INDIA INFRASTRUCTURE SERIES · DIGITAL & AI

India's Data Center *Investment Deluge*

AI Inflection & the Race to 10 GW

A comprehensive 14-chapter investment intelligence report covering USD 126 billion in committed capital (end-2025), hyperscaler mega-deals, Indian conglomerate ambitions, emerging regulatory frameworks, and the sector's trajectory through 2035.

$180B	10GW	22.8%
PROJECTED COMMITMENTS BY END-2026 (2026E)	CAPACITY TARGET BY 2030	PROJECTED CAGR 2025–2031

FOR PROFESSIONAL INVESTORS ONLY

NAVIGATION

Report Contents

Fourteen chapters across five analytical parts — from market foundations and unit economics through infrastructure, policy, sustainability, and forward outlook. Aspirational pledges are flagged distinctly from committed capital throughout.

Part I — MARKET FOUNDATIONS

ANALYTICAL OVERVIEW

Executive Summary

India's data center sector has become the most heavily capitalised digital-infrastructure play in Asia outside China. CBRE places cumulative investment commitments at **USD 126 billion by end-2025**, projected to cross **USD 180 billion in 2026**, with operational capacity reaching 1,700+ MW in 2025 and forecast to add another ~500 MW in 2026 — a 30% year-on-year jump — on a trajectory toward 8–10 GW by 2030.

The 2024–2026 window has been defined by a hyperscaler/AI-infrastructure shockwave: Google's USD 15B Vizag AI hub, AWS's USD 35B India plan, Microsoft's USD 17.5B commitment, Reliance's gigawatt-scale campuses, Adani's USD 100B 10-year plan, and TCS's USD 2B HyperVault JV with TPG — an unprecedented convergence of global and domestic capital.

The structural case is clear: India generates approximately **20% of the world's data** but hosts only **3% of global data centers**. This deficit, combined with the DPDP Act 2023 mandating on-shore data residency, creates a demand tailwind unmatched outside the US and China.

KEY INVESTMENT THESIS

India is genuinely under-supplied. The DPDP Act creates a policy-driven demand floor for on-shore compute. Submarine cable convergence in Vizag is reshaping the geographic calculus. Operators with locked-in renewable PPAs, infrastructure-status financing, and cable-landing proximity will compound. Latecomers chasing trophy land in stressed metros will not. **The divergence between AI-ready and legacy facilities will widen sharply through 2028.**

MARKET SNAPSHOT · MAY 2026

~1,700
MW OPERATIONAL CAPACITY (END-2025)

$5.5–9.8B
REVENUE MARKET SIZE 2025 (EST.)

$30.4B
INDIA PUBLIC CLOUD BY 2029 (IDC)

+30%
CAPACITY GROWTH EXPECTED IN 2026

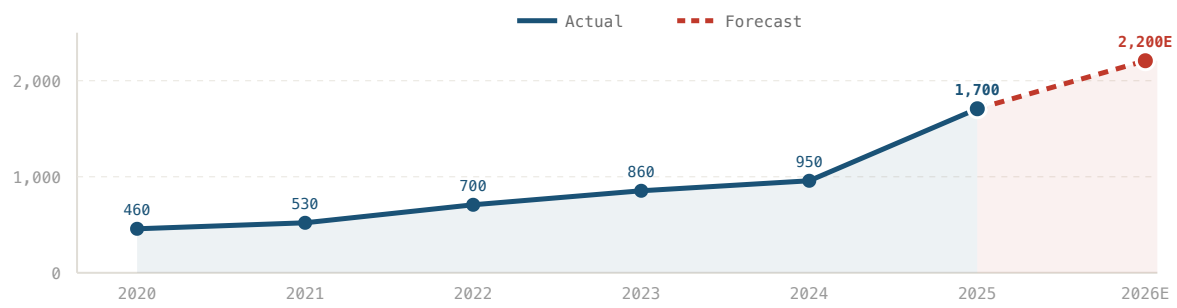
RECOMMENDED POSTURE

Constructive · Selective · AI-Aware

Pre-leased AI-ready builds with renewable PPAs represent the highest-conviction entry. Avoid spec builds in power-stressed metros without locked-in grid capacity.

India Data Center Operational Capacity (MW) — Growth Trajectory

ACTUAL 2020–2025 · JLL / CBRE CONSENSUS FORECAST 2026–2030



Sources: CBRE Q4 2025; JLL H1 2025; Colliers 2024. Consensus mid-case.

ARCHITECTURE & TYPES

What Is a Data Center?

A data center is a physical facility that houses computing infrastructure — servers, storage arrays, networking equipment — along with the power, cooling, security, and connectivity systems required to keep that infrastructure running continuously. Every digital service — from a UPI payment to an AI model training run — depends on data center capacity somewhere in the chain.

Four Architecture Types — and Why They Have Different Economics

Colocation

Operator builds and manages the facility; tenants bring their own servers and lease space, power, and cooling by the rack or MW. Revenue model: monthly lease (₹/kW/month). **Typical EBITDA margins: 40–55%.** Stabilised assets trade at 20–30× EBITDA globally.

Key players in India: STT GDC, NTT, CtrlS, Sify, PDG, Lumina

Hyperscale (Self-Build)

Cloud provider (AWS, Google, Microsoft) builds and operates the facility for its own services. Scale: typically 50+ MW per campus. Capex-heavy, but operating leverage is enormous once utilised. **Not available for third-party leasing.**

Key players in India: AWS (Mumbai, Hyderabad), Microsoft (Pune), Google (Vizag)

Enterprise / Captive

Company builds its own DC for internal use (banks, insurers, large IT firms). Declining as a percentage of new builds — most enterprises now migrate to colo or cloud. **BFSI sector still maintains captive for regulatory compliance.**

Examples: SBI, HDFC Bank, Infosys, Wipro captive facilities

Edge / Micro

Small (1–5 MW) facilities close to end-users for low-latency applications: CDN, gaming, IoT, 5G base stations. Growing at ~8.1% CAGR in India. **PUE typically 1.4+ unless liquid-cooled.** Economics favour modular, pre-fabricated builds.

Emerging in: Tier-2 cities — Lucknow, Chandigarh, Nagpur, Kochi, Jaipur

KEY TAKEAWAYS

01 Colocation is the investable core

Self-build hyperscale and captive enterprise are largely closed to third-party capital. **Colocation — 40–55% EBITDA, 20–30× exit multiples** — is where institutional money compounds.

02 AI rewrites the unit of capacity

GPU racks draw **40–130+ kW vs 5–8 kW** traditional — a 10–20× density jump forcing liquid cooling, and a **+15–25% lease premium** only AI-ready builds capture.

03 Tier & PUE gate the contract

Uptime tier sets every SLA and insurance term; **RBI mandates Tier IV** for payments. PUE is the efficiency benchmark separating 1.1–1.3 hyperscale from 1.4–1.6 legacy colo.

Uptime Tier Classifications — the Industry Standard

The Uptime Institute Tier Classification System defines four levels of data center resilience. Every lease negotiation, insurance policy, and SLA references these tiers. RBI mandates Tier IV for payment system data.

TIER I

99.671% uptime

28.8 hrs downtime/yr. No redundancy. Basic cooling. Suitable for non-critical workloads.

TIER II

99.741% uptime

22 hrs downtime/yr. Partial redundancy. Maintenance requires shutdown.

TIER III

99.982% uptime

1.6 hrs downtime/yr. N+1 redundancy. Concurrently maintainable. **49% of India market.**

TIER IV

99.995% uptime

0.4 hrs downtime/yr. 2N+1 redundancy. Fault-tolerant. Growing at 23.4% CAGR. RBI-mandated for payments.

