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Demand Forecast for Data Centers in Saudi Arabia

Valuation | Investment Banking
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NOVEMBER
2025

CONTENTS of

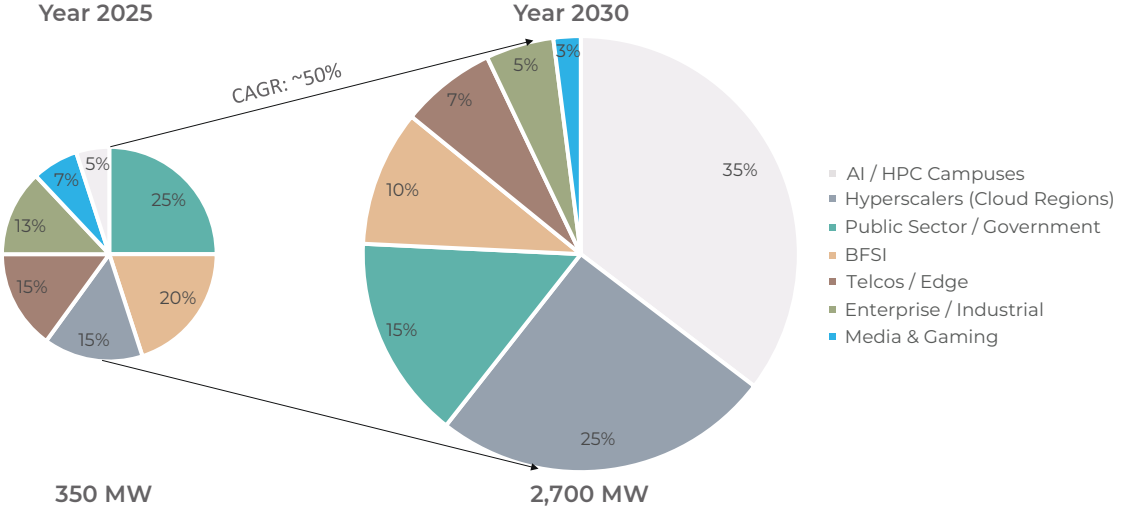
EXECUTIVE SUMMARY

- Saudi Arabia has rapidly evolved into the Middle East's most **dynamic** and **rapidly growing data center market.** In less than a decade, the Kingdom has moved from **small-scale colocation facilities** to a **multi-layered ecosystem** of **hyperscale cloud regions, sovereign AI/HPC campuses,** and **telco-led edge deployments.**
- This **structural transformation** positions KSA as a **strategic hub** not just for domestic demand but also for regional workloads across the Middle East and Africa.

Key Takeaways of this Research Paper:

- **Rapid Scale-Up:** Saudi Arabia currently operates ~350 MW of live IT load across 50+ facilities, already surpassing Qatar, Bahrain, Oman, and Kuwait combined.
- **2030 Outlook:** Installed capacity projected to reach 1.8–3.3 GW, translating into USD 1.8–5.5Bn annual revenues, depending on adoption of sovereign AI campuses and hyperscaler expansion.

Saudi Arabia to scale its Data Center Capacity from 350MW to 1.8–3.3 GW by 2030, becoming the Gulf's compute leader.

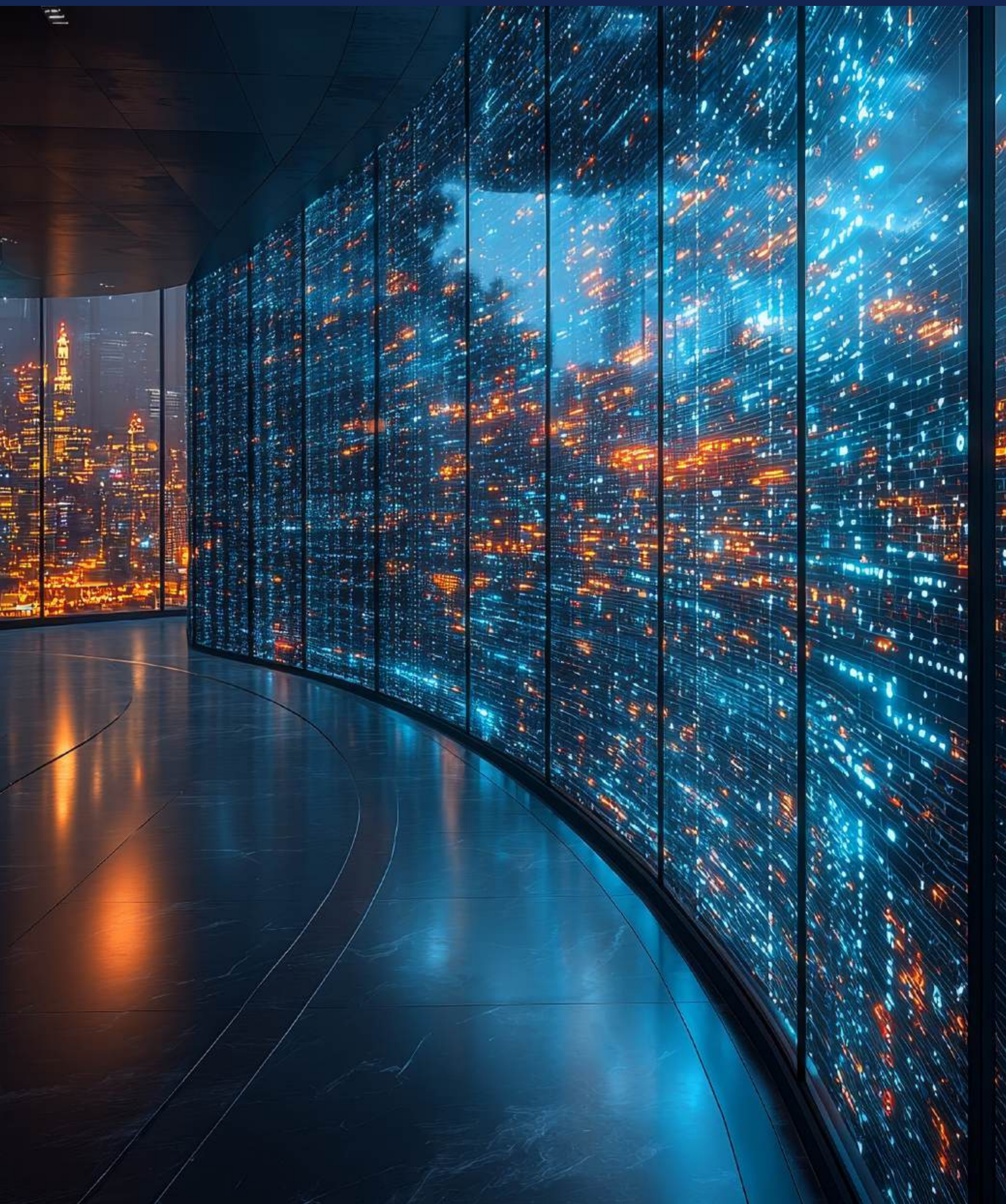


- **Strategic Cost Advantage to boost Data Center growth:** Among the world's most competitive markets, with power tariffs at USD 0.05–0.06/kWh and industrial land priced at USD 10–50/m², undercutting Europe, Asia, and the US.
- **Diversified Ecosystem:** A balanced mix of hyperscalers (AWS, Microsoft, Google, Oracle), sovereign AI players (HUMAIN, DataVolt), and telcos (STC/center3, Mobily, Zain) ensures scale, resilience, and multi-segment coverage.

Power Surge: Data center electricity consumption will expand from ~4.9 TWh in 2025 to 24–40 TWh by 2030, necessitating renewable PPAs, grid modernization, and advanced cooling solutions.

