalation. This geographic specificity matters for underwriting: the question is not whether data centres are a tailwind for power demand in aggregate – they clearly are – but whether a specific asset sits in a position to capture value from that demand, or whether it is merely adjacent to a trend it cannot monetize.

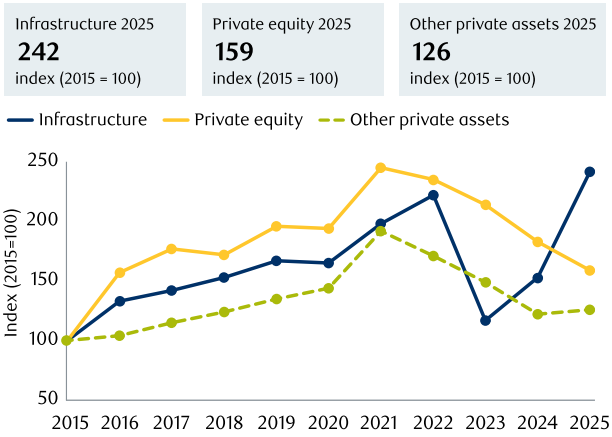
Capital markets and the rotation toward real assets

Against this backdrop, the capital market dynamics for private infrastructure are simultaneously more favourable and more demanding than at any prior point in the asset class history.

The favourable side is well-documented. In McKinsey's survey of approximately 300 global institutional investors (Limited Partners) conducted in January 2026, 51% reported plans to increase their infrastructure allocations over the next three years – the highest proportion of any asset class.[7] Notably, the motivation has shifted: expected return improvement has joined diversification as a primary driver. Sovereign wealth funds, insurers, and family offices show the sharpest increases in stated allocation intent. Management consulting firm Boston Consulting Group (BCG) documents that infrastructure fundraising rose approximately 60% in 2025, hitting a record of approximately US$206 billion – while private equity, private debt, and real estate all declined.[8]

[4] Wingfield, Derek. "FERC Approves SPP's Large Load Connection Proposal." Southwest Power Pool, January 15, 2026. https://www.spp.org/news-list/ferc-approves-spp-s-large-load-connection-proposal/.
[5] Ontario Energy Board, "Electricity Transmission Rates," accessed April 13, 2026, https://www.oeb.ca/applications/applications-oeb/electricity-transmission-rates.
[6] Cembalest, Michael. "Fighting Worlds: 16th Annual Energy Paper." J.P. Morgan Asset & Wealth Management, March 3, 2026. https://privatebank.jpmorgan.com/nam/en/insights/latest-and-featured/eotm/annual-energy-paper.
[7] Kwok, Adrian, Alastair Green, Connor Mangan, Charlie Regan, Kali Na, and Roman Strelov. "Global Private Markets Report 2026 - Infrastructure: Investing to Support Global Growth." McKinsey & Company, March 23, 2026. https://www.mckinsey.com/industries/private-capital/our-insights/global-private-markets-report/infrastructure.
[8] Schmundt, Wilhelm, Alex Wright, Emmanuel Austruy, Benjamin Entraygues, Lauren Powers, Thomas Bumberger, David Parlongue, Daniel Selikowitz, Jens Sveen Frogner, and Julien Vialade. "Infrastructure Strategy 2026: A Year of Increasing Scale and Diversification." Boston Consulting Group, March 24, 2026. https://www.bcg.com/publications/2026/year-of-increasing-scale-and-diversification.

Exhibit 1: 2025 Private Market Fundraising



Source: BCG Infrastructure Strategy 2026, Exhibit 4. Index rebased to 100 in 2015. Other private assets includes real estate and private debt.

The underlying institutional logic for this rotation is straightforward. The decade-long concentration of institutional returns in a narrow band of U.S technology companies has produced valuation levels that are difficult to justify without sustained earnings acceleration that is now being challenged by the energy cost environment, geopolitical uncertainty, and the open question of when AI capital expenditure translates into measurable productivity gains. Physical infrastructure assets – with inflation-linked cash flows, regulatory protection, and essential service characteristics – offer a durable alternative with a 25-year track record. Since December 2000, global infrastructure has compounded at approximately 13% annually in Canadian-dollar terms, through the dot-com bust, the global financial crisis, COVID-19, and multiple geopolitical cycles.[9]

The HALO trade

This is the rotation that observers have begun to describe as the HALO trade – Heavy Assets with Low Obsolescence – representing a deliberate reallocation from high-multiple, technology-dependent earnings streams toward assets whose value derives from physical scarcity and essential service provision rather than from the continuation of a software or platform business model. The current geopolitical environment has made the case for that rotation more visible, not less.

The demanding side deserves equal candour. BCG documents that five-year distributions to paid-in capital (DPI) for infrastructure funds hit their lowest recorded level in 2025. Average holding periods have extended from 3.1 to 3.3 years in 2017–2022 to 3.5 to 3.8 years in 2023–2024.[10] The days of generating returns through multiple expansion and passive ownership are largely over. BCG's analysis of realized infrastructure deals from 2020 to 2025 shows that revenue growth drove approximately 79% of enterprise value creation, while multiple expansion contributed 23% and margin improvement contributed nothing on average – but for the top quartile of performers, margin expansion contributed 14%, identifying operational value creation as the differentiating factor. The asset class is maturing, and the managers who will sustain returns through the next decade are those who can deliver operational improvements, not simply those who can source and own operating assets.

Mid-market may be where opportunity lives

Record fundraising means more capital pursuing a finite supply of high-quality operating assets. Attractive opportunities exist in the mid-market – enterprise values of US$500 million to US$1 billion – where capital is less abundant, execution complexity provides a genuine filter against undisciplined buyers, and the premium for operational capability is highest. Larger, more established assets are increasingly subject to the crowded auction dynamics that BCG identifies as one of the primary headwinds to traditional IRR targets.

[9] RBC Global Asset Management - PH&N Institutional, "A Quarter Century in Review: Themes That Shaped Institutional Portfolios," PH&N Investment Perspectives, 2026, https://institutional.rbcgam.com/en/ca/documents/en/ns/pip2026-quarter-century-in-review-event-site.pdf, based on data from EDHEC Infra 300 Index (CAD).
[10] Schmundt, Wilhelm, Alex Wright, Emmanuel Austruy, Benjamin Entraygues, Lauren Powers, Thomas Bumberger, David Parlongue, Daniel Selikowitz, Jens Sveen Frogner, and Julien Vialade. "Infrastructure Strategy 2026: A Year of Increasing Scale and Diversification." Boston Consulting Group, March 24, 2026. https://www.bcg.com/publications/2026/year-of-increasing-scale-and-diversification.

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