PUE (Power Usage Effectiveness) = Total Facility Energy / IT Equipment Energy. A PUE of 1.0 means every watt goes to compute; a PUE of 2.0 means half is lost to cooling and overhead. India's colo average is 1.4–1.6; hyperscale target is 1.1–1.3. PUE is referenced throughout this report as the primary efficiency benchmark.

AI-Ready vs Traditional Data Centers: The Critical Distinction

WHY THIS MATTERS FOR INVESTMENT RETURNS

Traditional data centers are designed for general-purpose compute at **5–8 kW per rack**. AI-ready data centers house GPU clusters (Nvidia H100, B200, B300) requiring **40–130+ kW per rack** — a 10–20× increase in power density. This demands fundamentally different infrastructure: liquid cooling (direct-to-chip or immersion), reinforced floor loading, higher-capacity power distribution, and specialised fire suppression. **AI-ready facilities command a 15–25% lease premium** over traditional colo, and are the only facilities hyperscalers will sign long-term MSAs with from 2027 onward.

METRIC	TRADITIONAL DC	AI-READY DC
Power density per rack	5–8 kW	40–130+ kW
Cooling method	Air-cooled (CRAC/CRAH)	Liquid (DLC / immersion)
Target PUE	1.4–1.6	1.1–1.3
Build cost per MW	$5–6M	$8–12M
Lease premium	Baseline	+15–25%
Certification	Uptime Tier III/IV	Nvidia DGX-Ready

Sources: Cushman & Wakefield APAC DC Construction Cost Guide 2025; Blackridge Research India DC Cost Breakdown Feb 2026; CtrlS, Sify, Yotta disclosures.

MARKET ANALYSIS

Demand Architecture

22.6%
Cloud CAGR (2024–29)
India public cloud to reach $30.4B by 2029 per IDC. Hyperscale share of DC capacity now ~25%.

21.6B
UPI Transactions (Dec '25)
Monthly all-time record. Full-year 2025: 228B+ txns. BFSI infra demands tier-3/tier-4 latency SLAs.

20%
Global Data Generated
India generates ~20% of world's data but hosts only 3% of DCs — the structural gap driving the entire build-out.

15–20%
AI Workload Share by FY30
Up from <1% in FY25. IndiaAI Mission ₹10,372 crore deploys 34,000+ GPUs across shared compute nodes.

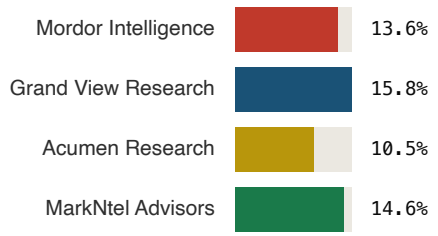
DPDP
Data Localisation Act 2023
Digital Personal Data Protection Act forces on-shore storage of sensitive personal data. The anchor for investment certainty.

5G+
Edge Infrastructure Demand
5G rollout pushing micro/edge DC demand. Edge segment growing at 8.1% CAGR (Mordor). Tier-2 cities entering investment radar.

MARKET SIZING

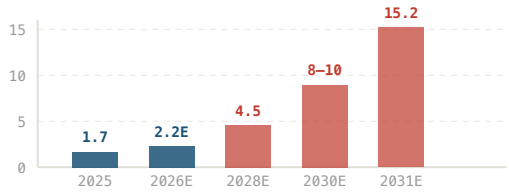
Revenue Forecasts by Research House

2025–2033 Revenue CAGR Estimates



Wide dispersion reflects methodology differences — installed-MW models yield highest CAGRs; revenue models the lowest. Gravitywell uses 13–16% revenue CAGR as consensus range.

Installed Capacity Forecast (GW)

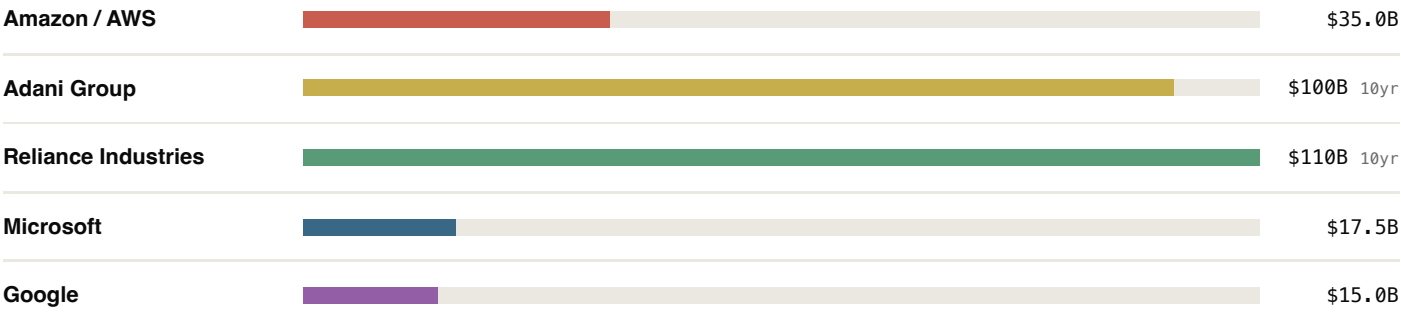


2025–2026 actual/CBRE; 2028–2030: CEEW/Colliers/S&P consensus; 2031: Mordor Intelligence (22.8% CAGR)

INVESTMENT SCALE

Hyperscaler India Commitment Comparison (USD Billion)

USD BILLION · BARS TO SCALE · ADANI/RELIANCE ARE 10-YEAR ASPIRATIONAL PLEDGES



DEMAND SEGMENTATION

End-User Demand Segmentation

BY INDUSTRY VERTICAL · MORDOR INTELLIGENCE / ACUMEN RESEARCH

46%	33%	8%	13%
IT & ITES	BFSI	GOVERNMENT	E-COM, MEDIA, MFG

BFSI is the fastest-growing segment (24.6% CAGR) driven by UPI volumes and AI-based fraud analytics. IT-ITES is largest by installed base. Source: Mordor Intelligence 2025.

Note: Adani/Reliance figures are 10-year aspirational plans with unconfirmed committed capital. AWS/Microsoft/Google are announced committed programs. Source: Company disclosures, Bloomberg, TechCrunch.

Vertical Growth Momentum (CAGR)

WHERE INCREMENTAL DEMAND IS COMPOUNDING FASTEST

24.6%	22.6%	15–20%	8.1%
BFSI — FASTEST	CLOUD / IT	AI WORKLOAD SHARE FY30	EDGE / MICRO

DEMAND DURABILITY

The demand stack is defensive: **IT/ITES (46%)** anchors the installed base while **BFSI (33%, 24.6% CAGR)** compounds on UPI scale and on-shore fraud analytics. Even if global AI-training re-routes to cheaper markets, India's inference, payments, and compliance workloads must stay on-shore — a demand floor independent of the AI cycle.

KEY TAKEAWAYS

01 Structural under-supply is the anchor

India makes **~20% of the world's data, hosts ~3% of its DCs**. That gap — not cyclical demand — underwrites the entire build-out.

02 Read pledges with discipline

Adani $100B and Reliance $110B are **10-year aspirational**; AWS, Microsoft and Google figures are committed programs. Size the market on the latter.

03 BFSI is the demand sleeper

IT/ITES is the largest installed base, but **BFSI compounds fastest at 24.6% CAGR** on UPI volume and on-shore fraud analytics.

