Data Centre Atlas

Knight Frank

2026

Navigating the data centre landscape across key markets in North America, Europe, the Middle East, Africa, and Asia Pacific

knightfrank.co.uk/research

Foreword

STEPHEN BEARD
GLOBAL HEAD OF DATA CENTRES DEVELOPMENT & INVESTMENT

The global data centre sector has emerged from a pivotal year in digital infrastructure, underpinned by continuous cloud migration and digitisation, combined with the proliferation of artificial intelligence, super-charging demand for data centre infrastructure. Across the globe, real estate transaction volumes, comprising single-asset-sales and development site acquisitions, totalled $16.5 billion in 2025 with development site acquisition volumes in particular surging 12.4% on 2024 volumes, the highest annual investment tally to date. Similarly, Knight Frank's bespoke data centre appraisals valued the global stabilised data centre market at $1.95 trillion, a 39.3% increase on 2024. Looking ahead, 48GW is expected to be delivered between 2026 and 2029, representing a 77% increase in global supply volumes. Within this, AI supply volumes are set to expand from 8GW to 27GW, growing to 24.5% of total live IT.

Europe's data centre markets are increasingly shaped by power constraints, regulatory intervention, and evolving development models rather than pure demand. Traditional FLAP-D hubs (London, Dublin, and Amsterdam) face acute grid limitations and planning restrictions, forcing decentralisation and greater reliance on pre-leasing, brownfield redevelopment, and on-site power solutions. Frankfurt leads on regulation-driven sustainability, while Paris benefits from strong low-carbon energy and policy-led AI demand. Southern and emerging markets demonstrate large pipelines but show execution risk due to grid bottlenecks or speculative oversupply. Nordic markets like Finland are gaining traction as low-cost, renewable-powered AI hubs.

Across APAC, data centre markets are increasingly characterised by extreme demand but constrained delivery, with power, land, and regulatory frameworks limiting growth. Tokyo, Seoul, and Singapore face significant power and policy constraints, forcing geographic transition to secondary markets. Southeast Asia is emerging rapidly, driven by lower costs, hyperscale expansion, and government incentives, though infrastructure and oversupply risks remain. Australia and India show strong AI-led growth with large pipelines but rising pressure on grid capacity and land availability. Across the region, future expansion depends less on demand and more on power access, infrastructure scaling, and regulatory execution.

North America remains the most mature and liquid data centre market globally, led by Ashburn, Dallas-Fort Worth, and Phoenix. Demand, particularly from AI and hyperscale users, far exceeds near-term supply, pushing vacancy to historic lows and driving pre-leasing years in advance. However, growth is increasingly constrained by power availability, grid timelines, and interconnection delays, reshaping markets into forward-commitment models. Expansion is spreading into secondary locations, while core markets such as Silicon Valley are becoming high-cost, niche hubs. Overall, success depends on securing power early, executing delivery, and scaling infrastructure alongside demand.

The Middle East is transitioning into a diverse, fast-evolving landscape split between hyperscale ambition and infrastructure realities. Gulf markets are rapidly positioning as global AI and cloud hubs, supported by sovereign capital and strong policy backing, though power access and execution discipline are emerging constraints. Secondary Gulf markets focus on sovereign and low-latency workloads. However, geopolitical instability and regional conflict risk remain an underlying concern, potentially affecting long-term investment security and cross-border capital flows. In Africa, growth is uneven, with South Africa accelerating while others remain constrained by power and infrastructure limitations.

This report provides a comprehensive assessment of these regions, offering clarity at a moment when the intersection of technology, infrastructure and energy is becoming one of the defining economic challenges of our time.

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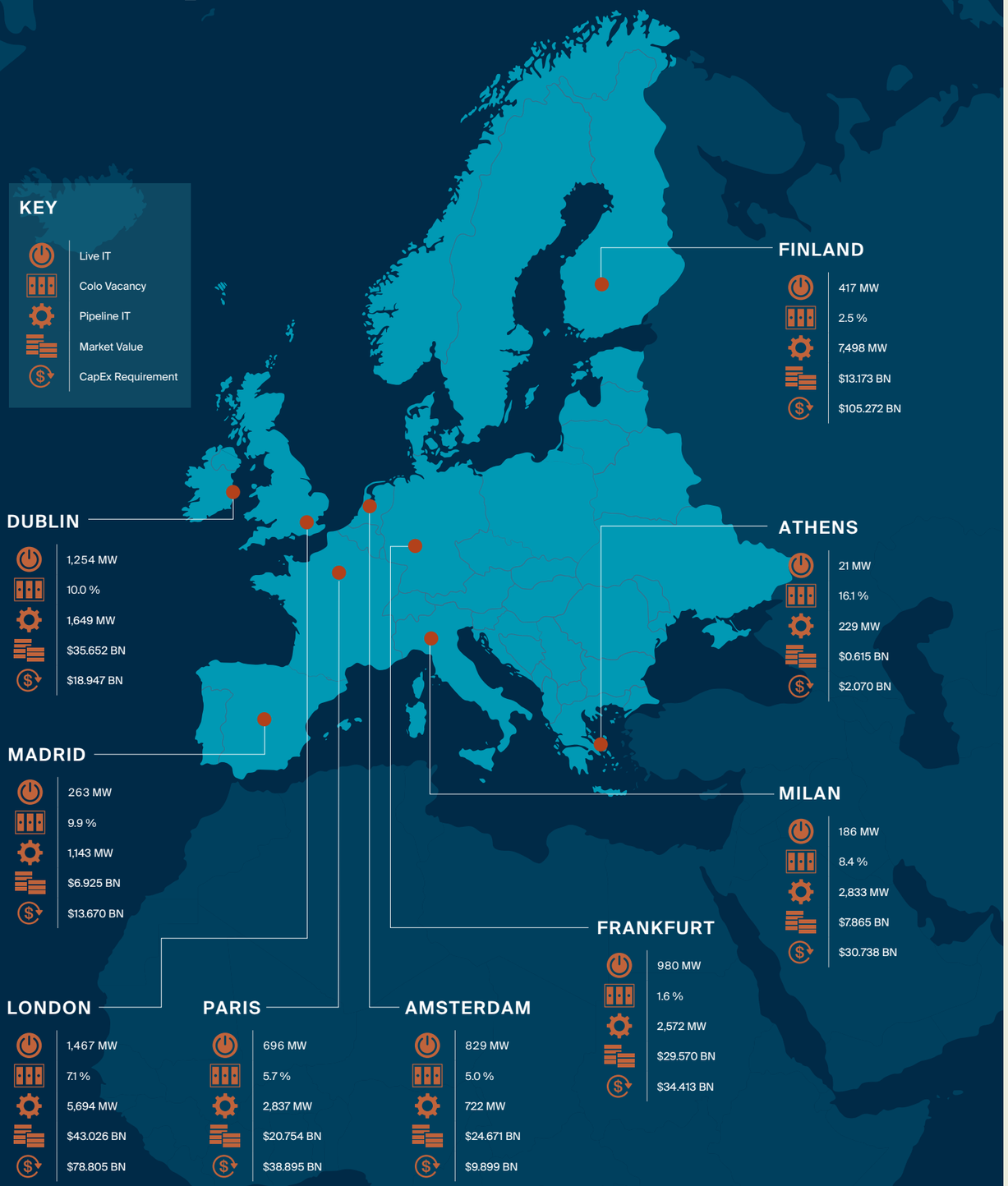
Europe



London

As one of the FLAP-D markets, London is Europe's largest, with the deepest ecosystem of hyperscalers, colocation operators, and enterprise demand. Unlike emerging markets where expansion is primarily demand-led, London's trajectory is now defined by supply-side constraints.

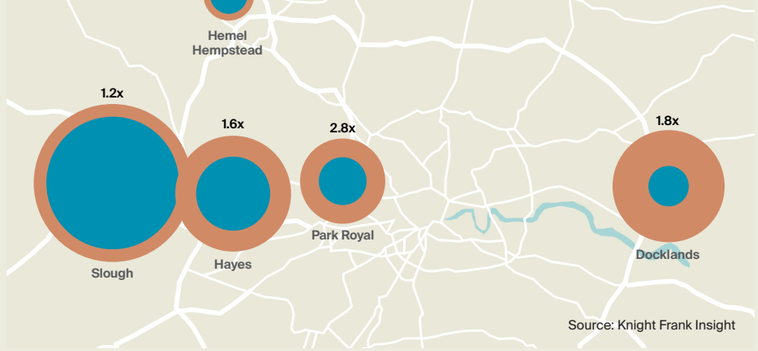
The most significant of these is power availability. In core West London availability zones (Slough and Hayes), grid capacity has tightened to the point where securing new connections can take 5 to 10+ years, effectively limiting near-term development. Grid reinforcement timelines are also extending the constraint. Across key West London Grid Supply Points (GSPs), transmission upgrades are now scheduled as late as 2037, delayed from earlier targets in the early-mid 2030s, while distribution-level reinforcements vary materially, with some areas advancing to 2026-2029, and others yet to trigger upgrades. This has forced operators to rethink both where and how they build, pushing activity into secondary markets such as Park Royal, Docklands, and further afield into other regional UK cities.

Planning and land constraints are compounding the issue. Data centres are increasingly competing with residential and logistics uses, particularly in West London boroughs where local opposition to industrial development is growing. At the same time, the UK's evolving policy framework, including increasing recognition of data centres as critical national infrastructure, is beginning to streamline planning pathways, though delivery timelines remain uncertain. While recent overturned green belt refusals at Abbots Langley and Court Lane highlight a clear shift towards national prioritisation of data centre development, the latter has since faced legal challenge, with the government conceding its approval may be quashed.

The market is adapting, operators are starting to prioritise brownfield redevelopments, higher-density builds, and retrofit strategies to maximise output from existing sites. There is also a growing focus on on-site and private wire power solutions, alongside long-term power purchase agreements (PPAs), as developers seek to de-risk grid dependency.

> "In core West London availability zones (Slough and Hayes), grid capacity has tightened to the point where securing new connections can take 5 to 10+ years, effectively limiting near-term development."

Park Royal is forecast to nearly triple by 2027
Forecast data centre IT capacity (MW) by London submarket



Source: Knight Frank Insight

Transmission upgrades across West London's key grid supply points are delayed to 2037
Distribution and Transmission Network Upgrade timelines

Grid Supply Point (GSP)	Transmission reinforcement date (NGESO*)	Distribution reinforcement date (SSEN**)
Amersham	2037 (prev· 2035)	2028
Iver	2037 (prev. 2035)	2029 (prev. 2027)
Laleham	2037 (prev. 2031)	No reinforcement triggered
Ealing	2037 (prev. 2025)	2026 (prev. 2024)
North Hyde	2037 (prev. 2033)	No reinforcement triggered
Willesden	2037 (prev. 2028)	No reinforcement triggered (prev. 2025)

Source: Knight Frank Insight
* National Grid Electricity System Operator. **Scottish and Southern Electricity Networks

Frankfurt

Germany's Energy Efficiency Act (EnEfG), introduced in 2023, is a regulatory framework that makes data centres accountable not just for power usage, but how that energy supports or strains society. The legislation imposes a set of binding operational requirements that directly influence how facilities are designed, located, and integrated into wider energy systems. This regulatory tightening is occurring in a market already dominated by hyperscale demand, with public cloud accounting for 85% of colocation leasing in Frankfurt, up from just 22% in 2014.

A central component is mandatory waste heat reuse, with operators required to recover 10% of excess heat from 2026, rising to 20% by 2028, and offer it at cost to nearby users such as residential developments or district heating networks. Performance is reported to a national heat register, effectively turning data centres into potential contributors to local energy ecosystems, but only where viable offtake infrastructure exists. There are already early examples of this model in practice, including Digital Realty signing a 15-year heat reuse agreement with Samson AG, as well as NTT Global Data Centres' initiatives supplying waste heat to residential networks in Frankfurt and Berlin.

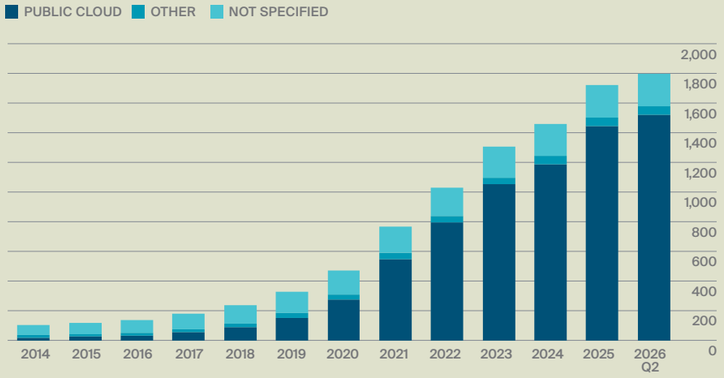
Alongside this, the Act enforces a transition to renewable energy sourcing, requiring large data centres to procure 50% of their electricity from unsubsidised renewables from 2024, increasing to 100% by 2027. Achieving this will be more challenging for operators in Germany than in many other European markets. The country currently sources around 45% of its electricity from wind and solar, but remains the largest coal producer in the EU, meaning the national energy mix is behind European peers with more established low-carbon generation profiles.

Energy efficiency itself is also tightly regulated through Power Usage Effectiveness (PUE) thresholds, with new facilities required to achieve a PUE of 1.2, while existing assets must progressively improve into a 1.3–1.5 range. In our Data Centres: Taking Stock of Sustainability report, we looked at annual average PUE values across leading hyperscalers and colocation providers and found that hyperscalers sustained levels of around 1.17, already comfortably below the new-build threshold. Colocation and service providers, however, still have further progress to make, despite narrowing the gap from 1.46 to 1.39 between 2020 and 2024.

> "Germany's approach isn't perfect, but it is materially ahead of the more reactive policies seen elsewhere in Europe."

Public cloud now accounts for 85% of leasing demand in Frankfurt

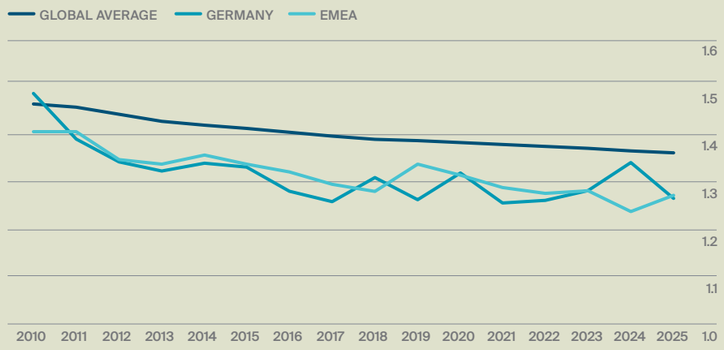
Frankfurt colocation leasing sectors (MW)



Source: Knight Frank Insight

Germany's average PUE outperforms both the global and EMEA averages

Design Power Usage Effectiveness (PUE) development



Source: Knight Frank Insight

Paris

France has the fundamentals to support sustained data centre growth. The country benefits from an energy system well-suited to data centre operations, with abundant power supply and a high proportion of low-carbon generation (c.70% of electricity is from nuclear energy and, when including hydro, solar and wind, this increases to c.95%), alongside comparatively stable and competitive electricity pricing (currently estimated at c.16.6 pence per kWh, 40% lower than the UK, 32% lower than Ireland, and 18% lower than the Netherlands). This is supported by an extensive and continually expanding high-voltage transmission network, reducing many of the infrastructure constraints seen elsewhere in Europe.

What differentiates Paris, therefore, is not a lack of enabling infrastructure, but the nature of demand itself. This is increasingly shaped by a combination of national and European policy drivers, with data sovereignty and strategic technology development moving firmly up the agenda. France's National Strategy for AI, adopted in November 2021, has played a central role in accelerating both public and private investment in digital infrastructure, with momentum strengthening further following the AI Action Summit in Paris, which triggered a wave of announcements.

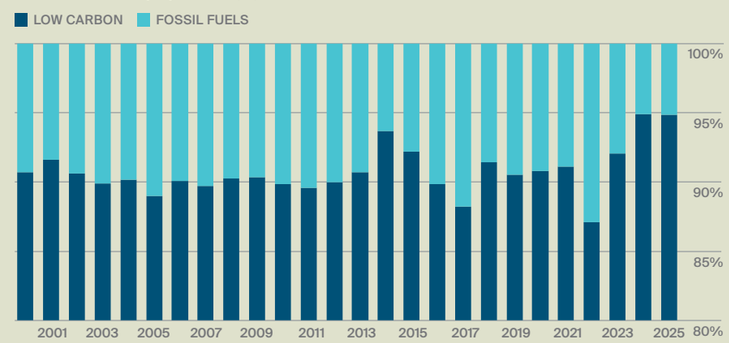
Last year marked the busiest period on record for data centre announcements in Paris, with more than 1.3GW of new capacity proposed. However, the delivery of this pipeline remains uncertain, with a significant proportion concentrated in a small number of large-scale schemes, most notably Mistral AI's proposed AI campus, which alone accounts for a substantial share of the total. While this highlights growing momentum, it also reflects the extent to which France is still catching up with more established FLAP-D markets in terms of live IT capacity. Until recently, Paris had the second-lowest aggregate capacity across the FLAP-D markets, but has now overtaken Frankfurt.

> "France's National Strategy for AI, has played a central role in accelerating both public and private investment in digital infrastructure."

> "Last year marked the busiest period on record for data centre announcements in Paris, with more than 1.3GW of new capacity proposed."

France generates 95% of its electricity from low carbon sources

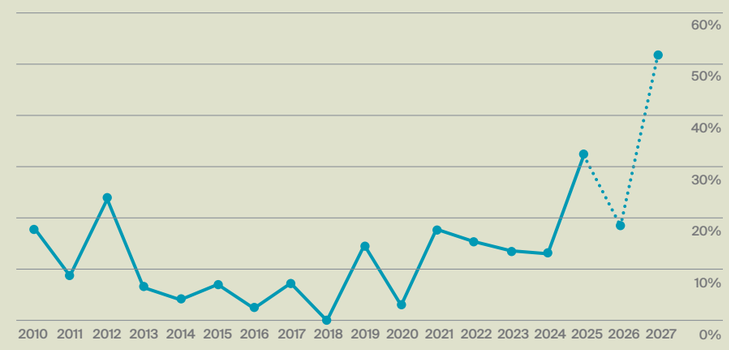
Share of electricity by source (%)



Sources: Knight Frank Insight, Ember
Note. Low carbon includes nuclear, renewables (wind, solar, hydro) and other low-emission generation; fossil fuels include gas, coal and oil.

Capacity growth expected to reach 52% by 2027 as AI-led pipeline ramps up

Annual growth rate of live IT capacity in Paris (%)



Source: Knight Frank Insight

Amsterdam

Consistent across the FLAP-D is the resistance from local communities towards the data centre industry has risen due to significant development and power consumption. Amsterdam is a good example of this, having attracted significant foreign investment in recent years alongside high growth in operational footprint. Concerns started to rise within l ocal communities and councils regarding the scarcity of land, high water usage and electricity consumption by the industry.

In response, authorities introduced a one-year moratorium in 2019, prohibiting new data centre developments without prior approval. While this restriction was later lifted, municipalities including Amsterdam and Haarlemmermeer have since implemented more targeted and restrictive planning policies to manage development. These policies span eight designated areas (including Schiphol-Rijk), with new projects now subject to stricter criteria around land availability, existing supply, and demonstrable market demand.

The impact of these interventions is clearly reflected in supply dynamics. Annual live capacity growth slowed to just 1% in 2022 and, although growth has since partially recovered, the supply CAGR has effectively halved following the second moratorium.