Rajeev R. Shah
Managing Director & CEO

DATA CENTER LANDSCAPE 2025



KSA VS GULF – 2025 DATA CENTER LANDSCAPE

Overview:

- **Saudi Arabia** is now the **fastest-growing data center market** in the GCC, and is already approaching UAE scale in non-mega campus deployments.
- As of 2025, **KSA ~350 MW** live IT load vs **UAE ~500–550 MW** — the rest of the GCC combined is <200 MW.
- The **operator ecosystem in KSA** is more diversified (sovereign funds, telcos, global hyperscalers, neutral colos).
- In contrast, the UAE market is relatively more **dominated by a single large colocation specialist (e.g., Khazna).**

Strategic Contrast: KSA vs UAE

- **KSA's more distributed operator base** reduces single-vendor risk and may enable more flexible growth.
- **UAE's advantage** lies in maturity, existing infrastructure, and strong engagement of specialist colocation players.
- **Growth outlook:** KSA is likely to narrow the gap as mega campuses and sovereign-driven investments scale.

Particulars	Live IT Load Approx. MW	Key Features / Market Notes
UAE	500 – 550	Khazna mega campuses dominate; mature colocation market
Saudi Arabia	350	Mixed hyperscale, sovereign AI campuses, telcos
Qatar	50	Financial services, government hosting, subsea landing
Bahrain	45	Early hyperscale, small colocation
Oman	30	Edge & connectivity nodes tied to subsea cables
Kuwait	20	Early-stage data center market

KSA: GCC's fastest-growing data center market, closing in on UAE scale.

Sources: RBSA Research, Agility, PwC

KSA CURRENT DATA CENTER DEMAND SCENARIO 2025

CURRENT DEMAND

- Saudi Arabia's data center market has become a **strategic pillar** of the **national digital economy,** supporting government modernization, financial digitization, AI research, and telecom edge infrastructure.

- The Kingdom has **~350 MW of live IT load** across **~50 operational facilities,** concentrated in **Riyadh, Dammam,** and **Jeddah.** This makes Saudi Arabia the **fastest-scaling GCC market,** second only to the UAE's Khazna campuses in raw installed capacity.

Key Drivers of 2025 Demand:

Government Digitalization:

- **Vision 2030** reforms and the **Cloud-First Policy** mandate ministries and regulated industries to host workloads in certified local data centers.
- The **Personal Data Protection Law (PDPL)** further ensures residency of sensitive data, securing guaranteed demand.

Hyperscaler Region Build-outs:

- **AWS, Microsoft, Google, and Oracle** are each developing full **multi-availability-zone regions.**
- These serve as **anchor tenants** for co-location providers and create **spillover demand** from enterprises shifting to the cloud.

Sovereign AI/HPC Campuses:

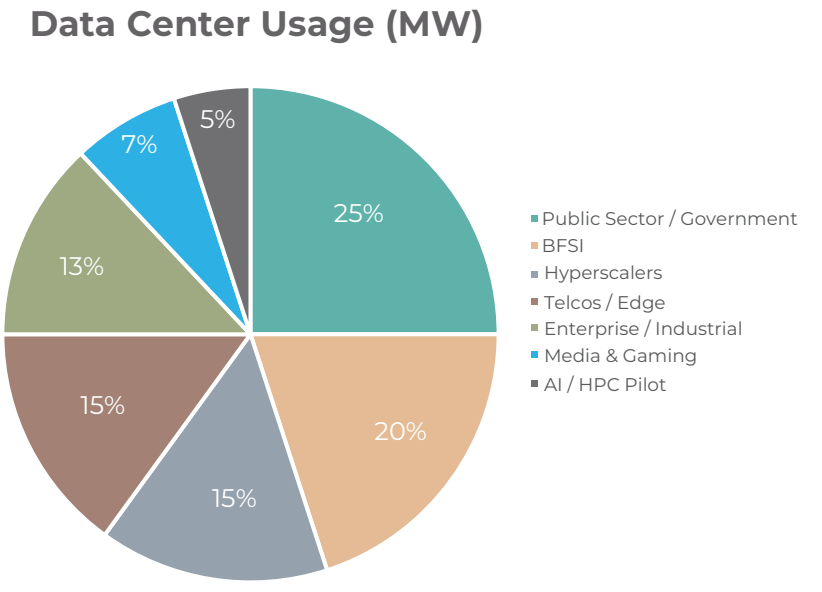
- **HUMAIN and DataVolt** are deploying **GPU-dense campuses at 100+ MW scale,** with **liquid cooling** and **ultra-high rack density.**
- These facilities enable **AI model training, generative AI platforms,** and **HPC workloads** that consume 10× the power of legacy enterprise servers.

- These three forces — **government mandates, hyperscaler investment,** and **sovereign-backed AI campuses** — are driving Saudi Arabia's evolution from a **colocation-led market** into a **hyperscale, AI-ready hub,** capable of serving regional workloads across the Middle East and Africa.

With ~350 MW live IT load in 2025, demand is anchored by public sector mandates, hyperscaler regions, and AI pilots.

Sources: RBSA Research, Gov.SA, SDAIA, CIO, Data-Volt

SECTORAL BREAKDOWN (2025)

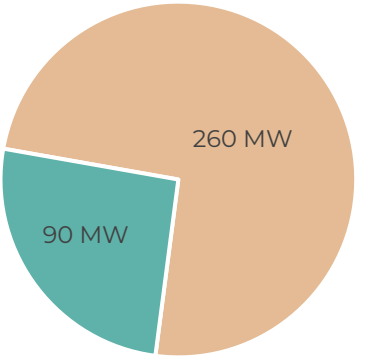


Sector	Approx. MW	Typical Use Cases
Public Sector / Government	90	e-Gov platforms, Madrasati, citizen data, sovereign AI pilots
BFSI	70	Core banking, fintech, AML, disaster recovery
Hyperscalers	55	Google Cloud live, AWS/Azure regions under construction
Telcos / Edge	50	5G core, subsea landing stations, CDN nodes
Enterprise / Industrial	45	Industrial IoT, SAP/ERP, healthcare systems
Media & Gaming	25	OTT caching, e-sports hosting, content delivery
AI / HPC Pilot	15	GPU clusters, model training/inference
Total	**350**	

PUBLIC SECTOR / GOVERNMENT (2025)

Overview and Drivers:

- The Saudi government is the single largest consumer of local data center capacity in 2025, accounting for ~90 MW (25% of national IT load).
- Demand is driven by digital transformation mandates under Vision 2030, with the Cloud-First Policy requiring ministries and agencies to use certified cloud/data centers instead of building on-premise infrastructure.



Core workloads include:

- Citizen identity and e-Gov apps (Absher, Najiz, Tawakkalna).
- National education and health systems (Madrasati, Seha, E-Prescription).
- Smart city pilots in Riyadh and NEOM (urban IoT, traffic systems).
- Sovereign AI pilots under SDAIA (Saudi Data & AI Authority) add high-performance workloads (training Arabic LLMs like ALLaM).

Key Developments (2025):

- USD 20Bn new government commitment to digital infrastructure, announced at WEF Davos by Minister of Commerce Majid Al-Kassabi.
  - Comes on top of USD 25Bn already spent in the past five years to prepare for automation.
  - Strong signal that government IT demand will remain a guaranteed anchor tenant for hyperscalers and sovereign AI campuses.
- Dedicated sovereign cloud zones being deployed with hyperscalers (AWS, Microsoft, Oracle) to host sensitive workloads.
- Defense and security workloads increasingly require sovereign AI and high-security hosting, expected to rise in share by 2030.