Part II — ECONOMICS & CAPITAL

FINANCIAL ANALYSIS

Unit Economics & Return Benchmarks

India Colocation Build Cost Benchmarks

INR CRORE PER MW · FY2020 VS FY2026

Typical colocation build costs in India are approximately **INR 400–430 million per MW (USD 5–5.5M/MW)** — among the lowest globally. This has risen from ₹40–45 crore/MW in 2020 to ₹60–70 crore/MW in 2026, driven by land inflation, construction cost escalation, and higher power density requirements for AI workloads. AI-ready builds with liquid cooling run **USD 8–12M/MW** globally. In India, given lower labour and construction costs, AI-ready builds are estimated at **₹80–100 crore/MW (USD 9.5–12M/MW)**, still ~30% below US equivalents.

Revenue & Margin Profile

METRIC	INDIA BENCHMARK	GLOBAL COMP.
EBITDA margin (stabilised colo)	40–55%	45–60%
Revenue CAGR (FY17–FY23)	~25%	12–18%
CareEdge projected CAGR (FY24–26)	32%	–
Absorption rate (2023)	93%	85–92%
Absorption rate (H1 2025)	>100%	–
CtrlS operating margin (FY25)	~50%	–
CtrlS DSCR (FY25)	1.6–1.9×	–

H1 2025 absorption exceeded new supply (~200 MW absorbed vs ~160 MW added) per Savills/Cushman & Wakefield, indicating demand-led tightness.

Valuation Multiples & Transaction Benchmarks

GLOBAL DC TRANSACTION MULTIPLES 2025–2026

Data center REITs globally trade at **25–40× P/FFO** — a dramatic outlier versus the broader REIT sector at 24×. M&A transactions in the DC sector averaged **20–30× EBITDA** during 2023–2025. The KKR/Singtel acquisition of STT GDC at **~USD 10.9B EV** for ~400 MW India capacity implies roughly **USD 27M/MW** — a premium reflecting contracted revenue and platform scale.

KEY TRANSACTION MULTIPLES

27	25–40×	20–30×
USD M/MW KKR–STT GDC	P/FFO GLOBAL DC REITS	EV/EBITDA M&A AVG.

Nxtra valuation: USD 3.1B post-money / ~300 MW = ~USD 10.3M/MW (minority stake, growth premium).
India InvIT pathway: SEBI framework permits DC assets in InvITs; no pure-play DC InvIT listed yet but Sify IPO (DRHP filed Oct-25), Yotta pre-IPO, and potential CtrlS strategic sale will set Indian-specific multiples.

Colocation Pricing (India)

TIER	MONTHLY COST	NOTES
Full rack (42U)	~₹50,000/mo	Incl. power, bandwidth, basic services
Half rack	~₹30,000/mo	SME / startup segment
Quarter rack	~₹25,000/mo	Entry-level
Wholesale (per kW)	$80–140/kW/mo	250 kW – 4 MW commitments
Hyperscale (per kW)	$60–100/kW/mo	>4 MW, 10–15yr leases

India wholesale pricing is 40–60% below Singapore ($310–470/kW/mo). Sources: datacenterHawk, CBRE, Cyfuture Cloud, ResearchAndMarkets 2026.

Project-Level Returns & Opex Structure

RETURN BENCHMARKS

Levered IRR (greenfield colo): 12–18% pre-tax holiday
Post Budget 2026 (with tax holiday): IRR improves 400–800 bps; payback compresses from 11–13 yrs to 6–7 yrs
Tier IV premium: 40% higher capex but payback shortens to 5–6 yrs on mission-critical tenant yields
Brownfield conversion: 15–30% capex saving vs greenfield; 12–24 month faster delivery

OPEX BREAKDOWN (TYPICAL INDIA COLO)

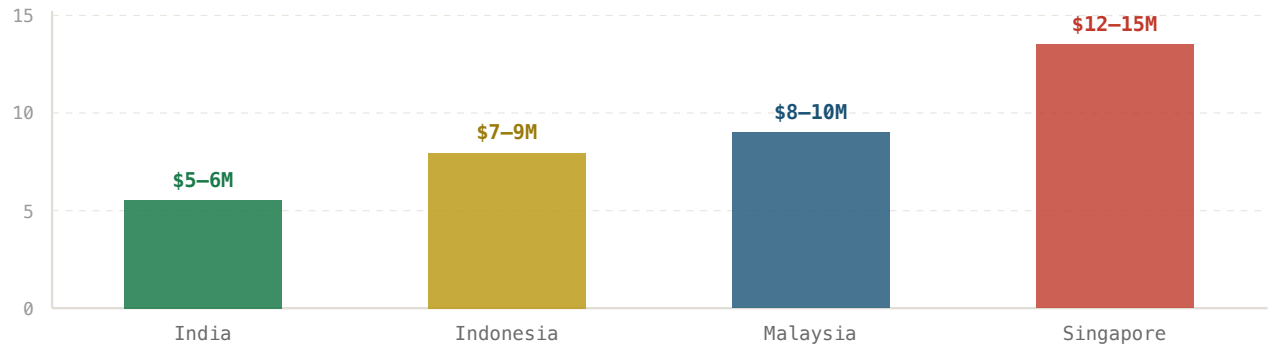
Power: ~60–65% of total opex
Maintenance: ~15–20%
Labour: ~8–12%
Insurance, water, G&A: ~8–10%
Sensitivity: 10% power cost increase reduces EBITDA margin by 5–8 pts and IRR by 2–3%. A 12-month construction delay erodes IRR more than a moderate cost overrun.

DEBT MARKET SIGNAL

Infrastructure status (2022) has meaningfully compressed spreads for DC borrowers. PDG secured **USD 728M cumulative green loans** from Axis, Kotak, and Canara banks (2024–25). AdaniConneX's USD 213M facility from ING, Mizuho, MUFG, Natixis, Standard Chartered, and SMBC was the largest DC-specific project finance in India. DFI participation (IFC, ADB) remains limited but growing. **Typical LTV: 60–65%; debt tenor: 10–15 years; all-in cost: 8.5–10% for INR-denominated.** Green loans carry a 15–25 bps discount. The **Union Budget 2026–27 announced a 21-year tax holiday through March 2047** for foreign companies providing global cloud services from Indian data centers. The Finance Act 2026, notified on March 30, 2026, specifies that foreign cloud providers will pay zero Indian corporate tax on income from global operations routed through Indian DCs, provided Indian customer sales are channeled through a domestic reseller. A 15% cost-plus safe harbor applies to related-party DC services. This is the most aggressive tax incentive for data centers anywhere in the world and has fundamentally altered the risk-return calculus for hyperscaler investment in India.

Greenfield Build Cost by Market

USD MILLION PER MW · COLOCATION, TIER III · 2025–26



India holds the lowest greenfield build cost in APAC. Source: Cushman & Wakefield APAC DC Cost Guide 2025; Blackridge Research Feb 2026.

KEY TAKEAWAYS

01 Cheapest builds, defensible margins

India colo at **~$5–5.5M/MW** is among the lowest globally, yet sustains **40–55% EBITDA** on >100% H1-2025 absorption.

02 The tax holiday changes the math

The **21-year holiday to 2047** + 15% safe harbor compresses payback from 11–13 yrs to **6–7 yrs** and lifts IRR 400–800 bps.

03 Power is the swing variable

At **60–65% of opex**, a 10% power-cost rise cuts EBITDA margin 5–8 pts. Locked-in renewable PPAs are the underwriting moat.

CAPITAL DEPLOYMENT

Major Investments & Strategic Deals

Selected transactions from January 2024 through May 2026. Aspirational 10-year pledges are separated from committed near-term capital where disclosures permit.