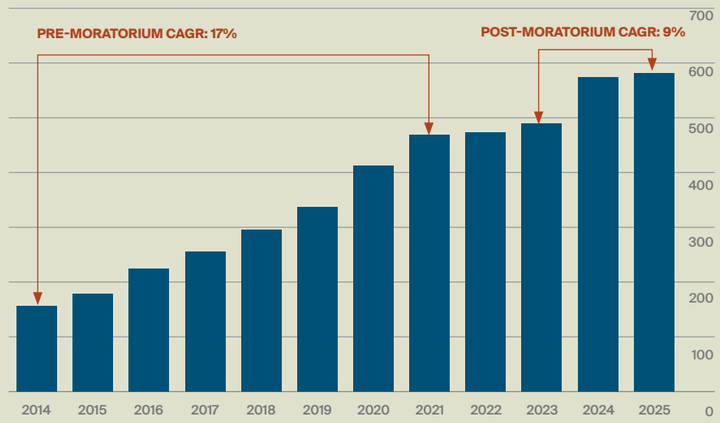
Despite these constraints, demand, particularly from hyperscale cloud providers, shows no signs of slowing. What was previously an enterprise-led market has transitioned into one dominated by hyperscalers, which have accounted for 77% of leasing activity over the past five years. In response to capacity limitations within Amsterdam, some operators such as Google have expanded into northern regions including Groningen; however, Amsterdam remains the preferred location due to its strong connectivity infrastructure and established ecosystem.

To secure future capacity, hyperscalers are increasingly entering long-term pre-leasing agreements. There are currently eight sites under construction, totalling 95.3MW, all of which are expansions of existing facilities, with 37MW already pre-let. Across the committed pipeline, 63MW of the 240MW total capacity has secured pre-leasing.

> "Concerns started to rise within local communities and councils regarding the scarcity of land, high water usage and electricity consumption by the industry."

Live supply CAGR has halved following the second moratorium in 2022

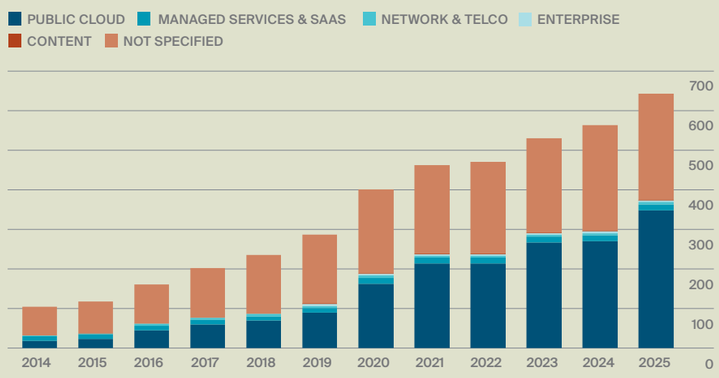
Live IT capacity (MW)



Source: Knight Frank Insight

Public cloud has driven 77% of take-up over the last five years

Aggregate take-up by type (MW)



Source: Knight Frank Insight

Dublin

Power has become the primary constraint in Dublin, mirroring many of Europe's most established data centre markets. Since 2021, EirGrid has tightened grid connection approvals in response to mounting pressure on the power system, effectively restricting new development in the Greater Dublin area and prioritising system resilience over continued unconstrained expansion. These measures reflect the scale of the challenge facing the Irish power system. Data centres have become one of the largest drivers of electricity demand, accounting for 23% of total national consumption in 2025, with forecasts suggesting this could rise to just under one-third by 2026.

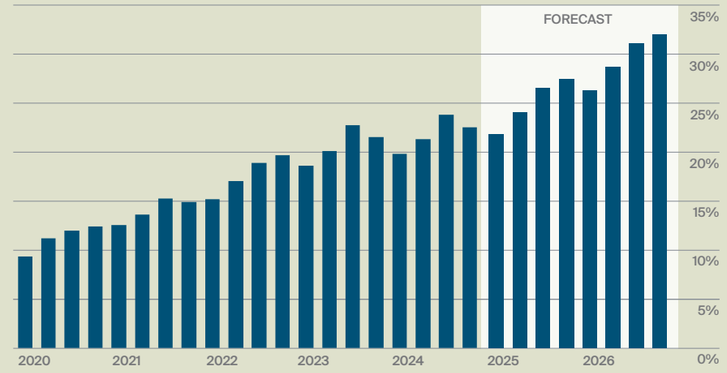
The Commission for the Regulation of Utilities (CRU) has since introduced a more formalised framework for large energy users. Under the Large Energy User Connection Policy, projects above 10MVA must secure behind-the-meter or proximate generation equivalent to 100% of the grid connection. This must be located in unconstrained areas of the network, and ensure that 80% of annual electricity demand is matched with Irish renewable energy. Data centre development will now be delivered in tandem with the build-out of supporting power infrastructure.

> "Data centres have become one of the largest drivers of electricity demand, accounting for 23% of total national consumption in 2025, with forecasts suggesting this could rise to just under one-third by 2026."

For the market, the implications are significant. These requirements go beyond traditional mechanisms such as Corporate Power Purchase Agreements (CPPA) with renewable providers, instead pushing developers toward direct investment in on-site or proximate generation ahead of securing a grid connection. With Ireland's installed generation capacity at almost 7GW, of which around 2GW is already attributed to data centre demand, the new framework effectively implies the potential need for an equivalent level of dedicated generation capacity to support future growth. Early signs of this shift are already emerging. Pure Data Centres is among the first to advance development under this model, progressing a 110MW on-site microgrid powered by natural gas and supported by battery storage. This will supply its data centre campus at Orion Business Park, which is expected to reach a total capacity of 54MW once fully built out.

Data centres set to consume a third of Ireland's electricity by 2026

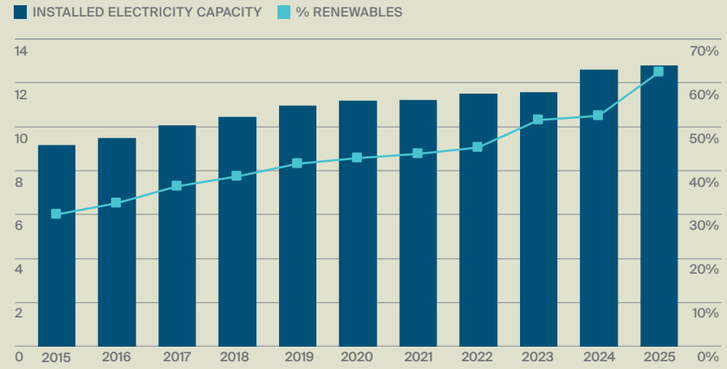
Percentage of metered energy consumed by data centres in Ireland (%)



Sources: Knight Frank Insight, CSO Ireland, IEA

Renewables now make up nearly two-thirds of installed electricity capacity

Installed electricity capacity in Ireland (GW)



Sources: Knight Frank Insight, Ember

Milan

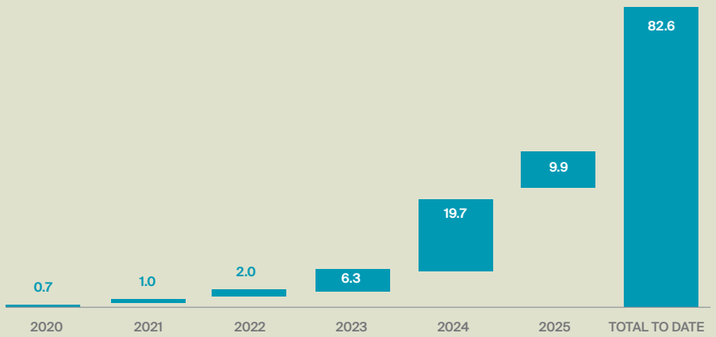
There is growing interest in data centre development in Italy, with Terna (Italy's Transmission System Operator) reporting over 82GW of grid connection requests, nearly double the level recorded at the end of 2024 and a significant step change from historical trends. For context, requests totalled less than 1GW in both 2020 and 2021 before rising to c.10GW in 2023. Northern Italy, and Lombardy in particular, is at the centre of this growth. Lombardy accounts for 12.8GW of the 31.8GW of pending applications (40%), with Milan alone representing 4.6GW. The scale of activity becomes more evident when including approved capacity: almost 50GW of applications have already been granted nationally, with 26GW located in Lombardy and 12.1GW in the province of Milan. However, conversion to delivered capacity remains highly uncertain given grid constraints, long lead times for network reinforcement and a significant volume of speculative applications occupying queue capacity, only c.730MW have progressed to signed connection contracts.

This growing pipeline sits against a relatively low operational base. Milan currently has 184MW of built IT capacity, with forecasts suggesting an expansion to nearly 500MW over the next two years. Despite this, the scale of proposed and approved capacity significantly exceeds both current stock and realistic delivery timelines. Demand-side momentum has also slowed. Leasing activity across colocation facilities totalled 68.8MW in 2025, less than half the levels recorded in the preceding two years (171.2MW in 2023 and 165.4MW in 2024).

On the regulatory front, the government introduced a new framework in February 2026 aimed at accelerating data centre development. The reform establishes a single, unified authorisation process, replacing previously fragmented permitting with defined timelines (a maximum duration of ten months) and clearer jurisdictional responsibility. This improves certainty for developers while acting as a filter on more speculative schemes. While the reform introduces greater clarity, the near-term outlook will depend on the pace of grid delivery and whether demand strengthens sufficiently to absorb the pipeline. A clear risk of medium-term oversupply remains if current imbalances persist.

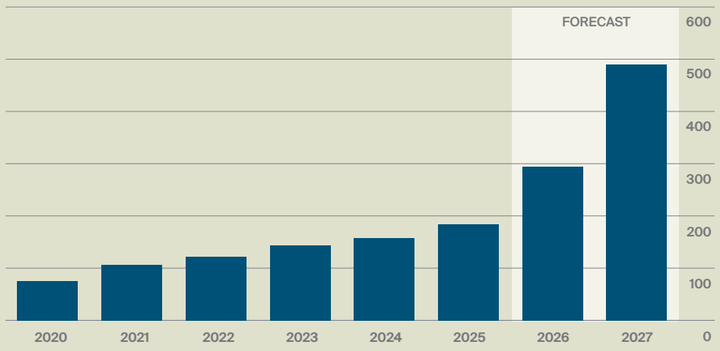
> "Lombardy accounts for 12.8GW of the 31.8GW of pending applications (40%), with Milan alone representing 4.6GW."

Requests from data centres totalled almost 40GW at the end of 2025
Connection requests for data centre facilities in Italy (GW)



Sources: Knight Frank Insight, Terna SpA

Milan's supply to more than double in the next two years
Live IT supply and forecast (MW)



Source: Knight Frank Insight

Madrid

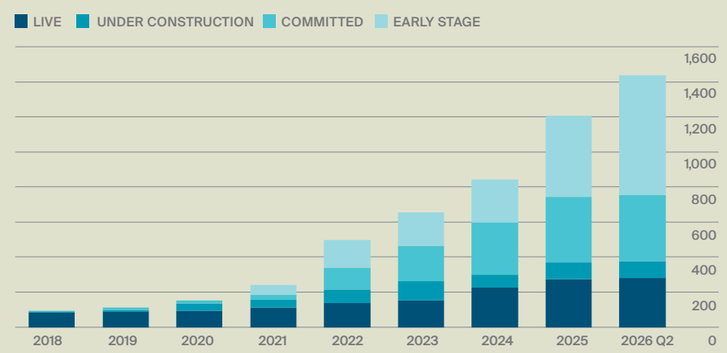
Spain's electricity grid has become one of the most significant constraints on data centre development in Europe. More than 80% of Spain's electricity distribution and transmission nodes are now fully employed, with available capacity now at 19.4GW, according to Red Eléctrica de España, the transmission system operator (TSO) for the Spanish electricity grid. The sheer volume of demand-side applications, many of them speculative, has overwhelmed a grid that was not designed to absorb this pace of electrification.

The Spanish government have since introduced Royal Decree-Law 7/2026 in March 2026, a regulatory overhaul targeting the grid access framework. The reform replaces the previous bank guarantee system with a new mandatory capacity reservation charge, payable monthly by all holders of demand access permits until their installation becomes operational. The objective is to filter speculative applications from the queue, but it does not resolve the underlying capacity deficit.

What distinguishes Madrid, however, is not just the scale of the grid constraint but the market's response to it. Spain's position as one of Europe's leading renewable energy producers, sourcing 75% of electricity from low-carbon sources in 2025, has created the conditions for a new development model in which energy companies are entering data centre development as direct equity partners rather than simply as power suppliers. A joint venture between Echelon Data Centres and Iberdrola is one of the largest binding agreements of its kind in Europe between an energy company and a data centre operator. Iberdrola will be contributing land with secured grid connections and a guaranteed 24/7 renewable power supply, while Echelon leads development and operations. The first project, Madrid Sur, will offer 144MW of IT capacity supported by on-site solar photovoltaic generation and expected to be operational before 2030.

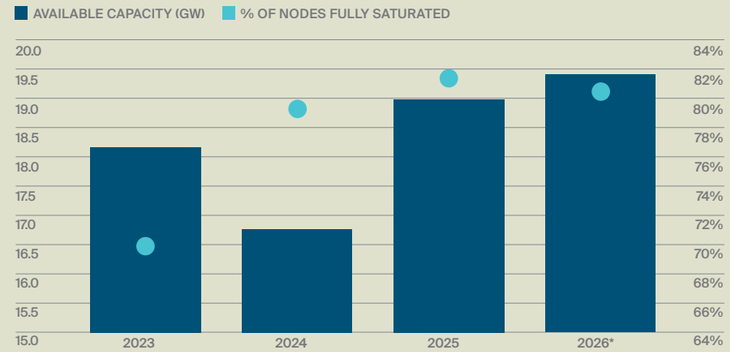
This is not an isolated case. It reflects a wider trend in the Spanish market where renewable energy developers are repurposing stranded or surplus generation assets. This is further enabled by regulations that allow energy generation to be allocated to self-consumption, meaning developers with access to renewable generation assets can supply power directly to on-site or proximate facilities without full reliance on the national grid. For Madrid, the path to new data centre capacity, forecast to grow from 274MW at the end of 2025 to just shy of 500MW by 2027, increasingly runs through energy partnerships rather than traditional grid applications, reshaping the competitive landscape in favour of developers with direct access to both power and land.

Madrid's aggregate data centre capacity nears 1.5GW
Madrid supply development (MW)



Source: Knight Frank Insight

80% of nodes fully saturated
Available generation connection capacity at nodes in Spain



Sources: Knight Frank Insight, Red Eléctrica

Finland

AI compute is moving further north, with Finland emerging as a key hotspot for activity. An early mover in national AI policy through its Artificial Intelligence Programme, the country has positioned itself as a leading location for AI and high-performance computing deployment. Finland is now home to 29 of Europe's 183 current and future data centres with over 100MW of IT capacity, ranking second only to the UK. Additionally, 43% of its facilities fall within the 100MW+ category, driven by hyperscale-aligned developers and AI/HPC operators, with Google, Microsoft and Nebius among key players expanding in the market.

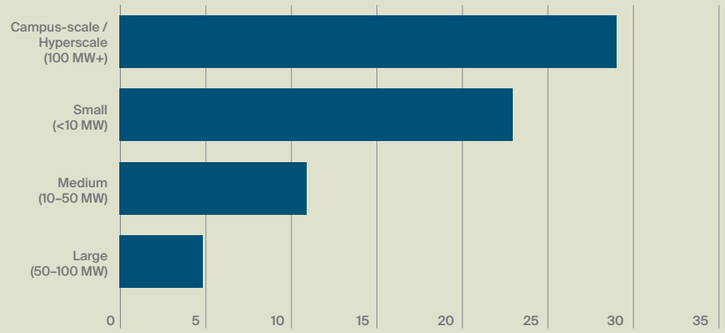
Finland's is underpinned by a compelling set of structural advantages. The country benefits from extensive access to renewable power, widespread district heating networks that enable the reuse of waste heat, and naturally cool climatic conditions that reduce cooling requirements, factors that are increasingly central to operator and policymaker decision-making. Well over half (56%) of Finland's electricity generation is sourced from renewables, placing it among the higher shares in Europe, although still behind leading markets such as Norway, Sweden, Austria and Denmark. This is complemented by a highly competitive energy cost environment. Non-household users in Finland pay an average of c.8.6p/kWh, 64% below the EU-27 plus UK average. For very large users (i.e. consumption between 70–150GWh), prices fall further to c.5.29p/kWh.

Finland also ranks strongly on AI readiness. In the latest Government AI Readiness Index, the country places 18th globally and 9th in Europe, outperforming the European average across all pillars. Two areas stand out. The first is policy capacity, capturing the strength and execution of national AI strategy, governance frameworks and international engagement, where Finland scores 81, well above the European average of 65. The second is infrastructure, where Finland also performs strongly. A key component is enabling technical infrastructure, which measures cybersecurity capacity, energy independence, electricity access, broadband speed, 4G coverage and the availability of secure servers. Finland scores above 72 on this metric, outperforming major European markets including the UK, Germany and Ireland, further reinforcing its position as a market well-positioned to support AI-driven growth.

> "AI compute is moving further north, with Finland emerging as a key hotspot for activity."

Finland home to a 16% share of Europe's 100MW+ data centres

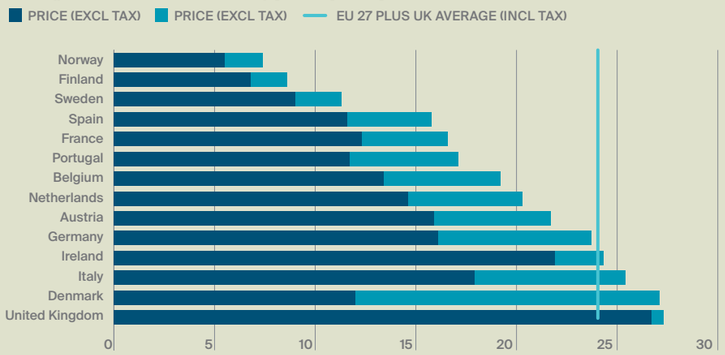
Number of facilities (live, under construction, committed and early stage projects)



Source: Knight Frank Insight

Average electricity prices in Finland are some 64% lower than the EU median

Average non-household electricity prices (pence per kWh)



Sources: Knight Frank Insight, Eurostat

Athens

Subsea cables carry roughly 99% of global internet traffic, making them the physical backbone of international connectivity. Within this network, Athens occupies a strategically important position as a gateway between Europe, North Africa and the Middle East. More than 20 cable systems are connected or planned across Greece, with four landing directly in the Athens region. The MedNautilus system is one of the most established routes in the Mediterranean, linking Greece with Italy, Turkey, Israel and Cyprus.

This connectivity base is set to deepen significantly over the coming years. The Medusa cable will connect multiple Mediterranean markets, including Spain, France, Italy, Greece and Egypt, with phased deployment beginning from 2026. The EMC West cable is expected to link Saudi Arabia with Europe via Greece, Cyprus, Italy and France, with service anticipated from 2026 onwards. Domestically, the Thetis project is strengthening links between Crete and mainland Greece through new subsea fibre infrastructure, expected to be operational by 2027.

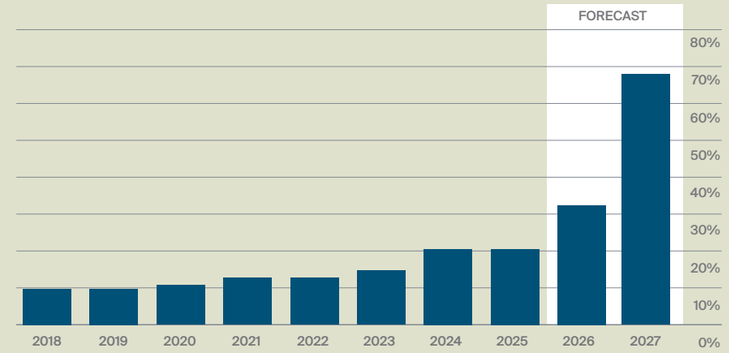
As these systems come online, they are expected to drive demand for carrier-neutral data centres in Athens, supporting colocation growth and attracting significant hyperscaler and investor interest. Microsoft has announced plans for a €1 billion plus data centre campus in Eastern Attica, while Data4, Digital Realty, DAMAC Digital, Apto and Serverfarm have all committed to new facilities in the region. Upcoming capacity now exceeds 250MW, almost twelve times the existing installed base, positioning Athens as one of the fastest-growing data centre markets in Southern Europe.

