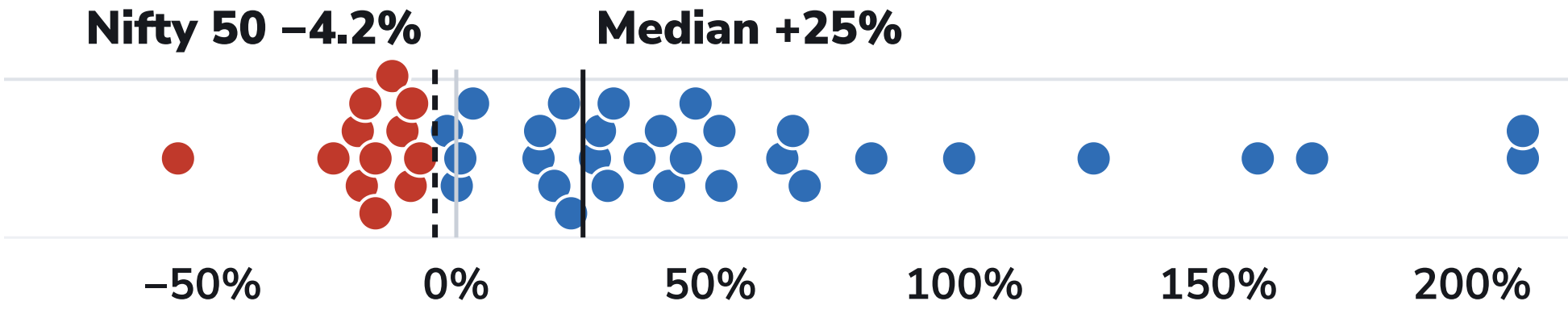
INDIA'S AI DATA CENTRES, PART TWO

A $170bn+ opportunity for India, and the builders are engineering, power and construction firms

Reliance and Adani have each announced around $100bn for AI and digital infrastructure.

30 of Goldman Sachs' 42 listed AI enablers have beaten the Nifty

Each dot is one company. Blue dots beat the Nifty, red dots did not.



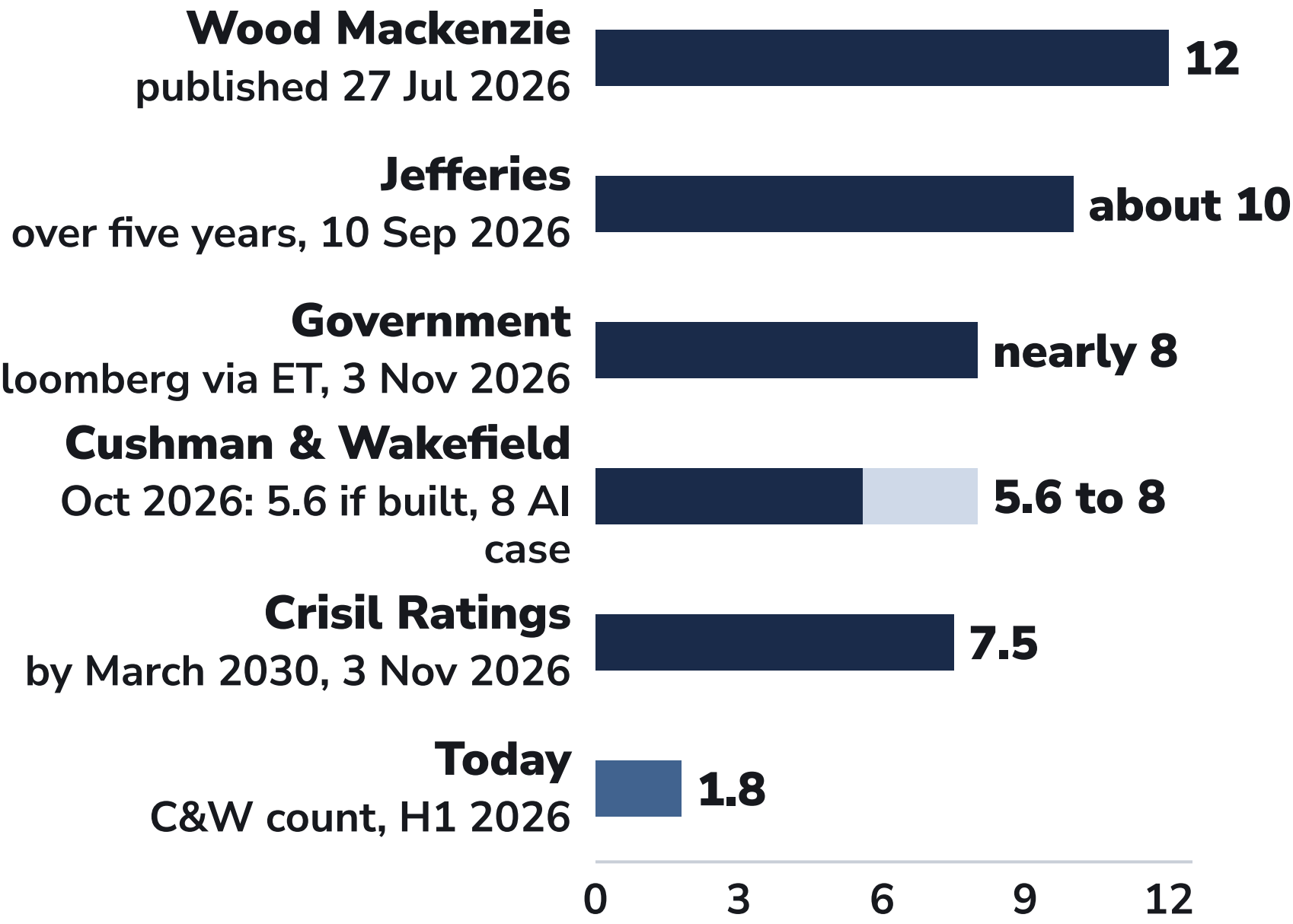
Operators, listed	**Reliance**, **Bharti**, **L&T**, **Adani Ent.**, Anant Raj
Power equipment	ABB, Siemens, Hitachi Energy, GE Vernova, Cummins
Power and grid	Adani Green, Tata Power, Power Grid, Adani Energy
Cables and cooling	Polycab, KEI, Sterlite Tech, HFCL, Blue Star
Electronics	Netweb, CG Power, Kaynes, Waaree Energies
Materials	Gujarat Fluorochemicals, Navin Fluorine, Himadri
Unlisted	AirTrunk, STT GDC, NTT, CtrlS, Yotta

SOURCES Goldman Sachs, Cushman & Wakefield, Bloomberg via ET, Yahoo Finance via tigzig.com, prices 31 Dec 2025 to 6 Nov 2026. Dots at the right edge are off the scale.