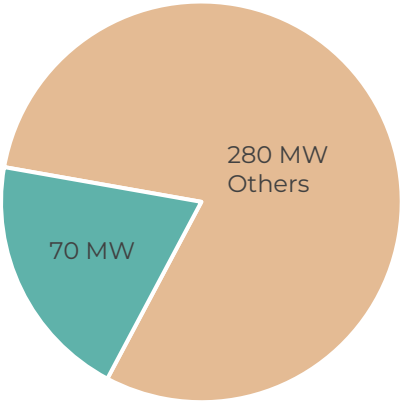
Public Sector (~90 MW, 25%) demand is supported by USD 20Bn government investment and sovereign cloud policies.

Sources: RBSA Research, Mitsui, MCIT, SDAIA, AGBI, AWS, TOI

BFSI SECTOR (2025)

Overview and Drivers:

- The BFSI sector is the second-largest consumer of Saudi Arabia's data center capacity in 2025, accounting for ~70 MW (≈20% of IT load).
- Demand is driven by regulatory compliance, financial digitization, and cloud adoption in line with Vision 2030's push for a cashless, tech-enabled economy.



Core workloads include:

- Core banking systems, payment gateways, and fraud monitoring.
- Fintech platforms (wallets, micro-lending, digital KYC).
- AML (Anti-Money Laundering) and RegTech analytics; and disaster recovery and backup facilities.

Key Developments (2025):

- Saudi Central Bank (SAMA) mandates data residency compliance for financial services, ensuring workloads are hosted in certified local data centers.
- Launch of Open Banking Framework is driving demand for scalable, API-based infrastructure, accelerating usage of cloud-native services.
- Rising fintech adoption — digital wallets (STC Pay, Tamara, HyperPay) already exceed 20M+ active users, creating significant real-time transaction loads.
- BFSI firms increasingly leveraging AI/ML for credit scoring, fraud detection, and risk modeling, which require GPU-backed compute clusters.
- Regional consolidation (mergers in Saudi banking) increasing reliance on centralized, resilient colocation facilities.

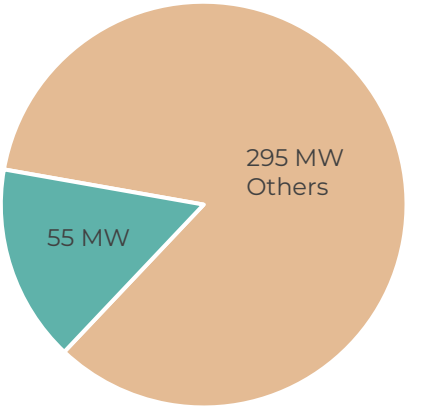
BFSI demand (~70 MW, 20%) is fueled by data residency, open banking, and fintech growth.

Sources: RBSA Research, Mitsui, SAMA

HYPERSCALERS – CLOUD REGIONS (2025)

Overview and Drivers:

- Hyperscalers account for ~55 MW (≈15% of Saudi Arabia's IT load in 2025). Demand comes from enterprises, public sector workloads, and multinational firms requiring global-grade cloud infrastructure with local compliance.
- Saudi Arabia is one of the few Middle Eastern markets where all four global hyperscalers (AWS, Microsoft, Google, Oracle) have committed to full regions, each with multiple availability zones.



Core workloads include:

- Cloud-native enterprise applications (ERP, CRM, SaaS).
- Public sector workloads under PDPL/Cloud-First Policy.
- AI/ML workloads requiring global cloud platforms.
- Scalable hosting for SMEs and startups.

Key Developments (2025):

Cloud Services Market projected to grow at 21% CAGR (2023–2028), anchored by hyperscaler availability.

Azure	aws	ORACLE CLOUD	
3-zone region (Eastern Province) - 2026	USD 5.3Bn Investment 3 availability zones - 2026	Expanding Riyadh and Jeddah regions	Dammam - Nov 2023

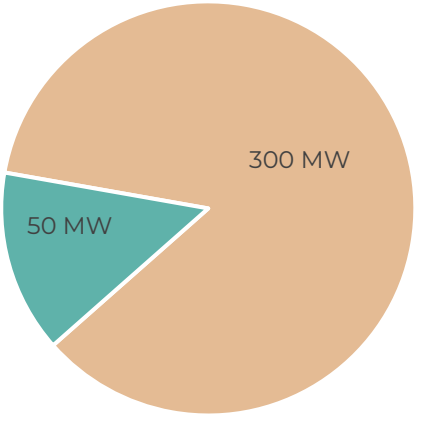
Hyperscaler demand (~55 MW, 15%) is anchored by AWS, Microsoft, Google, and Oracle regions.

Sources: RBSA Research, MCIT, Microsoft, GulfBusiness, Oracle, CloudGoogle

TELCOS / EDGE SECTOR (2025)

Overview and Drivers:

- The telecom sector, led by STC (center3), Mobily, and Zain, is a critical pillar of Saudi Arabia's data center ecosystem in 2025, consuming ~50 MW (≈15% of IT load).
- Its demand is driven by the rollout of 5G, low-latency services, and the need to integrate subsea cable capacity with edge data center infrastructure.



Core workloads include:

- 5G core networks and mobile broadband platforms.
- Edge computing nodes for AR/VR, gaming, and industrial IoT.
- Content delivery networks (CDNs) for streaming and social media.
- Subsea cable landing stations (Red Sea & Gulf coast), ensuring regional connectivity.

Key Developments (2025):

Investing USD 10+ Bn to reach 1 GW capacity by 2030	USD 905Mn for 39 MW boost + cable upgrades to Africa & Europe	Launching GPU-as-a-Service for AI/edge with Cisco

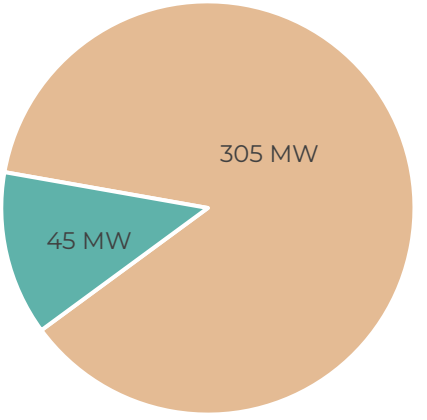
Telcos/Edge (~50 MW, 15%) anchor 5G, subsea connectivity, and low-latency workloads.

Sources: RBSA Research, DataCenterDynamics., Zain

ENTERPRISE / INDUSTRIAL SECTOR (2025)

Overview and Drivers:

- Saudi enterprises and industrial firms collectively consume ~45 MW of IT load (≈13% of national capacity in 2025).
- This demand is driven by digital transformation of industry and healthcare, with large corporations increasingly shifting ERP, IoT, and operational systems to cloud and colocation facilities.



Core workloads include:

- ERP and enterprise systems (SAP, Oracle, Microsoft Dynamics) for conglomerates.
- Healthcare digitization – electronic health records (Seha), AI diagnostics, hospital networks.
- Industrial IoT – predictive maintenance, connected factories, and real-time analytics.
- Smart utilities – water/electricity metering and control systems.

Key Developments (2025):

- Healthcare sector digitization: National Unified Health Record project under MoH, creating a demand for secure, local hosting of patient data.
- Industrial transformation: Aramco, SABIC, and Ma'aden adopting IoT and AI-enabled analytics, requiring scalable compute environments.
- Smart manufacturing pilots: Industrial metaverse and predictive maintenance gaining traction in Jubail and Yanbu industrial cities.
- Enterprises leveraging cloud-native disaster recovery and colocation for business continuity.