> "More than 20 cable systems are connected or planned across Greece, with four landing directly in the Athens region. The MedNautilus system is one of the most established routes in the Mediterranean, linking Greece with Italy, Turkey, Israel and Cyprus."

> "As these systems come online, they are expected to drive demand for carrier-neutral data centres in Athens, supporting colocation growth and attracting significant hyperscaler and investor interest."

Athens data centre supply forecast to more than triple over the next two years

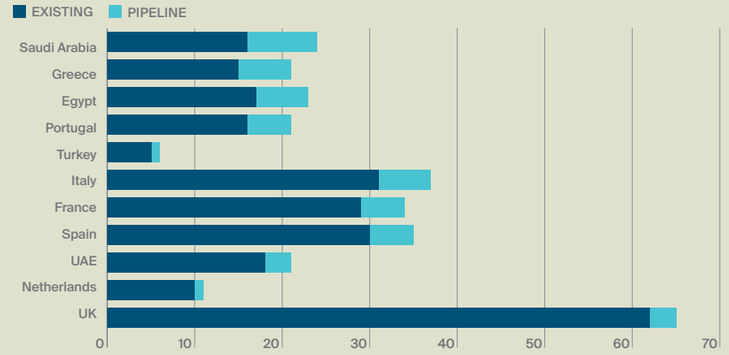
Live IT capacity (MW)



Sources: Knight Frank Insight

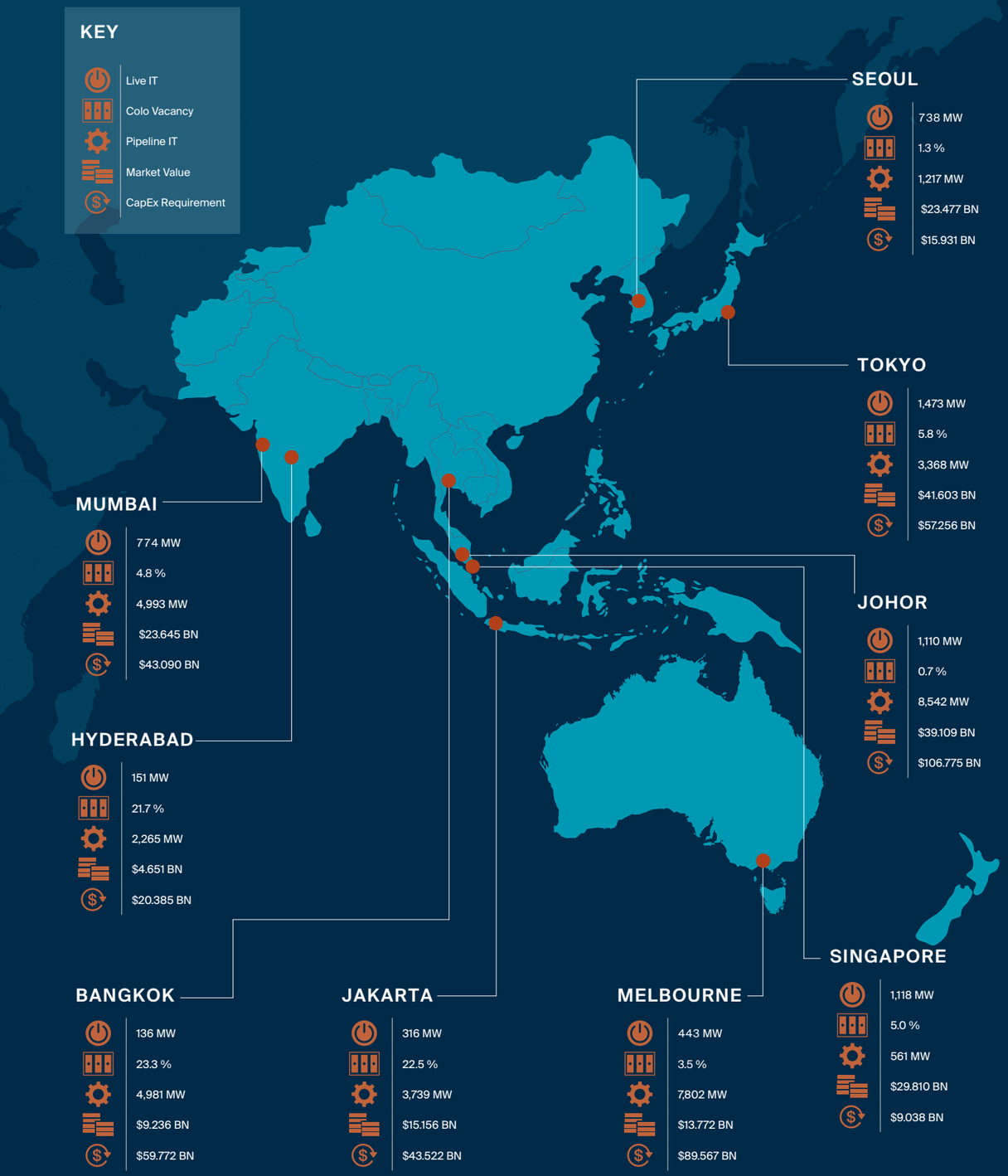
Greece ranks among Europe's fastest-growing connectivity hubs

Subsea cable landings



Sources: Knight Frank Insight, TeleGeography

Asia-Pacific



Tokyo

Demand signals in Tokyo remain among the strongest globally, but the market's defining challenge is the mismatch between the scale of investment commitment and the timeline required to deliver new capacity. More than US$43 billion in hyperscaler capital has been committed to Japan, led by AWS ($23.6 billion), Microsoft ($10 billion), Oracle ($8 billion), and Google ($1.7 billion). Yet in inner Tokyo, the wait for new power connections now stretches up to 10 years, according to Tokyo Electric Power Co (TEPCO).

The East Tokyo corridor (Inzai/Shiroi) in Chiba Prefecture, a hotspot for development, illustrates this constraint. TEPCO has built a new substation in Inzai and is installing additional transformers over the next two years through to 2027. Even so, NTT's new 200MW TKY12 campus in the corridor does not expect first-phase service until 2030 or later, pending utility power connections.

Data centre electricity consumption in Japan is projected to more than triple from 19 TWh in 2024 to 66 TWh by 2034, driving an estimated 60% of the country's total power demand growth, according to Wood Mackenzie. However, Japan's power generation remains predominantly reliant on gas and coal, and the gas turbine plants required to support this scale of demand can themselves take up to 10 years to build.

> "More than US$43 billion in hyperscaler capital has been committed to Japan, led by AWS ($23.6 billion), Microsoft ($10 billion), Oracle ($8 billion), and Google ($1.7 billion)."

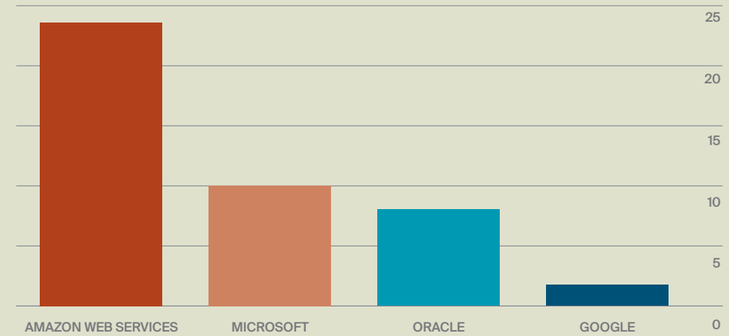
Costs are compounding the challenge. Tokyo ranks as one of the most expensive data centre construction markets globally at $17 million per MW.

In response, the government's Digital Infrastructure Development Plan 2030, published by the Ministry of Internal Affairs and Communications in June 2025, is actively promoting regional dispersal, distributing data centres to areas with spare power capacity through what it terms "Watt-Bit collaboration."

> "Tokyo ranks as one of the most expensive data centre construction markets globally at $17 million per MW."

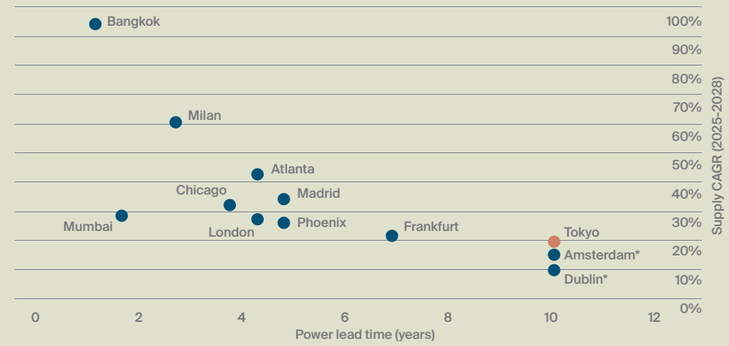
The next phase of growth will be defined less by demand and more by whether power delivery, construction costs, and regional infrastructure can keep pace with the scale of capital seeking to deploy.

Over $43 billion in hyperscaler investment committed to Japan
Committed investment by hyperscaler ($ billion)



Source: Knight Frank Insight

Highest growth is occurring outside the most power-constrained markets
Power lead time (years) vs capacity growth (CAGR, 2025–2028)



*New large data centre grid connections are paused. Source: Knight Frank Insight, Ember

Singapore

Growth in Singapore is governed by what is now the most selective regulatory framework in APAC. The market hosts more than 1.1GW of capacity, yet land, power, and water constraints mean that new capacity is allocated through a competitive, sustainability-led approval process.

The constraints are physical. Singapore occupies just 745 km², making it smaller than most major cities, yet it hosts more than 60 data centres consuming 7% of national electricity, which is forecast to rise to 12% by the end of the decade. High average temperatures and humidity levels create some of the most challenging cooling conditions, increasing both energy and water intensity.

Since the moratorium on new builds was introduced in 2019, the pathway to new capacity has been tightly managed. The original Data Centre – Call for Application (DC-CFA) pilot in 2023 allocated just 80MW to four operators: Equinix, GDS, Microsoft, and a consortium of AirTrunk and ByteDance. In December last year, the government launched DC-CFA2, making at least 200MW of additional capacity available. Separately, 20 hectares on Jurong Island have been set aside for Singapore's largest low-carbon data centre park, with the potential to accommodate up to 700MW, which, if delivered, would increase Singapore's total capacity by 43%.

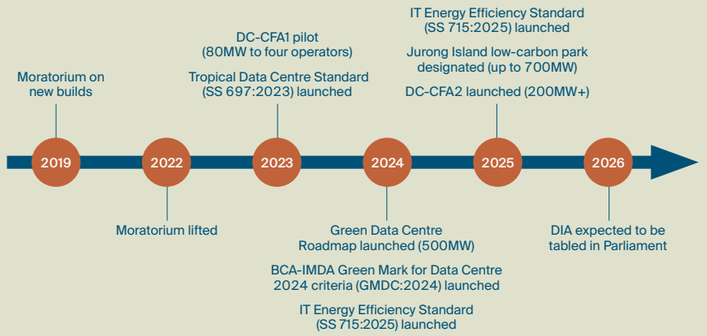
> "Singapore occupies just 745 km², making it smaller than most major cities, yet it hosts more than 60 data centres consuming 7% of national electricity, which is forecast to rise to 12% by the end of the decade."

The requirements for new capacity are stringent. DC-CFA2 applicants must achieve a Power Usage Effectiveness (PUE) of at least 1.25 and source a minimum of 50% of energy from renewable sources, among other criteria. For existing operators, the regulatory environment is also tightening. The proposed Digital Infrastructure Act (DIA), expected to be tabled later this year, will impose mandatory PUE requirements on both new and existing data centres. This is likely to drive a growing focus on retrofit and optimisation of existing facilities. Singapore already has support mechanisms in place. IMDA's Energy Efficiency Grant co-funds the purchase of pre-approved energy-efficient IT equipment and has been extended for a further year until 2027.

> "For existing operators, the regulatory environment is also tightening."

Singapore's capacity pathway is entirely policy-controlled

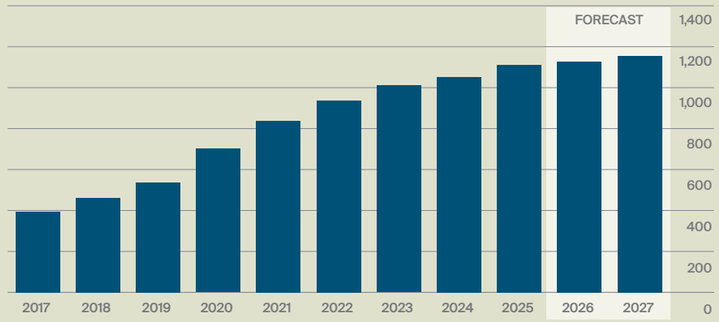
Timeline of key regulatory and capacity allocation milestones



Source: Knight Frank Insight

Annual capacity growth slowed from 21% pre-moratorium to under 5% since 2022

Live IT capacity (MW)



Source: Knight Frank Insight

Seoul

The tension between increased AI demand and Seoul's operating environment is making it difficult to deliver new capacity. The Greater Seoul Area (GSA) hosts 738MW of live IT capacity across 68 facilities, with a further 187MW under construction and 730MW committed, yet the pathway to new supply is constrained by land availability, power restrictions, and growing community opposition. This is creating what is effectively an unofficial moratorium on large-scale AI builds within the metropolitan area.

A distinctive feature of the Korean market is the intensity of domestic competition. Local AI and cloud operators, including Naver, Kakao, KT, LG CNS, and NHN, are competing directly with global hyperscalers for capacity, land, and power. The government has reinforced this dynamic through successive GPU procurement programmes, KRW 1.46 trillion ($1.1 billion) in 2025 to secure 13,000 GPUs across Naver Cloud, NHN Cloud, and Kakao, followed by a further KRW 2.08 trillion ($1.5 billion) round in 2026, with five operators including Samsung SDS, KT Cloud, and Coupang, competing for the contract. Global hyperscalers are also scaling aggressively. SK Group and AWS have committed US$5.1 billion to a 1GW AI data centre in Ulsan, in addition to their existing 96MW campus in Incheon. Microsoft and KT formed a $1.8 billion alliance in 2024, and Hyundai has pledged KRW 9 trillion ($6.3 billion) toward a hydrogen-powered AI campus in Gunsan.

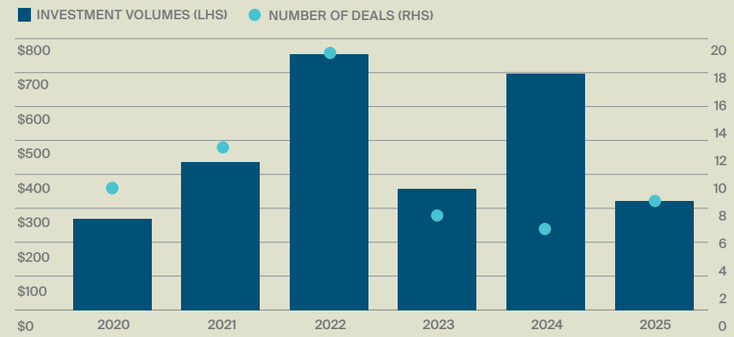
Securing land and power in the GSA is at the heart of this tension. The revised Power System Impact Assessment, introduced in November 2025, strengthens non-technical criteria and makes voltage stability a mandatory pass/fail requirement, with a scoring framework explicitly designed to curb GSA concentration. Since the assessment was introduced, 195 power applications totalling 20GW have been submitted for the GSA alone, yet only four have passed, a 21% approval rate compared to 71% for non-GSA regions. Projects that clear this threshold must then secure a grid connection through KEPCO, the sole provider of electricity transmission and distribution, which requires minimum advance notice periods of one to four years, depending on load size, with 55% of KEPCO's own transmission projects already experiencing delays.

The process of making land ready for construction is equally lengthy. Between 2021 and 2024, 16 data centre projects in Seoul and Gyeonggi Province were either suspended or cancelled due to public opposition. In Gimpo, a project that received permits in 2021 has seen zero progress after 10,000 residents signed a petition against it, while in Anyang, a planned facility was scrapped entirely following community resistance. Concerns have centred on electromagnetic fields, noise, heat from cooling systems, and the impact on property values

Seoul, therefore, finds itself in an unusual position: a market with no shortage of capital or demand, but where the operating environment is fundamentally limiting the pace at which it can be deployed.

Data centre investment exceeded $320 million in 2025

South Korea data centre investment volumes ($ million), including single-asset sales and development sites

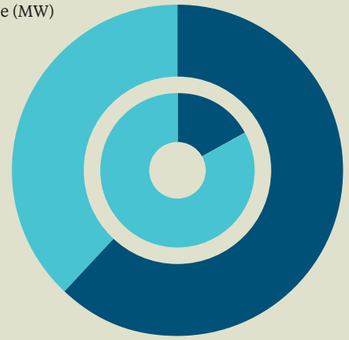


Source: Knight Frank Insight

Seoul capacity split is shifting, with global operators driving almost 58% of new supply

Seoul data centre capacity split by operator type (MW)

	DOMESTIC OPERATOR	GLOBAL OPERATOR
Live capacity	627	111
Committed capacity	382	535



Source: Knight Frank Insight

Johor

Larger land plots and campus-scale developments are now the norm in Johor. What began as a secondary market to Singapore has matured into a fully institutionalised market, supported by significant capital inflows from both regional and global operators. Hyperscalers are driving much of the expansion, with operators increasingly targeting multi-building campuses rather than standalone facilities.

As the market has scaled to over 1GW of live IT capacity at the start of the year, a more structured power approval framework has been introduced, bringing greater discipline to how new capacity is allocated and reducing speculative development risk. This includes targeted incentives, dedicated data centre corridors, and the establishment of the Johor–Singapore Special Economic Zone (JS-SEZ).

Johor continues to benefit from relative cost advantages, particularly around land and power, which remain more accessible and affordable than in Singapore. This has helped maintain low vacancy levels, with Johor recording just 0.7% colocation vacancy, compared to 4.9% in Singapore, 23.3% in Bangkok, and 20.5% in Jakarta.

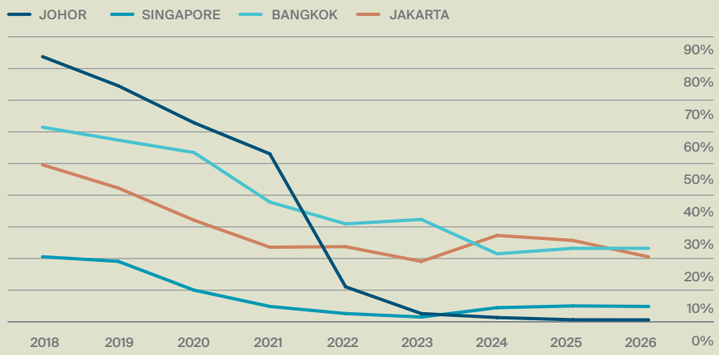
That said, the cost gap is beginning to narrow. Rising electricity and water tariffs are gradually increasing operating costs. In July last year, Malaysia revised its industrial electricity tariff structure under the Incentive-Based Regulation framework, introducing higher base rates alongside adjustments linked to fuel costs through the ICPT mechanism. Large power users such as data centres are now typically classified under Ultra High Voltage (UHV) time-of-use tariffs, where energy charges range from 51.09 to 55.18 sen per kWh, alongside additional capacity and network charges. For a 50MW facility, this could push annual power costs to up to RM260 million once energy and demand charges are combined. Rising costs at this scale are beginning to erode Johor's cost advantage and may drive operators to invest more heavily in renewable energy and alternative power solutions to manage long-term operating expenditure.

> "Larger land plots and campus-scale developments are now the norm in Johor."

> "Johor continues to benefit from relative cost advantages, particularly around land and power, which remain more accessible and affordable than in Singapore."