Forecasts for 2030 run from 5.6 to 12 GW

The lowest of these five is more than three times today's 1.8 GW. A lower view is on the next page.

India data centre capacity, gigawatts



Part 1, May 2026
India's next tech wave. AI data centers for the world

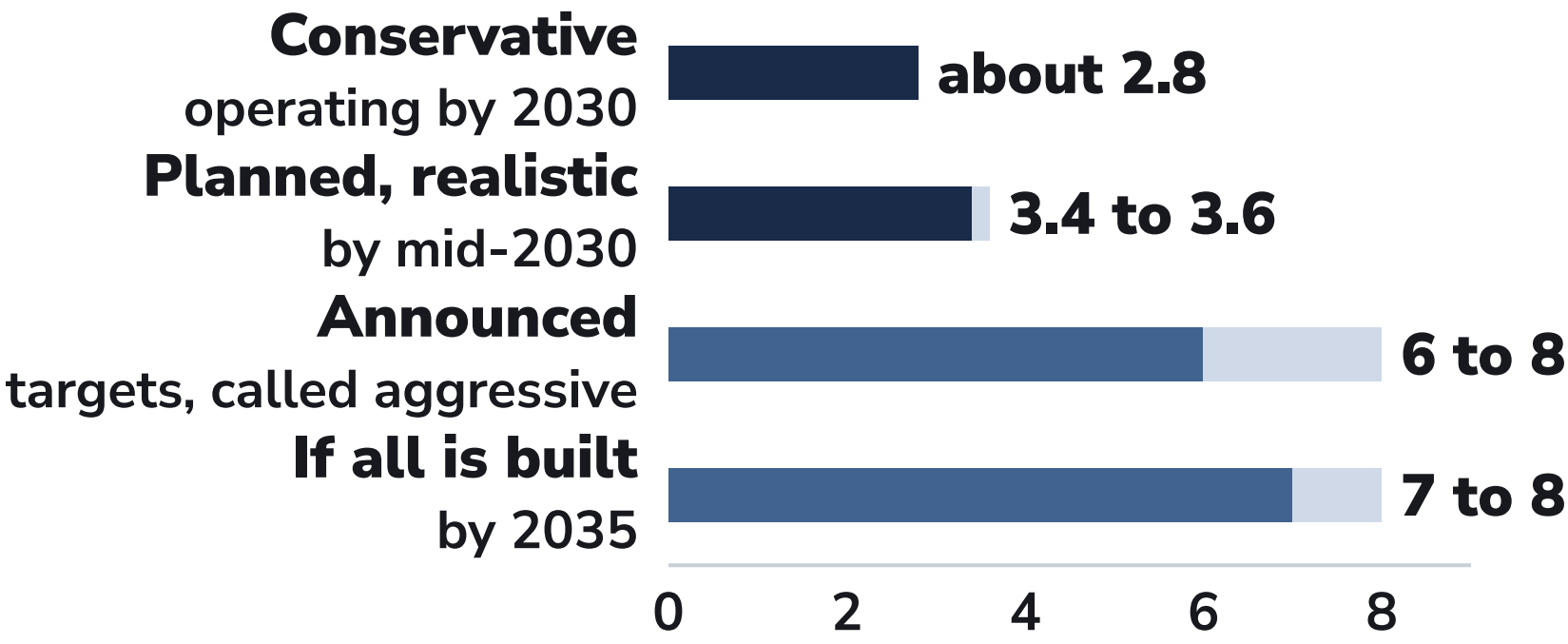
Estimates of today's capacity vary, from 1.3 to 1.8 GW across the sources on page 6.

SOURCES Wood Mackenzie, Jefferies via TOI, Bloomberg via ET, Cushman & Wakefield, Crisil.

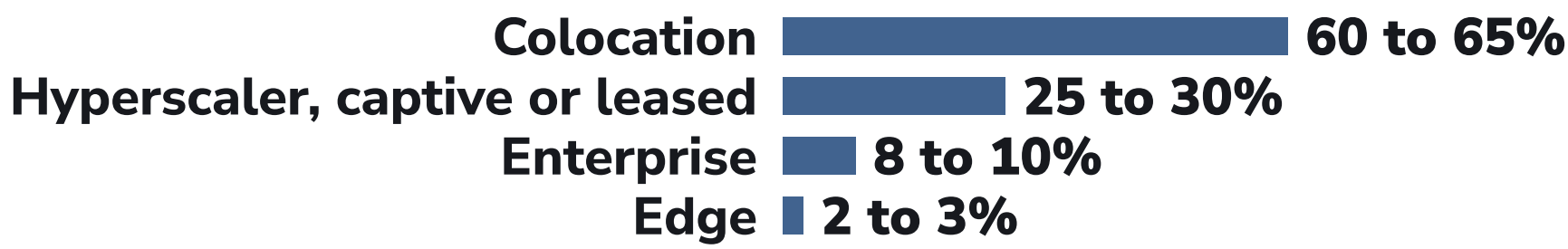
A cautious view: 2.8 to 3.6 GW by 2030

From an expert cited in an Axis Capital report.

India data centre capacity, gigawatts



Installed today, 1.3 to 1.4 GW, by type (Axis Capital)



Counts of today's capacity differ, and the gap is unexplained. Axis counts 1.3 to 1.4 GW across all four types. Cushman & Wakefield counts 1.8 GW at hyperscale cloud and colocation sites. The government says 1.57 GW.

Momentum — 900 MW to 1.2 GW was awarded in six to seven months, and an award is not operating capacity. 7 to 8 GW by 2035 if all announced is built.

Build rate — CBRE counts about 0.3 GW added in 2026. Reaching 5.6 GW by end-2030 from 1.8 GW takes about 0.85 GW a year (our sums).

