

## From oil barrels to GPU clusters: GCC's bid to anchor the AI century

The global race for AI compute<sup>1</sup> is entering a new phase – one defined not only by algorithmic breakthroughs but by the physical constraints of power, land, and capital. As the US and China dominate the innovation frontier, a third pillar of global AI infrastructure is rapidly taking shape across the Gulf Cooperation Council (GCC). Cities like Abu Dhabi, Dubai, and Riyadh are positioning themselves as indispensable nodes in the world's compute supply chain, leveraging structural advantages that traditional tech hubs increasingly lack. The GCC's emergence is not a speculative ambition. It is a strategically coordinated, capital-backed, and infrastructure-led transformation that aligns national industrial policy with the needs of the AI era. With sovereign wealth funds deploying tens of billions, permitting cycles measured in months rather than years, and energy economics that undercut Western markets by wide margins, Gulf cities are becoming the world's most scalable environments for hyperscale data center buildouts. In a world where access to accelerated computing defines digital-era supremacy, the Gulf's proposition is simple: abundant power, abundant capital, abundant land, and the political will to deploy all three at speed. It is not just supply, the demand is also strong in the region with the UAE leading the world with c64% AI adoption among the working-age population<sup>2</sup>.

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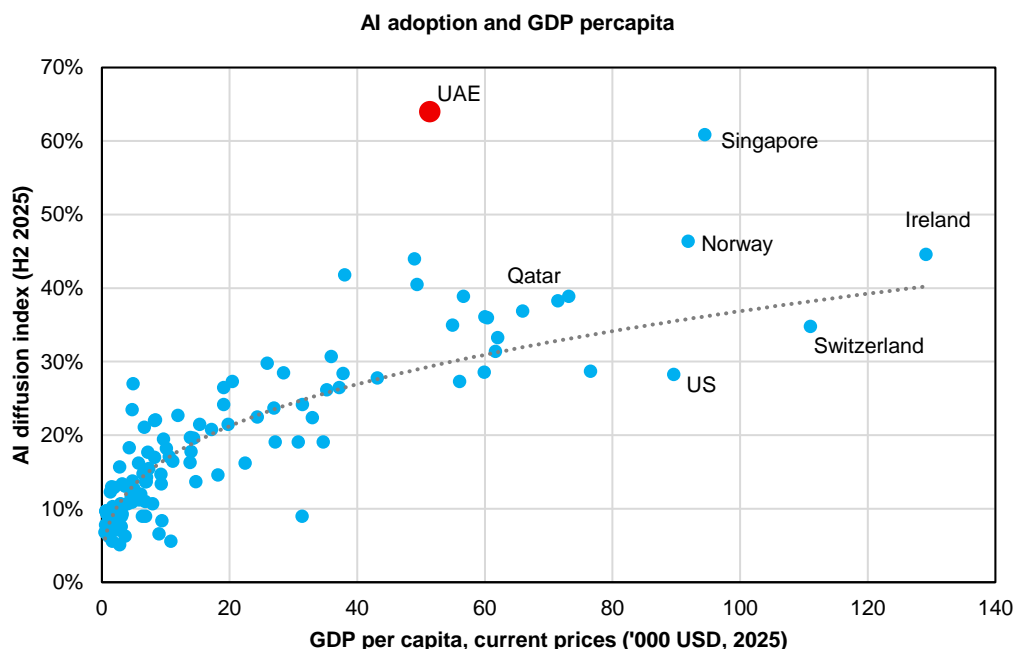
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**Exhibit 1: UAE punching above its weight in AI ambitions**



Source: Microsoft ("Global AI Adoption in 2025 — A Widening Digital Divide", January 2026), IMF WEO Database, and ADCB Asset Management

<sup>1</sup> AI compute refers to the total amount of computational power required to train, fine-tune, or run an AI model.