Johor vacancy has compressed to sub-1%, significantly below all regional peers

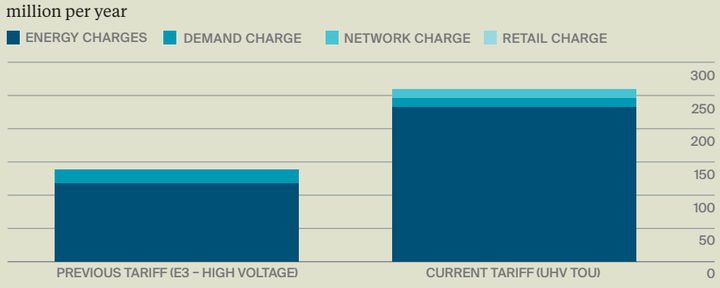
% of live IT



Source: Knight Frank Insight

New tariff structure adds over RM120 million per year in power costs for a 50MW facility

Malaysia non-domestic electricity tariffs (E3 vs UHV ToU), illustrative 50MW example, RM million per year



Source: Knight Frank Insight

*Note: Assumes a 50MW facility operating at full load (24/7), with annual consumption of 438 million kWh and a 50:50 split between peak and off-peak usage. Includes energy, capacity, and network charges under respective tariff structures. Actual costs will vary depending on load profile, utilisation, and demand characteristics.

Melbourne

Melbourne is increasingly becoming Australia's preferred destination for AI-led data centre deployments, with the market on track for double-digit growth as hyperscale and neo-cloud demand continues to scale. Live IT capacity has quadrupled in the last five years, from 119MW in 2020 to 443MW in Q2 2026, with a further 127MW under construction and 1.7GW committed, alongside an additional 7.3GW in early-stage pipeline.

AI is now the dominant driver of leasing activity, accounting for two-thirds of colocation take-up last year, with over 400MW of AI-related capacity already leased across three facilities this year alone. These requirements are being led by hyperscale and neo-cloud operators seeking high-density, campus-scale deployments, which is driving both the scale and pace at which capacity is absorbed.

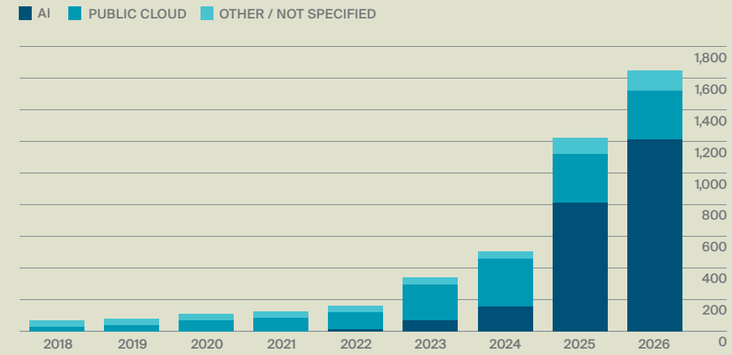
However, this expansion is beginning to test Melbourne's infrastructure. While the market has historically faced fewer grid limitations than Sydney, power availability is tightening. According to the Australian Energy Market Operator (AEMO), 1.5GW of data centre projects are currently at the application stage in Victoria, with a further 0.7GW at the proponent implementation phase, which is the final step before registration and commissioning. This is understood to represent only a portion of the overall pipeline, but it highlights the growing pressure on connection processes and the pace at which large-load demand is moving toward delivery. In response, the Australian Energy Market Commission (AEMC) is progressing rule changes to strengthen and standardise technical standards for large energy users, which in theory should mean faster deployment, lower costs, and better investment certainty for data centre operators, though delivery of these reforms remains ongoing.

At the same time, planning scrutiny is increasing. NEXTDC's A$2 billion, 150MW M4 campus at Fishermans Bend is an example of this. The project, which received approval earlier this year, faced scrutiny around its projected water consumption, energy intensity, and the broader impact of clustering large-scale data centre infrastructure within a mixed-use urban precinct. As Melbourne's data centre footprint grows, balancing the pace of AI-driven expansion with grid capacity, regulatory reform, and community acceptance will increasingly determine how quickly new capacity can be delivered.

> "While the market has historically faced fewer grid limitations than Sydney, power availability is tightening."

AI accounts for two-thirds of colocation take-up

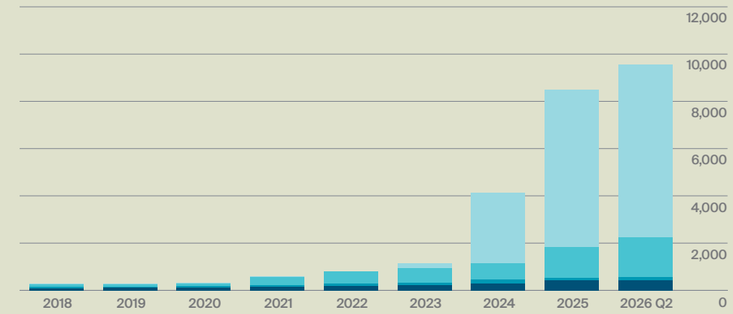
Colocation leasing sectors, (MW)



Source: Knight Frank Insight

Supply is rising with 1.7GW committed.

(MW)



Source: Knight Frank Insight

Mumbai

Mumbai is firmly established as India's leading data centre market and is expected to deliver a significant share of future capacity. Growth is driven by consistent demand from hyperscalers, a large financial services sector, and strong international connectivity. State support remains a key enabler. The Maharashtra IT and ITeS Policy 2023 provides fiscal incentives, power tariff benefits, and streamlined approvals across key hubs, including Navi Mumbai, Panvel and Pune.

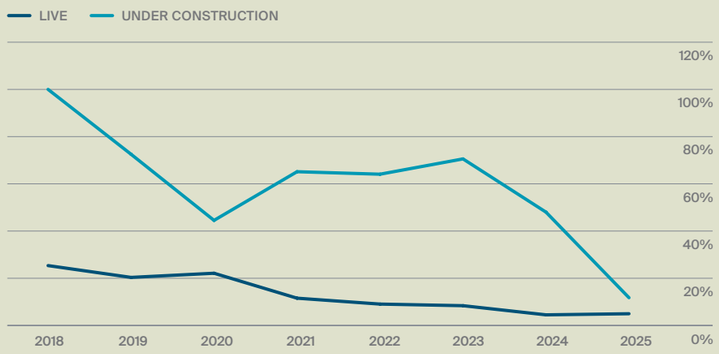
Live IT capacity is projected to increase from around 644 MW at the end of 2025 to approximately 866 MW by 2027, supported by a substantial pipeline of committed schemes. Development activity is increasingly focused in Navi Mumbai, where improving infrastructure and proximity to cable landing stations support large-scale campus delivery. Recent announcements highlight the pace of growth. The Blackstone and Panchshil joint venture has announced a 500 MW hyperscale campus in Navi Mumbai, set to become one of India's largest data centre parks. ST Telemedia Global Data Centres is progressing a 400 MW campus in Palava, with an initial 50 MW phase under construction. Digital Edge is advancing its 300 MW BOM1 campus in Navi Mumbai, with early phases delivered and further capacity underway. Domestic operators and international entrants continue to expand their presence.

The scale of self-build and hyperscale activity remains a defining feature. Major cloud providers, including AWS, Microsoft and Google, are expanding through a mix of owned facilities and colocation partnerships. AWS's acquisition of 38 acres in Palava for approximately $53 million in late 2024 reflects this trend, with plans for a large-scale facility supporting AI workloads.

Constraints remain. The availability of large, contiguous land parcels in core areas is limited, driving development towards peripheral locations where infrastructure delivery is more complex. Power is another key consideration. While Maharashtra has a relatively strong generation base, transmission capacity and substation delivery remain critical challenges. Operators are increasingly adopting open-access and renewable power purchase agreements to manage cost and sustainability targets, although execution remains complex as demand continues to scale.

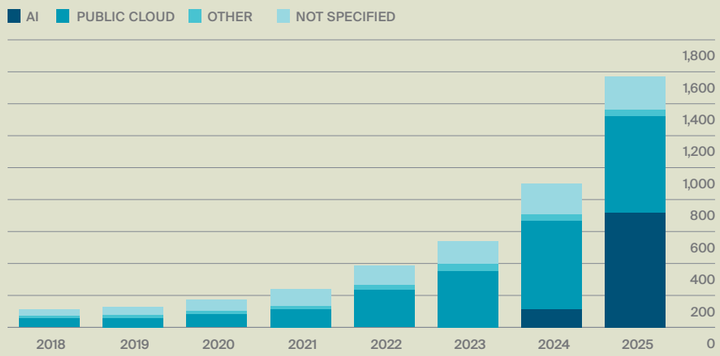
Overall, Mumbai's data centre market remains in a sustained expansion phase. Significant new capacity is expected to come online over the next few years, materially increasing total scale. Strong demand from cloud and digital service providers is expected to absorb supply. At the same time, industry and government are addressing infrastructure and sustainability constraints, reinforcing Mumbai's position as a critical global data centre hub and investment destination.

Mumbai colocation vacancy continues to tighten, with live vacancy at just 5.0%
% of colocation space available



Sources: Knight Frank Insight

AI accounts for 46% of leasing activity in Mumbai
Mumbai colocation leasing sectors, MW



Sources: Knight Frank Insight

Hyderabad

Hyderabad has emerged as one of India's fastest growing data centre markets. Growth has been driven by strong hyperscale cloud demand, a large local technology sector, and competitive land pricing compared with other major cities. The Telangana government has played a central role in enabling this expansion. It has introduced targeted incentives for high-density computing, streamlined single-window approvals, and allocated land for dedicated data centre parks. This supports its ambition to position Hyderabad as a leading AI and digital hub.

Live IT capacity is set to increase rapidly. Capacity is projected to rise from around 188 MW at the end of 2025 to approximately 380 MW by 2027, supported by a substantial development pipeline. Committed and early stage projects total around 1.9 GW, second only to Mumbai. This highlights the scale of future expansion and the market's strong medium term potential.

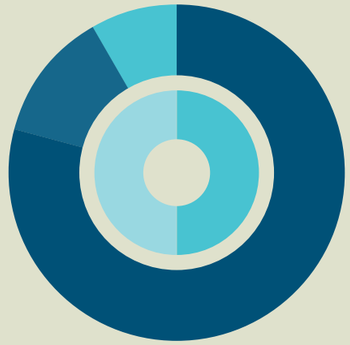
Development is focused on new technology parks on the city's outskirts. These locations offer large, contiguous land parcels and improved infrastructure that support campus-scale schemes. Recent announcements underline the pace of activity. CtrlS is developing a 612 MW data centre park at Chandanvelly Industrial Park, with 250 MW of power already secured for its first phase. NTT Data, Neysa Networks and the Telangana government are advancing a 400 MW AI focused cluster, expected to support up to 25,000 GPUs. Nxtra by Airtel is also developing its largest facility in Hyderabad, a 200 MW scheme on a 40 acre site designed to meet growing cloud, AI and enterprise demand.

The scale of self build and hyperscale activity remains a defining feature. Major cloud providers, including AWS, Microsoft and Oracle, are expanding through a mix of owned cloud regions and colocation partnerships. AWS launched its Hyderabad region in 2022 and now accounts for a significant share of occupied capacity. Microsoft is expected to launch its India South Central Azure region by 2026, while Oracle has announced plans to develop its own data centre capacity after previously relying on third party facilities.

Hyderabad benefits from an abundance of large development sites, but infrastructure remains a constraint. Power and network connectivity must be extended into peripheral areas, and large campuses require significant grid upgrades. The CtrlS campus, for example, includes an on site substation expandable to 900 MW. Planning processes can also affect delivery timelines, with multiple approvals often required despite the single window system.

Overall, the market is set for continued rapid expansion. New capacity will materially increase scale over the next few years. Strong demand is expected to absorb supply. At the same time, industry and government are addressing infrastructure and sustainability challenges, reinforcing Hyderabad's position as a leading national hub and investment destination.

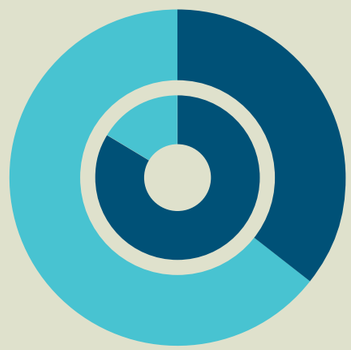
Hyderabad's pipeline marks a clear shift towards larger facilities
Facility count by size band



	LIVE	PIPELINE
Less than 10MW	19	0
>10–50MW	3	0
>50–100MW	2	6
More than 100MW	0	6

Sources: Knight Frank Insight

Hyderabad is shifting towards a colocation-led market
Market composition by operator type (MW)



	LIVE	PIPELINE
Colocation	54	1,899
Self-build	97	366

Sources: Knight Frank Insight

Jakarta

Indonesia is increasingly attracting the scale of investment previously demonstrated in Johor and Bangkok. Greater Jakarta now has a live IT capacity of 344MW, with a further 329MW under construction and 1.6GW committed, while operators have acquired landbanks with the potential to add more than 2.3GW of future capacity. Colocation vacancy has fallen from 27% in 2024 to 21% in the first quarter of 2026, and live IT capacity is forecast to increase more than threefold by 2027.

There is growing interest from both American and Chinese hyperscalers. Google Cloud was the first US hyperscaler to launch a Jakarta cloud region in 2020, followed by AWS in 2021, while Microsoft opened its Indonesia Central region in May 2025 as part of a $1.7 billion investment commitment. On the Chinese side, Alibaba Cloud, Huawei Cloud, and Tencent Cloud all operate three availability zones in Jakarta. Alibaba was the first international hyperscaler to go live in Indonesia in 2018, followed by Tencent in 2021 and Huawei in 2022. Tencent has since committed US$500 million to the country by 2030.

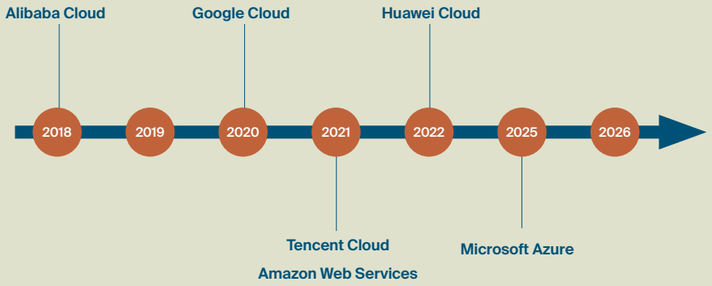
Cost advantages strengthen the investment case. Construction costs in Indonesia range from US$10.5 to US$11.6 million per MW, making it one of the most affordable markets in the region. Industrial landowners are often willing to transact at land value, creating a compelling speculative opportunity for investors able to move early. This is attracting a wave of platform-scale capital. More than 1.2GW of new projects were announced in 2025 alone, including Digital Edge's $4.5 billion, 500MW CGK Campus in Bekasi and Princeton Digital Group's $1 billion, 120MW JC3 campus in the same corridor.

Development is increasingly spreading beyond central Jakarta into East Jakarta, Bekasi, and Karawang, where land availability and grid access are more favourable. Indonesia's regulatory framework classifies data centres as industrial rather than telecommunications businesses, providing a relatively stable and less complex operating environment than other APAC markets such as Singapore, India, and China.

The market is not without risk. Questions around potential oversupply in the colocation segment persist, with a crowded competitive landscape competing for a finite pool of hyperscale tenants. 35 colocation operators are sharing just 267MW of live capacity. Grid stability outside Java remains a concern, and the pace of renewable energy transition, with 82% of electricity still generated from fossil fuels (mainly coal), presents a long-term sustainability challenge. However, with Southeast Asia's largest digital economy, a population of almost 290 million, and a digital economy Gross Merchandise Value (GMV) forecast to exceed $180 billion by 2030, the structural demand case for Jakarta is difficult to overlook.

All major US and Chinese cloud providers are now present in Jakarta

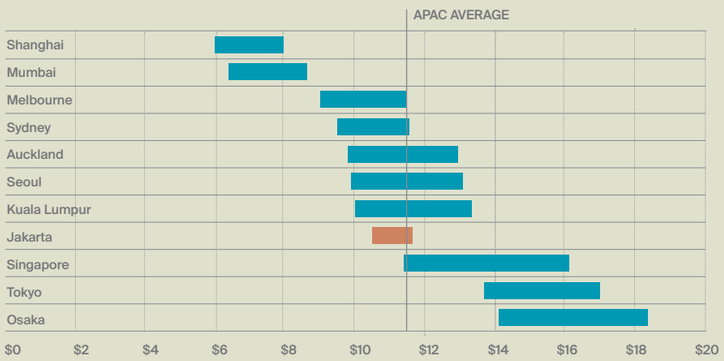
Timeline of hyperscaler commitments in Jakarta



Source: Knight Frank Insight

Jakarta construction costs nearly 25% less than Tokyo

Data centre build cost range, $ million per MW



Source: Knight Frank Insight

Bangkok

Bangkok is one of the fastest-growing data centre markets in APAC, with live IT capacity forecast to more than triple over the next two years, from 122MW at the end of 2025 to 402MW by 2027. Following Johor's rapid emergence as a regional hyperscale market, Bangkok is increasingly positioned as Southeast Asia's next major investment destination, attracting capital from both regional and global operators. In 2025, Thailand's Board of Investment (BOI) approved 141 digital infrastructure projects worth a combined THB 623 billion ($19.7 billion), the majority of which are understood to be data centres. Just the year before, the BOI approved 150 digital projects worth THB 101 billion ($3.2 billion). The pace of approvals has continued into 2026, with 48 projects worth THB 874 billion ($27.6 billion) approved in the first three months alone, already surpassing the full-year 2025 total.

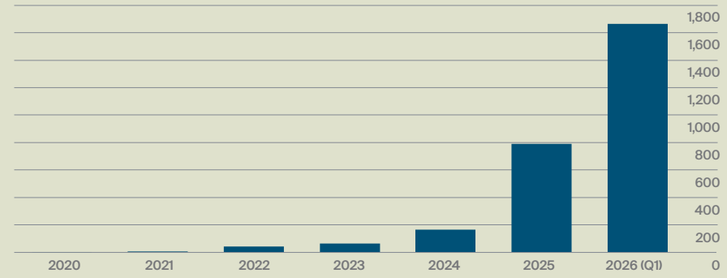
The volume of self-build activity is a defining feature. There is currently 35MW of live self-build capacity in Bangkok, forecast to expand to almost 600MW over the next few years as projects progress from early-stage development to operational. Among the major operators, AWS has committed US$5 billion, Google US$1 billion across Bangkok and Chonburi, while DAMAC Digital and DayOne are both progressing large-scale campuses, DayOne's 115MW Chonburi Tech Park and DAMAC's 84MW facility among the most advanced.

Much of this development is concentrated in the Eastern Economic Corridor (EEC), where industrial parks are increasingly evolving into data centre campuses. Chonburi and Rayong accounted for 65% of all BOI-approved data centre projects last year. Qualifying projects are eligible for an eight-year corporate income tax exemption, subject to meeting PUE and efficiency standards. Operators can also take advantage of the newly announced 2GW Direct PPA pilot, which took effect in January 2026, allowing data centres to contract renewable energy directly from producers. On the infrastructure side, the Electricity Generating Authority of Thailand (EGAT) has committed THB 31 billion to upgrade transmission capacity across the corridor, addressing a grid network originally designed for conventional industrial loads rather than concentrated, always-on hyperscale demand.

The capital is committed, the policy framework is in place, and the hyperscaler pipeline is among the largest in Southeast Asia. Whether Bangkok converts this level of ambition into live IT capacity will depend on the speed at which grid infrastructure, power procurement, and EEC delivery timelines can be aligned with the scale of occupier demand.