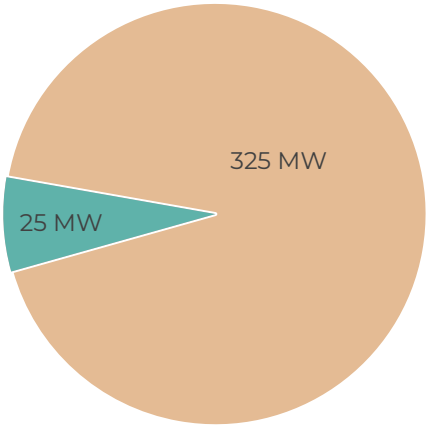
Enterprise/Industrial (~45 MW, 13%) driven by ERP, healthcare digitization, and Industrial IoT adoption.

Sources: RBSA Research, Gov.SA, FutureDigitalTwin, ArabNews

MEDIA & GAMING SECTOR (2025)

Overview and Drivers:

- Saudi Arabia's media and gaming sector consumes ~25 MW of IT load in 2025 (≈7% of total).
- This share is rising as the Kingdom pushes to become a regional entertainment and e-sports hub, with demand driven by OTT platforms, streaming content delivery, and immersive gaming experiences.



Core workloads include:

- OTT streaming & caching — Netflix, Shahid, OSN, YouTube require local edge/CDN hosting.
- Gaming platforms & e-sports — regional hosting of multiplayer servers, live-stream tournaments.
- Digital media storage & rendering — for film, animation, and production studios.
- Metaverse pilots — immersive AR/VR entertainment at NEOM and Riyadh Season events.

Key Developments (2025):

- Saudi Arabia is investing USD 38Bn in gaming and e-sports through Savvy Games Group (PIF-backed), driving local hosting needs.
- E-sports World Cup 2024–25 in Riyadh created demand spikes for low-latency hosting.
- Local CDNs deployed by STC, Mobily, and Google Cloud to reduce latency for video/gaming services.
- Riyadh Season and NEOM are piloting immersive entertainment metaverse projects, requiring GPU-heavy compute.

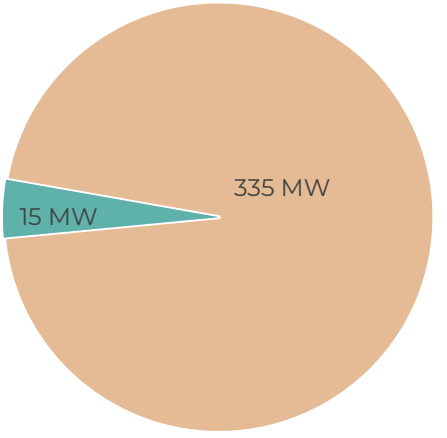
Media & Gaming (~25 MW, 7%) powered by OTT streaming, e-sports hosting, and immersive entertainment pilots.

Sources: RBSA Research, Bloomberg, Unescwa

AI / HPC PILOT (2025)

Overview and Drivers:

- AI and High-Performance Computing (HPC) currently account for a modest ~15 MW of IT load in Saudi Arabia (≈5% of total in 2025).
- Despite its small base, this is the fastest-scaling demand vertical, as Saudi Arabia positions itself as a global hub for sovereign AI, supercomputing, and large language models (LLMs).



Core workloads include:

- AI model training/inference — Arabic LLMs like ALLaM developed by SDAIA.
- GPU clusters for R&D — universities, innovation hubs, and government research pilots.
- HPC workloads — seismic modeling (Aramco), climate modeling, genomics research.
- AI-as-a-Service pilots — cloud GPU rental services targeting startups and enterprises.

Key Developments (2025):

HUMAIN	DATAVOLT داتافولت / NEOM نيوم	NVIDIA / SDAIA / HUMAIN
Two 100 MW in Riyadh & Dammam; Phase 1 in 2026	1.5 GW net-zero AI campus in Oxagon; Phase 1 by 2028	500 MW GPU AI factories for global AI training

AI/HPC (~15 MW, 5%) is small today but set for exponential growth with HUMAIN, DataVolt, and sovereign GPU factories.

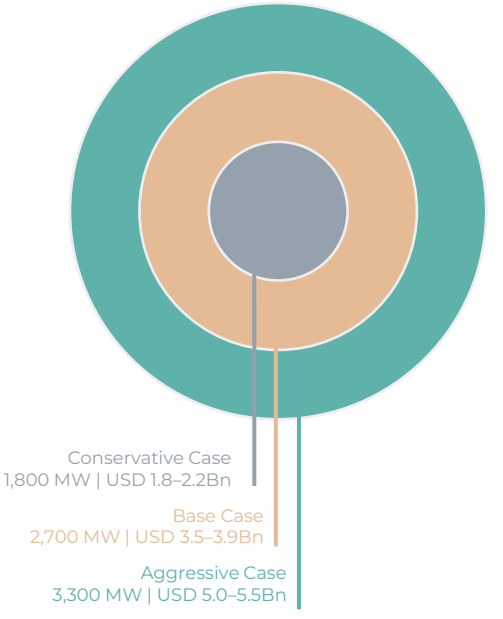
Sources: RBSA Research, ArabNews, Neom, MiddleEastAiNews

KSA FORECASTED DATA CENTER DEMAND SCENARIO 2030

FORECAST DEMAND: THREE SCENARIOS

Conservative Case – 1,800 MW | USD 1.8–2.2Bn revenue

- Represents a “minimum realization” path.
  Only hyperscaler regions (AWS, Microsoft, Google, Oracle) go live with 3 AZs each.
- AI adoption slower than expected — sovereign projects like HUMAIN and DataVolt delayed beyond 2030. Enterprise and BFSI demand grows steadily but limited to regulated workloads.



Base Case – 2,700 MW | USD 3.5–3.9Bn revenue

- Reflects “most likely” outcome based on visible pipeline.
- All hyperscalers fully operational by 2026 and reaching steady-state by 2030 (~675 MW).
- HUMAIN’s two 100 MW GPU campuses online (Riyadh & Dammam), with first NEOM/DataVolt phases energized (~500 MW).
- Enterprise, BFSI, telcos, and industrial IoT add incremental demand.
- Government maintains ~15% share via public sector workloads.

Aggressive Case – 3,300 MW | USD 5.0–5.5Bn revenue

- Represents “full realization” of Saudi Arabia’s ambition to be an AI superpower.
- NEOM/DataVolt’s 1.5 GW net-zero AI campus largely energized by 2028.
- Multiple sovereign “AI factories” (HUMAIN + PIF-backed projects) contribute another 500 MW+.
- Strong industrial metaverse, AI-driven BFSI, and cloud gaming workloads boost utilization.
- Requires flawless execution of giga-projects and heavy global GPU inflows.

Saudi Arabia’s data center market is projected to reach 1.8–3.3 GW capacity and USD 1.8–5.5Bn revenue by 2030.

Sources: RBSA Research, Arizton

FORECAST DEMAND (BASE CASE)

- By **2030,** Saudi Arabia's **data center market** is expected to reach **2.7 GW of installed IT load** (Base Case), a nearly **8× increase** from 2025.

- This growth cements the Kingdom's role as the **largest and most diversified data center hub in the GCC,** overtaking the UAE and positioning itself as a global compute destination.

Key Demand Drivers:

- **Hyperscaler Expansion – AWS, Microsoft, Google**, and **Oracle** operating full Saudi regions (3 AZs each), with investments exceeding **USD 5Bn per** operator.