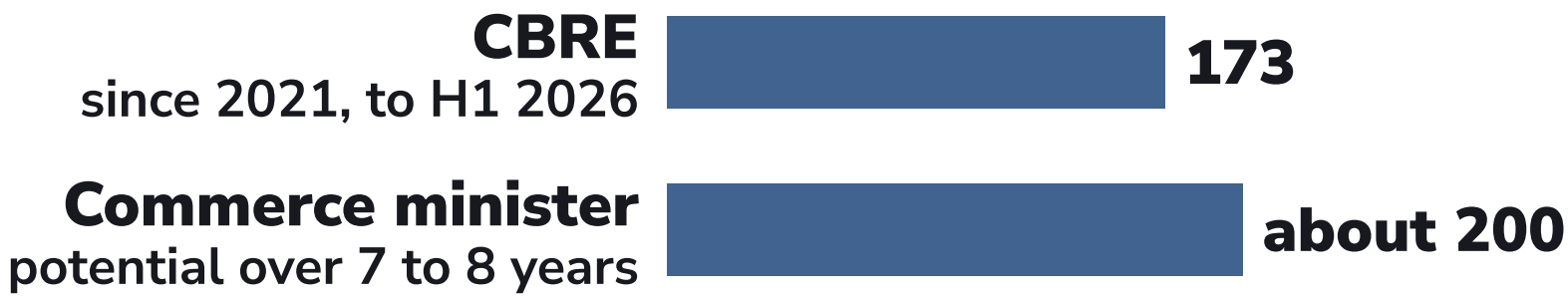
SOURCES Axis Capital report via ANI, ET, Cushman & Wakefield.

Announced: $170bn+ Estimated build spending to 2030: $32bn to $57bn

At ₹94.5 to the dollar: $170bn is about ₹16 lakh crore, $32bn about ₹3 lakh crore, $57bn about ₹5.4 lakh crore.

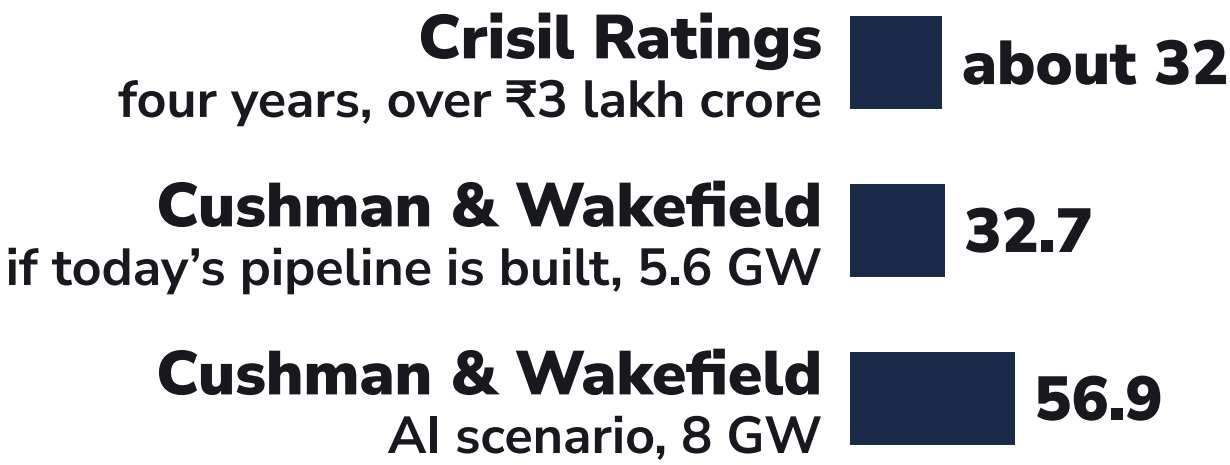
Announced investment, US$ billion

The $200bn is the minister's figure for the whole value chain: the site, construction, IT equipment, network and power



Estimated build spending to 2030, US$ billion

C&W: construction cost only. AI scenario: 15% of early-stage projects also get built. Crisil: investment by FY2030, at ₹94.5 to the dollar, 6 Nov 2026



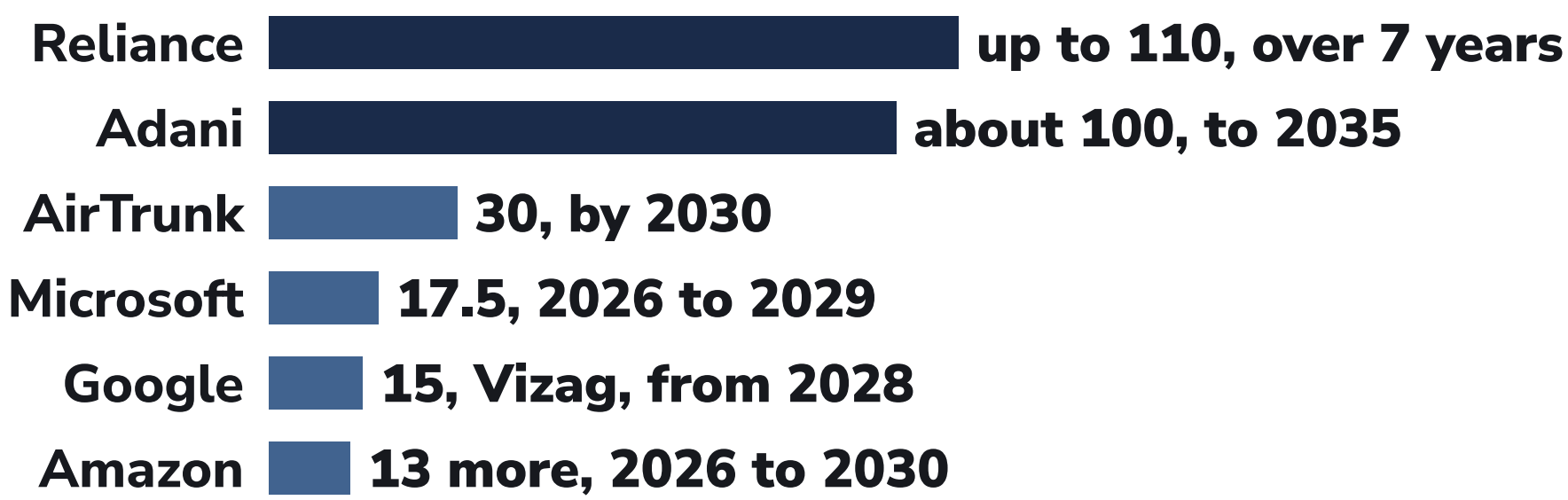
Hyperscalers took more than 80% of new demand in H1 2026, and pre-leased capacity doubled to 1.15 GW.

SOURCES CBRE via ET, Cushman & Wakefield and Invest India, Bloomberg via ET, Crisil via ET, Cushman & Wakefield H1 2026. Rupee: Yahoo via tigzig.com.

Reliance and Adani have each announced about $100bn. Global names: $13bn to $30bn each

Announced plans, US$ billion, over each company's own period. Not all of it is data centres.