Approval of digital investment promotion increases, with over THB 1.4 trillion approved since the start of 2025

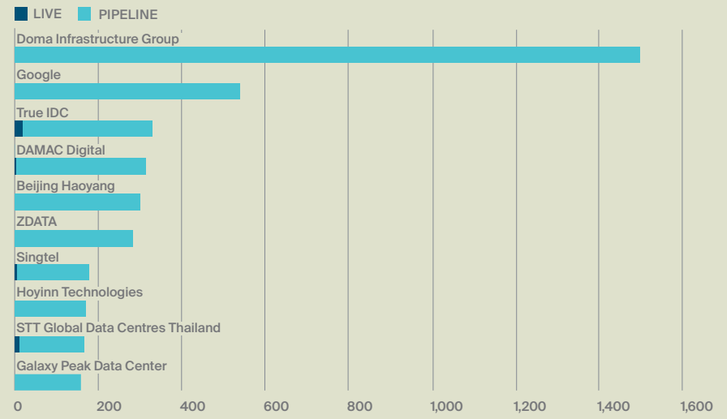
Cumulative digitial investment (in billion baht) since 2020



Source: Knight Frank Insight

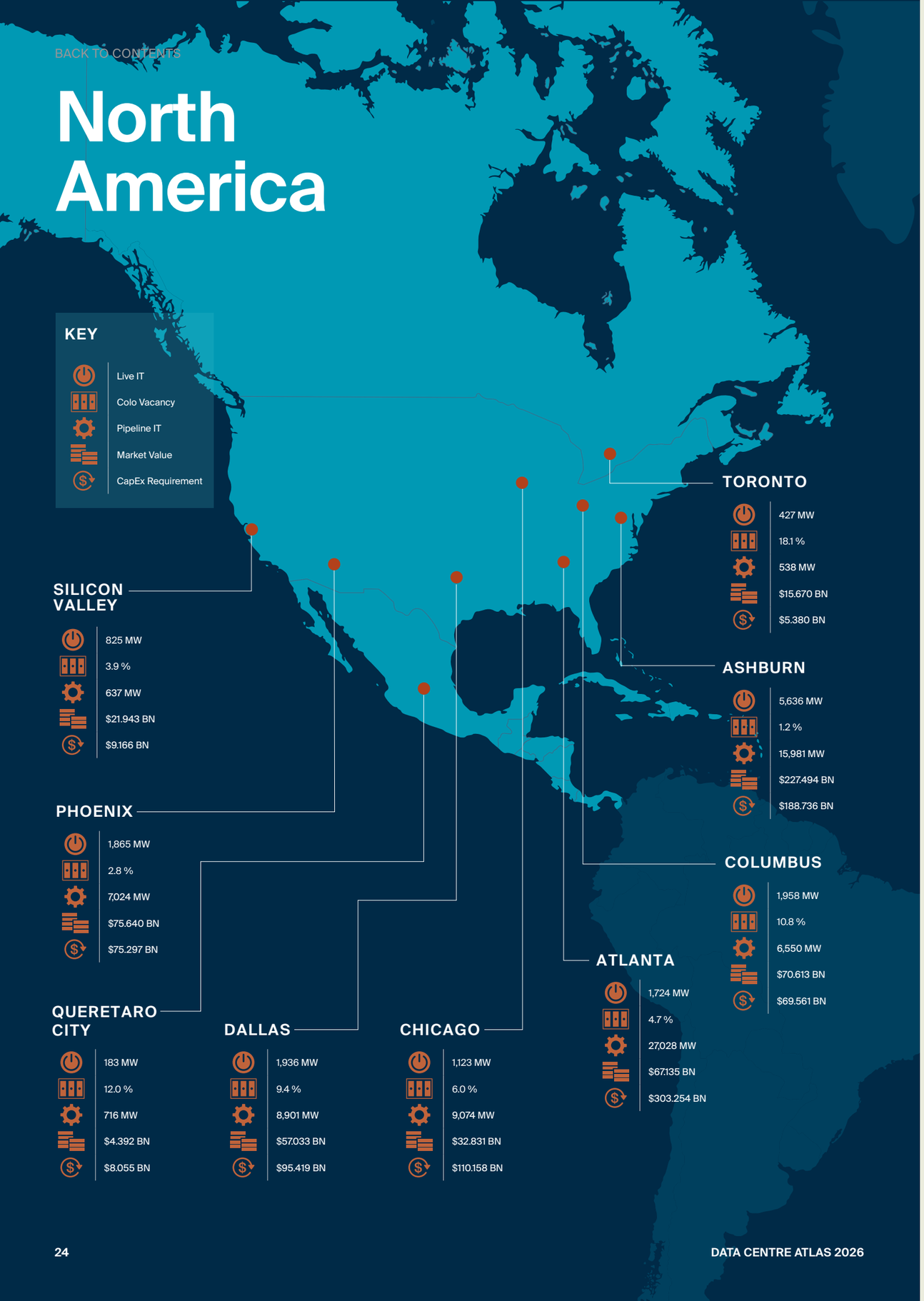
Bangkok's top 10 operators account for 3.9GW of total capacity, but just 39MW (1%) is currently live

Live and pipeline (under construction, committed, early-stage) capacity, MW



Source: Knight Frank Insight

North America



Ashburn

Ashburn and the wider Northern Virginia market continue to sit at the centre of the global data centre industry. The market's defining issue currently is not whether demand exists, but whether developers and occupiers can secure access to power, land, construction slots, and local approvals. During 2025, the market added 653MW of new colocation capacity, while net leasing reached 763MW. This moved vacancy to just 0.6% in the second half of the year. With 85% of the construction pipeline already committed, future capacity is increasingly being absorbed years ahead of delivery, with pre-leasing now extending into 2028 and beyond. Dominion Energy's batching process has reinforced this dynamic by making energisation timing a central constraint on market growth.

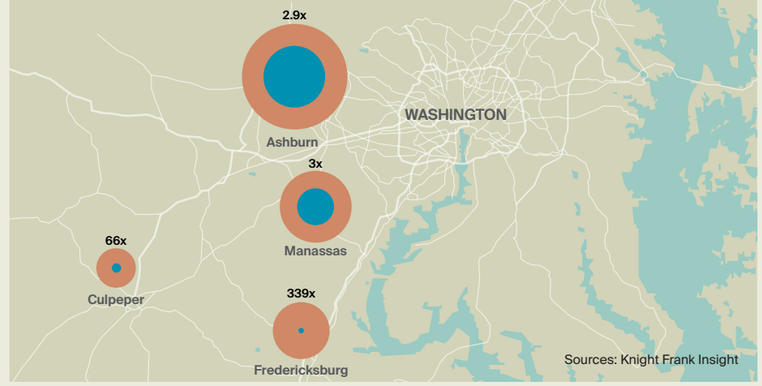
As a result, Ashburn has become a market where access is increasingly determined by timing, credit quality, and the ability to commit early. Tenants seeking meaningful capacity can rarely rely on existing availability, with live vacancy remaining below 3% for twelve consecutive quarters. Most absorption is now being driven by pre-leasing and build-to-suit commitments, which together account for approximately 95% of demand capture. AI occupiers have added further pressure, with many willing to accept higher pricing to secure access to scarce powered capacity.

The next phase of growth will be more geographically dispersed. Expansion is already pushing beyond the traditional Ashburn/Sterling core into Prince William County, Stafford County, Spotsylvania County, and Caroline County. In 2025, more than $1.5 billion was spent on data centre land acquisitions across the Ashburn-Manassas region, with 47% of that capital directed outside the core Ashburn area. Projects such as AWS' Mattameade development, Ada Infrastructure's Spotsylvania campus, Vantage's $2 billion VA4 scheme, and CleanArc's 900MW VA1 campus in Caroline County illustrate how the market is extending into new corridors rather than simply densifying around its historic centre.

Northern Virginia therefore remains the most established and liquid data centre ecosystem globally, but its operating model has changed. It is now less an open-capacity market and more a forward-reservation market, where securing a position in the power queue is often as important as controlling land. For developers and occupiers, success will depend on early utility engagement, credible delivery plans, local stakeholder support, and the ability to align project timelines with constrained power availability.

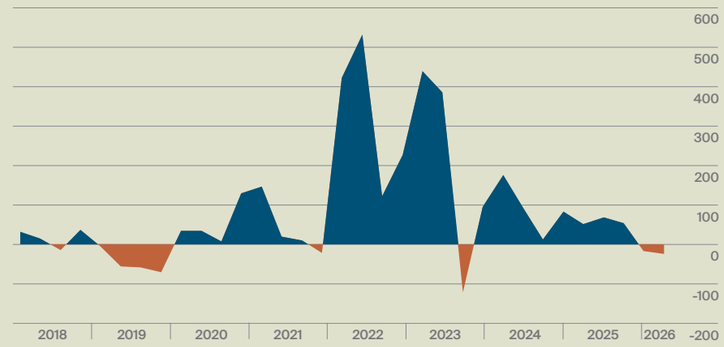
> "Northern Virginia therefore remains the most established and liquid data centre ecosystem globally, but its operating model has changed."

Outer-regions to grow 10x faster than core-regions
Forecast data centre IT capacity (MW) by North Virginia submarket



Sources: Knight Frank Insight

Ashburn leasing outpaced new supply by 158MW in 2025
Ashburn new colocation capacity vs net quarterly leasing volumes (MW)



Sources: Knight Frank Insight

Silicon Valley

Silicon Valley remains a strategically important data centre location, but its role is increasingly shaped by scarcity rather than large-scale expansion. Demand continues to be supported by the Bay Area's concentration of major technology companies, AI developers, cloud engineering teams, and enterprise users with latency-sensitive or ecosystem-specific requirements. However, the market's ability to add new capacity is constrained by limited power availability, expensive land, and a difficult entitlement environment. In 2025, vacancy fell to 3.9%, while leasing activity totalled 53MW, despite limited new supply and cases where planned data centre developments were redirected back toward industrial use because sufficient power could not be secured.

These constraints have strengthened pricing power, particularly with larger contiguous blocks. Local technology companies remain an important source of demand, but occupiers are finding fewer opportunities to secure scale at discounted pricing. Average transaction size was around 1.4MW during 2025, and the market's historical volume-based discounts for larger deployments have largely disappeared as competition for capacity has intensified.

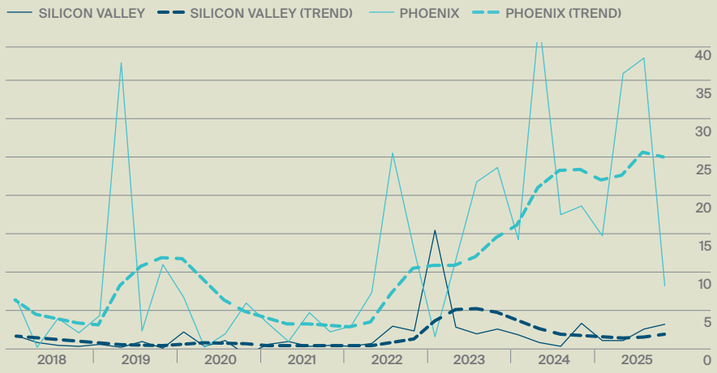
Because Santa Clara can no longer reliably absorb all incremental demand, occupier and developer interest is spreading into neighbouring or alternative locations, including the East Bay, Sunnyvale, North San Jose, the North Bay, and Sacramento. Operators are also exploring on-site generation and other power solutions to mitigate utility constraints. At the same time, customers are becoming more selective about what they place in Northern California, given its higher operating cost profile compared with lower-cost markets such as Phoenix.

Looking into 2026, Silicon Valley is likely to function less as a broad hyperscale growth market and more as a specialised, high-cost node for workloads that genuinely need proximity to the Bay Area technology ecosystem. Large-scale AI training and major cloud expansion are expected to continue favouring markets with cheaper land and better power availability, while Silicon Valley should retain demand from users whose requirements justify the premium for location, connectivity, talent access, and proximity to major technology decision-makers.

> "Local technology companies remain an important source of demand, but occupiers are finding fewer opportunities to secure scale at discounted pricing."

Phoenix average lease size was almost 13x larger than Silicon Valley's in 2025

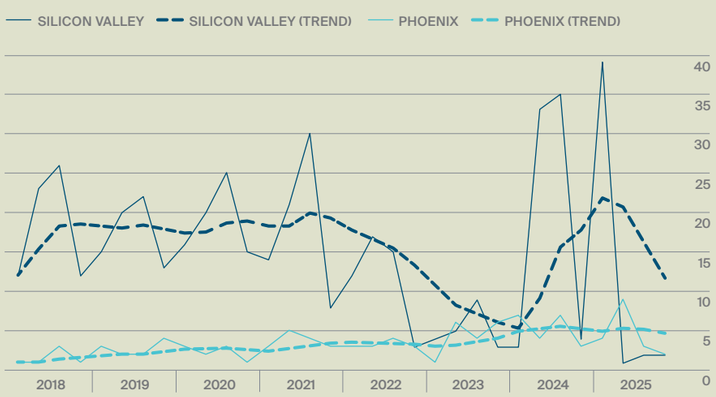
Silicon Valley and Phoenix quarterly average lease size (MW)



Sources: Knight Frank Insight

Phoenix has outpaced Silicon Valley leasing for four consecutive years

Silicon Valley and Phoenix quarterly lease agreements (MW)



Sources: Knight Frank Insight

Phoenix

Phoenix has evolved well beyond its original role as an overflow option for West Coast demand. It is now one of North America's most important large-scale data centre growth markets, supported by strong connectivity back to California, a favourable tax environment, significant land availability, and comparatively low exposure to major natural disasters. By Q4 2025, the market had reached 1.9GW of live IT capacity, with vacancy below 3%, a further 1.2GW under construction, and more than 7GW in the wider development pipeline.

The market's appeal is increasingly tied to its ability to support campus-scale deployments that would be difficult to accommodate in more constrained coastal markets. Hyperscale users are often seeking entire buildings or multi-building campuses, which has pushed development activity beyond the central metro area into locations such as Glendale, Avondale, and Buckeye. This outward expansion reflects the scale of demand, but also the need to find sites where land, power, and infrastructure can be aligned.

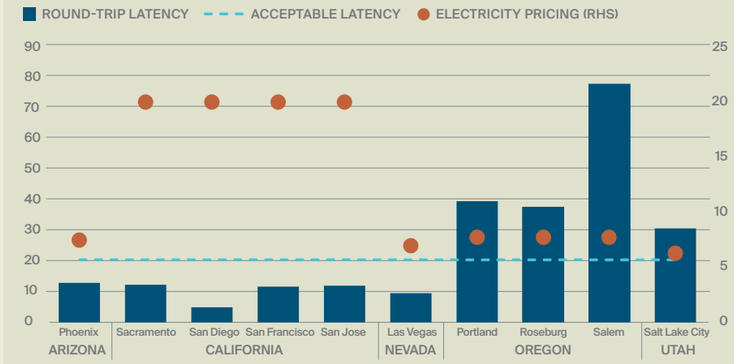
Power availability is now the main factor shaping Phoenix's next phase of growth. In response to rising large-load demand, Salt River Project (SRP) introduced its Large Customer Integration Process (LCIP) in 2025, designed to evaluate the infrastructure required to serve major new electricity users and reduce the risk of upgrade costs being shifted to existing customers. SRP's updated E-67 pricing framework also introduced minimum billing requirements for new customers above 20MW, with charges based on the greater of actual demand or 80% of forecast load. The purpose is to discourage speculative or inflated power requests and ensure that large users carry the cost implications of the capacity they reserve.

Despite these constraints, Phoenix remains highly attractive because it can still offer scale, land, and regional connectivity in a way that Silicon Valley and Los Angeles cannot. The key question for 2026 is not whether demand will continue, but how quickly utilities, developers, and infrastructure stakeholders can convert that demand into energised capacity. Phoenix is therefore best viewed as a market with substantial long-term growth potential, but one where delivery will be governed by utility study timelines, infrastructure upgrades, and the sequencing of power commitments.

> "Phoenix remains highly attractive because it can still offer scale, land, and regional connectivity in a way that Silicon Valley and Los Angeles cannot."

Phoenix combines low-cost power with well-within-threshold latency

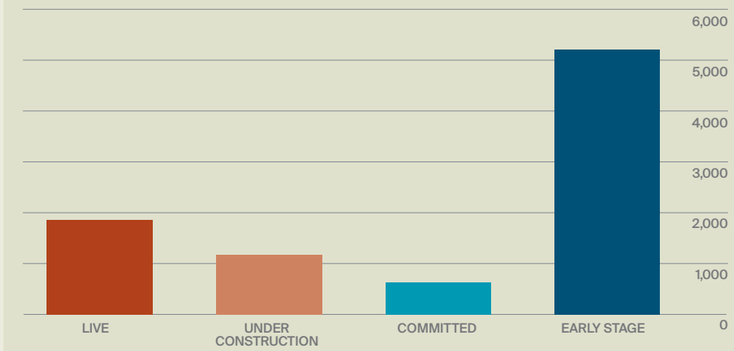
Round-trip latency from Los Angeles (ms) and electricity pricing (¢/kWh)



Sources: Knight Frank Insight

Phoenix's total pipeline stands at 8.9GW

Aggregate supply breakdown (MW)



Sources: Knight Frank Insight

Columbus

Columbus has rapidly developed from a secondary data centre location into a major cloud and hyperscale market. Its recent growth has been driven by large-scale land acquisition from major platform and infrastructure players, but that expansion is now increasingly intersecting with grid limitations. Across 2024 and 2025, hyperscalers acquired around 2,100 acres in the Columbus region, with EdgeConneX, Meta, Microsoft, and Amazon Web Services accounting for much of that activity. This has helped establish Columbus as a meaningful cloud-region market, with available supply now extremely limited against an energised portfolio of approximately 2GW.

New Albany remains the centre of activity, but development is beginning to push into a wider set of locations as power availability becomes harder to secure in the core market. Grid constraints are also encouraging developers to consider interim or alternative energy strategies, including front-of-meter fuel cells and behind-the-meter natural gas generation. As a result, Columbus is not simply absorbing spillover demand from larger constrained markets; it is becoming an important test market for new power-procurement models that could be replicated in other high-demand regions.

Over the medium term, Columbus is expected to play a larger role in the national hyperscale network, helped by its position between Chicago, New York, and Northern Virginia. Connectivity investment is reinforcing that role. Lightpath entered the market in 2025 with a 102-route-mile underground fibre network designed to support hyperscale campus connectivity and is also planning a 392-route-mile long-haul fibre route between Columbus and Chicago, with phased delivery and full completion targeted for Q4 2028.

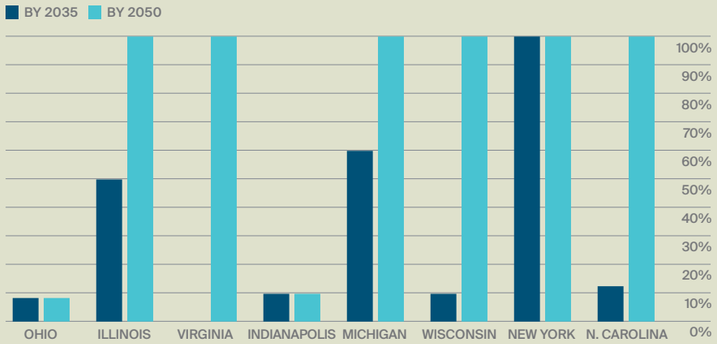
Taken together, these factors are shifting Columbus's market identity. It is no longer best viewed as a lower-cost alternative to established data centre hubs. Instead, it is emerging as a multi-site cloud region where land availability, fibre expansion, hyperscale demand, and access to differentiated power solutions will determine the pace and location of future growth.

> "Columbus has rapidly developed from a secondary data centre location into a major cloud and hyperscale market."

> "Over the medium term, Columbus is expected to play a larger role in the national hyperscale network, helped by its position between Chicago, New York, and Northern Virginia."

Ohio targets just 8.5% renewables by 2050

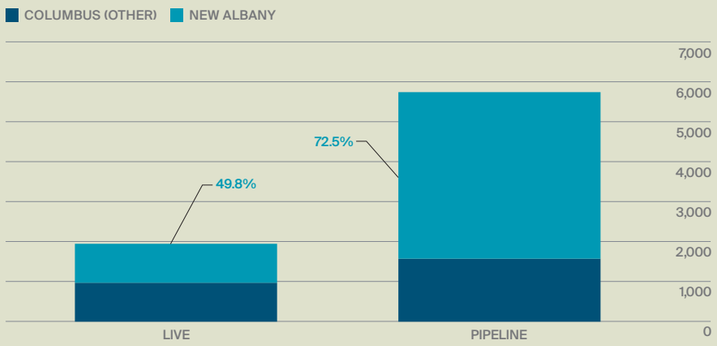
Renewable and clean energy standards by state (%)



Sources: Knight Frank Insight

4.2GW of Columbus's 5.8GW pipeline is concentrated in New Albany

Columbus deployment geography (MW)



Sources: Knight Frank Insight

Dallas-Fort Worth

Dallas-Fort Worth (DFW) has become one of the most important scale markets in North America, with 2025 marking another step-change in hyperscale and AI-led demand. The market is increasingly viewed as the strongest long-term competitor to Northern Virginia, supported by large campus opportunities, strong fibre connectivity, cloud-region relevance, favourable taxes, and Texas's broader energy advantages. During 2025, DFW recorded 520MW of net colocation leasing, its highest annual total to date, with AI-related requirements accounting for 62% of demand. A further 675MW is currently under construction, around half of which has already been pre-leased, while the wider development pipeline is approaching 9GW.