- **Sovereign AI/HPC Campuses – HUMAIN** and **DataVolt** leading **GPU-dense mega-campuses** (100 MW+ each, **NEOM's 1.5 GW net-zero campus by 2028)**, powering AI model training, sovereign clouds, and **AI-as-a-Service.**

- **Government Push – Cloud-First policy** and **PDPL** ensure ministries, BFSI, and critical sectors migrate to local certified clouds.

- **Sectoral Uptake – Public Sector** (~405 MW), **BFSI** (~270 MW), **Hyperscalers** (~675 MW), **Telcos/Edge** (~200 MW), **Enterprise/Industrial** (~135 MW), **Media & Gaming** (~65 MW).

Outlook & Implications:

- **Revenue Size: USD 3.5–3.9Bn** by 2030.

- **Energy demand:** around **33 TWh annually** (6× 2025 levels), requiring **renewable PPAs** and **grid upgrades.**

By 2030, KSA becomes GCC's dominant compute hub, driven by hyperscalers, sovereign AI, and government demand.

Sources: RBSA Research, PwC, MordorIntelligence, MarkNtelAdvisors, Globenewswire

SECTORAL BREAKDOWN (2030)

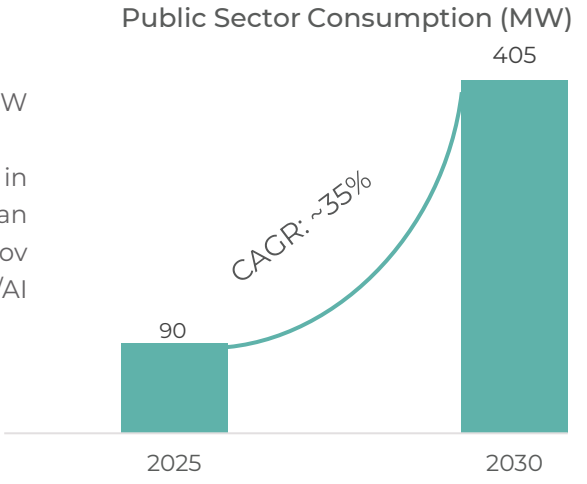
Sector	Expected IT Load (MW)	Share	Growth Drivers / New Uses
AI / HPC Campuses	~950	35%	HUMAIN & DataVolt GPU factories; large-language models; AI-as-a-Service
Hyperscalers (Cloud Regions)	~675	25%	Full AWS, Azure, Oracle regions live with 3 AZs each
Public Sector / Government	~405	15%	Expansion of digital government, health AI, defence clouds, NEOM
BFSI	~270	10%	Open banking, AI-driven risk scoring, blockchain clearinghouses
Telcos / Edge	~200	7%	5G edge computing, AR/VR, industrial IoT, autonomous vehicles
Enterprise / Industrial	~135	5%	Industrial metaverse, predictive maintenance
Media & Gaming	~65	2%	Cloud gaming, immersive streaming
Total (Base Case)	**2,700**	**100%**	

Sources: RBSA Research, Announced sovereign & hyperscaler campuses (NEOM, Riyadh AI clusters, STC expansions, Mobily/Zain builds) already > 1.5 GW pipeline. Adding AI/HPC sovereign campuses + enterprise digitization leads to ~2.7 GW

PUBLIC SECTOR / GOVERNMENT (2030)

Overview

- The Public Sector is forecast to consume ~405 MW of IT load (≈15% of national total) by 2030.
- While its proportional share declines from 25% in 2025 to 15% in 2030, the absolute load more than quadruples. This reflects both continued e-Gov digitization and the shift of hyperscale/AI workloads growing faster.



Key growth drivers:

- Expansion of sovereign cloud zones with AWS, Microsoft, and Oracle to host sensitive government/defense workloads.
- Health AI adoption — predictive analytics, genomics, hospital AI systems.
- Smart city deployments — NEOM, The Line, and Riyadh metro/urban IoT systems.
- Defense and security clouds requiring high-assurance hosting.

Key Developments (2030 Outlook):

- USD 20Bn government commitment (2025–2030) ensures guaranteed demand pipelines.
- SDAIA scaling sovereign AI, including large language models (LLMs) trained locally.
- NEOM's urban AI ecosystems require continuous cloud hosting for transport, energy, and citizen.

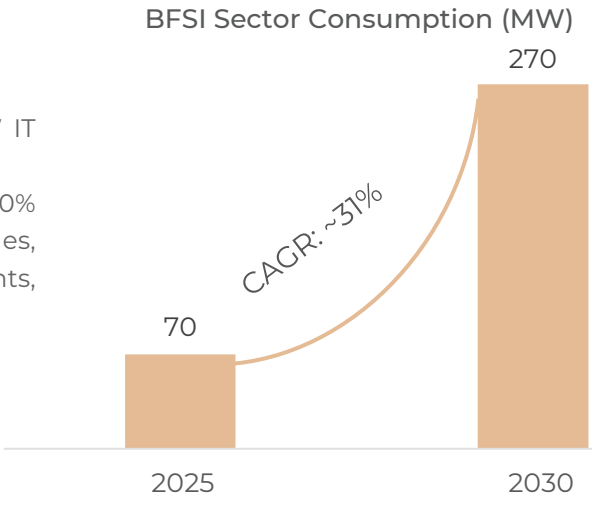
Public Sector (405 MW, 15%) grows 4× by 2030, anchored by e-Gov, health AI, and sovereign cloud zones.

Sources: RBSA Research, Meed, Neom

BFSI SECTOR (2030)

Overview

- BFSI demand is projected to rise to ~270 MW IT load (≈10% of total) by 2030.
- While its share drops from 20% (2025) to 10% (2030), absolute consumption nearly quadruples, reflecting rising digitization of banking, payments, and financial services.



Key growth drivers:

- Open Banking 2.0 adoption — scaling API-based banking services and fintech integrations.
- AI-driven risk modeling & fraud detection — requiring GPU-backed compute for real-time analytics.
- Blockchain-based clearinghouses — for trade finance and cross-border settlements.
- Digital payments & wallets — STC Pay, Tamara, HyperPay driving massive real-time transaction processing.
- Disaster recovery & compliance hosting — regulated by SAMA under strict PDPL rules.

Key Developments (2030 Outlook):

- SAMA's regulatory sandbox is expected to widen cloud adoption in fintech and digital lenders.
- Growing regional consolidation of banks increases reliance on centralized, resilient colocation.
- Integration of CBDC (Central Bank Digital Currency) pilots with digital rails could drive additional secure workloads.

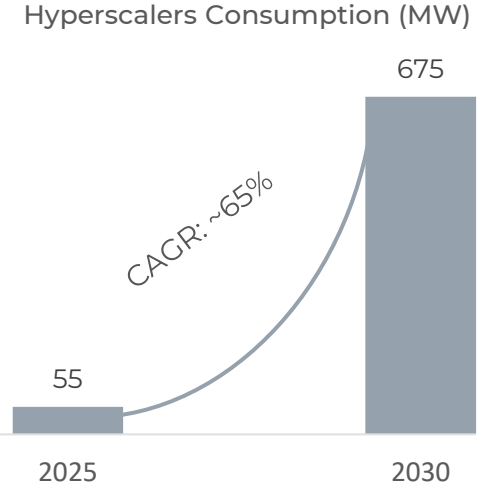
BFSI (270 MW, 10%) grows 4× by 2030, fueled by open banking, digital payments, and AI-driven risk analytics.

Sources: RBSA Research, GhazzawiLawFirm

HYPERSCALERS - CLOUD REGIONS (2030)

Overview

- Hyperscalers (AWS, Microsoft, Google, Oracle) are set to reach ~675 MW IT load (≈25% of national total) by 2030.
- This represents a 12× increase from ~55 MW in 2025, making hyperscalers one of the largest demand anchors in the Kingdom.