INVESTOR	TARGET / VEHICLE	AMOUNT	CATEGORY	LOCATION	CAPACITY	STRATEGIC RATIONALE
Microsoft	Azure India (self-build)	$17.5B	HYPERSCALER	Mumbai, Pune, Hyderabad	150+ MW	First-mover AI cloud; GPU-rich Azure regions; Azure OpenAI training clusters; 10M AI skill target
Amazon / AWS	AWS India (self-build + leases)	$35B	HYPERSCALER	Mumbai, Hyderabad	2–3 GW target	Localize AI/cloud; capture $30B+ cloud mkt by 2029; Navi Mumbai self-build ($430M, Apr-26)
Google	AdaniConneX + Airtel JV	$15B	HYPERSCALER	Visakhapatnam, AP	1 GW AI hub	Largest Google India investment ever; AI training infra for India + APAC; subsea cable landing station
Reliance Ind.	Digital Connexion JV (Brookfield + Digital Realty)	$110B (10yr plan)	INDIAN CONG.	Jamnagar, Visakhapatnam	3–4 GW	USD 11B MoU Andhra Pradesh (1 GW Vizag); 6 GWp dedicated solar; Jamnagar 3 GW flagship campus
Adani Group	AdaniConneX (50:50 EdgeConneX)	$100B (10yr plan)	INDIAN CONG.	Chennai, Noida, Hyderabad, Vizag, Pune	5 GW target	World's largest integrated DC platform; powered by 30 GW Khavda renewable project; Google AI hub anchor tenant
TCS + TPG	HyperVault JV	$2B	INDIAN CONG.	Pan-India	1.2 GW (Phase I)	Liquid-cooled AI-ready; OpenAI signed 100 MW (Nov-25); TPG Rise Climate / ALTÉRRA funding; 51% TCS control
KKR + Singtel	STT GDC (82% buyout)	S$6.6B (~$5.1B)	PRIVATE EQUITY	10 Indian cities	400+ MW	EV ~$10.9B; largest APAC DC M&A; STT GDC India ~28% revenue share; 550 MW expansion committed
Blackstone	Lumina CloudInfra	$5B+ (MoU)	PRIVATE EQUITY	Mumbai, Chennai, Telangana	600 MW pipeline	Lumina: Chandivali 60 MW (₹5,000 cr); Chennai USD 1.1B Ambattur 216 MW; twin USD 3B MoUs MIDC & CIDCO
Alpha Wave, Carlyle, Anchorage	Nxtra by Airtel	$1B	PRIVATE EQUITY	Pan-India	300 MW → 1 GW	Post-money: $3.1B; tripling capacity; AI-ready campuses Chennai, Mumbai, Kolkata; Google Vizag hub partner
Meta	Sify Technologies (lease)	~$1.7B (est.)	HYPERSCALER	Visakhapatnam, AP	500 MW	Waterworth subsea cable (50,000 km) CLS via Sify; first large-scale Indian leased DC for Meta; Vizag subsea diversification

CAPITAL DEPLOYMENT

Major Investments & Strategic Deals (continued)

INVESTOR	TARGET / VEHICLE	AMOUNT	CATEGORY	LOCATION	CAPACITY	STRATEGIC RATIONALE
Princeton Digital Group	PDG India (greenfield)	$2.5B+	PRIVATE EQUITY	Mumbai, Chennai, Hyderabad	~1 GW pipeline	$160M green loan MU1; India's first 24/7 CFE PPA (Tata Power RE + Flexidao, Sep-25); IGBC Platinum
Yotta (Hiranandani)	Yotta AI Hub	$2B	INDIAN CONG.	Greater Noida, Mumbai	250 MW (Phase I)	Asia's largest Nvidia Blackwell B300 supercluster (20,000+ GPUs); controls ~70% India GPU capacity; IPO planned
Sify Technologies	Sify Infinit Spaces	$5B	INDIAN CONG.	Multi-city (8+ sites)	350 MW+ build	IPO DRHP filed Oct-25; Tier-2 expansion (Lucknow, Chandigarh, Nagpur); NVIDIA-certified; Meta Vizag build-out

* Adani ($100B) and Reliance ($110B) are 10-year aspirational commitments; neither company has disclosed quantum of hard-committed near-term capex. Sources: Bloomberg, TechCrunch, CNBC, DCD, company press releases.

Capital Deployment — At a Glance

$126B
CUMULATIVE COMMITMENTS BY END-2025

13
MAJOR DEALS TRACKED (JAN '24–MAY '26)

$10.9B
LARGEST DEAL — KKR–STT GDC (EV)

5
IPOS IN THE LISTING PIPELINE

KEY TAKEAWAYS

01 Capital is barbelled
Global hyperscalers bring **committed** programs (AWS $35B, MS $17.5B, Google $15B); Indian conglomerates bring **10-yr aspirational** pledges (Adani $100B, Reliance $110B). Underwrite the former.

02 PE drives consolidation
KKR/Singtel, Blackstone, Carlyle and TPG are building platforms. The **KKR–STT GDC buyout (~$10.9B EV)** sets the template for India DC M&A.

03 A liquidity wave is forming
Five listings are queued — **Sify, Yotta, Nxtra, HyperVault, Anant Raj** — that will set India-specific DC valuation multiples by 2028.

Part III — INFRASTRUCTURE & GEOGRAPHY

SUBMARINE CABLE MAP

India's Subsea Connectivity Architecture

India hosts ~19 international submarine cables with landing stations concentrated in Mumbai, Chennai, Kochi, Tuticorin, and Thiruvananthapuram. Combined lit and activated capacity stands at approximately 193 Tbps. Two-thirds of India's international subsea capacity lands in Mumbai (primarily Versova), with Chennai as the secondary hub. A new wave of cables — driven by hyperscaler demand — is transforming Visakhapatnam into a third major gateway, breaking the Mumbai-Chennai duopoly.

CABLE SYSTEM	INDIA LANDING	ROUTE / DESCRIPTION	STATUS
SEA-ME-WE-6	Mumbai, Chennai	220 Tbps; Singapore–ME–Europe; successor to SEA-ME-WE-5	2025–26
MIST (NTT)	Chennai, Mumbai	8,100 km; India–Singapore direct; NTT-owned; carrier-neutral	Live Jun-25
2Africa / EMIC-1	Mumbai	Meta-led; 45,000 km circumnavigating Africa + ME; 180+ Tbps	2023–26
Blue-Raman (Google)	Mumbai	India–Italy via Oman, Jordan, Djibouti, Saudi Arabia	Live 2025
IAX (Reliance)	Mumbai, Chennai	India–Asia–Express; connects India to Singapore, Thailand, Malaysia	2026
Waterworth (Meta)	Mumbai, Vizag	50,000 km; US–Brazil–India–South Africa; 24 fibre pairs; >$10B cost	~2029–30
Google Vizag–Singapore	Vizag	Direct Vizag–Singapore path; connects to Bosun system via Christmas Island	Announced Mar-26
Google Vizag–South Africa	Vizag	Direct east-coast India–SA; lands near Melkbosstrand (Equiano CLS)	Announced Mar-26
America–India Connect	Mumbai	Google-led; direct US–India express route; details pending	Announced
Airtel subsea capacity	Chennai, Mumbai	6 new cable landings + 34 capacity agreements across 11 global systems; 220 Tbps	2025–26