The wider Texas market is also strengthening DFW's position. Across the state, the aggregate data centre pipeline is estimated at 39GW, exceeding Virginia's pipeline and creating the potential for Texas to overtake Virginia as the largest data centre market by 2030. For operators and hyperscalers, the appeal lies in the combination of land availability, grid access, energy optionality, and a business environment that remains supportive of large-scale digital infrastructure investment.

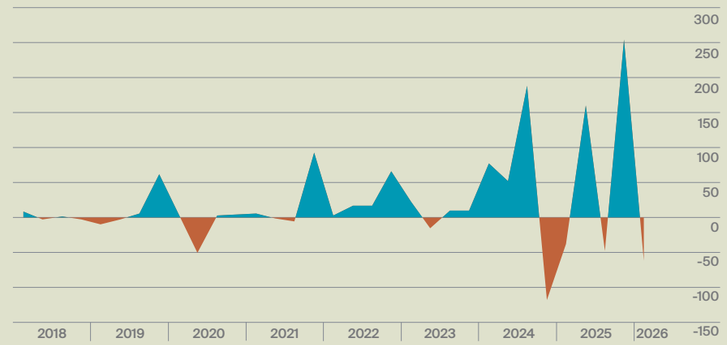
However, DFW is not free from delivery challenges. Power availability, utility study timelines, equipment lead times, and interconnection constraints are increasingly affecting project schedules, with some developments being pushed more than 12 months beyond their original target dates. As core submarkets become more congested, development activity is spreading south and west, including into South Dallas and Fort Worth, while some of the largest AI-driven campus requirements are being pushed into adjacent or alternative Texas markets such as Abilene.

Looking ahead to 2026, DFW is expected to remain one of the most competitive US markets for large cloud, hyperscale, AI, and HPC deployments. Its next phase of growth will depend less on headline demand and more on execution: securing power positions, managing utility relationships, exploring self-generation or behind-the-meter strategies, and expanding into new submarkets without losing the connectivity advantages that made the original DFW clusters attractive. In short, DFW has established itself as Texas's primary hyperscale anchor, but future outperformance will depend on how effectively developers convert pipeline ambition into energised capacity.

> "DFW is expected to remain one of the most competitive US markets for large cloud, hyperscale, AI, and HPC deployments."

Dallas demand outpaced new supply by 332MW in 2025

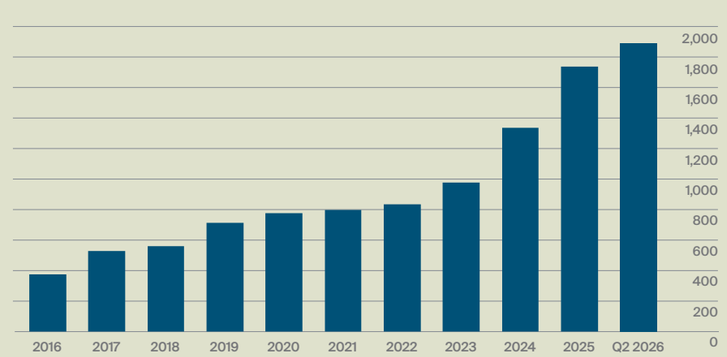
New colocation capacity vs net quarterly leasing volumes (MW)



Sources: Knight Frank Insight

Dallas added 400MW of capacity in 2025 alone

Pipeline volumes excluding early stage (MW)



Sources: Knight Frank Insight

Atlanta

Atlanta has moved through a period of rapid data centre expansion and is now entering a more selective phase of growth. The market has more than doubled in scale since 2023, increasing from 704MW to 1,644MW over the past two years. This growth has been supported by early hyperscale commitments, competitive land pricing relative to coastal markets, economic incentives, and Georgia's rising importance as a digital infrastructure location in the Southeast.

Despite this expansion, available capacity remains limited. Current colocation availability is below 50MW across nineteen sites, leaving an average of only 2.6MW available per location. Vacancy has held at 4.7%, while annual absorption slowed to just under 200MW, compared with 920MW in 2024. Looking into 2026, more than 1GW is under construction, but very little of that pipeline is genuinely available: only two active developments contain vacant capacity, and the 2026 pipeline, along with most of the 2027 pipeline, has already been pre-let.

The main constraint in Atlanta is no longer demand or land control, but the credibility of power delivery. The market now has more than 5.5GW of committed or under-construction data centre projects, creating pressure on transmission infrastructure in specific development corridors and increasing the need for targeted grid upgrades. In response, Georgia's Public Service Commission (PSC) introduced new rules in January 2025 for large power customers above 100MW. These rules allow Georgia Power to apply bespoke terms to qualifying customers, including recovery of site-specific and upstream generation, transmission, and distribution costs during construction, longer contract terms of up to 15 years, minimum billing requirements, and PSC review of relevant contracts.

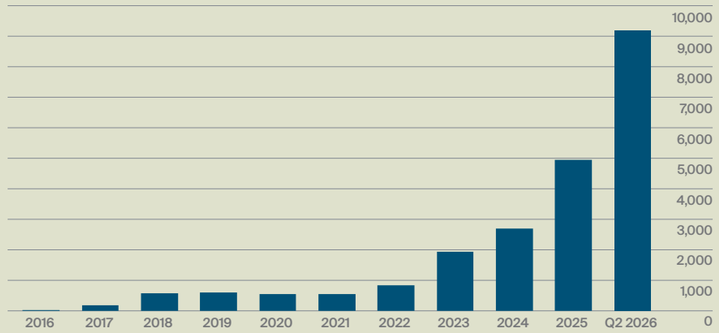
These regulatory changes are reshaping development behaviour. Speculative powered-land strategies are becoming harder to support unless backed by credible hyperscale demand or strong customer credit. By Q3 2025, Georgia Power had filed almost 2GW of new customer contracts under the revised framework and remained in negotiations for several additional gigawatts of potential demand.

For 2026, Atlanta should remain a major destination for hyperscale, cloud, and AI-related demand, but competitive advantage will increasingly depend on execution rather than simple land aggregation. The strongest developers will be those able to demonstrate a realistic power path, engage early with utilities and communities, manage zoning risk, and convert committed demand into deliverable capacity.

> "The market has more than doubled in scale since 2023, increasing from 704MW to 1,644MW over the past two years."

Atlanta now has 5.5GW of committed or under-construction projects

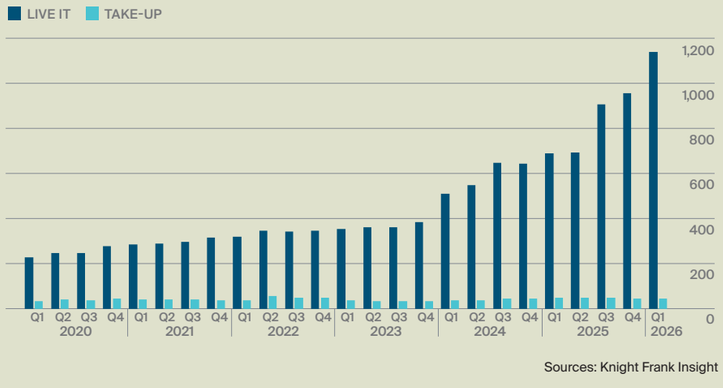
Atlanta pipeline volumes excluding early stage (MW)



Sources: Knight Frank Insight

Take-up remains tight at 45MW

Atlanta live IT capacity and available supply (MW)



Sources: Knight Frank Insight

Chicago

Chicago remains one of North America's most important data centre markets, but its growth profile is increasingly being shaped by the availability and timing of power. The market combines a mature interconnection ecosystem, a central US location, and a deep base of enterprise, cloud, hyperscale, and AI demand. In 2025, absorption exceeded 600MW, while only 146MW of new IT capacity was delivered, pushing vacancy down to 6.0%. The market now has around 1.1GW of energised data centre capacity and a broader pipeline of approximately 9GW, although less than 2GW is expected to be delivered in the near term.

Demand is broad, but the leasing environment is increasingly being led by hyperscale tenants reserving capacity well ahead of delivery. Tenants are now committing to space 18–24 months before energisation, meaning that there is no remaining deliverable capacity available in 2026. This shortage of near-term supply has reduced tenant flexibility around ramp schedules and commercial terms. As a result, rental rates have increased by around 12% over the past year, reflecting competition between existing occupiers seeking expansion capacity and new AI-driven requirements entering the market.

Power delivery is the key bottleneck. ComEd's large-load request pipeline includes more than seventy-five projects representing over 28GW of potential demand, a level that exceeds the utility's historic 24GW peak load. This has materially extended delivery timelines, with some ComEd-served data centre projects now facing energisation delays into 2032 or later. For projects of 50MW or above, ComEd is also requiring 10-year letters of credit to support transmission revenue commitments.

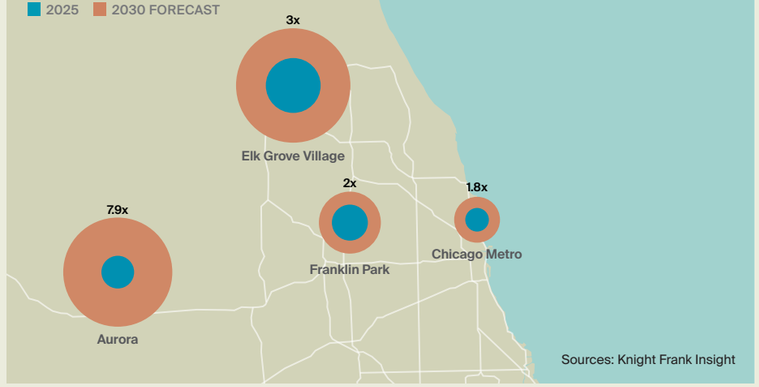
To reduce the risk that unused or speculative capacity imposes costs on other customers, ComEd has entered into transmission service agreements (TSAs) with eight large-load customers representing more than 6.5GW of forecast demand. These arrangements are designed to protect the wider customer base from more than $2 billion of potential transmission charges over a 10-year period if contracted projects do not ultimately materialise at the expected scale.

> "Looking ahead, Chicago should remain a top-tier data centre location."

Looking ahead, Chicago will remain a top-tier data centre location because of its fibre depth, geographic position, and established operator base. However, future growth is likely to be more selective and more dependent on power certainty. Core submarkets are becoming increasingly constrained, while outer locations such as Grayslake, Yorkville, and Joliet are gaining momentum. For tenants seeking large blocks of capacity, the market now requires earlier commitment, less flexibility, and a greater focus on the timing and credibility of power delivery.

Aurora's data centre capacity is forecast to grow 8x by 2030

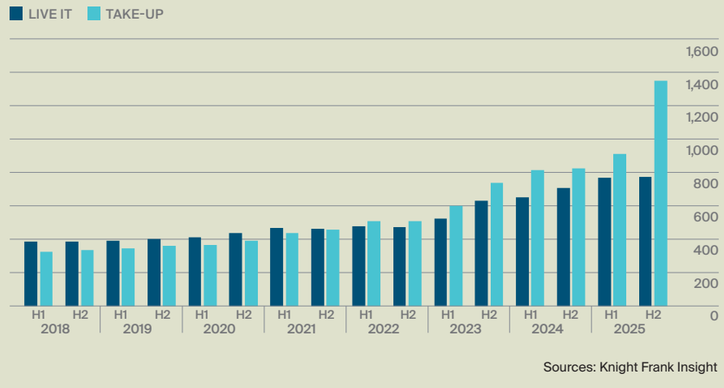
Forecast data centre IT capacity (MW) by Chicago submarket



Sources: Knight Frank Insight

Chicago's supply-demand gap widened

Chicago live IT capacity vs cumulative take-up (MW)



Sources: Knight Frank Insight

Queretaro City

Querétaro City has become Mexico's leading data centre hub, serving as the country's main location for hyperscale and colocation deployment. Demand remains strong, supported by cloud growth across Mexico, proximity and connectivity to the US, and a growing domestic enterprise customer base. However, the market is becoming increasingly constrained, with limited hyperscale-ready availability and upward pressure on pricing as operators and customers compete for power-backed capacity.

The city's importance within Mexico's digital infrastructure landscape is significant. Around 73% of Mexico's data centre capacity is in Querétaro, with the colocation market led by operators such as ODATA and Equinix. The region also hosts self-build deployments from major cloud platforms, including Microsoft and Amazon Web Services. This concentration has reinforced Querétaro's position as the national anchor market, but it has also increased pressure on local infrastructure.

Power interconnection delays, grid reliability, and water availability are now among the main issues shaping future development. These constraints are particularly important given the scale and density of hyperscale requirements, where utility certainty and cooling strategy can be as important as land control. As a result, developers are having to place greater emphasis on power procurement, backup generation, renewable energy access, and water-efficient cooling solutions.

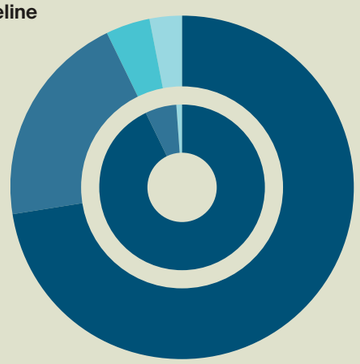
Looking ahead, Querétaro's growth outlook remains positive, with approximately 716MW of projects planned across the city. However, the speed of delivery will depend on whether utility infrastructure and water resilience can scale quickly enough to support continued hyperscale demand. If those constraints become more acute, some future demand may begin to diversify into other Mexican data centre nodes, although Querétaro will remain the country's primary cloud and colocation gateway.

> "Power interconnection delays, grid reliability, and water availability are now among the main issues shaping future development."

> "Around 73% of Mexico's data centre capacity is in Querétaro, with the colocation market led by operators such as ODATA and Equinix."

Queretaro City dominates Mexico with 72% of live supply and 92% of the pipeline

Mexico regional market share by live IT capacity and pipeline (MW)

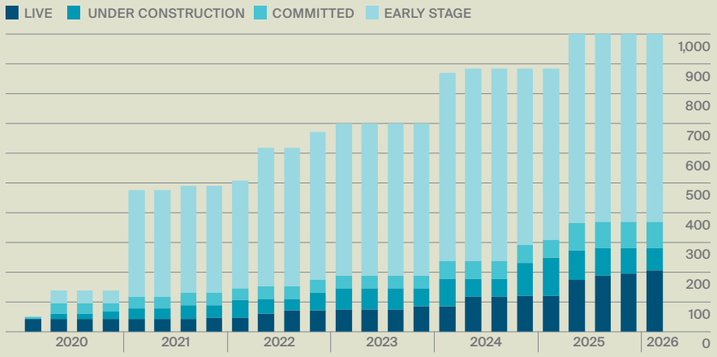


	LIVE	PIPELINE
Queretaro City	72%	92%
Mexico City	20%	6%
Guadalajara	4%	0%
Monterrey	3%	1%

Sources: Knight Frank Insight

Live supply in Queretaro surpassed 175MW in 2025

Supply breakdown by development stage (MW)



Sources: Knight Frank Insight

Toronto

Toronto is increasingly evolving from a traditional enterprise and carrier-colocation market into a broader Southern Ontario data centre platform shaped by cloud growth, AI demand, and access to power. The market remains Canada's principal data centre hub, but recent leasing activity beyond the traditional downtown and carrier-centric locations shows that location strategy is becoming less purely latency-led and more focused on where meaningful power-backed capacity can be delivered.

AI infrastructure demand is now a major part of that shift. CoreWeave has become one of the most important new demand drivers in the region, with a 64MW deployment in Cambridge and Cohere understood to account for 52MW of that capacity. The project is also linked to Canada's wider sovereign AI compute agenda, with the federal government committing up to CAD$240 million to support Cohere under the CAD$2 billion Canadian Sovereign AI Compute Strategy.

Near-term availability remains the main constraint. Toronto has limited built-out colocation options in the 2–5MW range, which is creating pricing pressure for enterprise and non-hyperscale customers. Larger requirements are even harder to place, with only two providers able to accommodate needs above 10MW. As a result, development parcels with near-term grid capacity command a premium, while new greenfield projects are unlikely to provide meaningful relief before the second half of 2027.

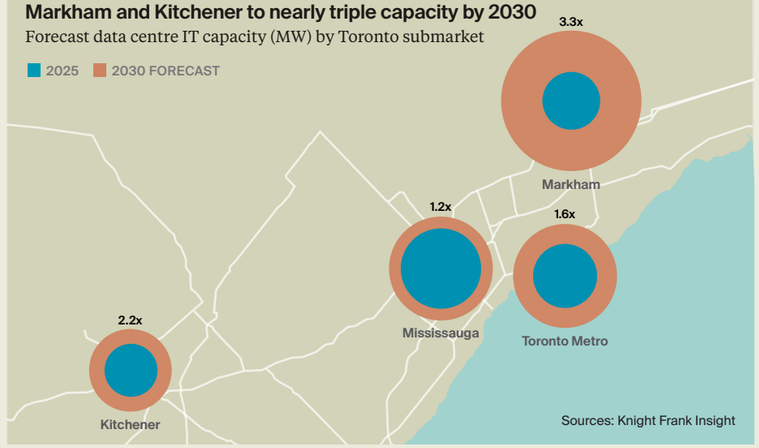
Looking ahead, Toronto should continue to see strong demand from financial services, enterprise users, cloud platforms, and AI-led workloads. However, future growth is likely to be increasingly decentralised across the wider Southern Ontario region rather than concentrated in the historic downtown colocation market. The next phase of development will depend on securing scalable power, bringing forward outer-market sites, and matching AI and cloud demand with capacity that can be delivered on realistic energisation timelines.

> "Looking ahead, Toronto should continue to see strong demand from financial services, enterprise users, cloud platforms, and AI-led workloads."

> "Toronto has limited built-out colocation options in the 2–5MW range, which is creating pricing pressure for enterprise and non-hyperscale customers."

