PowerlandMap

MARKET INTELLIGENCE

UAE Data Center & AI Infrastructure Market Study 2026-2035

Assess the UAE data center and AI infrastructure market through the combined lens of data-center supply, sovereign/hyperscale demand, generation, transmission, electricity economics and project delivery risk.

89
report pages

Extended edition
29 October 2026
Analysis, project evidence and practical models

Original research snapshot dated 4 or 5 October 2026.
Expanded evidence retains its own source-check dates.

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READER GUIDE

Contents and edition guide

This extended edition combines the original research chapters with additional analytical work and a separately dated public-evidence register. The snapshots are not additive.

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Original research coverage

Executive dashboard, Abu Dhabi, Dubai and Northern Emirates, campus hierarchy, competition, supply and demand, generation, transmission, electricity costs, delivery, opportunities, risks and source registers.

How to read the update

The opening chapters retain the evidence freeze of 4 October 2026, or 5 October for the UAE study. The expansion was assembled on 29 October. Individual records show the date on which their source was last checked. Extraction is not a new operator confirmation.

Use the expanded record when it supersedes an older baseline statement. Capacity bases and phase boundaries remain explicit. Model inputs are labelled as assumptions. The PDF bookmarks provide direct navigation through the expanded sections.

The public sample contains exactly the first four pages. The complete study includes all sections listed above.

EXECUTIVE ASSESSMENT

Executive summary

The UAE is moving from a regional colocation market toward sovereign AI infrastructure measured in gigawatts - but the headline numbers are not all IT MW.

5 GW	1 GW	53.35 GW	394
UAE-US AI Campus headline	Stargate UAE cluster	Verified live generation	DEWA 132/400 kV substations

Five conclusions

Abu Dhabi is the strategic centre of gravity for sovereign AI. The 5 GW UAE-US AI Campus provides the umbrella programme; Stargate

UAE is a 1 GW child cluster, with a first 200 MW tranche expected in 2026. These figures are nested, not additive. Dubai is building a second AI/hyperscale axis around Warsan, Dubai Silicon Oasis, Jebel Ali and the MBR Solar Park. du AI Park carries

a 1 GW headline; Moro Hub has >100 MW projects at both the Solar Park and Warsan, but the IT/electrical boundary is not publicly explicit. Power is a competitive advantage, not proof of site readiness. PowerlandMap has 53.35 GW of verified live generation represented in the

UAE feed and 22.39 GW of verified construction/development pipeline, yet site-level grid rights and delivery timing remain the decisive constraints. Transmission depth differs materially by emirate. DEWA reports 394 transmission substations at 132/400 kV in Dubai, while TAQA

Transmission reports 165 substations and 11,000 km of lines/cables in its portfolio. The mapped public layer is far less complete at 132 kV and must be treated as screening. The best near-term opportunity is not simply “more capacity”. It is bankable power-and-land packages tied to known AI buyers, phased

substations, cooling design, and credible 2026-2029 delivery milestones.

EVIDENCE FRAMEWORK

Research methodology and data architecture

Study scope. UAE data-center supply, announced AI infrastructure, public demand signals, generation, storage, transmission and electricity- cost evidence. The report is designed around developer, operator, investor and contractor decisions rather than a generic market-size CAGR.

66	29	380.66 MW	151
UAE supply records	Sites with sourced IT MW	Explicit IT lower bound	Published generation units

Core evidence rules

Field	Rule
IT capacity	Only recorded as IT MW when the source explicitly states an IT/critical-load basis.
Announced capacity	Used for AI/campus headlines where the IT/electrical boundary is not explicit.
Electrical capacity	Kept as site power, grid power or MVA; never converted to IT without a stated model.
Parent/child	Nested capacities are labelled non-additive (e.g., 5 GW UAE-US campus and 1 GW Stargate).
Grid	Mapped infrastructure supports screening; proximity never proves spare capacity or connection rights.
Storage	Battery MW and MWh remain separate; solar nameplate is not added to storage power.
Unknowns	Unknown remains unknown; absence of published capacity is not treated as zero.

Source note: PowerlandMap production database; operator/utility evidence register; public records opened through 5 Oct 2026.