Navigating the Al On-ramp The Latest Infrastructure Trends

Seeing Over the Horizon Insights & Strategy

This report

Gone are the days when Cloud and other infrastructure could be seen as limitless capacity, on demand. The convergence of artificial intelligence demand, constrained power grid capacity, and evolving regulatory frameworks has created a perfect storm affecting every organisation dependent on digital infrastructure.

Strategic planning for data centre services now requires understanding not merely current pricing but the trends and fundamental shifts in availability, service quality, and contractual terms that will define decision-makers ability to deliver plans with data dependencies.

This report is part of a series of studies looking at what lies ahead as AI penetrates through business and elsewhere.

Navigating the Al On-Ramp: https://www.peterosborn.com

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Peter G. Osborn
pgo@peterosborn.com
+44 (0)7802-666758
https://www.peterosborn.com

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Executive Summary

The UK data centre landscape is undergoing unprecedented transformation in 2025, creating significant challenges for organisations dependent on this infrastructure. The explosive growth in AI workloads, combined with the tightly constrained growth of new capacity, has created a perfect storm of rising prices, extended waiting periods, and increasingly restrictive terms for users.

London and the South East continue to experience the most severe constraints, with vacancy rates below 1% and waiting lists extending beyond 12 months for new deployments. Regional variations are significant, with better availability in Scotland, Wales, and Northern Ireland, albeit with fewer high-specification facilities and latency issues if these are distant.

Pricing increases of 10-20% year-on-year are now common, particularly for high-density deployments suitable for AI workloads. Hyperscalers are implementing more stringent capacity management, with some pulling back on infrastructure commitments and implementing stricter allocation policies.

For decision-makers, this environment demands proactive planning with longer lead times, flexible multi-region strategies, and careful scrutiny of contract terms – particularly around power allocation, pass-through clauses, and quality of service guarantees. Organisations should prepare for a prolonged period of constrained supply extending well into 2026-2027, with strategic decisions now having significant long-term implications for cost and competitive positioning.

Critical challenges in 2025 include:

- Waiting lists for new deployments in London and South East extending to 12-24+ months, with some providers no longer accepting new bookings for 2025
- Price increases of 15-20% for high-density racks in prime locations, with further rises expected
- New pass-through clauses appearing in contracts, shifting energy efficiency upgrade costs to customers
- Hyperscalers implementing stricter capacity management policies, affecting availability for new projects
- Quality of service impacts from "noisy neighbour" issues as facilities operate closer to maximum capacity
- Regional power grid constraints delaying new data centre projects, particularly in the South East
- Contract terms becoming more restrictive around power usage, with penalties for exceeding allocations
- Secondary markets emerging in Wales, Scotland and Northern Ireland with better availability but fewer high-specification options and potential latency issues

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Pricing

The era of stable and predictable data centre pricing in the UK has ended abruptly in 2025. After nearly a decade of relatively flat or even declining prices, the market has experienced sharp increases driven by unprecedented demand and severely constrained supply.

London continues to lead with the steepest rises, seeing 15-20% year-on-year increases for high-density deployments, while regional variations show more moderate but still significant upward trends.

Power costs are increasingly dominating pricing structures, with the UK's relatively high electricity prices creating a significant competitive disadvantage compared to other European locations.

Powering a 100MW data centre in the UK costs approximately four times as much as an

equivalent project in the US, according to the Social Market Foundation, and significantly more than in countries like Norway, where power is available at 4-5p per kilowatt hour compared to 24-28p in the UK.

Contract structures are evolving rapidly, with providers introducing more sophisticated tiering based on power density, cooling requirements, and guaranteed availability levels.

Power-based pricing is now being implemented by many providers rather than space-based models, directly reflecting the shift in underlying cost structures and constraints.

This particularly impacts AI workloads, which typically require 3-5 times the power density of traditional computing environments.

- Price increases of 10-20% year-on-year are now common, with London experiencing the highest rises at 15-20%
- Regional variations show more moderate increases: 10-15% in Manchester, 8-12% in Birmingham, and 5-8% in Scotland
- Power-based pricing is replacing spacebased models, with premium rates for high-density deployments
- New contract structures include tiered pricing based on power density, cooling requirements, and availability guarantees
- Pass-through clauses for energy efficiency improvements are becoming standard, shifting capital costs to customers

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Availability

Vacancy rates across UK data centres have reached historic lows in 2025, with London reporting less than 1% available capacity. This extreme tightness in supply has created extended waiting lists for new deployments, with major providers in the South East quoting lead times of 12-24+ months for standard deployments and even longer for high-density configurations. The situation has become so severe that some providers have temporarily stopped accepting new bookings in certain locations.