Markham and Kitchener to nearly triple capacity by 2030

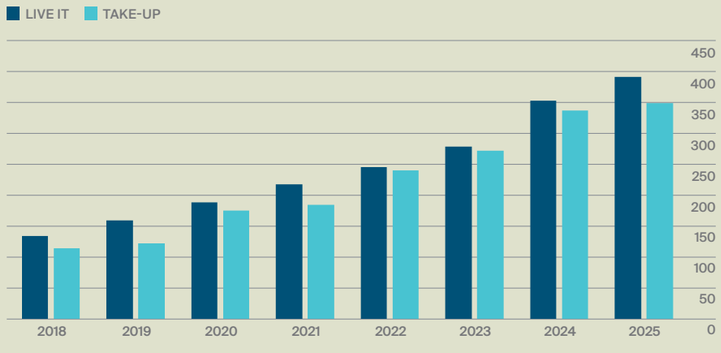
Forecast data centre IT capacity (MW) by Toronto submarket



Sources: Knight Frank Insight

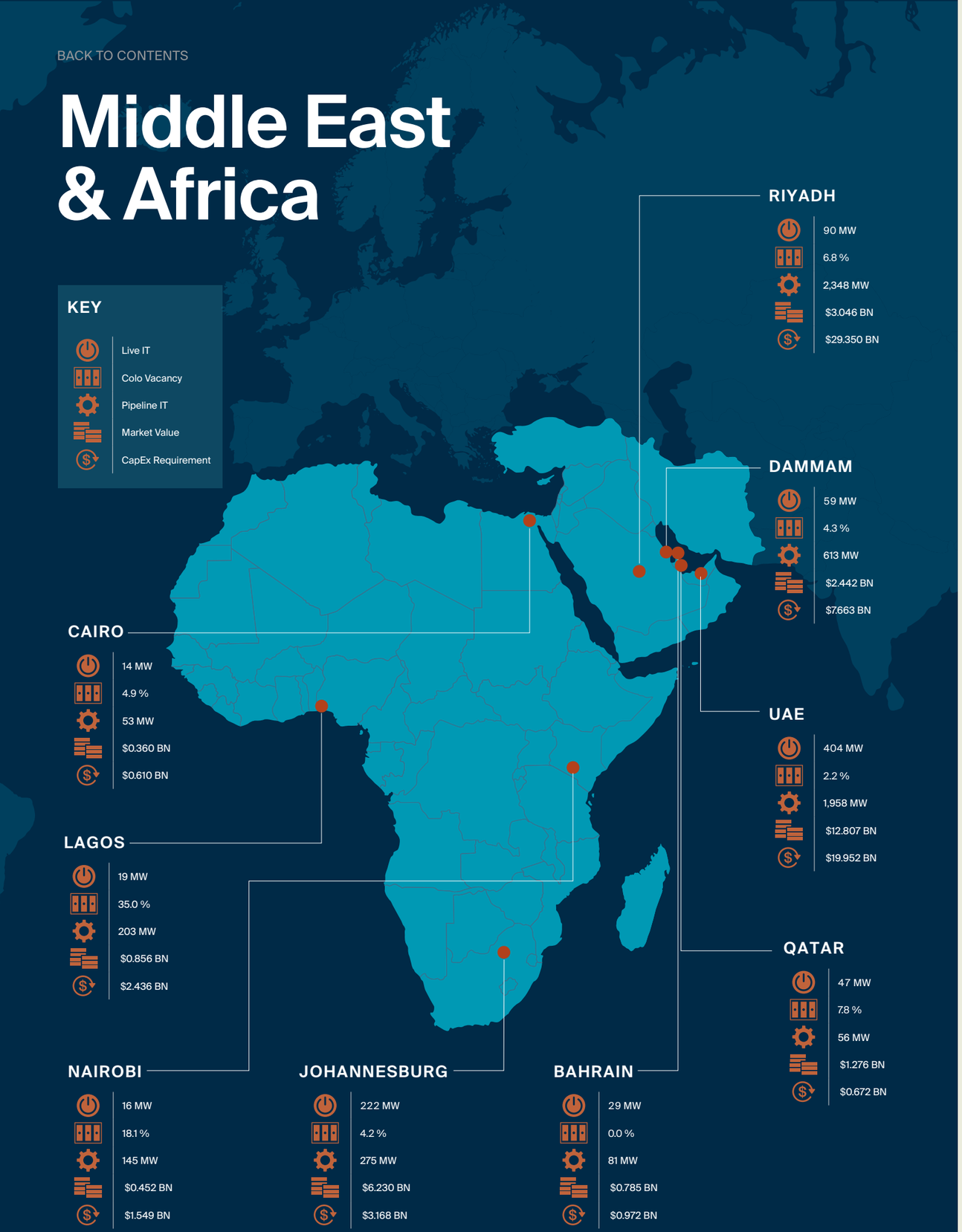
Toronto take-up has tracked live supply closely

Toronto live IT capacity vs cumulative take-up (MW)



Sources: Knight Frank Insight

Middle East & Africa



UAE

The overarching trend defining the United Arab Emirates data centre market is its move from a mature regional cloud and interconnection market into a sovereign AI infrastructure platform. Abu Dhabi and Dubai are no longer competing with other Gulf markets for enterprise colocation but are instead positioning as global-scale AI and cloud deployment hubs. The UAE already hosts over 400MW of built IT capacity, with 333MW under construction and an additional 1.4GW in active development. Khazna are the dominant local operator in the Emirate, and active hyperscale tenants include Amazon Web Services, Microsoft, Google, Oracle, Huawei, and OpenAI.

Across the UAE, an opportunity exists for developers as users and hyperscalers seek diversity away from Khazna and Gulf Data Hub, who are jointly responsible for 75% of the Emirates built IT capacity. G42 and Core42 are driving the national AI and cloud infrastructure strategy, with strategic capital support available from MGX and Silver Lake. While mature global markets are constrained by grid bottlenecks, the UAE in contrast has deliberately aligned power, land, a speedy permitting process, and sovereign capital to drive the country's competitive position. However, land is often only available by way of ground lease given Dubai Holdings significant land ownership position.

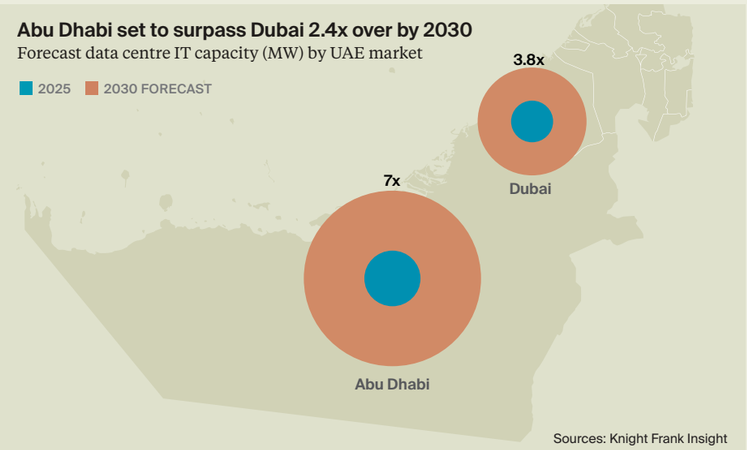
"The overriding theme surrounding the United Arab Emirates data centre market is its move from a mature regional cloud and interconnection market into a sovereign AI infrastructure platform."

The catalyst for the region's growth is AI. Stargate UAE in Abu Dhabi, backed by OpenAI, Oracle and Nvidia, is a planned 1GW campus, and potentially reaching 5GW, that is expected to launch its first 200MW in Q4 2026. Khazna is creating a 100MW AI-optimised facility in Ajman, whilst Microsoft and neocloud provider, G42, will be expanding AI capabilities in the region through a 200MW increase in data centre capacity through Khazna. This expansion is expected to start coming online before the end of 2026.

"The UAE already hosts over 400MW of built IT capacity, with 333MW under construction and an additional 1.4GW in active development."

Abu Dhabi set to surpass Dubai 2.4x over by 2030

Forecast data centre IT capacity (MW) by UAE market



Sources: Knight Frank Insight

UAE pipeline stands at 1.8GW

UAE aggregate supply breakdown (MW)

Source: Knight Frank Insight

Riyadh

Defining the market in Riyadh will be the continuation of policy-driven demand translating into real data centre absorption. Saudi Arabia's capital is benefitting from three forces at once: Vision 2030, the Regional Headquarters programmes, and the government's push to turn the Kingdom into a Cloud and AI hub for the Gulf. Data centre capacity in Riyadh is forecast to expand at a compound-annual-growth-rate of 165% through 2027, the fastest of any Gulf region and one of the fastest growing globally. This growth is being driven by new-build developments from Amazon Web Services, Center3, Desert Dragon, and HUMAIN.

The occupier base is broadening quickly. Hundreds of international companies have established or announced regional headquarters in Riyadh, while public-sector digitisation, financial services, healthcare, gaming, smart-city platforms and Arabic AI workloads are all requiring localised infrastructure. Recent deployments from hyper-wholesalers Center3 and Ezditek, off the back of large traditional retail scene, have propelled Riyadh to reclaiming its title as Saudi Arabia's largest data centre market. Riyadh shows a strong project pipeline owing primarily to the arrival of PIF-backed HUMAIN, but also to opportunistic international operators such as Equinix, who are likely to soon announce the development of a new 200MW IT development in Al Janadriyah.

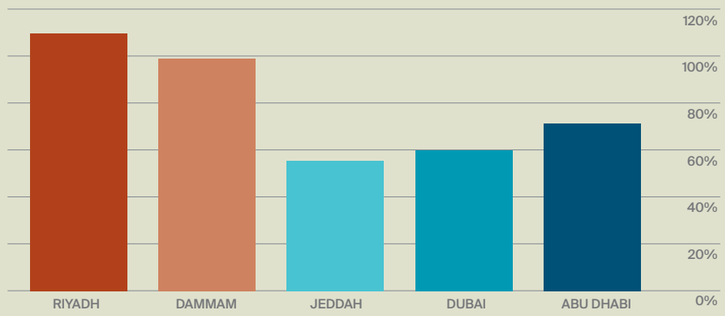
Two key differences separate the Kingdom from the UAE. The first being that Riyadh's opportunity is more domestic demand led, and the second being the existence of more private landowners making the acquisition of freehold land easier. However, the existence of HUMAIN and the push for the sovereignisation of AI is making it hard to access power, particularly high voltage.

> "Saudi Arabia's capital is benefitting from three forces at once: Vision 2030, the Regional Headquarters programmes, and the government's push to turn the Kingdom into a Cloud and AI hub for the Gulf."

> "Recent deployments from hyper-wholesalers Center3 and Ezditek, off the back of large traditional retail scene, have propelled Riyadh to reclaiming its title as Saudi Arabia's largest data centre market."

Saudi markets to grow faster than UAE

Compound annual growth rate through 2028

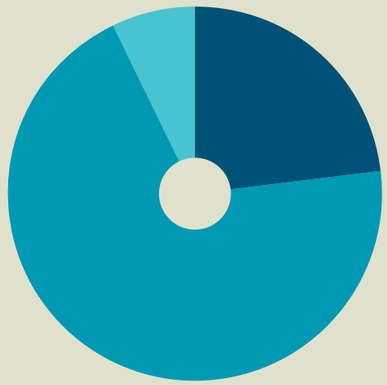


Source: Knight Frank Insight

Almost 70% of Riyadh's capacity is earmarked for AI

Data centre capacity by anticipated deployment type (%)

Cloud	23%
AI	69%
Retail	7%



Source: Knight Frank Insight

Dammam

Dammam's recent emergence has solidified it as a strategically distinct data centre market rather than an extension to Riyadh. Whilst Riyadh captures policy driven narratives, Dammam offers proximity to energy infrastructure, industrial demand, Gulf connectivity, subsea and terrestrial fibre routes, and the ability to support large sites. Dammam is acting as a fibre-fed foundation for Saudi Arabia's AI ambitions, supported by Dawiyat's national smart-grid and fibre rollout, alongside the wider economic impact of the PIF-Google Cloud AI hub partnership.

Khazna Data Centres marked its entry into Saudi Arabia with the acquisition of a 225,000 sqm land parcel in Dammam, expected to support up to 200MW of AI-ready capacity, specifically designed for cloud, AI, and high-performance workloads. Quantum Switch have signed a memorandum-of-understanding with SPARK for 1.4GW of power capacity, whilst BDx have agreed terms with Dawiyat regarding the structuring of a new JV predominantly focussed in Dammam. Similarly, HUMAIN have secured commitments from Microsoft, xAI, and other US AI start-ups.

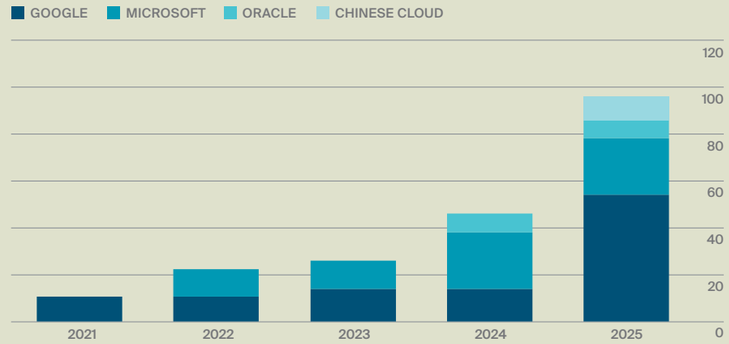
For 2026, Dammam's opportunity will lie in its ability to convert its energy and connectivity advantage into an occupier proposition distinct from Riyadh. It can support AI training, large wholesale deployments, sovereign cloud redundancy, and regional network deployments. Its challenge, however, is market maturity. Dammam needs transparent delivery timelines and a greater depth of retail, wholesale, cloud and AI ecosystems. Beyond HUMAIN, the market's true growth potential will depend on strategic local partnerships with experienced international players who can introduce scalable, reliable infrastructure aligned with global standards.

> "Dammam's recent emergence has solidified it as a strategically distinct data centre market rather than merely an overflow location for Riyadh. "

> "Dammam is acting as a fibre-fed foundation for Saudi Arabia's AI ambitions, supported by Dawiyat's national smart-grid and fibre rollout, alongside the wider economic impact of the PIF-Google Cloud AI hub partnership."

Dammam hyperscale capacity doubled in 2025

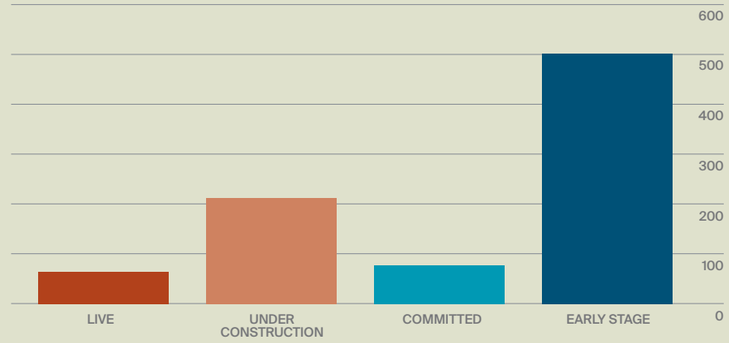
Dammam cloud deployment timeline by hyperscaler (MW)



Source: Knight Frank Insight

93% of Dammam's data centre capacity is still in the pipeline

Aggregate supply breakdown (MW)



Source: Knight Frank Insight

Qatar

Qatar evolution from a small, hyper-concentrated, highly regulated local hosting market, and into a sovereign cloud and AI infrastructure node is underway. Qatar is not attempting to match the UAE or Saudi Arabia on raw campus scale. Instead, the market is being shaped by data residency, financial services, government digitisation. Growth is being driven by local champions Ooredoo and MEEZA, alongside UK-based GCC developer Quantum Switch.

2025 has seen a further advancement of its public cloud offerings, with Microsoft acquiring additional cloud-based colocation capacity, as well as introducing the markets first hyperscale-scope AI deployment. The market hosts deployments from both Google and Microsoft, with both looking to expand further. The launch of Google Cloud's Doha region and Qatar's growing emphasis on sovereign hosting have helped grow the markets attractiveness for cloud-native workloads.

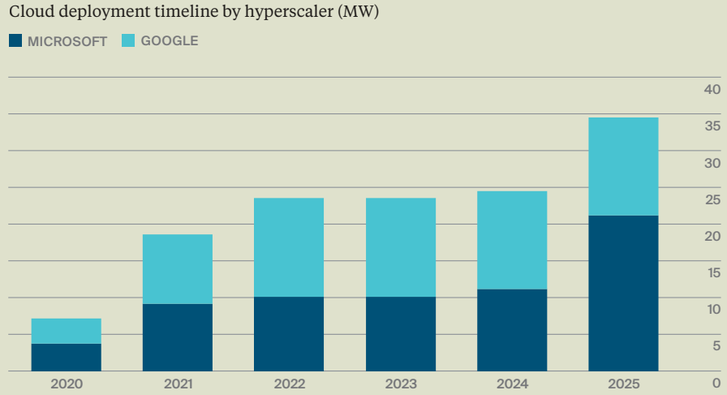
The most important shift for the region is AI localisation. Qatar is building energy-efficient and scalable AI platforms, as evidenced through Ooredoo and MEEZA. Ooredoo offers AI-cloud capacity, powered by Nvidia Hopper-series GPUs and hosts this locally through Syntys. MEEZA also continues to sign meaningful hyperscale agreements, such as its QAR 750m leasing agreement to a global hyperscaler for 6MW as phase one of a total 44MW deployment.

Qatar's main challenge will be whether it can scale efficiently without losing its sovereign and localised positioning. New entrants may increase competitiveness, but its advantage lays in regulated workloads, sovereign-cloud policy, and a compact geography supporting low-latency domestic hosting, not in a broad hyperscale land rush.

> "The most important shift for the region is AI localisation. Qatar is building energy-efficient and scalable AI platforms, as evidenced through Ooredoo and MEEZA."

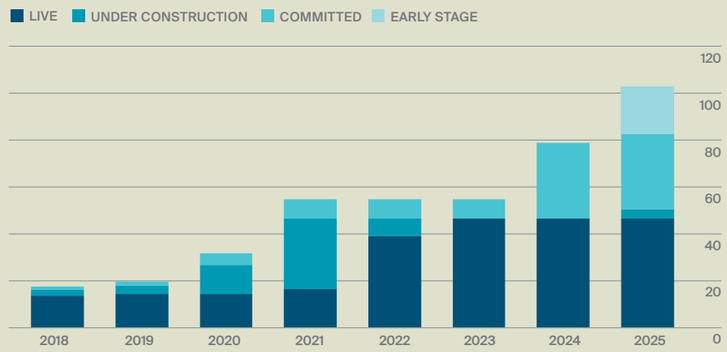
> "Qatar is underway with an ongoing evolution from a small, hyper-concentrated, highly regulated local hosting market, and into a sovereign cloud and AI infrastructure node. "

Microsoft doubled its Qatar capacity in 2025
Cloud deployment timeline by hyperscaler (MW)



Source: Knight Frank Insight

Qatar's live capacity has been flat at 47MW since 2023
Supply breakdown by development stage (MW)



Source: Knight Frank Insight

Bahrain

Bahrain was the Gulf's early cloud-region pioneer when Amazon Web Services opened its Middle East (Bahrain) region in 2019 with three availability zones, providing the country with a first-mover role in regional cloud adoption. Since then, however, the UAE and Saudi Arabia have grown to dominate regional headlines on hyperscale growth and AI mega-campuses. Bahrain's advantage now lies in localised edge services, sovereign hosting, financial services, and low-latency GCC coverage.

In Q1 2025, Batelco announced that Qareeb, the Middle East's first edge colocation provider, would operate its first edge data centre through a long-term lease of Batelco's new facility within Beyon's Data Oasis in southern Bahrain. The facility offers 6,000 sqm of scalable space and is designed to deliver sovereign, low-latency, and AI-ready colocation space. Qareeb aims to deploy 50MW of capacity across several GCC markets.

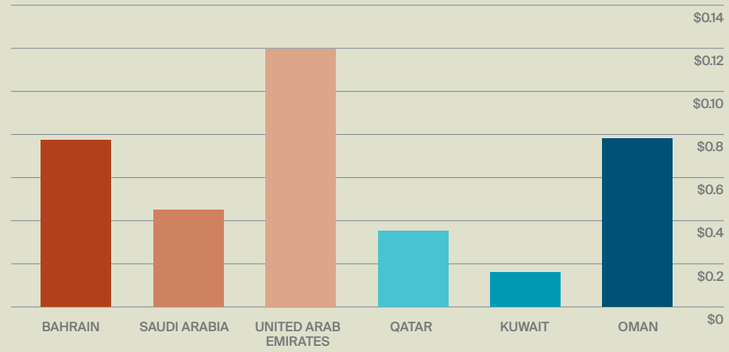
Bahrain maintains a strong relationship with the United States, hosting the headquarters of US Naval Forces Central Command and the only permanent US base in the region. This, in conjunction with its status as the first market to host as AWS region, makes it an interesting opportunity for the development of an AI strategy, with a relatively competitive cost offering with regards to power.

Bahrain is making active efforts to support the growth of AI, but for Bahrain to further distinguish itself, it should look at the formation of an enterprise zone which adopts the data privacy laws of the US. Furthermore, such enterprise zone should remove all taxations associated with the importation of necessary construction materials, as well as engage in either subsidisation or cost fixing of the cost of power for a determined period.

> "Bahrain maintains a strong relationship with the United States, hosting the headquarters of US Naval Forces Central Command and the only permanent US base in the region."