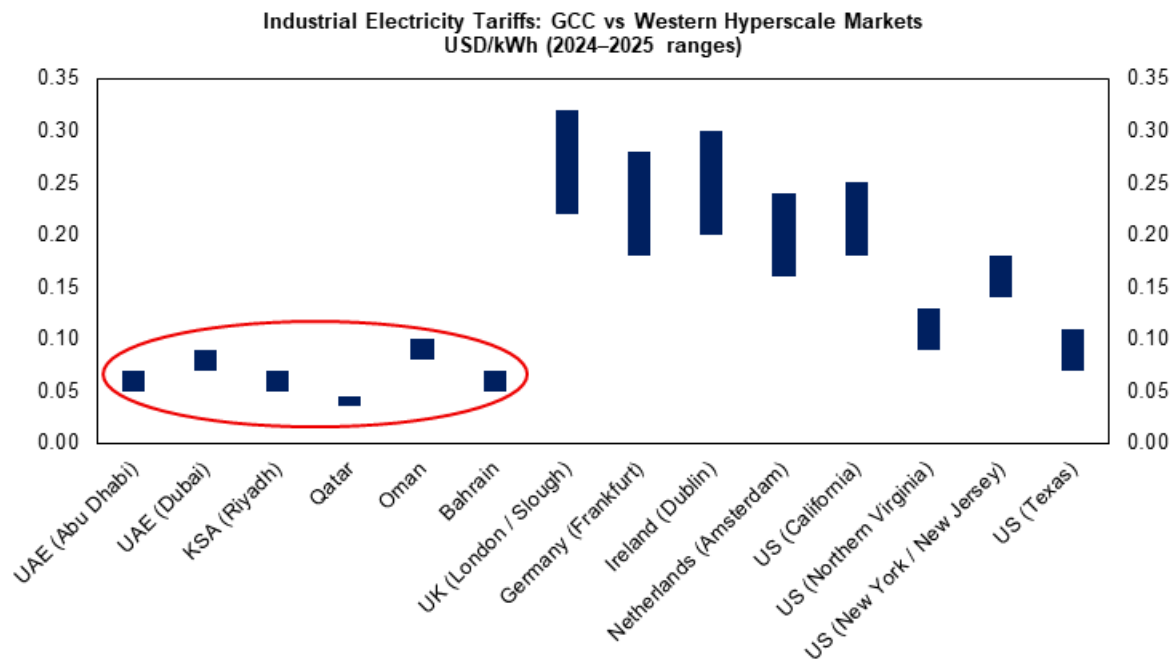
<sup>2</sup> Microsoft Global AI Adoption Report (2025)

## Geography as competitive advantage

AI infrastructure is fundamentally a power-and-space problem. Training frontier models requires dense clusters of GPUs drawing hundreds of megawatts, supported by cooling systems that operate continuously in high-load environments. In most Western markets, this is colliding with grid bottlenecks, soaring electricity prices, and land scarcity. The Gulf offers the opposite.

- Ultra-low energy costs:** Industrial electricity tariffs in Abu Dhabi and Riyadh sit around USD0.05-0.07/kWh, a fraction of the levels seen in the UK, Europe, or coastal US hubs (exhibit 2). This advantage is reinforced by:
    - Massive solar buildouts (e.g., UAE's Mohammed bin Rashid Al Maktoum Solar Park; Saudi Arabia's 2 GW Al Shuaibah 2 project)
    - State-aligned utilities capable of synchronizing generation with data-center development
    - Long-term energy price visibility, a critical factor for hyperscalers planning 20-year capex cycles
- While the US grid is approaching a "ticking bomb" scenario: according to AlpineMacro research data-center demand is set to require 44 GW of new capacity by 2028, but only 25 GW is realistically coming online<sup>3</sup>. The GCC does not currently face a comparable structural mismatch.