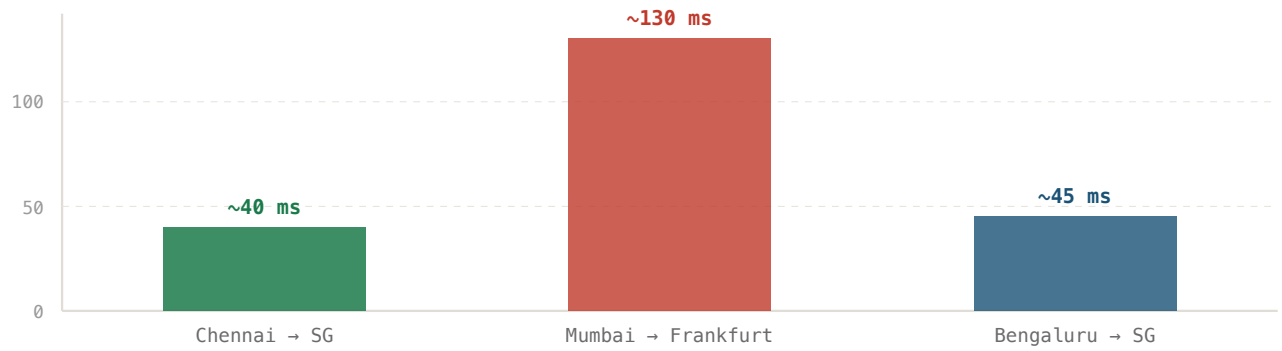
CRITICAL VULNERABILITY

Concentration risk is acute: **two-thirds of India's international subsea capacity lands in Mumbai** (primarily Versova). A localized disaster, sabotage, or failure could cripple national connectivity. The Red Sea chokepoint — through which ~17 cables transit — was already disrupted by Houthi rebel attacks in 2024–25, damaging critical cables. **Visakhapatnam's emergence as a third gateway is not just a commercial opportunity — it is a national security imperative.** The DoT's Telecommunications Act 2023 and 2025 Rules now enable hyperscalers to build captive cable landing stations, bypassing traditional carrier intermediaries.

Latency Benchmarks: Why Cables Determine City Strategy

Rule of thumb: 1,000 km of fibre adds ~10 ms of round-trip delay. Chennai provides the lowest-latency route from India to Singapore and APAC — critical for trading, fintech, and SaaS. Bengaluru, despite being India's IT capital, faces a 350 km terrestrial backhaul to Chennai's cable landing station, adding 4–6 ms of latency. Mumbai's westward cables to the Middle East and Europe traverse the Red Sea — a demonstrated vulnerability zone. Vizag's new direct cables to Singapore and South Africa bypass both chokepoints.

ROUND-TRIP DELAY (MS) · LOWER IS BETTER



Westbound Mumbai routes traverse the Red Sea — higher latency and a demonstrated vulnerability. Chennai/Vizag eastbound routes are the low-latency path to APAC. Source: Gravitywell estimates from public RTD benchmarks.

POLICY EVOLUTION

Regulatory Unlock for Subsea

The Telecommunications (Authorisation for Captive Telecommunication Services) Rules 2025, finalised in early 2026, enable large enterprises and hyperscalers to build dedicated captive networks — including subsea capacity — without requiring a full telecom licence. TRAI has also updated its Cable Landing Station framework, introducing a two-tier CLS-PoP model that lowers barriers to entry for non-telco entities. This is why Google can build its own cable landing station in Vizag and why Sify is hosting Meta's Waterworth landing — the regulatory architecture has fundamentally shifted to accommodate hyperscaler-direct infrastructure.

KEY TAKEAWAYS

01 Concentration is a national risk

~two-thirds of subsea capacity lands in Mumbai (Versova). Red Sea transit for westbound cables compounds a single-point-of-failure exposure.

02 Vizag is the third gateway

Google and Meta cables landing at Visakhapatnam break the Mumbai–Chennai duopoly and bypass both Red Sea and Malacca chokepoints.

03 Regulation unlocked captive subsea

The **2025 Captive Services Rules + two-tier CLS-PoP** let hyperscalers own landing stations directly — the structural reason cable strategy now drives city selection.

GEOGRAPHIC INTELLIGENCE

City-Wise Capacity Map

MUMBAI / NAVI ~54%

~850–900 MW est. end-2025

Navi Mumbai = 3rd largest APAC DC market. Airoli, Mahape, Belapur corridors. NTT, STT, PDG, Blackstone, CtrlS active.

CHENNAI ~21%

~235 MW operational

Primary subsea cable gateway. 5 active cable systems + IAX 2026. Ambattur & Siruseri corridors. STT GDC, Sify, NTT, CtrlS, AdaniConneX.

HYDERABAD ~5%

~50 MW oper; $7B AWS plan

Fastest-growing hub. AWS USD 7B; Microsoft expansion; STT GDC $400M; CtrlS 2M sqft hyperscale park; Sify Fab City 250+ MW.

DELHI NCR / NOIDA ~11%

~72 MW; Noida anchor

Only North-India hub. Yotta 250 MW Greater Noida; NTT campus; Sify Noida 02 liquid-cooled; Anant Raj Rai, Manesar.

BENGALURU ~7%

~80 MW; power/water stress

Power & water constraints real. 23.78% CAGR (Mordor) on Karnataka policy. Sify, NTT, CtrlS, STT, Iron Mountain–Web Werks BLR-1.

VISAKHAPATNAM ~1%

✦ NEW

~10 MW today; 3+ GW pipeline

Breakout hub. Google $15B, Reliance $11B, Sify-Meta 500MW. Subsea cable convergence + aggressive AP incentives = preferred hyperscale location.

COMPETITIVE LANDSCAPE

Operator Market Map (Operational MW)

STT GDC India	400+ MW
NTT GDC India	265 MW
Nxtra by Airtel	~300 MW
AdaniConneX	~200 MW
CtrlS	130 MW
Sify Technologies	~100 MW
Yotta (Hiranandani)	~80 MW
PDG	150 MW

Note: Operational capacity as of early 2026. Does not include under-construction or announced capacity. STT GDC pending KKR/Singtel acquisition at ~USD 10.9B EV.

Absorption & Vacancy Metrics (H1 2025)

4.3%
NATIONAL VACANCY RATE
Down from historical levels (JLL H1 2025)

97.9 MW
NET ABSORPTION (H1 2025)
+48% YoY growth

>90%
OCCUPANCY FORECAST
Through 2030 (Arizton)

Mumbai + Chennai account for ~70% of total absorption in 2025. Noida has 49% colocation vacancy — highest nationally — signaling oversupply risk in NCR. Source: JLL H1 2025, Trade Brains.

MARKET STRUCTURE

Operator Mix & the Geographic Shift

GEOGRAPHIC SHIFT

Visakhapatnam has out-flanked established metros on **speed-to-power and state commercial terms**. The AP government's 550 MW DC framework, dedicated renewable corridors, and subsea cable convergence have attracted >USD 25 billion in commitments in 12 months. This is the most significant geographic shift in India's DC landscape since Navi Mumbai emerged in 2019.

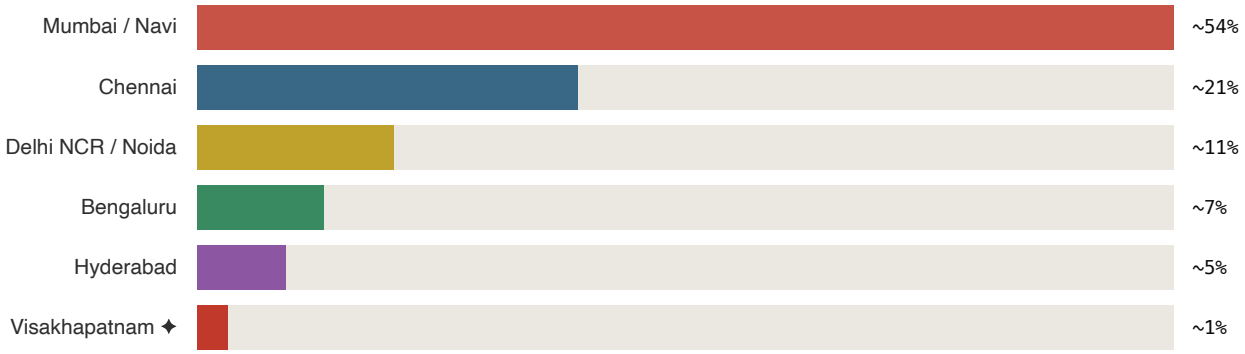
Market Composition by Operator Type

Foreign Colocation (STT GDC, NTT, Equinix)	~38%
Indian Telecom Affiliates (Nxtra)	~18%
Indian Conglomerate (Adani, Yotta, CtrlS, Sify)	~28%
PE-backed Platforms (PDG, Lumina)	~10%
Hyperscaler Self-build (AWS, Google, MS)	~6%

Estimates based on available operational data; sector-level precision not available. Source: CBRE, JLL, company disclosures.