Regional variations are significant and increasingly important for planning decisions. While London and the South East experience the most severe constraints, better availability exists in other regions: Manchester and Birmingham show vacancy rates of 2-5% and 5-10%

respectively, while Scotland, Wales and Northern Ireland maintain healthier capacity levels with vacancy rates above 10% in some locations.

However, these regional options often come with trade-offs in terms of connectivity, latency, specification levels, and ecosystem depth.

Power constraints represent the fundamental limiting factor across the UK market. The National Grid has indicated that data centre power usage is expected to increase six-fold over the next decade, placing enormous strain on existing infrastructure.

Limited grid availability, especially in London and the South East, is already causing significant delays in new data centre projects, with some sites facing connection waits until 2040 – far beyond commercially viable timelines.

- London vacancy rates below 1%, with waiting lists extending 12-24+ months for new deployments
- Regional variations show better availability: Manchester (2-5% vacancy), Birmingham (5-10%), Scotland/Wales/Northern Ireland (>10%)
- Power grid constraints are the primary limiting factor, with connection waits extending to 2040 in some areas
- Current UK data centre capacity is approximately 1.7 GW across 10 million sq. ft., projected to reach 4 GW by 2028
- Hyperscalers are deploying stricter capacity allocation policies, prioritising strategic customers and AI workloads
- New development is shifting to regions with better power availability, though often with connectivity trade-offs

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Impact on Existing Usage

Existing customers are experiencing significant changes to their service arrangements in 2025, even within current contract terms. Many providers are implementing stricter enforcement of power usage limits, with some introducing penalties for exceeding allocated capacity. This particularly impacts organisations that have historically operated with generous headroom in their power allocations, as providers seek to reclaim and reallocate this capacity to new customers or higher-value workloads.

Contract renewals have become particularly challenging, with substantial price increases and more restrictive terms becoming the norm.

Organisations accustomed to negotiating favourable renewals based on long-term relationships are finding providers much less flexible in the current market environment.

Some customers report being offered renewal terms with 15-20% price increases and reduced power allocations, effectively forcing difficult decisions about workload prioritisation and potential relocation.

Avoiding the lock-in risks with one provider must be balanced against getting potentially better contract terms through longer, deeper contractual relationships.

Service quality issues are emerging as facilities operate closer to maximum capacity. "Noisy neighbour" problems – where high-intensity workloads from one customer impact the performance of others sharing the same infrastructure – are becoming more common, particularly in multi-tenant environments.

This is especially problematic for organisations running latency-sensitive

- Stricter enforcement of power usage limits within existing contracts, with penalties for exceeding allocations
- Contract renewals featuring 10-20% price increases and more restrictive terms, particularly around power allocation
- Emerging service quality issues as facilities operate closer to maximum capacity, including "noisy neighbour" problems
- Some providers implementing power usage caps on existing customers to reclaim capacity for reallocation<u>5</u>
- Increasing pressure to migrate traditional workloads to more efficient platforms or lower-cost regional locations
- Pass-through clauses being activated more frequently, passing energy efficiency upgrade costs to customers

fluctuations.

applications alongside AI workloads, which can create significant power and cooling

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Noisy Neighbours

The concept of "noisy neighbours" in data centres has evolved beyond its traditional meaning in 2025. While it historically referred primarily to virtual resource contention in cloud environments, it now encompasses physical infrastructure impacts as facilities operate closer to their design limits. With vacancy rates at historic lows and providers maximising utilisation of existing capacity, the buffer zones that previously isolated customers from each other's operational impacts have diminished significantly.

Power fluctuations from AI workloads represent a particular challenge. The intensive and often bursty nature of AI training and inference creates significant variations in power draw and cooling requirements, which can affect the stability of shared infrastructure.

Organisations running steady-state

applications alongside these volatile workloads are experiencing more frequent performance variations and, in some cases, thermal events that trigger protective measures.

Physical noise has also become a more significant concern, particularly for facilities in urban or mixed-use areas. The constant operation of cooling systems and backup generators creates substantial sound pollution, leading to increasing community opposition to new developments and expansions.

This has regulatory implications, with stricter noise control requirements adding to construction costs and operational constraints, ultimately reflected in higher prices for customers.

- Increased resource contention as facilities operate closer to maximum capacity, affecting performance stability
- Al workloads creating significant power and cooling fluctuations that impact neighbouring deployments
- Physical noise pollution becoming a more significant regulatory and community relations issue
- Multi-tenant environments
 experiencing more frequent performance
 variations and thermal events
- Some providers implementing stricter workload isolation policies, with premium pricing for guaranteed resources
- Increasing importance of service level agreements that specifically address resource contention issues

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Outlook and Trends in the Next Year

The supply-demand imbalance in UK data centres is expected to persist throughout 2025 and well into 2026, with only gradual improvement as new capacity comes online. Current projections suggest UK data centre space and power will nearly double by 2028, reaching approximately 4 GW across 21.5 million sq. ft., but this expansion faces significant challenges from power grid constraints and planning processes.

