

uk Data Centres

Unlocking the potential

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Introduction

There is unprecedented global growth in demand for data centres and AI. The UK is at a pivotal point, with the government seeking to support deployment at pace and scale. This is unfolding against a fast-moving technology and policy backdrop, with much debate around the balance between AI training and inference and what that means for power demand, locational drivers and energy pricing. Will the irrepressible surge of AI - and the capital flowing into it - transform our economy and will policy reforms be sufficient to release the shackles that are constraining growth?

I'm delighted to share our latest insights which explore these critical questions. We assess the UK market today, the acceleration in development and investment we expect to see, and the primary constraints limiting progress - particularly around power, planning and supply chains. More importantly, we spotlight the key reforms now underway and what further action the UK government must take to unlock the next chapter of infrastructure delivery.

At Newmark, our UK team of professionals covering energy and data centres operates as part of a dedicated global platform led from the US. We advise across land transactions, capital markets, debt services, valuation, business rates and planning. Demand for our services has never been stronger, as our clients seek to navigate the transition and grasp the opportunities this moment presents. If you'd like to explore these insights further or discuss your next move, we look forward to working with you.



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The UK data centre market - where are we now?

The UK data centre market is the most mature in Europe, with London having more data centres and operators than any other city, along with the largest pipeline.

The UK attracted the greatest volume of data centre foreign direct investment (FDI) of around EUR50bn over 2018-24, compared with nearestrival Germany's EUR28bn. However, the UK's growth, both in structural and institutional terms, is well behind the United States. The US is clearly leading on innovation, development and capital flows. However, we believe the relative immaturity of the European markets is not caused by the absence of demand, rather the current lack of infrastructure, limited land availability and restrictive planning laws.

This is already beginning to change. In the UK this year, we forecast data centre land transaction volumes exceeding up and built FRI-leased counterparts by a ratio of 10:1. This stands to reason: more than any other sector, the data centre market is transforming and growing at such a scale that existing buildings cannot be adapted, meaning that most transactional activity is currently in development land.

There will be a time lag as these development land transactions proceed through the development stage gates, namely planning, grid, design, procurement and construction. This will result in rapidly accelerating data centre build-out (and corresponding capital deployment) in the late 2020s. Investors and developers are increasingly targeting sites close to highvoltage grid infrastructure, including legacy power stations, where grid access can be secured at scale. Historically, the compound annual growth rate (CAGR) of the UK data centre market has been moderate by global standards. Industry estimates currently put the CAGR at around 15–20%. For data centres, the market size tends to be expressed as MW of IT load rather than floor area like other real estate asset classes. This is a more useful metric for tracking hyperscale growth and demand from cloud providers, AI and machine learning given their differing power densities.

In recent years this market growth has been driven by several factors, including the expansion of cloud service providers such as AWS, Microsoft Azure, and Google Cloud. In parallel, enterprise digital transformation (i.e. the shift by businesses toward cloud-based systems, automation and datadriven processes) has accelerated. This is often supported by edge computing, where data is processed closer to where it is generated, reducing latency and improving performance. These trends are particularly evident in industries such as finance, life sciences and advanced manufacturing.

However, given the generational change in AI technology, we believe the UK is on the cusp of an accelerated growth phase, dependent on resolving infrastructure bottlenecks, such as power availability, planning permissions and equipment supply chains. In the proceeding sections we explore these constraints and what the UK government needs to do to unlock them.

AI growth reshapes demand for UK infrastructure

The UK's data centre landscape is being reshaped by hyperscalers whose AI-driven infrastructure needs are surging. Whether concentrated in high-capacity hubs or dispersed across cheaper geographies, significantly more UK infrastructure will be required than is currently available.





The UK attracted more data centre foreign direct investment (FDI) than any other European country over 2018-24, at around EUR50bn. Looking forward, the further expansion of UK data centre infrastructure is being strongly shaped by the accelerating needs of hyperscalers. These are large-scale cloud and technology companies that operate massive data centre infrastructure to support global computing demand and serve millions of users or clients. The key players are AWS, Microsoft Azure, Google, Meta and Apple. However, many of these key market participants remain in the early stages of formulating their long-term AI infrastructure strategies, particularly in determining the optimal balance between training (learning) and inference workloads. This balance will influence whether hyperscalers concentrate their operations in high-capacity regions, where land and power are in critically short supply, or pursue a more geographically distributed approach.

Moreover, some AI workloads may gravitate toward countries with the lowest power costs. As of 2025, the average wholesale electricity price in the UK stands at 111 EUR/MWhe, which is around the median among European markets, but notably higher than the regional average of approximately 97 EUR/MWhe.