At ₹94.5 to the dollar: $100bn is about ₹9.4 lakh crore, $30bn ₹2.8 lakh crore, $13bn ₹1.2 lakh crore.

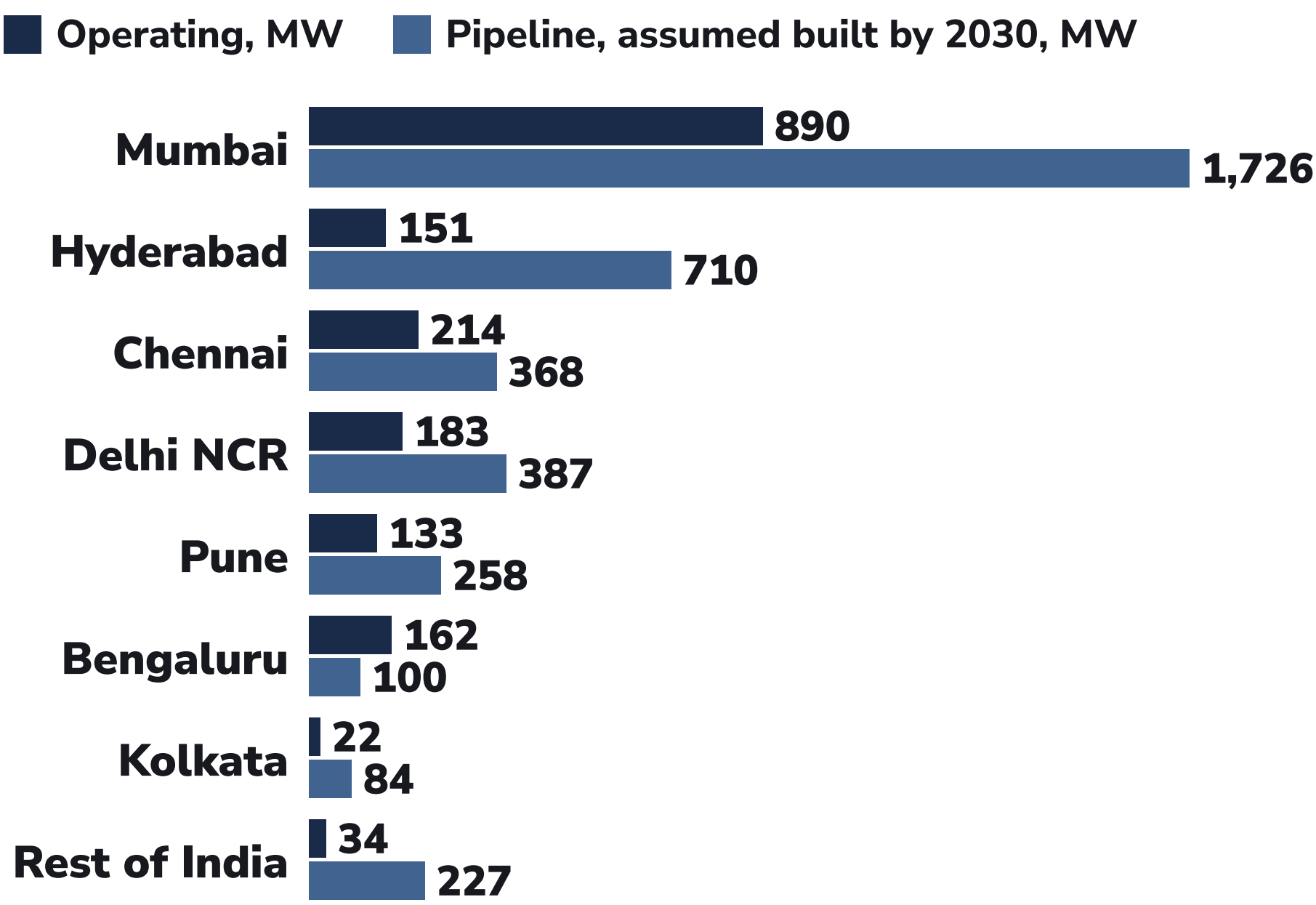


Meta from Reliance, Jun 2026	168 MW at Jamnagar in the first phase, with an option to scale
OpenAI at TCS, Feb 2026	100 MW to start at TCS's HyperVault business
Together AI with L&T, Aug 2026	10,000 Nvidia B300 chips at Chennai, an order of ₹10,000 to 15,000 crore
TCS HyperVault Hyderabad, 5 Sep 2026	264 acres for up to 1 GW, up to ₹70,000 crore with partners

SOURCES Bloomberg via ET, AirTrunk, Microsoft, Business Standard, ET, Amazon, Meta, Reuters, Reuters via BS, TCS. Reliance and Adani amounts include other AI and digital infrastructure.

Mumbai has half of today's capacity. Hyderabad's pipeline is nearly five times what it operates now

IT megawatts (MW) at hyperscale cloud and colocation sites. Operating: H1 2026. Pipeline: assumed built by 2030. The bars add up to 1,789 MW operating and 3,860 MW pipeline.