Regional development will accelerate as providers seek alternatives to the constrained South East market. Areas with better power availability and supportive local authorities are attracting increasing investment, with notable projects announced in the Midlands, North of England, Scotland, and Wales. However, these developments often involve trade-offs in connectivity and ecosystem depth compared to established hubs.

Contract structures will continue to evolve, with increasing sophistication in how resources are allocated and charged. Power-based pricing will become the dominant model, with premium tiers for guaranteed capacity and performance isolation.

Pass-through clauses for energy

efficiency improvements and sustainability initiatives will become standard, reflecting both regulatory pressures and the strategic importance of environmental performance.

Technological adaptations will play an increasing role in addressing capacity constraints. Liquid cooling technologies are becoming standard for new high-density deployments, enabling more efficient use of available power and space.

Advanced power management systems and AI-driven optimisation tools are being deployed to maximise utilisation of existing infrastructure while maintaining performance guarantees.

- Supply-demand imbalance expected to persist throughout 2025-2026, with only gradual improvement
- Regional development accelerating, with significant new capacity planned outside the South East
- Power-based pricing becoming the dominant model, with increasing sophistication in resource allocation
- Liquid cooling technologies becoming standard for new high-density deployments
- Increasing regulatory focus on environmental performance and energy efficiency
- Strategic partnerships between customers and providers becoming more important for securing capacity but bring vendor lock-in risks.

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Global Context

The UK's challenges with data centre capacity and pricing reflect global trends, though with some distinctive local characteristics. Worldwide, data centre demand is projected to grow at 15% CAGR through 2027, with AI applications driving much of this expansion. However, the UK faces particularly acute constraints due to its combination of high energy costs, limited grid capacity, and complex planning processes.

European markets are experiencing similar pressures, with the core European data centre market growing by 13.2% in 2024. Major hubs like Frankfurt, Amsterdam, Paris, and Dublin (the "FLAP-D" markets) all face power scarcity issues, with both Dublin and Amsterdam having previously imposed moratoriums on new data centre construction. However, many European locations benefit from lower energy costs and more abundant renewable power sources compared to the UK.

The United States maintains the most aggressive growth trajectory, with capacity expanding at 20-25% CAGR and unprecedented levels of new development. While facing its own challenges with power delivery and cooling for AI workloads, the US benefits from generally lower energy costs and more streamlined development processes in key regions. This creates a significant competitive advantage for US-based operations, particularly for power-intensive applications.

Asia Pacific markets are developing rapidly but unevenly, with projected investment requirements of US\$116.2 billion to build out the existing colocation pipeline over the next 5-7 years. Japan, India, Australia, mainland China, and Malaysia account for over 80% of this pipeline, with Tokyo having the strongest development activity in the region. These markets face their own distinctive challenges around land availability, regulations, and infrastructure development.

For UK decision-makers, this global context has important implications. The relative disadvantage in energy costs and development timelines means that purely cost-driven decisions may increasingly favour other locations, particularly for power-intensive workloads. However, factors such as data sovereignty, latency requirements, and ecosystem integration continue to support the UK market despite its higher costs and capacity constraints.

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Appendix - Key Research Sources

- 1. DatacentrePricing.com "United Kingdom: Data Centre Landscape 2025"
- 2. ResearchAndMarkets.com "United Kingdom Data Center Portfolio Report 2025"
- 3. ResearchAndMarkets.com "UK Data Centre Market to Double by 2028 Amid Al and Cloud Growth"
- 4. Data Centre Review "Is 2025 set to redefine UK data centres' role in our digital future?"
- 5. Data Centre Review "Power and planning constraints threaten UK data centre growth"
- 6. Structure Research "WSS: Another hyperscaler pulling back sparks yet more discussion about sector demand"
- 7. CBRE UK "AI's impact on data centre development"
- 8. CyberOne "Leverage Microsoft's UK Cloud Pricing Changes in 2025"
- 9. CBRE "Data Centre Take-up in Europe to Reach New Peak in 2025"
- 10. JLL "EMEA Data Centre Report Q1 2025"
- 11. ResearchAndMarkets.com "United Kingdom Existing & Upcoming Data Center Portfolio 2025"
- 12. Flint Global "Four key policy and regulatory developments for the UK data centre market"