Operational Capacity Share by City

% OF NATIONAL OPERATIONAL MW · END-2025 EST.



Mumbai + Chennai = ~75% of installed base; Vizag near-zero today but anchors 3+ GW pipeline. Source: CBRE, JLL, Colliers 2025.

KEY TAKEAWAYS

01 Mumbai still anchors, but tightens

Navi Mumbai + Chennai drive **~70% of absorption**; national vacancy is just **4.3%**. Capacity is demand-led, not speculative.

02 Vizag is the structural break

>USD 25B committed in 12 months on speed-to-power and AP terms — the biggest geographic shift since Navi Mumbai in 2019.

03 Foreign colo still leads the mix

Foreign operators hold **~38%**; Indian conglomerates **~28%** and rising fast on Adani/Reliance/Yotta build-outs.

Part IV — POLICY & RISK

REGULATORY FRAMEWORK

Policy & Government Incentive Landscape

Data centers received **infrastructure status in 2022**, enabling priority lending, longer-tenor debt, and lower borrowing costs — the structural financing unlock. The **DPDP Act 2023** is the legal anchor for data localisation.

The **Union Budget 2026–27** announced a landmark **21-year tax holiday through 2047** for foreign cloud service providers using Indian DC infrastructure (Finance Act 2026, notified March 30, 2026). A **15% cost-plus safe harbor** for related-party DC services provides transfer pricing certainty. The finance ministry estimated this will attract USD 50–80 billion in additional FDI by 2035.

DRAFT NATIONAL DC POLICY 2025 (MEITY)

PROPOSED
20-year tax holiday for qualifying operators (capacity + PUE + employment targets)

PROPOSED
100% electricity-duty exemption; ITC on GST for capital assets

PENDING
Data Centre Economic Zones with pre-allocated land & single-window clearance

PENDING
PE status for foreign 100MW+ operators; FDI 100% automatic route

Policy in stakeholder consultation as of May 2026. Final terms may change materially.

21-yr
TAX HOLIDAY TO 2047

$50–80B
EST. INCREMENTAL FDI BY 2035

INFRASTRUCTURE CONSTRAINTS

Critical Bottlenecks & Risk Matrix

■ HIGH SEVERITY

Power Grid Reliability

Coal = ~69% of India's grid mix (Ember 2025). Six-nines uptime requires diesel backup. AI sector demand projected to reach 40–45 TWh by 2030 (~3% of total consumption).

■ HIGH SEVERITY

Water Stress

1 MW IT load consumes ~25.5M litres/yr for cooling. Mumbai, Bengaluru, Chennai face acute summer-peak water availability. CEEW: water use will more than double by 2030.

▪ MEDIUM SEVERITY

Regulatory Uncertainty

National DC Policy still in draft. DPDP Act implementation rules pending. State incentive expiry misalignment creates long-term planning friction.

▪ MEDIUM SEVERITY

Land & Permitting

30+ approvals required in stressed metros; Current approval requirements: 30+ clearances across central and state agencies including environmental, fire safety, electrical inspector, aviation height, and telecom. Average time: 18–24 months in Mumbai, 8–12 months in AP/Telangana. Driving migration to Navi Mumbai, Vizag, Greater Noida. Mumbai metro land compression is acute for greenfield builds.

▪ MEDIUM SEVERITY

Talent Gap

India has a vast IT workforce but thin specialised DC operations/MEP/HVAC/cooling-plant engineer pool. Identified by KPMG, CBRE as a binding constraint by 2027.

◦ MONITORED

GPU Export Controls

US export restrictions on advanced AI accelerators could re-route customer geography. Yotta's pivot to Blackwell B300 navigates current restrictions but creates concentration in Nvidia supply.

Regulatory Milestone Timeline

THE POLICY STACK THAT UNDERWRITES ON-SHORE DEMAND

APR 2018	2022	AUG 2023	NOV 2025	MAR 2026
RBI payment-data localisation	**DC infrastructure status**	**DPDP Act enacted**	**DPDP Rules notified**	**Finance Act — 21-yr tax holiday**

Sources: RBI; MeitY; Finance Act 2026 (notified 30 Mar 2026).

STATE-LEVEL INCENTIVES

State Incentive Leaders

STATE	KEY INCENTIVES	NOTABLE DEALS
Andhra Pradesh	550 MW state DC framework; AP DCIM	Google, Reliance, Meta
Maharashtra	Stamp duty waiver, electricity-duty exemption, green DC park sub-policy	Blackstone $6B MoUs
Tamil Nadu	E-duty waiver 3yr, stamp duty concession, dedicated power feeders	STT, NTT, CtrlS
Telangana	100% stamp/reg refund, infrastructure status	AWS $7B, STT $400M
Uttar Pradesh	10yr electricity-duty exemption, capital subsidies	Sify Lucknow AI-Hub

EMERGING SOLUTION

Liquid Cooling & ESG Response

EMERGING SOLUTION

The industry is transitioning to **direct-to-chip and immersion liquid cooling** to address both power density and water constraints. NTT was first in India; Sify Rabale runs 130 kW/rack DGX-ready; CtrlS Kolkata and the Vizag mega-campuses are designed liquid-cooled by default. PDG's 24/7 carbon-free energy PPA (Sep 2025) sets the ESG benchmark. **AI-ready ESG-compliant facilities command 15–25% premium lease rates.**

KEY TAKEAWAYS

01 Best-in-world fiscal incentive

The **21-year tax holiday to 2047** plus infrastructure-status financing makes India's policy stack the most aggressive globally for DC capital.

02 States compete on speed-to-power

Andhra Pradesh leads with a 550 MW framework and renewable corridors; Maharashtra, TN, Telangana and UP follow with duty waivers and land.

03 Power & water are binding constraints

Coal-heavy grid and acute metro water stress are the high-severity risks; **liquid cooling + 24/7 CFE PPAs** are the emerging, premium-priced answer.

DATA PROTECTION FRAMEWORK

DPDP Act 2023 & Rules 2025: Implications for Data Center Demand

The **Digital Personal Data Protection Act 2023** was enacted in August 2023. The **DPDP Rules were notified on November 13, 2025**, laying out a phased implementation framework through 2026–27. Together, they form the most consequential regulatory driver for on-shore data center demand.

CROSS-BORDER DATA TRANSFER FRAMEWORK

"Blacklist" approach: Personal data can flow to any country *except* those specifically restricted by the Central Government. No obligation to provide justification for blacklisting decisions. No GDPR-style Standard Contractual Clauses or adequacy decisions.

Significant Data Fiduciaries (SDFs): Rule 12 mandates that certain categories of personal data (as determined by government) must be processed *only in India*. This goes beyond the general blacklist framework and creates a hard localisation mandate for sensitive data processed by large platforms.

Extraterritorial reach: Applies to any entity processing digital personal data of Indian residents, regardless of where the entity is based.

Penalties: Up to ₹250 crore per violation.

vs GDPR comparison: Unlike the EU's GDPR, which mandates formal transfer mechanisms (adequacy decisions, SCCs, Binding Corporate Rules), DPDP relies on **sovereign discretion and internal accountability**. This reduces procedural complexity for Indian organisations but creates regulatory uncertainty for multinational operators who cannot predict which countries will be blacklisted or when.