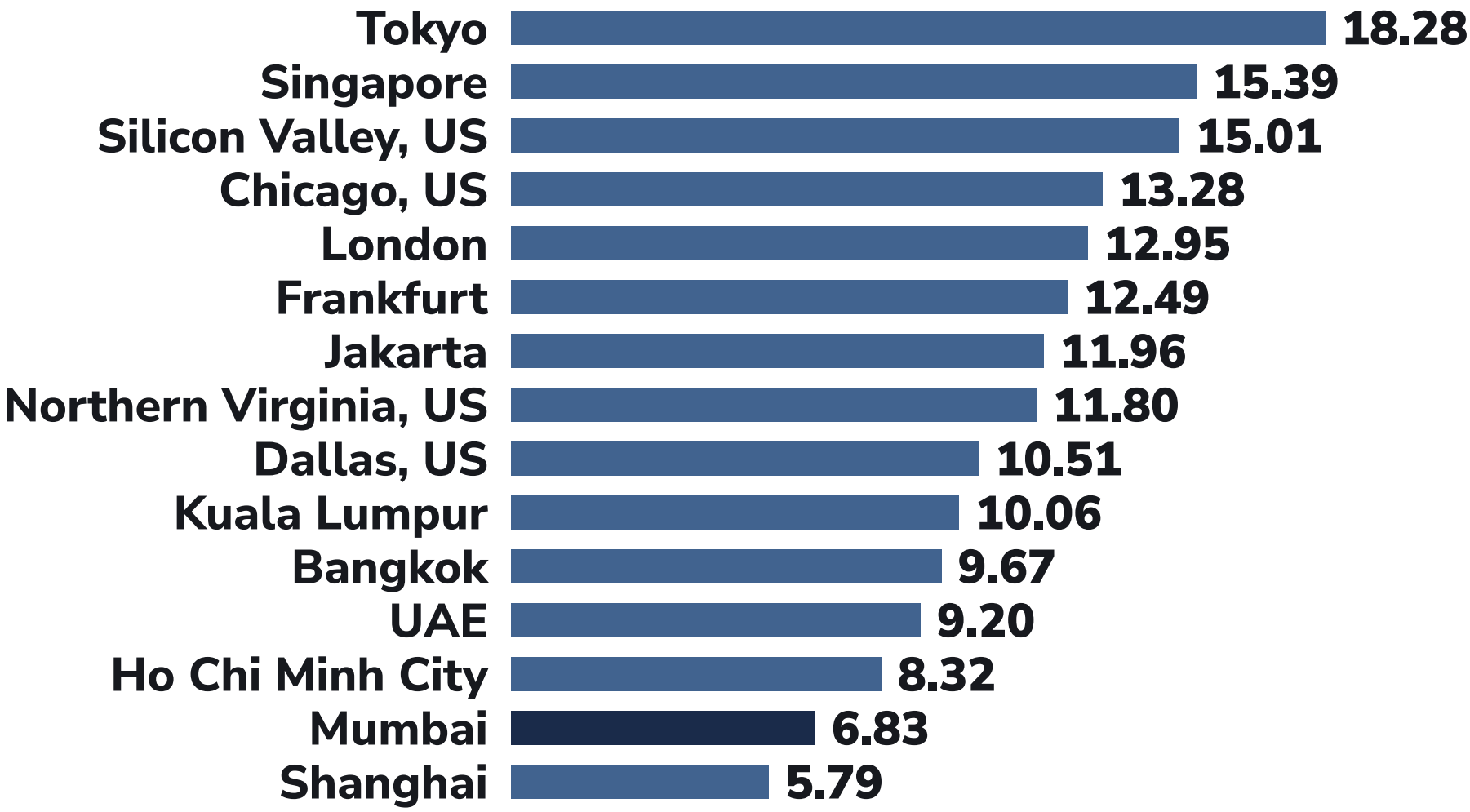
Current capacity estimates.

CBRE: 2 GW by year-end, less about 200 MW due in H2, is about 1.8 GW at mid-year. Government: 1.57 GW in August. Axis Capital: 1.3 to 1.4 GW.

SOURCES Cushman & Wakefield India Data Centre H1 2026 Update, CBRE via ET, Bloomberg via ET.

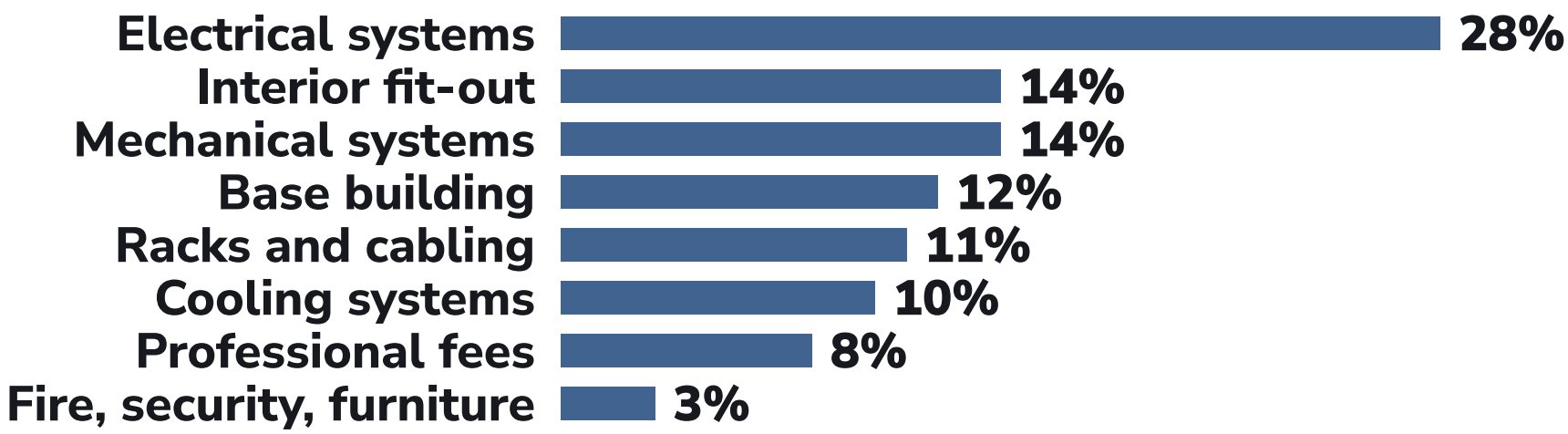
Building in Mumbai costs $6.83 a watt. Northern Virginia costs $11.80

Mumbai is the second cheapest of 62 markets in the Turner & Townsend index, 15 shown. US$ per watt, typical 60 MW air-cooled build, excluding the site, utility works and IT equipment.



Where the India build cost goes

Cushman & Wakefield, excluding the site



SOURCES Turner & Townsend Data Centre Construction Cost Index 2026 (62 markets), Cushman & Wakefield Cost Guide 2026, C&W and Invest India.

What could slow it down: power, equipment and sites

Power connection	A power sanction takes around 18 months (Axis Capital, via ANI). Grid connections in Europe's main hubs are stretching to 7 to 10 years (C&W).
Navi Mumbai	Data centres want 4,000 to 5,000 MW and 1,500 to 2,000 MW is sanctioned. The 765-kV substation they need could take three to five years, and its site request is unanswered after 18 months (Business India).
Grid warning	The Central Electricity Authority has told Maharashtra, Andhra Pradesh, Telangana and Tamil Nadu to plan for the surge (ThePrint).
Equipment and builders	Rolling out even a first phase typically takes at least 32 to 36 months. Backup generators from leading global suppliers are booked about two years ahead. Contractors and manpower are short (Axis Capital, via ANI).
Sites and local consent	Farmers at Google's and Microsoft's sites say they are pressured to give up farmland (Rest of World). Activists want a state moratorium on new data centres in Andhra Pradesh, and three petitions are before the Green Tribunal (ET). Google says it will use air cooling and fund grid upgrades (Business Standard).