Key growth drivers:

- Full launch of hyperscaler regions — AWS, Microsoft, Oracle, and Google each operating 3 Availability Zones in Saudi Arabia.
- Cloud migration by enterprises & government under the Cloud-First Policy.
- AI services hosted on hyperscaler clouds (Azure AI, Google Vertex AI, AWS Bedrock).
- Multicloud adoption — BFSI, healthcare, and industrials increasingly distribute workloads across multiple hyperscaler platforms.

Key Developments (2030 Outlook):

- AWS and Microsoft each invested USD 5+Bn in their Saudi regions; both go live by 2026.
- Google Cloud's PIF-backed AI hub (~USD 10Bn) enhances GPU availability within the Kingdom.
- Oracle expanding Riyadh/Jeddah regions with government-backed demand guarantees.
- Hyperscalers expected to act as anchor tenants for sovereign workloads, while expanding to serve gaming, fintech, and AI startups.

Hyperscalers (675 MW, 25%) anchor demand, led by AWS, Microsoft, Google, and Oracle driving cloud and AI growth.

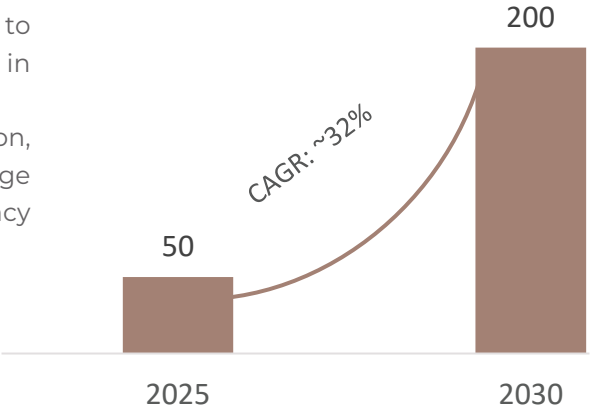
Sources: RBSA Research, AboutAmazon, Microsoft, Arizton

TELCOS / EDGE SECTOR (2030)

Overview

- Telcos and edge infrastructure are projected to reach ~200 MW IT load (≈7% of national total) in 2030, rising sharply from ~50 MW in 2025.
- This fourfold growth is driven by 5G expansion, subsea cable hubs, and distributed edge computing to support ultra-low latency applications.

Telcos/ EDGE Consumption (MW)



Key growth drivers:

- Nationwide 5G rollout and low-latency services (AR/VR, smart cars, industrial IoT).
- Subsea cable expansion — Red Sea and Gulf landing stations integrated with local data centers.
- Edge hosting for CDN, gaming, and real-time applications.
- Telcos offering GPU-as-a-Service to enterprises and startups.

Key Developments (2030 Outlook):

- STC's center3 targeting 1 GW by 2030 with USD 13Bn investment, integrating subsea and edge
- facilities.
  Mobily expanding with 39 MW new builds and strategic subsea projects.
- Zain KSA scaling AI/edge services with Cisco partnership.
- Edge nodes supporting autonomous mobility pilots in NEOM and Riyadh.

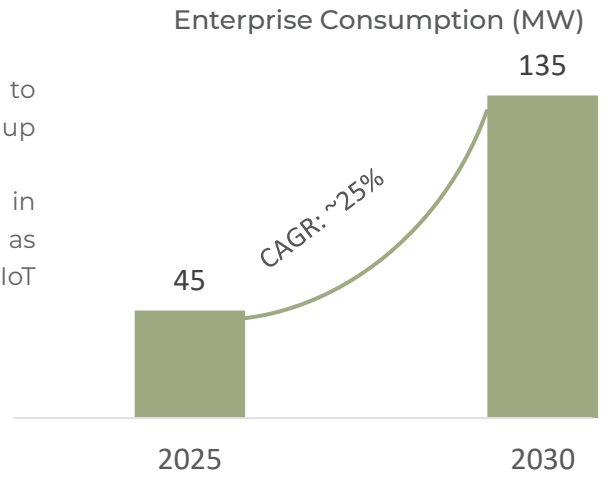
Telcos/Edge (200 MW, 7%) scale 4× by 2030, powered by 5G, subsea hubs, and GPU-as-a-Service offerings.

Sources: RBSA Research, Globenewswire, DatacCenterDynamics, Argaam, Zain

ENTERPRISE / INDUSTRIAL SECTOR (2030)

Overview

- Enterprise and industrial users are forecasted to consume ~135 MW IT load (≈5% of total) by 2030, up from ~45 MW in 2025.
- Growth is driven by digital transformation in energy, manufacturing, and healthcare, as well as the adoption of Industry 4.0 and industrial IoT across Saudi Arabia's mega-projects.



Key growth drivers:

- Industrial IoT and predictive maintenance in energy, petrochemicals, and manufacturing.
- Healthcare digitalization (telemedicine, AI diagnostics, e-prescriptions).
- ERP, SAP, and cloud migration by large enterprises.
- Industrial metaverse pilots in NEOM and KAUST zones, linking digital twins with smart infrastructure.

Key Developments (2030 Outlook):

- NEOM and industrial cities (Jubail, Yanbu) expected to drive industrial IoT data loads.
- Ministry of Health shifting more workloads to cloud-native platforms, requiring secure colocation.
- Early industrial metaverse use cases (factories, logistics, ports) emerging, requiring edge + cloud integration.

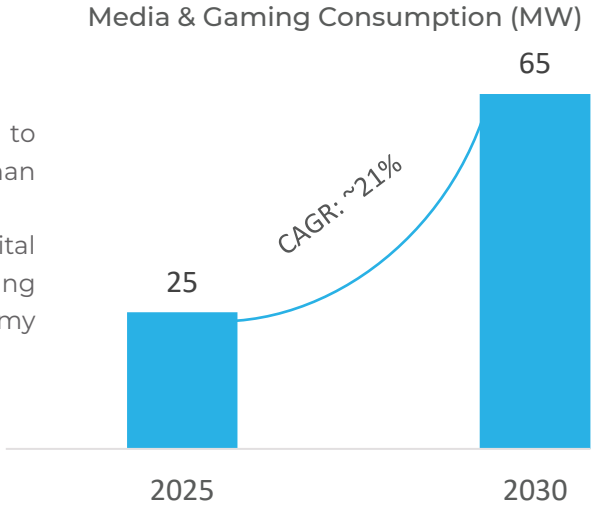
Enterprise/Industrial expands 3× by 2030, driven by IoT, healthcare digitalization, and industrial metaverse pilots.

Sources: RBSA Research, SPA.Gov, TahawulTech, DGA.Gov

MEDIA & GAMING (2030)

Overview

- Media and gaming workloads are expected to reach ~65 MW IT load (≈2%) by 2030, more than doubling from ~25 MW in 2025.
- Growth is fueled by Saudi Arabia's push into digital entertainment, e-sports, and streaming, aligning with Vision 2030's cultural and creative economy goals.



Key growth drivers

- OTT streaming platforms (Shahid, Netflix, Amazon Prime) scaling local caching and distribution.
- E-sports & gaming hubs — Saudi's Savvy Games Group investing USD 38Bn to make the Kingdom a global gaming hub.
- Cloud gaming adoption (Xbox Cloud, NVIDIA GeForce Now) demanding ultra-low latency edge data centers.
- Immersive media (AR/VR) integration in entertainment and tourism projects (Riyadh Season, NEOM).