SECTORAL LOCALISATION MANDATES

RBI — Financial Data

All payment system data must be stored in India (April 2018 circular). Has driven massive BFSI DC demand; banks maintain captive + colo hybrid infrastructure.

SEBI — Securities Data

Cloud framework requires storage of regulated data in India; permitted cloud providers must have domestic infrastructure.

IRDAI — Insurance Data

Policyholder data must reside in India; driving insurer migration from captive to colo.

DPDP Rule 12 — SDF Data

Government-determined categories of personal data must be processed only in India when handled by Significant Data Fiduciaries. Categories not yet fully specified.

Press Note 3 (2020) — FDI Screening

All FDI from countries sharing land borders with India (effectively targeting China) requires prior government approval. This screens Chinese capital from DC sector while favouring US/Japan/Singapore/UAE capital flows.

DPDP Act — Scope at a Glance

₹250 cr	1.4 B	Extra-territorial	2026–27
MAX PENALTY / VIOLATION	RESIDENTS IN SCOPE	APPLIES OFFSHORE	PHASED ENFORCEMENT

Source: DPDP Act 2023; DPDP Rules (notified 13 Nov 2025).

REGIME COMPARISON

Cross-Border Data Regime Comparison

INDIA (DPDP)	EU (GDPR)	CHINA (PIPL)
Blacklist approach — all countries allowed except restricted	Adequacy decisions + SCCs + BCRs required	Security assessment + CAC approval for critical data
Penalty: up to ₹250 crore (~USD 30M)	Penalty: up to 4% global revenue or €20M	Penalty: up to CNY 50M or 5% revenue
Enforcement: Data Protection Board of India (established, phased rollout 2026–27)	Enforcement: National DPAs, active since 2018	Enforcement: CAC, active since Nov 2021

DPDP Rules notified Nov 13, 2025. SDF designations and restricted country list not yet published as of May 2026. Enforcement actions have not yet commenced.

DEMAND IMPACT ASSESSMENT

The layered localisation regime (DPDP + RBI + SEBI + IRDAI) creates a **structural demand floor** that is policy-driven and unlikely to reverse. Even in a scenario where global AI training shifts to cheaper markets, the **inference, storage, and compliance workloads** for India's 1.4 billion population must remain on-shore. This is the durability argument for Indian DC investment.

KEY TAKEAWAYS

01 Blacklist, not adequacy

DPDP allows transfer to all but **government-restricted countries** — lighter than GDPR's SCC/adequacy machinery, but with unpredictable sovereign discretion.

02 Hard localisation for sensitive data

Rule 12 SDF categories plus RBI/SEBI/IRDAI mandates force on-shore processing — a **policy-driven demand floor** independent of AI cycles.

03 Enforcement is still ramping

Penalties reach **₹250 crore/violation**, but SDF designations and the restricted-country list remain unpublished as of May 2026 — a monitorable uncertainty.

Part V — SUSTAINABILITY & OUTLOOK

CARBON, WATER & POWER

Environmental Impact: The Numbers

In 2024, India's data centers accounted for approximately **0.5% of national electricity consumption** and roughly **150 billion litres of water use** — both figures projected to **more than double by 2030** (CEEW, Feb 2026). As India's grid remains ~69% coal-powered (Ember 2025), the carbon math is unfavourable: a 1,700 MW sector running at average PUE of 1.5 consumes roughly **22–24 TWh/year** — equivalent to Sri Lanka's entire electricity consumption.

0.5%
NATIONAL ELECTRICITY CONSUMPTION (2024)

150B
LITRES WATER USED BY DCS (2024)

40–45
TWH PROJECTED AI SECTOR DEMAND 2030

~3%
OF TOTAL INDIAN ELECTRICITY BY 2030 (AI + DC)

Water Stress by City

A 1 MW IT load with conventional evaporative cooling consumes approximately **25.5 million litres of water per year** (Uptime Institute). At 6.5 GW by 2030, the sector could consume **300–350 billion litres annually** — a doubling from current levels. Mumbai, Bengaluru, and Chennai face acute summer-peak water stress. AI workloads compound this: **one AI data center could consume up to double the water of a non-AI facility** of equivalent capacity.

POLICY GAP

The CEEW report (Feb 2026) found that **most state DC policies lack mandatory PUE or WUE (Water Usage Effectiveness) standards**. There are no enforceable water-use efficiency targets, cooling water discharge norms under the Environment Protection Act, or mandatory reporting requirements. This regulatory vacuum creates ESG exposure for operators and financing risk for lenders relying on green certifications.

PUE & Cooling Technology Benchmarks

POWER USAGE EFFECTIVENESS: 1.0 = PERFECT EFFICIENCY

SEGMENT	TYPICAL PUE	NOTES
Global hyperscale avg.	1.1–1.2	Google: 1.1; Microsoft: 1.12
India colo avg.	1.4–1.6	Air-cooled, tropical climate
India AI-ready (target)	1.1–1.3	Liquid-cooled; CtrlS, Sify, Yotta
Edge / micro DC	1.4+	DOE: rarely below 1.4 w/o liquid
Beijing/Shanghai mandate	<1.25–1.35	PUE-linked tariff incentives

Renewable Energy Adoption: Leader Deals

PDG — India's first 24/7 CFE PPA (Sep 2025)
Time-matched hourly carbon-free energy with Tata Power RE + Flexidao at 150 MW Mumbai campus. Benchmark for hyperscaler-grade ESG procurement.

CtrlS — NTPC Green Energy 2 GW MoU (Nov 2025)
Largest single DC–utility RE deal in India. Targets 100% renewable operations and net-zero by 2040 — 30 years ahead of India's 2070 national target.

Digital Connexion — 6 GWp solar for 1 GW Vizag campus
Reliance dedicating 6× solar headroom for the Andhra Pradesh data center; addresses the intermittency gap for true RE-powered compute.

AdaniConneX — Khavda 30 GW renewable integration
Chennai 400 MW campus (Dec 2025) integrated 200 MW dedicated renewables + Tier-4 certification; powered by Adani's Khavda project (>10 GW operational).

NET-ZERO MATH

At ~69% coal grid mix, **every MW of Indian DC capacity running on grid power produces ~5,500–6,500 tCO2e/year**. At 6.5 GW by 2030, the sector's annual emissions could reach **35–42 million tCO2e** — roughly equivalent to the annual emissions of Sri Lanka. Operators without locked-in RE PPAs face both regulatory and commercial exposure as hyperscalers mandate Scope 3 carbon accounting from suppliers.

ECONOMIC MULTIPLIER

Employment, GDP Impact & APAC Positioning

Employment Impact

Union Minister Dr Jitendra Singh stated on May 22, 2026 that India's data center capacity growth to 6.5 GW by 2030 is expected to generate **~100,000 (1 lakh) engineering jobs** in specialised areas including MEP, HVAC, power systems, networking, and facility management. A single **100 MW campus supports 1,000–2,000 jobs during peak construction** and 150–300 permanent operational roles.

100K
ENGINEERING JOBS EXPECTED BY 2030

0.5–1%
INDIRECT GDP CONTRIBUTION VIA BFSI, E-COM, AI

20%
DIGITAL ECONOMY'S PROJECTED GDP SHARE BY 2030

$4–6B
ECOSYSTEM CAPEX + OPEX PER 1 GW ADDED

The talent gap: India has a vast IT workforce (~5.4M) but a **thin pool of specialised DC professionals** — estimated at fewer than 15,000 certified DC operators/engineers nationwide. Key gaps: critical facility management, MEP engineering, liquid cooling systems, high-voltage power distribution. Key salary benchmarks: DC Operations Manager ₹15–25 lakh ($18–30K) vs $90–120K in US; MEP Engineer ₹10–18 lakh ($12–22K); Facility Technician ₹5–8 lakh ($6–10K). This 5–7× labour cost arbitrage attracts build-operate-transfer models from global platforms.