**Exhibit 2: Ultra-low industrial energy costs in the Gulf**

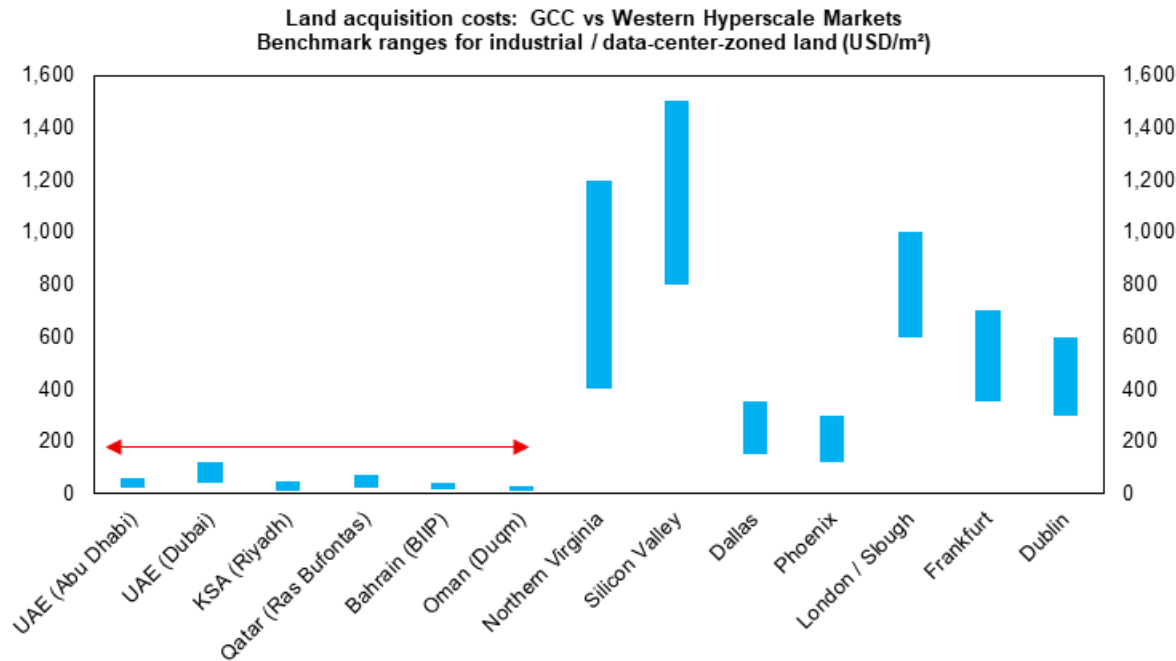


Source: US Energy Information Administration (EIA) Industrial Electricity Price Dataset (2024), Eurostat Industrial Electricity Prices (2024), Ofgem UK Industrial Tariff Data (2024), CBRE Global Data Center Trends (2024), JLL Global Data Center Outlook (2024), S&P Global Power Market Intelligence (2024), Saudi Electricity Company (SEC) Tariff Schedule 2024, DEWA & ADDC industrial tariff disclosures (2024), Qatar General Electricity & Water Corporation (KAHRAMAA), Oman Authority for Public Services Regulation, Bahrain EWA tariff schedules, JLL MENA Data Center Market Update (2024), and ADCB Asset Management

- Land availability at hyperscale:** Where London, Northern Virginia, or Singapore face land constraints and community resistance, Gulf cities are surrounded by open desert. This enables:
    - Multi-GW campuses spanning square miles
    - Proximity to existing utilities and transport corridors
    - Lower land acquisition costs (exhibit 3)
- The result is a cost base that materially undercuts North America and Europe – an increasingly decisive factor as AI compute becomes more energy-intensive and spatially demanding.

<sup>3</sup> "GCC States: Building The Third Pillar Of Global AI Compute", AlpineMacro, January 7 2026.

## Exhibit 3: Land availability at hyperscale and lower costs in GCC



Source: Colliers MENA Industrial Land Reports (2024), Knight Frank GCC Industrial & Logistics Market Review (2024), JLL MENA Data Center Market Updates (2024), Government SEZ pricing disclosures (Saudi SEZ, KEZAD, QFZA), Brokerage transaction data (2023–2025), CBRE Global Data Center Trends (2024), JLL Global Data Center Outlook (2024), Cushman & Wakefield Hyperscale Market Tracker (2024), Local county transaction records (US markets), European DC corridor zoning and land-value disclosures, and ADCB Asset Management

### Capital as a strategic advantage

The AI boom is often framed as a technology story. In reality, it is an infrastructure story – one that begins with concrete, transformers, and cooling towers long before GPUs arrive. Here, Gulf cities possess a structural advantage: sovereign capital with strategic mandates.

- **Sovereign wealth funds driving the buildout:** Across the region, sovereign institutions are deploying capital at a scale unmatched by private markets:
  - Abu Dhabi (MGX): Targeting USD100bn across AI infrastructure, chips, and compute<sup>4</sup>.
  - Saudi Arabia (PIF/HUMAIN): Over USD40bn in AI commitments, including plans for 6 GW of data-center capacity and partnerships to deploy 18,000 NVIDIA Blackwell GPUs<sup>5</sup>.
  - Qatar (QIA): Backing a USD20bn AI infrastructure JV with Brookfield<sup>6</sup>.
 These are not passive investments. They are part of national strategies to build sovereign AI capability, diversify economies, and anchor global technology partnerships.
- **Execution speed as a differentiator**
  - Permitting cycles in the GCC run 6–12 months, compared with multi-year processes in the US and Europe. Special Economic Zones in Saudi Arabia even grant a ‘Right to Power’ alongside site permits – an unheard-of level of integration in Western markets.
  - Combined with lower construction costs and abundant labor, this allows Gulf cities to move from concept to live capacity at a pace that hyperscalers increasingly require.