Key Developments (2030 Outlook):

- Riyadh established as regional gaming hub, with multiple e-sports tournaments hosted annually.
- Savvy Games Group acquisitions (Scopely, ESL, FACEIT) fueling cloud-based global gaming demand.
- Subsea cable connectivity improves latency, enabling real-time immersive experiences for international players.

Media & Gaming (~65 MW, 2%) is driven by e-sports, streaming, and cloud gaming under Saudi's USD 38Bn gaming push.

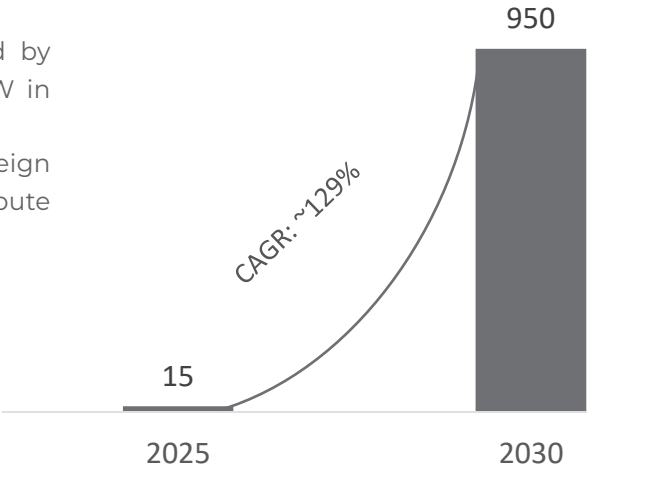
Sources: RBSA Research, SPA.Gov, SRMGThink, MarketGrowthReports

AI / HPC CAMPUSES (2030)

Overview

- AI/HPC campuses to reach ~950MW IT load by 2030 (≈35% of national total), up from ~15MW in 2025 pilots.
- Fastest-growing segment, fueled by sovereign GPU factories, LLM training, and global compute demand.

AI / HPC Campuses Consumption (MW)



Key growth drivers

- HUMAIN (PIF-backed): Two 100MW AI-ready data centers (Riyadh, Dammam) optimized for generative AI and Arabic LLMs.
- DataVolt @ NEOM Oxagon: 1.5GW net-zero AI campus, among the world's largest, powering AI-as-a-Service and supercomputing.
- AI across sectors: BFSI (fraud, credit scoring), healthcare (diagnostics), government (SDAIA-led national AI hub).
- Generative AI boom: Training/inference needs 10× more compute than traditional workloads.
- Global offshoring: Positioning as a compute exporter via low-cost power and sovereign backing.

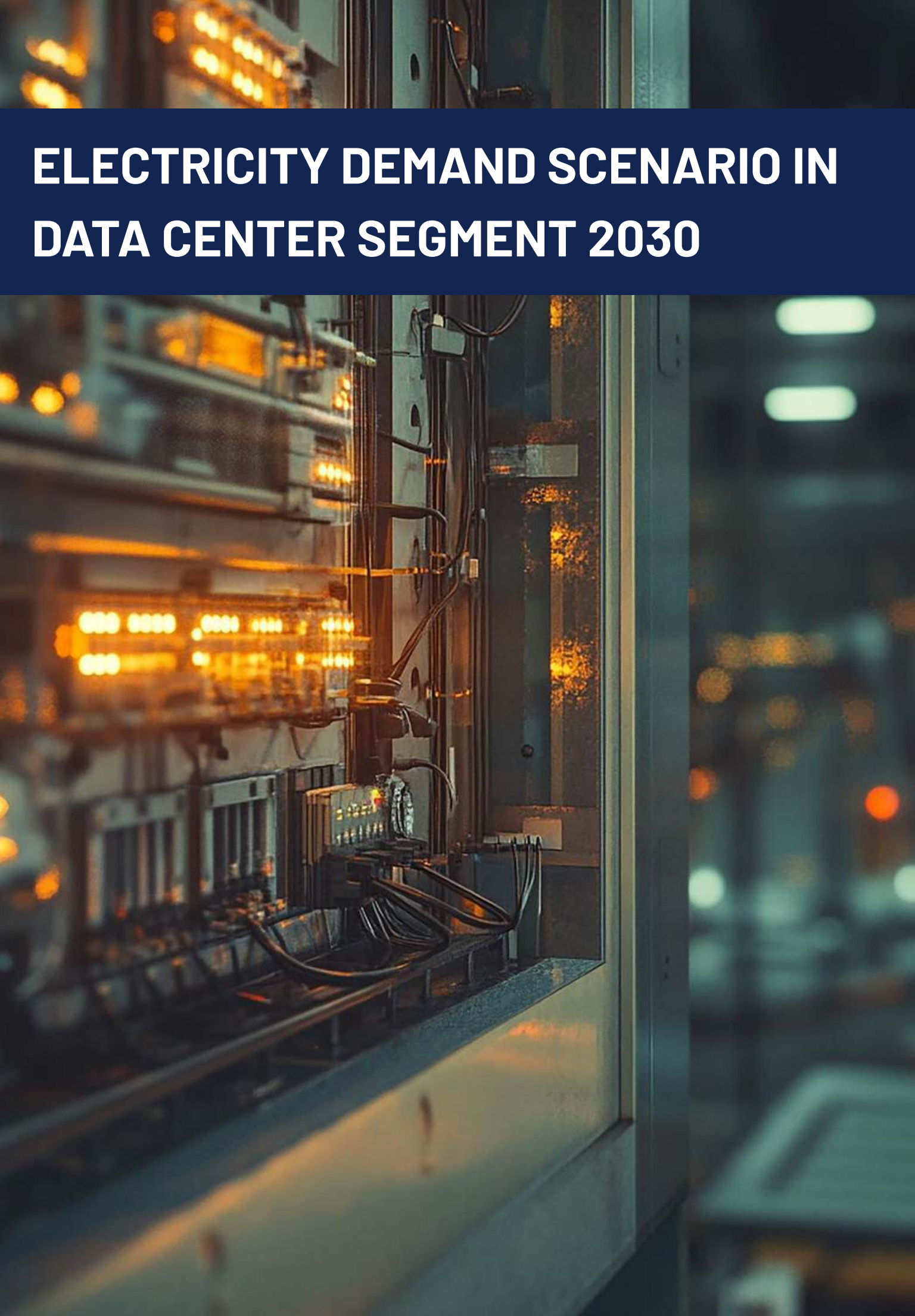
Key Developments (2030 Outlook):

- HUMAIN's partnership with NVIDIA and AMD secures advanced GPUs despite global chip supply challenges.
- PIF's USD 100Bn Project Transcendence ensures AI infrastructure funding, positioning KSA as a global AI hub.
- NEOM's 1.5 GW AI hub, once phased in, could rival Northern Virginia and Dublin in AI-ready capacity.

AI/HPC emerges as the largest demand segment by 2030, powered by HUMAIN, DataVolt, and sovereign AI initiatives.

Sources: RBSA Research, Reuters, AboutAmazon

ELECTRICITY DEMAND SCENARIO IN DATA CENTER SEGMENT 2030



POWER USAGE EFFECTIVENESS (PUE)

Definition & Importance:

- PUE is a metric that measures a data center's total electricity consumption against the electricity used by its IT equipment.
- PUE = Total facility electricity ÷ IT equipment electricity. Lower = more efficient.
- In modern data centers, PUE range between 1.3–1.7 times.

Current Benchmarks (2025):

- Average Saudi Arabia PUE ≈ 1.6 times, reflecting reliance on traditional cooling in a hot desert climate.
- Regional peers: UAE ~1.5, Oman ~1.6, Kuwait ~1.7.
- Advanced facilities (hyperscaler AZ builds, Equinix, tier-4 sites) are already targeting 1.4–1.5 in Saudi deployments.