APAC Competitive Benchmarking: India vs Peers

KEY METRICS · 2025–2026 DATA

METRIC	INDIA	MALAYSIA (JOHOR)	INDONESIA (BATAM)	SINGAPORE
Build cost / MW	$5–6M	$8–10M	$7–9M	$12–15M
Power tariff ($/MWh)	~$70–90	$133	$60	$178
Power tariff (¢/kWh)	7–9¢	10–13¢	6¢	17–19¢
Land cost (tier-1 city)	$18–23/sqft	$8–15/sqft	$5–10/sqft	$200+/sqft
Operational capacity	~1,700 MW	~800 MW	~200 MW	~900 MW
Pipeline capacity	4–6.5 GW	4 GW	~1.5 GW	Limited
Domestic demand	Very large	Moderate	Growing	Large (hub)
Data localisation	Strong (DPDP)	Weak	Moderate (GR71)	Moderate
Grid reliability	Moderate	Good	Moderate	Excellent
Water availability	Stressed	Good	Good	Managed
RE share of grid	~31%	~12%	~15%	~3%
Subsea cable gateways	3 (Mum/Chen/Viz)	1 (via SG)	1 (via SG)	Major hub
FDI screening	PN3 (China)	Open	Open	Open

Sources: Cushman & Wakefield APAC DC Cost Guide 2025; Wood Mackenzie Dec 2025; GlobalPetrolPrices Sep 2025; White & Case; Arizton; CEEW.

COMPETITIVE VERDICT

India's advantages: **lowest build costs in APAC, massive domestic demand, strong data localisation mandate, growing RE capacity**. India's weaknesses: **grid reliability, water stress, regulatory uncertainty (policy still in draft), permitting complexity**. Net assessment: India wins sovereign and localised AI compute; Malaysia/Johor wins cross-border hyperscale overflow from Singapore. They are **complementary, not substitutive** markets.

FORWARD OUTLOOK

2026–2035 Scenario Analysis

BASE CASE

4–6.5 GW

by 2030 · CEEW/Colliers/S&P consensus

Grid constraints and water availability limit acceleration in tier-1 metros. Tier-2 (Vizag, Noida) absorbs 35–40% of new capacity. Renewable PPAs widely adopted by 2027.

BULL CASE

8–10 GW

by 2030 · TCS/TPG estimate

National DC Policy codified with 20yr tax holiday. Reliance/Adani gigawatt campuses on track. AI-training demand from hyperscalers exceeds supply for 2026–29. DCEZs unlock Andhra Pradesh at scale.

BEAR CASE

2.5–3 GW

by 2030 · Execution-risk scenario

Power grid failures delay Mumbai/Chennai builds by 2+ years. DPDP Act implementation stalls. AI chip supply disruptions route hyperscaler builds to Malaysia/Johor. MoU-to-groundbreak conversion rate <40%.

STRATEGIC GUIDANCE

Recommendations by Stakeholder

FOR INSTITUTIONAL INVESTORS & INFRASTRUCTURE FUNDS

Take direct **platform exposure** over single-asset deals. Best risk-adjusted entries: (i) follow-on rounds in Nxtra, Yotta, or Sify Infinit Spaces IPO; (ii) anchor LP positions in Blackstone/Lumina, TPG Rise Climate (HyperVault), or Brookfield DC vehicles; (iii) early-stage state-anchored MoU co-investment in Andhra Pradesh and Uttar Pradesh.

FOR CORPORATES / CLOUD CUSTOMERS

Lock in **multi-year colocation contracts now** at providers with operational renewable PPAs (PDG MU1, AdaniConneX Chennai, STT GDC Maharashtra). Pricing is hardening into 2027. ESG-compliant facilities will be the only viable option for Western hyperscaler tenants by 2028.

FOR HYPERSCALERS BUILDING SELF-BUILD

Diversify beyond Mumbai. Andhra Pradesh has out-flanked Tamil Nadu and Maharashtra on speed-to-power and commercial terms. The **6 GWp Reliance solar buffer** is the model for clean-power assurance. Vizag is now the premier AI-training location for APAC south.

FOR INDIAN OPERATORS

Capex discipline: CtrlS's **pre-leased build model** (50%+ operating margins, 1.6–1.9× DSCR) is the right template. Avoid spec-building in stressed grids. Secure 24/7 CFE PPAs (PDG-Tata Power model) before signing hyperscaler MSAs. AI-ready certification (Nvidia DGX-Ready) commands a 15–25% lease premium.

GRAVITYWELL RESEARCH · STRATEGIC ASSESSMENT

India's Structural Position: Under-supplied, Over-committed, Emerging

The fundamental case is powerful and durable: India is the world's largest under-supplied data center market. The DPDP Act, the scale of AI investment, and the country's digital-payment and cloud trajectory create a demand floor that is unlikely to reverse. The constraint is not demand — it is execution: power grid interconnect timelines, water availability, regulatory codification, and the conversion rate of MoU-to-groundbreak. Operators who solve the power problem first will define India's data center landscape for the next decade.

Anticipated M&A / Liquidity Events (2026–28)

Sify Infinit Spaces	**Yotta Infrastructure**	**Nxtra by Airtel**	**CtrlS Datacenters**
IPO (DRHP filed Oct-25)	Pre-IPO + Nasdaq listing	Potential partial sale / IPO	Strategic sale / InvIT

KKR/Singtel STT GDC acquisition (~USD 10.9B EV) sets the template for platform buyouts. Expect 3–5 additional platform-level transactions by 2028 as global infra funds seek contracted India DC exposure.

KEY SOURCES & METHODOLOGY

This report draws on a systematic review of over 50 primary sources including company press releases, investor presentations, state government MoU filings, and regulatory submissions published between January 2024 and May 2026.
Market-size estimates were cross-referenced against multiple consultancy bases including CBRE, JLL, Colliers, Mordor Intelligence, Grand View Research, and Acumen Research.
Capacity figures represent total installed IT load; power figures represent total draw including cooling and overhead.

PRINCIPAL SOURCES

CBRE India Data Centre Outlook 2026 · JLL India Data Centre Market Dynamics H1 2025 · Mordor Intelligence India DC Market Report 2031 · IDC Worldwide Semi-annual Public Cloud Services Tracker (2H 2024) · CEEW Data Centre Power & Water Report Feb 2026 · S&P Global India Forward Series · KPMG India Data Center Revolution Nov 2025 · Bloomberg · TechCrunch · CNBC · Data Centre Dynamics · Outlook Business · Business Standard · Economic Times · NiftyTrader · Analytics India Magazine · Adani Group IR · TCS Newsroom · STT GDC India · Princeton Digital Group · NPCI/PIB (UPI data)

KEY CAVEATS

The **Adani USD 100 billion** and **Reliance USD 110 billion** AI plans are 10-year aspirational commitments. Neither company disclosed how much of these figures represent hard-committed near-term capital as of publication date (TechCrunch, Feb 17, 2026).

The **Meta–Sify 500 MW Vizag** arrangement is reported by Economic Times (Nov 2025) citing anonymous sources. Neither party had officially confirmed the arrangement at time of writing.

Market-size revenue estimates diverge materially across consultancies (10.5%–15.8% CAGR range). Gravitywell uses a 13–16% consensus range for revenue and 20–23% for installed-capacity CAGR.

Several state MoUs represent signalling investments over 5–10 year timescales and are not fully committed capex at date of announcement.

Gravitywell Research

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