The Nordic region benefits from some of the lowest power prices in Europe, underpinned by its extensive hydro and wind generation capacity. Over the coming decade, Spain and Portugal are also expected to see power costs decline, driven by the continued expansion of solar and wind energy. Meanwhile, countries such as France, with a strong reliance on nuclear power, enjoy competitively priced electricity today and are well positioned to sustain this advantage over the medium term.

Forecasting the exact scale and location of demand in the UK remains complex and uncertain. Nevertheless, the undisputed underlying trend is that hyperscaler AI strategies of whatever type will need radically more UK infrastructure capacity than is being used currently.

Average wholesale electricity prices by country, 2025 Source: Ember Energy



Capital poised to accelerate UK data centre build-out

A step up in development is imminent, backed by deep pools of global capital targeting powered land, development platforms and M&A opportunities. If constraints are overcome, the UK market could see a step-change in growth and infrastructure delivery.



Any investor hesitancy in the UK in 2025 is likely to be temporary. A significant surge in development and investment is imminent, fuelled by a global wall of capital actively seeking exposure to the data centre asset class. Institutional investors, sovereign wealth funds, infrastructure funds and private equity groups are increasingly targeting data centre development platforms, operating companies and powered land. The primary channel for capital deployment is through buying powered land and undertaking vertical build.

While current CAGR estimates hover around 15-20%, we believe that under a future, less constrained scenario the UK data centre market could experience a "true" CAGR of 30-40% over the medium term. Currently, the UK has just under 2GW of built capacity, but our pipeline intelligence suggests as much as 20GW in potential development across various planning and early-stage promotion phases, of which around 5GW has been publicly announced. Much of this is located on or near legacy power infrastructure on land surrounding high voltage transmission substations, which could support the hyperscale energy intensity required.

15-20% current UK CAGR estimates 30-40% potential unconstrained CAGR



A record-breaking \$73bn data centre M&A transactions globally in 2024

\$100bn to be invested annually in Europe's electricity network over the next decade

The capital markets for data centre assets experienced a step-change in 2024, with transaction volumes, pricing and cross-border interest rising sharply. The value of global data-centre oriented M&A deals was a record-breaking \$73bn in 2024, with an estimated \$29 billion already agreed upon but still in progress, according to Synergy Research Group. The best estimates are that as much as \$100bn needs to be invested annually in Europe's electricity network in the next decade, which is double the amount of the previous one. This combination of direct asset investment, platform-level M&A, and strategic land assembly creates the conditions for a structural uplift in development and capital inflows. The UK is well placed to absorb a meaningful share of this activity, provided supply-side constraints are addressed.

Constraints to deployment: Power

Despite rising demand and an abundance of deployable capital, the UK and European data centre markets continue to face structural constraints that have historically restricted both build-out rates and the scale of investment deployment. These span infrastructure, land availability and the planning system. These threaten to inhibit the UK's ability to meet future AI and cloud computing demands at scale.

Availability of near-term power (grid constraints)

The most critical constraint on new data centre delivery is access to sufficient, timely and reliable grid power, particularly at transmission level. Developers routinely face long wait times for new connections all over the country, but this is most acutely felt in power-constrained regions such as North and West London, Slough, and the M4 corridor. Even where land is available and has the appropriate permissions, power is often the overriding obstacle, delaying development and distorting land values based on perceived versus actual power availability. Most new applications are now given connection dates of 2039, effectively sidelining sites without confirmed capacity allocations.

Key issues relating to power



Constraints to deployment: Land & Planning

Large, developable land parcels with adequate physical, planning and utility characteristics are increasingly scarce. Legacy industrial land supply has been steadily eroded in many urban-fringe locations due primarily to logistics and residential-led redevelopment pressure. Green Belt release or development on Green Belt land is politically sensitive and often slow, even where planning policy supports employment-led uses. Even when sites are technically viable and power can be provisionally secured, developers frequently encounter delays in securing planning permission, especially for hyperscale data centre development. Local planning authorities are often unfamiliar with the specific operational, environmental and economic characteristics and benefits of data centres, leading to uncertainty or delay. This is particularly true of increasingly large scale and taller projects with greater visual impact, which are correspondingly more complex. The skills gap within local authority planning departments is an inhibitor, leading to some debate over whether these larger projects should fall into the Nationally Significant Infrastructure Project (NSIP) regime.

Land of scale in suitable locations

The ideal data centre site typically requires:

- A minimum of 20 50 acres for hyperscale outside of London, and a minimum of 5 acres within London;
- Proximity to a 132kV or 400kV substation, along with access to fibre routes, water supply and road infrastructure for servicing;
- Low flood risk, remoteness from flight paths and Control of Major Accident Hazards (COMAH) facilities.