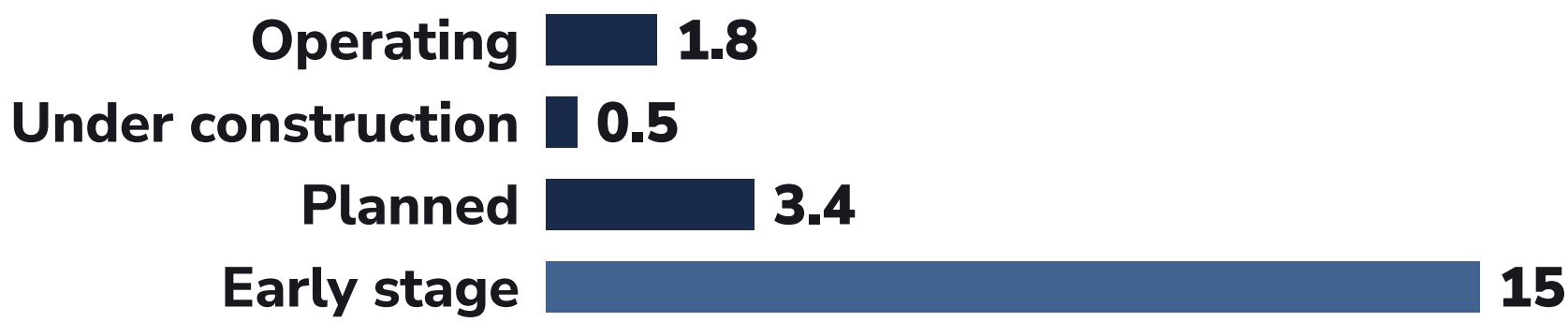
SOURCES Axis Capital via ANI, ET, Business India, ThePrint, Cushman & Wakefield, Rest of World, ET, Business Standard.

What could slow it down: talent and early-stage projects

Talent	Cooling, high-voltage electrical and commissioning engineers are the hardest to find (CBRE India). Malaysia, Thailand, Indonesia and China hire the same skills, and people prefer those markets (Colt Data Centre Services). ET reports a minister's estimate of nearly 1 lakh engineering jobs, and TeamLease Digital's estimate of more than 4 lakh with the wider ecosystem by 2030.
Announced and built	Of the money announced for future capacity, 24% is for projects under construction or planned and 76% is early stage (Cushman & Wakefield). Crisil adds that more than 95% of the capacity under construction is already contracted.

India data centre capacity by stage, GW

Cushman & Wakefield, H1 2026. Early stage: announced, with or without a site

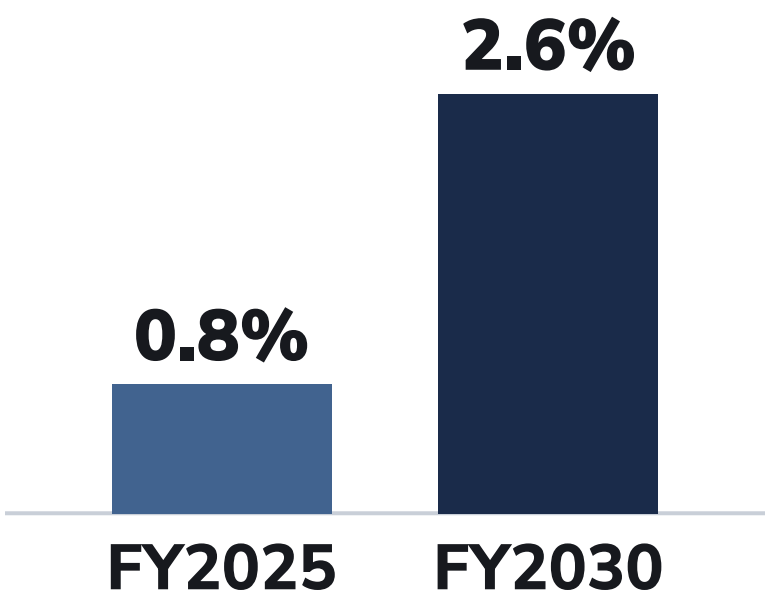


SOURCES Cushman & Wakefield, Crisil via ET, ET Datacenters, ET.

Power and water set the limits. Policy is catching up

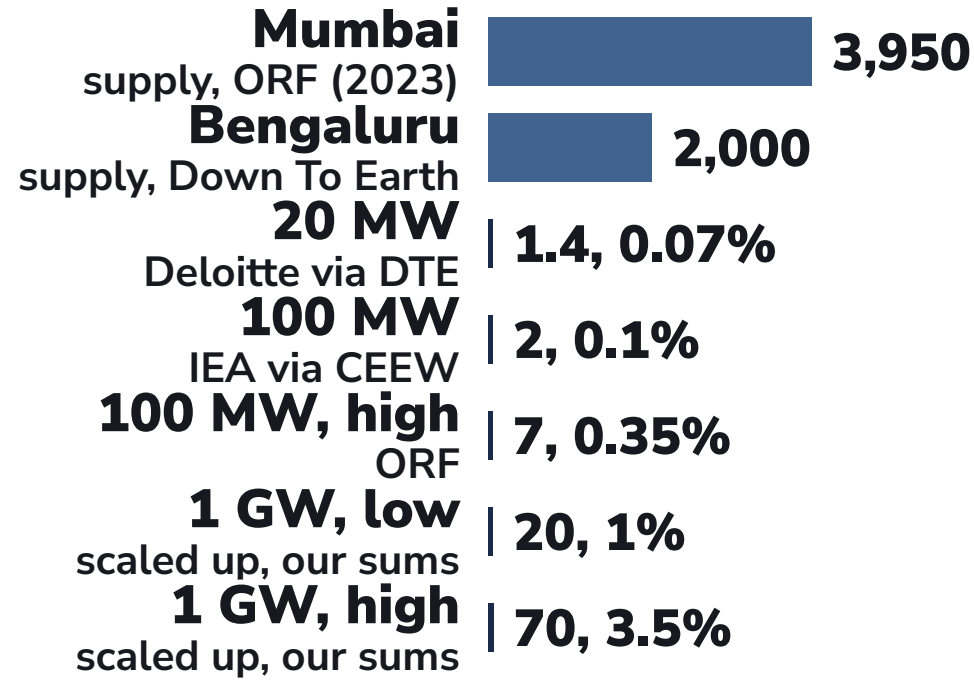
Electricity used by data centres

Share of India's electricity. FY2030 is a projection (C&W, Invest India)



Water a day, million litres

One scale. Percent is of Bengaluru's supply.