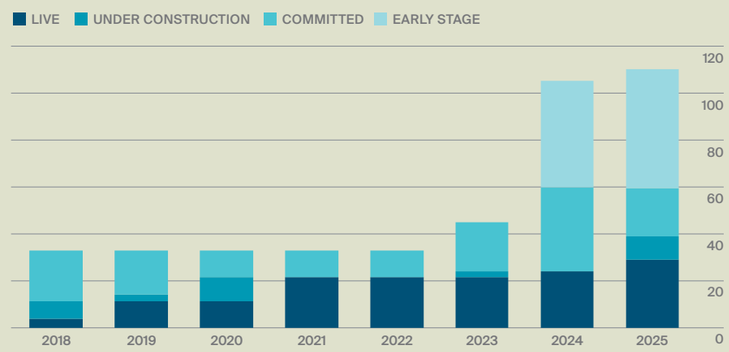
> "Bahrain was the Gulf's early cloud-region pioneer when Amazon Web Services opened its Middle East (Bahrain) region in 2019 with three availability zones, providing the country with a first-mover role in regional cloud adoption."

Bahrain's power costs are 35% cheaper than the UAE
GCC power costs by market ($/kWh)



Source: Knight Frank Insight

Bahrain's pipeline has tripled since 2023
Supply breakdown by development stage (MW)



Source: Knight Frank Insight

Johannesburg

After years in which loadshedding defined the investment narrative, Eskom (South Africa's main supplier of electricity) has now operated for a full year without scheduled power cuts. This is the longest uninterrupted stretch since 2018. The Energy Availability Factor has improved from approximately 55% three years ago to 65% today, with unplanned outages down by more than half. The removal of what was the market's single largest risk factor has unlocked a wave of capital deployment at a scale not previously seen on the continent. Johannesburg ranks first in Africa, which is a reflection of how quickly investor confidence has shifted.

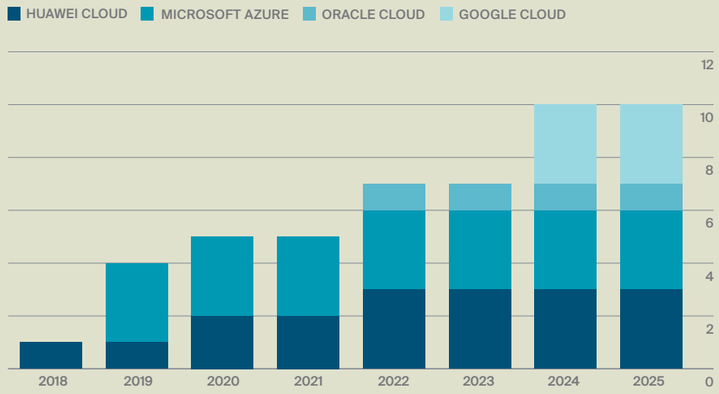
Hyperscaler commitment has shown some momentum over the last 12 to 18 months. Microsoft has committed an additional $297 million to expand AI-ready cloud infrastructure across Johannesburg and Cape Town, while Google launched its first African cloud region in Johannesburg in 2024. On the supply side, Teraco's portfolio is growing to 173MW across six facilities, with JB4, a 50MW facility and Africa's largest standalone data centre, now operational and JB7 (40MW) under construction. Total live IT capacity across South Africa stands at 346MW, of which 222MW is in Johannesburg. A further 80MW is in the near-term pipeline, with plans emerging that could push total IT capacity to almost 500MW.

Policy is keeping pace with private capital. In the 2026, Finance Minister Godongwana placed data centres on the same footing as electricity, ports, and transport networks. This is the clearest signal yet that data infrastructure is being treated as critical to national economic competitiveness.

> "Microsoft has committed an additional $297 million to expand AI-ready cloud infrastructure across Johannesburg and Cape Town, while Google launched its first African cloud region in Johannesburg in 2024."

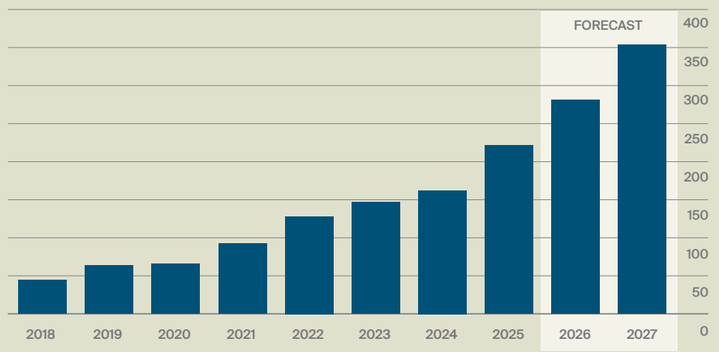
> "In the 2026 Budget Speech, Finance Minister Godongwana placed data centres on the same footing as electricity, ports, and transport networks."

Four hyperscalers now operate cloud regions in Johannesburg
Number of availability zones in Johannesburg, by cloud service provider



Source: Knight Frank Insight

Live IT capacity is forecast to reach 354MW by 2027
Live IT capacity (MW)



Source: Knight Frank Insight

Lagos

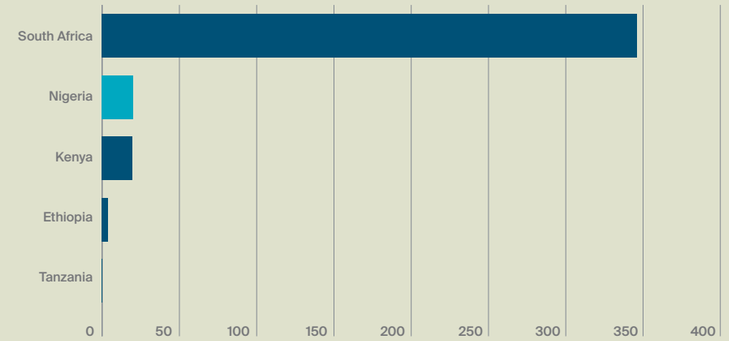
Nigeria is the second largest data centre market in Sub-Saharan Africa, yet its growth is fundamentally constrained by power. The country has an installed generation capacity of 13.6GW, yet the system consistently delivers only c.4 GW. Plant availability stood at just 31% in April this year, according to the Nigerian Electricity Regulatory Commission (NERC). The national grid collapsed 12 times in 2024 and a further 12 times in 2025, with multiple collapses already recorded in 2026. The transmission network has historically been unable to wheel more than around 5GW without risking system failure, though there are signs of progress. In March this year, the Federal Government announced plans to increase the capacity, adding a further 1.5GW by 2026. According to research by Africa Finance Corporation, off-grid and self-generated electricity capacity in Lagos alone is estimated at more than 19GW, over four times the national grid's average output and a reflection of the extent to which businesses and households have been forced to bypass the public supply system entirely.

For data centre operators, most facilities rely on hybrid gas, solar, and battery systems to ensure uptime, with diesel backup as standard regardless of grid availability. The Electricity Act 2023 has introduced a degree of market liberalisation, enabling sub-national governments and private developers to participate in generation, transmission and distribution, opening the door for embedded power solutions designed to serve high-density commercial districts directly. One such example is Elektron Energy's $51 million, 30MW embedded power plant in Victoria Island, designed to displace over 3,000 diesel generators across one of Lagos' most commercially active zones. Up to three data centres are already operational or planned in Victoria Island, with more than ten in the surrounding areas, facilities that stand to benefit directly from this kind of localised, grid-independent supply. In more recent developments, NERC's Mini-Grid Regulations 2026, issued in April this year, have expanded capacity thresholds to 5MW for isolated systems and 10MW for interconnected mini-grids, effectively repositioning distributed generation from a rural electrification tool into a scalable framework for powering commercial and industrial users.

As the regulatory environment matures and private embedded generation scales, the commercial case for larger data centre deployment is expected to strengthen, though progress remains closely tied to grid reform, gas supply security and sustained private investment in self-generation infrastructure.

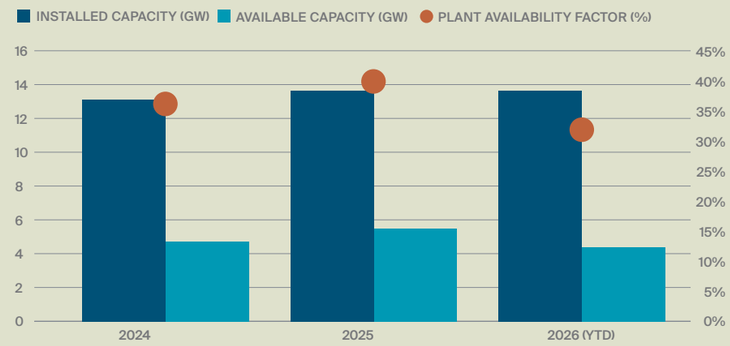
> "Nigeria is the second largest data centre market in Sub-Saharan Africa, yet its growth is fundamentally by power."

Nigeria is the second largest data centre market in Sub-Saharan Africa
Live IT capacity (MW)



Source: Knight Frank Insight

Nigeria's power plants are operating at an average of 32% capacity in 2026
Operational performance of power plants



Sources: Knight Frank Insight, Nigerian Electricity Regulatory Commission

Cairo

Egypt hosts 17 active submarine cable systems, set to exceed 23 within three years, running through a narrow corridor between the Red Sea and the Mediterranean. This infrastructure carries an estimated 17% of global internet traffic and more than 90% of Europe–Asia data flows, placing the country at one of the most critical junctions in the global internet. Yet this connectivity advantage has largely remained a transit story. Total live IT capacity stands at just 14MW, with minimal expansion over the past four years. That is now beginning to change. A development pipeline of 149MW, if delivered, would increase operational capacity more than elevenfold. Growth is being led by a combination of state-backed and regional players, including Telecom Egypt alongside Middle Eastern operators such as Gulf Data Hub and Khazna.

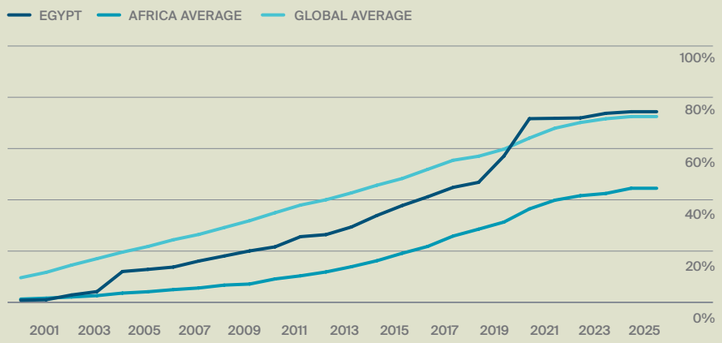
Government-led strategy is underpinning both demand growth and infrastructure delivery. Under Egypt Vision 2030 and the Digital Egypt initiative, the Ministry of Communications and Information Technology is advancing digital transformation and embedding technologies such as AI and big data across sectors including healthcare, education, and governance. Progress is already starting to show through in the numbers. Internet penetration has reached 75% of the population, nearly 90 million users by 2025, while average speeds have increased from 6.5 Mbps in 2019 to 92.5 Mbps.

The Executive Regulations to Egypt's Personal Data Protection Law were issued in November 2025, with full enforcement set for 31 October 2026. This introduces licensing requirements for data controllers and processors and strict rules on cross-border data transfers. The National Cybersecurity Strategy is driving early progress in onshoring state data, alongside initial discussions around new government-owned data centre developments. Balancing this regulatory tightening with the need to attract global tech companies and private capital will be central to how the market scales.

Egypt also benefits from a structural advantage that many emerging data centre markets lack, which is power availability. The country has almost 60GW of installed generation capacity. The government is targeting 45% renewable energy by 2028, which was recently revised from the original 2030 target, with 2.5GW of new renewable capacity expected to come online in 2026 alone. In a sector where grid constraints are often the primary barrier to growth, Egypt's energy capability could be a differentiator.

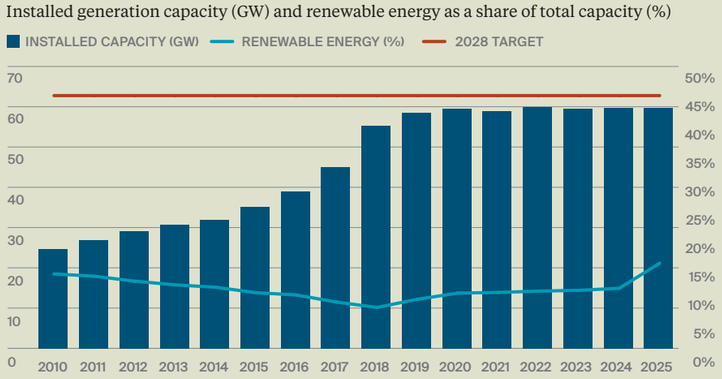
> "Internet penetration has reached 75% of the population, nearly 90 million users by 2025."

Egypt had almost 90 million internet users in 2025
Percentage of the population used the Internet at least once over a 3-month period



Sources: Knight Frank Insight, ITU

Egypt aims to achieve a 45% renewable energy share by 2028
Installed generation capacity (GW) and renewable energy as a share of total capacity (%)



Sources: Knight Frank Insight, Ministry of Electricity & Renewable Energy

Nairobi

Microsoft and G42, a UAE-based AI firm, first announced plans for a $1 billion data centre campus in Olkaria, Kenya in 2024, described as the largest single private-sector digital investment in the country's history. The first phase was expected to deliver 100MW. However, the government has since paused progress. The scale of the project would have placed significant pressure on a national grid with limited spare capacity and competing demand from other sectors. At the same time, negotiations were complicated by commercial requirements, with developers seeking government-backed demand commitments to support the project.

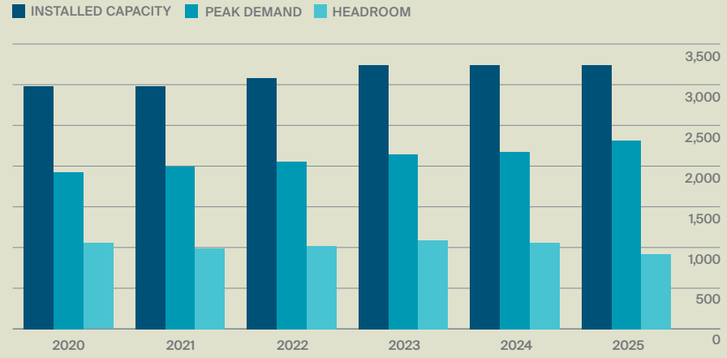
While Kenya benefits from a relatively strong renewable energy mix, particularly geothermal and hydro, this does not translate into guaranteed capacity for large IT loads. Hyperscale operators require long-term power certainty, redundancy and stable pricing. The proposed Microsoft–G42 campus, initially planned as a geothermal-powered development within KenGen Green Energy Park, was expected to scale well beyond its 100MW first phase, with suggestions it could require up to 1GW of capacity. Against a national grid of just over 3.3GW, this would represent around a 31% share of total supply. A facility of this size would therefore place significant strain on an already tight system.

Nairobi's existing data centre market remains small, with live capacity of just 16MW, while national peak demand already exceeds 2.3GW, leaving a relatively constrained reserve margin. Looking ahead, the government has set a target to expand installed power capacity to 6GW by 2030, almost doubling current levels. As additional capacity is delivered and supporting infrastructure improves, the feasibility of hyperscale development is expected to strengthen. In the meantime, smaller-scale development continues, Airtel's Nxtra is constructing a 44MW data centre in Tatu City, a special economic zone outside Nairobi, while operators such as iXAfrica and Africa Data Centres are also expanding their footprints across the city.

> "Nairobi's existing data centre market remains small, with live capacity of just 16MW."

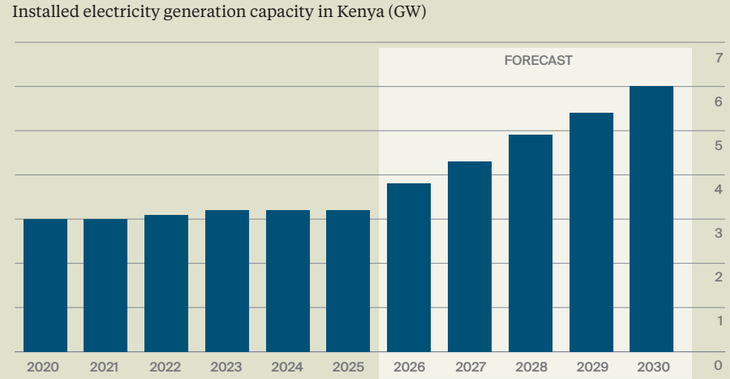
> "While Kenya benefits from a relatively strong renewable energy mix, particularly geothermal and hydro, this does not translate into guaranteed capacity for large IT loads."

Rising power demand is reducing system headroom in Kenya
Installed capacity, peak electricity demand and resulting headroom in Kenya (MW)



Sources: Knight Frank Insight, Kenya Power

Kenya installed electricity capacity set to nearly double by 2030
Installed electricity generation capacity in Kenya (GW)



Sources: Knight Frank Insight, State Department for Energy

Our Service Lines

VALUATION

Dedicated Data Centre Valuation team service and advice to operators, landowners, major institutional investment houses and real estate companies across EMEA and APAC.

Valuation resources available in all the major and emerging markets, working closely with our international occupier and capital markets team's platforms.

DEVELOPMENT

The Data Centre Development team have the benefit of utilising the firm's unrivalled global industrial and land advisory network.

The Development team have built a market leading site sourcing application, acquiring and disposing of data centre development sites on behalf of Landlords and Operators/ Cloud providers, respectively.

INVESTMENT

The Data Centre Investment team also benefit from Knight Frank's Capital Markets network.

The team focuses on working with institutional investment houses, private equity and private landlords in acquiring and disposing rentalised Data Centre assets and portfolios as well as acquiring and disposing existing operational platforms.

OCCUPIER

The Occupier Advisory team provide colocation acquisition and renewal services across the world.

The team have extensive global expertise representing clients in 56 countries acquiring over 180 MW of IT capacity and as a result hold strong relationships with major operators in Tier 1 and emerging markets.

INSIGHT

The Knight Frank Insight team offer global industry leading data centre research.

The team collect detailed statistics and create forecasts with analysis covering global major and emerging markets.

Knight Frank is a trusted consultancy partner producing bespoke due diligence and market reports for major investors, lenders and developers.

Our People

Global

Stephen Beard
Global Head of Data Centres
stephen.beard@me.knightfrank.com

UK and Europe

Oscar Matthews
Partner
oscar.matthews@knightfrank.com

Celeste McGinley
Senior Surveyor
celeste.mcginley@knightfrank.com

Olamide Emiloju
Surveyor
olamide.emiloju@knightfrank.com

Archie MacColl
Surveyor
archie.maccoll@knightfrank.com

Valuation

Alex Burgoyne
Global Head of Data Centres Valuations
alex.burgoyne@knightfrank.com

Agne Berzinskaite
Associate
agne.berzinskaite@knightfrank.com

Jonathan Oliver
Associate
jonathan.oliver@knightfrank.com

Isobel Green
Senior Surveyor
isobel.green@knightfrank.com

Jamie Hall
Surveyor
jamie.hall@knightfrank.com

Americas

Michael Morris
President, Data Center Capital Markets & Advisory
mmorris@cresa.com

MENA

Si Lau
Surveyor
si.lau@me.knightfrank.com

Reed Santos
Surveyor
reed.santos@knightfrank.com

APAC

Jiya Agrawal
Analyst, APAC
jiya.agrawal@asia.knightfrank.com

Power & MEP Consultancy

Christopher Jones
Head of Power Procurement & MEP Consultancy
chris.jones@knightfrank.com

Insight

Darren Mansfield
Head of Data Centre Insight
darren.mansfield@knightfrank.com

Harry Hannam
Associate
harry.hannam@knightfrank.com

Nicola Ryan
Senior Analyst
nicola.ryan@knightfrank.com

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United States of America

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4 Markets

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Wales | Jersey

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Czech Republic | Denmark | Finland
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Morocco | Nigeria | South Africa | Tanzania
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630+ PEOPLE

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4 Markets

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