<sup>4</sup> <https://www.abudhabistartup.com/startup-news/2024/03/abu-dhabi-launches-mgx-a-100b-global-ai-investment-powerhouse/>

<sup>5</sup> <https://www.pif.gov.sa/en/news-and-insights/press-releases/2025/hrh-crown-prince-launches-humain-as-global-ai-powerhouse/>

<sup>6</sup> [https://www.qia.qa/en/Newsroom/Pages/Brookfield-and-Qai-Form-\\$20-Billion-Strategic-Investment-Partnership-for-AI-Infrastructure.aspx](https://www.qia.qa/en/Newsroom/Pages/Brookfield-and-Qai-Form-$20-Billion-Strategic-Investment-Partnership-for-AI-Infrastructure.aspx)

## Building the talent and research base

Infrastructure alone does not create an AI ecosystem. Gulf cities recognize this and are investing heavily in talent pipelines.

- **Upskilling and education**

- Mohamed bin Zayed University of Artificial Intelligence in Abu Dhabi – one of the world's first AI-only universities – now hosts over 700 students.
- Saudi Arabia's Saudi Data & Artificial Intelligence Authority (SDAIA) is rolling out national AI training programs.
- Universities such as King Fahd University of Petroleum & Minerals are adding specialized AI and ML tracks.

These efforts are already reflected in adoption metrics: the UAE leads the world in per-capita generative AI usage, with nearly 64% of its working-age population using AI tools (exhibit 1).

- **Attracting global expertise**

- Immigration reforms – including the UAE's Golden Visa and Saudi Arabia's Premium Residency – are designed to pull in high-skill talent. Office-based employment growth in Dubai and Abu Dhabi suggests this strategy is gaining traction.
- While the region still relies on imported GPUs and upstream innovation from the US and Asia, its pragmatic partnerships – exemplified by the Stargate UAE JV with OpenAI, NVIDIA, Oracle, and SoftBank – ensure access to frontier hardware.

## Constraints and Considerations

Despite strong momentum, several challenges remain:

- **Water intensity:** AI data centers are water-hungry, and the Gulf is water-stressed. Heavy reliance on desalination raises questions around:
  - Cost of cooling
  - Sustainability of large-scale clusters
  - Infrastructure needed to support multi-GW campuses
- **Innovation concentration upstream:** The region does not yet produce advanced semiconductors. Export-control exposure remains a structural vulnerability, though the US's recent relaxation of AI chip controls for the GCC reduces near-term risk.
- **Capital allocation pressures:** Sovereign wealth funds are balancing competing priorities – from tourism megaprojects to industrial diversification – which could influence the pace of AI-related deployment.

## Strategic Outlook: The GCC as the World's AI Pressure Valve

The GCC is being increasingly viewed as a "pressure valve" for Western AI infrastructure – a characterization that is increasingly accurate. As US grids strain under rising demand and permitting delays, hyperscalers will look to regions where power, land, and capital are not binding constraints. The GCC fits this profile better than any other geography.

- **What this means for investors:** The investable opportunity set is not limited to GPUs or cloud platforms. The real upside lies in:
  - Water and desalination infrastructure
  - Interconnection and transmission materials
  - Thermal management and liquid cooling technologies
  - Specialized engineering and construction firms
- These are the enabling layers of the AI economy – and the GCC is where they will scale fastest.

## Conclusion

Gulf cities are not trying to replicate Silicon Valley. They are building something different: a sovereign-scale, energy-advantaged, capital-rich compute backbone that complements Western innovation and accelerates global AI adoption. Their geography lowers operating costs. Their capital accelerates execution. Their policy frameworks reduce friction. And their partnerships ensure access to frontier technology. In a world where compute scarcity is becoming the defining constraint on AI progress, the GCC is emerging as the indispensable third pillar of global AI infrastructure.

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