Forecast 2030:

- Saudi PUE expected to improve to 1.4–1.5 by 2030, driven by:
  - Liquid cooling (direct-to-chip, immersion) for GPU-heavy AI clusters (DataVolt, HUMAIN, Equinix projects).
  - AI-powered cooling optimisation (Microsoft, AWS pilot deployments).
- NEOM Oxagon (1.5 GW AI campus) is being designed to be net-zero, expected to showcase PUE in the 1.2–1.3 range.

PUE is the matrix to determine the demand for electricity for a given operating capacity of Data Center. The higher the PUE, the higher will be the demand for electricity for each MW operating capacity of the Data Center.

Sources: RBSA Research, AzuraConsultancy, NREL.Gov, ICIS

POWER USAGE EFFECTIVENESS (PUE)

Year	PUE Factor (times)	Data Center Operating Capacity (MW)	Electricity Demand in Data Center Segment (TWh)
Current (2025)	1.60	350	4.9
Forecast (2030)	1.45	2,700	34.3

Based on the Forecasted Data Center Operating capacity of around 2700 MW by 2030 and a PUE factor of around 1.45 times, the demand for electricity in Data Center segment in 2030 is forecasted to be around 34.3 TWh per annum.

Services

Valuation

- Business & Equity Valuation
- Valuation of Intangible Assets
- Valuation of INVITs/REITs
- Valuation under Insolvency & Bankruptcy Code (IBC)
- Valuation of Industrial Assets and Plant & Machinery
- Valuation of Real Estate
- Valuation of Infrastructure Assets & Specialized Assets
- Determination of Swap Ratio for Mergers and Demergers
- Purchase Price Allocations (PPA)
- Impairment Assessment for Financial Reporting
- Mines, Mineral Advisory and Valuation
- Portfolio Valuation for Private Equity/Venture Capital
- Valuation of ESOPs and Sweat Equity
- Valuation for Tax, Transfer Pricing and Company Law Matters
- Valuation of Financial Instruments & Derivatives
- Valuation of Inventory/Stocks and Debtors/Receivables
- Litigation and Dispute Valuation Services

Restructuring

- Turnaround Advisory and Business Transformation
- Outside NCLT – Restructuring Services
- Insolvency Professional services under IBC, 2016
- Interim Management Services
- Process Improvement and Financial Restructuring
- CRO (Chief Restructuring Officer) Services
- Priority and Interim Funding
- Process Advisors
- Pre-Pack and Cross Border Insolvency
- Advisor to Committee of Creditors
- Preparation of Resolution Plan and Information Memorandum
- Independent Bid Evaluation and vetting of Resolution Plans
- Operational Turnaround Advisory

Transaction Tax

Deal Tax Advisory (Strategic, IBC, PE/VC)
- Tax Due-Diligence
- Tax Structuring
- Deal Negotiation Review
- Transaction Documentation Review
- Post-Deal Integration

Corporate Restructuring
- Group Restructuring
- Financial/Capital Restructuring

Succession Planning

Holistic Implementation Support
- Merger/Amalgamation
- Demerger/Spin-off
- Capital Reduction
- Share Buyback
- Business Transfers
- Liquidation/Wind-up

Investment Banking (Category 1 Merchant Bank)

- M&A Advisory:
  - Sell Side & Buy Side
  - Domestic & Cross Border
- Partner Search, Joint Ventures & Strategic Alliances
- Government Disinvestment & Privatization
- Fund Raising - Equity, Mezzanine, Structured Finance & Debt (Corporate & Project Finance)
- Distressed Investment Banking - One-Time Settlement, Priority and Interim Funding, Rescue Financing, and Buyouts
- Capital Market Advisory

Transaction Services (Due Diligence)

- Buy side due diligence; Closing due diligence
- Review of vendor due diligence report from buyer's perspective
- Vendor due diligence; Vendor assistance
- Advice on transaction documents - share purchase (SPA), business transfer (BTA), IBC related
- Assistance in deal negotiation
- Project / business risk assessment which includes review of key technical aspects of the project / business
- Setting up and managing dataroom

Risk Advisory

Business Risk Advisory Services
- Internal Audit Outsourcing & Co-sourcing
- Business Process Improvement Studies
- Implementing ERM Framework
- SOX / IFC Controls Advisory
- Agency for Specialized Monitoring (ASM)
- Automated Segregation of Duties Review
- Compliance Monitoring Framework
- Digital Transformation
- Third Party Risk Assessment
- IA Staff Augmentation Support Services

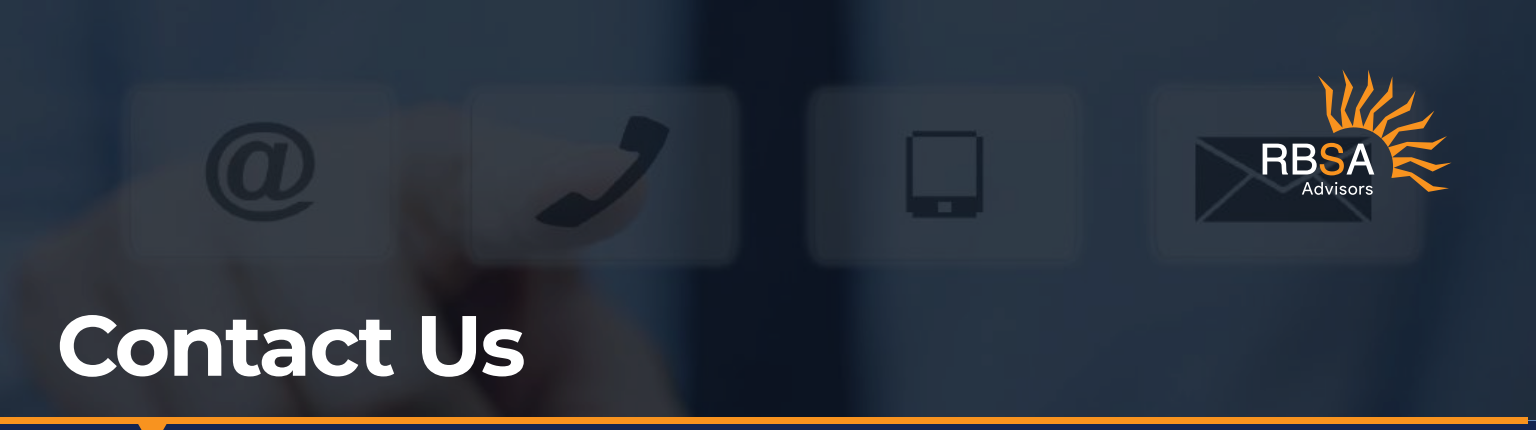
Information Technology Risk Advisory Services
- Cyber Vulnerability Management
- ISO Advisory & Certification Assistance
- Data Privacy & Protection
- Cyber Threat Management
- Compliance Advisory
- Business Continuity Planning

Process Risk Advisory Services
- Techno Economic Feasibility Studies & Viability Assessment
- Lender's & Investor's/Independent Engineer Services
- Chartered Engineers Opinion & Certification

Treasury Advisory Services

Dispute & Litigation Support

- Valuation Services
- Damages & Loss of Profit Analysis
- Independent Expert testimony
- Damages for Anti-Trust & Competition Matters
- Post-Acquisition Disputes, Joint Venture & Shareholder Disputes
- Civil & Construction Disputes, Real Estate Disputes
- Intellectual Property Rights Dispute



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