IEA: International Energy Agency. ORF: Observer Research Foundation. Water-saving cooling is slow to spread: cost, few vendors, upkeep (CEEW).

Power need in three cities

About three quarters of upcoming capacity is in Visakhapatnam, Mumbai and Hyderabad. By FY2030 it could equal 80%, 60% and 20% of their current peak power demand (Crisil).

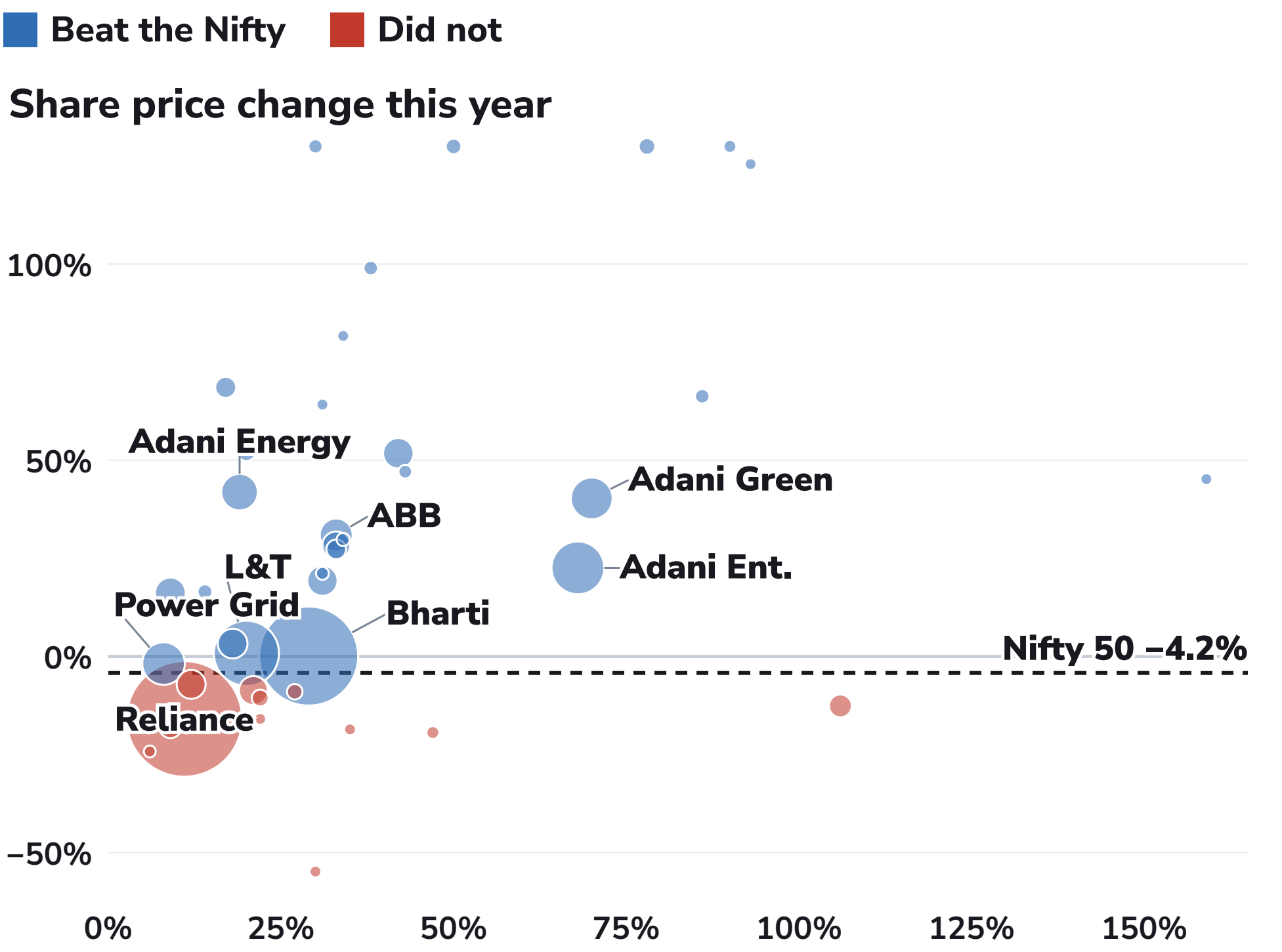
Policy catching up

A tax holiday to 2047 was announced for foreign cloud firms. A national policy is in the works, and NITI Aayog has asked states to assess power and water.

SOURCES Cushman & Wakefield, Down To Earth, CEEW, ORF, ORF Mumbai, Crisil via ET, PIB, ET, ET.

The biggest companies have the lowest expected growth and the smallest gains

Each bubble is one company. Bubble size is the market cap.



Off the scale, on the top edge: Sterlite Tech +598%, HFCL +211%, Diamond Power +168%, Sansera +158%.

SOURCES Yahoo Finance via tigzig.com APIs: share price change 31 Dec 2025 to 6 Nov 2026, price only, and market cap at 6 Nov. Growth: Goldman Sachs AI Enablers table (FactSet, I/B/E/S consensus, 11 Sep 2026).

Power equipment and transmission

Blue tick: beat the Nifty (−4.2%). Red cross: did not.

Goldman's table (FactSet, I/B/E/S consensus), calendar 2027: earnings growth, capex / sales, FCF / sales (cash left after capex). Capex / OCF is our calculation, NM where operating cash flow would exceed sales.

	Price	Change	Mkt cap ₹ K cr	Growth CY27E	Capex / sales	FCF / sales	Capex / OCF
POWER EQUIPMENT						10 of 12 beat the Nifty	
✓ ABB India		+31%	144	+33%	2%	11%	0.2x
✗ Cummins India		−9%	112	+21%	2%	14%	0.1x
✓ Siemens		+16%	127	+9%	2%	7%	0.2x
✓ Hitachi Energy		+52%	124	+42%	9%	6%	0.6x
✓ GE Vernova T&D		+28%	103	+33%	5%	12%	0.3x
✓ APAR		+69%	59.1	+17%	3%	3%	0.5x
✓ Kirloskar Oil		+30%	23.0	+34%	10%	3%	0.8x
✓ Schneider		+47%	25.4	+43%	3%	6%	0.3x
✓ TD Power		+64%	18.5	+31%	2%	9%	0.2x
✓ MTAR Tech		+126%	16.8	+93%	18%	−3%	1.2x
✓ Diamond Power		+168%	22.2	+90%	0%	−2%	NM
✗ Waaree Renew.		−24%	7.7	+6%	9%	2%	0.8x
POWER TRANSMISSION						2 of 3 beat the Nifty	
✓ Power Grid		−2%	242	+8%	80%	14%	0.9x
✓ Adani Energy		+42%	178	+19%	44%	−18%	1.7x
✗ KEC Intl		−55%	8.9	+30%	1%	3%	0.2x

SOURCES Prices: Yahoo Finance via tigzig.com APIs, 31 Dec 2025 to 6 Nov 2026, price change only. Market cap: Yahoo, 6 Nov 2026. Growth, capex, FCF and the 42 names: Goldman Sachs AI Enablers table (FactSet, I/B/E/S consensus, 11 Sep 2026).