The lack of development land close to London and traditional Availability Zones (AZs) has led to a marked increase in demand for previously overlooked locations, such as decommissioned or operational power station sites. These offer scale and infrastructure access but may require complex land reclamation.

Challenges for timely planning consent

- Environmental impact concerns, particularly around water usage for cooling, embodied carbon in materials and biodiversity loss;
- A lack of specific national planning policy or guidance addressing the role of data centres in digital infrastructure and economic resilience, noting that the Labour government is taking steps to urgently address this through its <u>AI Growth Zone (AIGZ) strategy;</u>
- In some areas, local political resistance or misalignment between national ambitions and local planning policy, particularly where schemes are seen as land-intensive but light in terms of employment opportunities.

The combination of these factors could lead to long determination periods, as illustrated with a recent spate of applications called in to be determined by the Secretary of State. This can result in missed delivery timelines, deterring institutional capital that requires timing and risk visibility.



Unlocking the constraints

With the UK's grid queue now exceeding four times the estimated system requirements for 2030, reform is essential. The Connections Reform aims to prioritise shovel-ready, high-impact projects, establish proactive capacity hubs and enforce milestone-based accountability. If successful, these could accelerate data centre delivery and shore up investor confidence across the sector.

Several initiatives are now underway to address the constraints facing UK data centre expansion. If successful, we expect them to accelerate the pace of data centre development. It has been encouraging to see a marked shift in national planning policy with the release of the National Planning Policy Framework (NPPF) in December 2024. This document recognises the need to facilitate development to meet the needs of a modern economy, stating local planning policies should identify suitable locations for uses including gigafactories, data centres and digital infrastructure, together. It also introduces the term 'Grey Belt' for certain pats of the Green Belt, where commercial development could be directed provided it meets the various tests set out in the document, including a demonstrable unmet need.

Another key pillar to help unlock the constraints is the Connections Reform, which is the National Energy System Operator (NESO)'s strategy to address systemic inefficiencies in the connections process. The current connections queue now holds over 750GW of projects, which is already four times the 2030 target and double the expected need even by 2050. This reflects a system under pressure, driven both by speculative demand and the genuine need to scale low-carbon alternatives to fossil fuel generation.

Key objectives of the Connections Reform

Prioritise 'ready' and 'needed' projects: The reform shifts away from the traditional 'firstcome, first-served' approach. Instead, it emphasises prioritising projects that are both ready to proceed and essential for the energy system's future needs. The benefit for demand (data centres) is that they are all considered 'strategic' and are therefore effectively prioritised and have less stringent guidelines enforced upon them compared with new generation projects. NESO reportedly processed more than 1,700 new applications in 2023/24 alone, highlighting the extent to which the existing model is no longer fit for purpose.

Establish 'capacity hubs': National Grid Electricity Transmission (NGET) plans to proactively build physical connection points, such as substations, ahead of customer demand. These capacity hubs aim to provide transparency on available capacity so that developers can make informed investment decisions.

Implement a new milestone-based application process: Projects will apply for grid connections at set times and must show they are more than speculative and making real progress at each stage. NESO now also requires a £20,000 per MW refundable deposit at Gate 2. This is refunded upon reaching milestones like financial close or construction start. This helps ensure that only serious, ready-to-build projects move forward, reducing delays for others.

Shore up investor confidence: By reducing delays and aligning projects with long-term plans, the reforms aim to attract capital to high priority technologies. However, clarity on Strategic Spatial Energy Plan (SSEP) implementation timelines and criteria remains essential from an investment perspective.

Unlocking the constraints ... exposing new complexities

Connections Reform marks a step forward in streamlining grid access. But its rollout is challenged by rising data centre demand, a backlog of battery projects and ongoing delays in high-voltage equipment, exposing the gap between ambition and practical delivery.

The Connections Reform focuses on improving planning processes and managing the queue for grid access and we fully support this transformation that should have been implemented sooner. One of the key challenges NESO is likely to face over the remainder of the year as Connections Reform continues to take effect is the unprecedented surge in data centre demand. It is highly likely that the scale of this demand has been underestimated, particularly since demand-only connections are automatically classified as 'strategic'. In contrast, generation projects are not treated in this way by default.