Generation, materials, electronics

Blue tick: beat the Nifty (−4.2%). Red cross: did not.

Goldman's table (FactSet, I/B/E/S consensus), calendar 2027: earnings growth, capex / sales, FCF / sales (cash left after capex). Capex / OCF is our calculation, NM where operating cash flow would exceed sales.

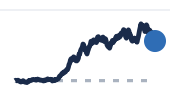
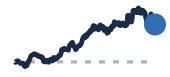
	Price	Change	Mkt cap ₹ K cr	Growth CY27E	Capex / sales	FCF / sales	Capex / OCF
POWER GENERATION							3 of 5 beat the Nifty
✓ Adani Green		+40%	235	+70%	235%	−109%	NM
✗ Tata Power		−7%	113	+12%	32%	−5%	1.2x
✗ NTPC Green		−13%	69.6	+106%	613%	−250%	NM
✓ ACME Solar		+66%	27.9	+86%	487%	−197%	NM
✓ Clean Max		+45%	14.8	+159%	242%	−96%	NM
CHEMICALS AND MATERIALS							3 of 3 beat the Nifty
✓ Gujarat Fluoro		+27%	51.3	+33%	30%	−10%	1.5x
✓ Navin Fluorine		+52%	46.2	+20%	17%	9%	0.7x
✓ Himadri		+16%	28.7	+14%	15%	−5%	1.5x
SEMICONDUCTORS AND ELECTRONICS							4 of 6 beat the Nifty
✓ Netweb Tech		+21%	22.4	+31%	1%	3%	0.2x
✓ CG Power		+19%	122	+31%	8%	3%	0.7x
✗ Waaree Energies		−18%	70.1	+9%	27%	−6%	1.3x
✓ Sansera		+158%	27.0	+30%	13%	1%	0.9x
✗ Kaynes Tech		−19%	21.7	+47%	26%	−8%	1.4x
✓ Paras Defence		+82%	10.0	+34%	NM	NM	NM

SOURCES Prices: Yahoo Finance via tigzig.com APIs, 31 Dec 2025 to 6 Nov 2026, price change only. Market cap: Yahoo, 6 Nov 2026. Growth, capex, FCF and the 42 names: Goldman Sachs AI Enablers table (FactSet, I/B/E/S consensus, 11 Sep 2026). Clean Max: since listing, 2 Mar 2026. Capex / OCF is NM where Goldman's figures imply cash flow above sales (Yahoo FY2026 for those four: operating cash flow 62% to 91% of sales).

Data centre hardware and operators

Blue tick: beat the Nifty (−4.2%). Red cross: did not.

Goldman's table (FactSet, I/B/E/S consensus), calendar 2027: earnings growth, capex / sales, FCF / sales (cash left after capex). Capex / OCF is our calculation, NM where operating cash flow would exceed sales.

	Price	Change	Mkt cap ₹ K cr	Growth CY27E	Capex / sales	FCF / sales	Capex / OCF
DATA CENTRE HARDWARE						5 of 7 beat the Nifty	
✓ Polycab		+3%	119	+18%	4%	5%	0.4x
✗ KEI		−11%	38.1	+22%	5%	1%	0.8x
✓ Sterlite Tech		+598%	37.0	+78%	11%	6%	0.6x
✓ HFCL		+211%	32.2	+50%	10%	2%	0.8x
✗ Blue Star		−9%	32.4	+27%	2%	3%	0.4x
✓ Craftsman Auto		+36%	27.4	+46%	13%	0%	1.0x
✓ Syrma SGS		+99%	28.1	+38%	6%	−1%	1.2x
OPERATORS AND DEVELOPERS						3 of 6 beat the Nifty	
✗ Reliance		−16%	1,786	+11%	11%	5%	0.7x
✓ Bharti Airtel		+0%	1,315	+29%	22%	27%	0.4x
✓ L&T		+1%	567	+20%	2%	4%	0.3x
✓ Adani Ent.		+23%	372	+68%	30%	−12%	1.7x
✗ Anant Raj		−19%	16.0	+35%	68%	−13%	1.2x
✗ Brigade		−16%	18.2	+22%	22%	−1%	1.0x

SOURCES Prices: Yahoo Finance via tigzig.com APIs, 31 Dec 2025 to 6 Nov 2026, price change only. Market cap: Yahoo, 6 Nov 2026. Growth, capex, FCF and the 42 names: Goldman Sachs AI Enablers table (FactSet, I/B/E/S consensus, 11 Sep 2026).

Are these the only 42?

Goldman Sachs picked 42 listed companies as AI enablers. They are not the only ones.

Goldman on its own screen

A company needed $1bn of market value and $3m of trading a day to qualify. Goldman says the screen can leave out smaller companies.

What the build reaches (our reading)

- Engineering and ancillary industries, as parts and components are for a car maker
- Large, medium and small firms
- Listed and unlisted

Areas it touches

- Electrical
- Cooling
- Base building and interiors
- Power
- Utilities
- Water treatment
- Construction materials
- Logistics
- Mechanical
- Racks and cabling
- Professional fees
- Renewables
- Fibre
- Equipment servicing
- Security
- Local services

SOURCES Moneycontrol on Goldman Sachs, Cushman & Wakefield, ET.

Sources

COMPANIES

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Goldman, Economic Times
Nomura and CLSA via ET

CAPACITY, INVESTMENT AND COST

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Cushman & Wakefield, Construction Cost Guide 2026
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DEALS

Bloomberg via ET, Adani and Reliance
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Business Standard, Google Vizag

JOBS, POWER, WATER, POLICY

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Rest of World, farmers
ET, jobs and TeamLease
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Down To Earth, thirsty data centres
ORF, Mumbai water stress
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PIB, tax holiday to 2047
ET, national policy in works
ET, NITI Aayog framework

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