NESO also reportedly received more than 30GW of new demand applications before the application window was closed in March this year. There is a compelling narrative that much of this figure likely comprises 'stranded' battery connections that are no longer deemed strategic where customers have applied to modify their connections to supply final demand. Batteries represent the largest proportion of the connections queue. Battery projects seeking connection before 2030 sits at 61GW, which is more than twice the target capacity range. Meanwhile, the queue to 2035 currently sits at 129GW, over quadruple the 2035 target capacity. In addition, major electrical supply chain issues may derail timelines even if connections are approved. The government has made bold commitments, but this is a case where the "hardware" needs to catch up to the policy. For example, High Voltage (HV) transformers, switchgear and other large-scale grid components now often have lead times of 3 - 4 years. This delay is due to several factors, including:

- Limited global manufacturing capacity, with few UKbased suppliers;
- Shortages of critical metals and specialised insulating fluids;
- Import delays linked to Brexit and wider trade friction;
- And a domestic shortage of skilled contractors to install and commission high and medium voltage equipment.



Unlocking the constraints - PPAs and Behind the Meter supply

Behind the Meter (BtM) supply refers to energy that is generated and consumed locally, without passing through the electricity network. In this model, a site with on-site generation (such as solar or wind) can supply excess power directly to neighbouring users at a lower cost.

This not only offers significant energy savings of typically 50% or more, but it also helps reduce reliance on constrained grid infrastructure. BtM arrangements are increasingly being explored by industrial occupiers, data centres and energy intensive users looking for more cost effective and sustainable energy solutions. Businesses with high energy demands may alternatively secure electricity through developing their own generation or by securing offtake agreements from specific power generators.

To explore how a BtM arrangement or development could reduce your energy costs and enhance the Net Developable Area at your site, contact James Keir. James advises clients across a range of businesses on structuring and delivering local energy strategies.



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What the UK government needs to do now

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Supply chain coordination

Convene a national taskforce involving National Grid along with energy and data infrastructure developers. This is with the aim to quantify demand, centralise procurement pipelines and prioritise strategic data centre projects.



Support domestic manufacturing

The government should urgently incentivise UK-based production of HV equipment through capital grants, tax credits and long-term procurement contracts. This domestic supply chain should extend to cable manufacturing and transformers to support wider Net Zero targets.



Strategically stockpile or pool orders

The government or National Grid could explore aggregated procurement of critical items to shorten lead times and gain price leverage. Stockpiles of transformers or key parts could be created for national resilience.



Mobilise skills and workforce

Invest in training programmes for electrical engineers, commissioning teams and substation specialists. Fast-track visas for needed skills in the short term.



Reform land rights for critical infrastructure

The current system of negotiating leases and easements is archaic and there should be simplified rules for critical infrastructure especially around major grid supply points.



Plan for and permit acceleration

Current planning processes for substations and grid reinforcements still suffer delays. The government needs to fast-track these and equipment procurement, especially in <u>AI Growth Zones (AIGZs)</u> and other strategic hubs.

AI Growth Zones (AIGZs)

AIGZs aim to fast-track planning and power access for energy-intensive AI infrastructure, positioning the UK as a global leader. With over 200 applications and fewer than 10 locations expected to be successful, questions remain over how effectively AIGZ status will overcome grid and planning barriers and influence hyperscaler strategy.

AIGZs are part of the UK's AI Opportunities Action Plan, aimed at positioning the country as a global leader in AI. The initiative seeks to attract investment from AI companies by offering time-limited incentives, specialist infrastructure and a bespoke planning useclass for AI infrastructure. The key features of AIGZs are fasttracked planning approvals for AI infrastructure projects and enhanced power access. These zones are intended to be strategically located in areas with existing substantial baseload power supply or the potential for dedicated private wire supply, ensuring the energy-intensive needs of data centres are met.

The first AIGZ was established at Culham Science Centre in Oxfordshire, home to the UK Atomic Energy Authority. This site is set to host one of the UK's largest AI data centres, starting with 100MW of capacity and plans to scale up to 500MW. The government plans to identify and select additional AIGZs, focusing on regions that can support regional growth opportunities and align with the UK's industrial strategy. There were reportedly 214 applications made by stakeholders across the country seeking to gain AIGZ status, but the intention is for there to be less than 10 locations given AIGZ status before the end of the year. Critically, applicants will be looking to key decision-makers for clarity on whether achieving AIGZ status will meaningfully address the existing barriers to success, particularly those related to grid access and planning consent. Further, some commentators have expressed concern that AIGZ status has the potential to overly inflate land prices and deter investment.

> 214 Applications seeking AIGZ status

> > <10 Locations to be established by end-2025



Contact us

Our data centre team has the insight and expertise to help clients navigate the unique challenges and opportunities in what is one of the UK's most dynamic markets. We provide innovative advice across all disciplines – energy, site selection, capital markets, debt services, land transactions, business rates, lease advisory, valuation, planning and development, building consultancy and asset management – to deliver real value for our clients.

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NEWMARK

Further Insight



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