

How Big Tech's \$630b AI splurge will fall short

REUTERS, London

For all the hand-wringing in financial markets about an artificial intelligence bubble, investors may be focusing on the wrong risk. The prevailing fear is that technology giants will spend hundreds of billions of dollars on AI infrastructure only for demand to fall short. The more immediate problem, though, is that tech firms will struggle to spend their massive 2026 budgets in ways that deliver functioning data centres.

The scale of Silicon Valley's ambition is already colliding with physical reality. Just four companies — Amazon.com, Microsoft, Alphabet, and Meta Platforms — are projected to spend about \$630 billion on data centres and AI chips in 2026 alone, Morgan Stanley estimates. That's more than four times the 2023 figure, and equates to roughly 2.2 percent of US GDP. Widen the lens to include the top 11 providers of cloud computing and infrastructure, like Oracle and CoreWeave, and total capital expenditure is set to hit \$811 billion.

Even for the world's largest companies, this expansion is staggering. The four tech giants currently operate roughly 600 data centre facilities globally, and have another 544 in planning or under construction, according to S&P Global Energy Horizons data. Turning that development pipeline into live computing power could prove a bigger challenge than mobilizing the necessary capital.

On paper, the economics look straightforward. A modern 100 megawatt AI data centre can cost more than \$4 billion, including chips. About 70 percent of spending goes on servers and graphics processing units, much of it linked to the most sought-after chips designed by Nvidia. Land typically consumes up to 6 percent of that budget, depending on location. The rest is split between buildings, electrical gear, networking, security and cooling systems required to run dense AI workloads. The catch is that the industry's worst bottlenecks are not necessarily in semiconductors, but in physical infrastructure and the local permits required to install it.

Power is one of the primary constraints. Securing a connection to the public grid in major hubs like London can now take up to a decade. To escape this purgatory, operators are pushing into rural locations like parts of Texas. But while permits are easier to get in remote places, skilled labour is harder to find. In some cases, companies have to build supporting communities to staff their facilities. Even then, this workaround has limits as data centre demand shifts from training



In this photo, racks of graphics processing units with a closed-loop liquid cooling system are seen inside an operational Microsoft data centre in Karawang, West Java.

PHOTO: AFP/FILE

large-language models to inference — the process of running a trained AI model to generate outputs for real world use. Providing swift responses to customers requires inference data centres closer to populated areas.

Operators are trying to bypass the power grid entirely by building "island" data centres powered by on-site gas turbines. About one-third of US facilities currently under construction rely on on-site power generation, according to McKinsey's Diego Hernandez Diaz. But this workaround has created its own bottleneck: new suitable gas turbines are effectively sold out until 2029, prompting developers to look for alternatives, Boston Consulting Group's Thomas Bumberger says. Geopolitics adds a further layer of fragility. Most data centres rely on diesel backup generators that kick in if the main power source fails, according to McKinsey. These units are tested daily, leaving the AI boom exposed to potential shortages of refined fuel caused by conflict in the Middle East.

The broader industrial supply chain is also struggling to keep up with overwhelming demand. The process of making kit like substations, transformers

and cooling systems is out of sync with the tech industry's cycle. The lead time for transformers supplied by groups such as Schneider Electric, Eaton and Hitachi Energy is now up to 100 weeks in Europe, while generators in the United States can take around 50 weeks to arrive, according to BCG. Nearly 60 percent of data centre projects were delayed by more than three months last year. Roughly 88 percent of projects face setbacks simply laying concrete foundations, while 78 percent are delayed during the installation of cooling systems and fire alarms, according to data centre project forecasting firm nPlan.

Rapid innovation adds to the backlog. Nvidia's newest Blackwell chips — and its upcoming Rubin architecture — generate far more heat than previous versions. This has forced data centres to shift from air cooling to more complex liquid systems, which require new plumbing and water purification infrastructure. Meanwhile, next-generation server racks will draw so much power that traditional ways of delivering electricity no longer work efficiently. To cope, data centre operators are shifting to more advanced solid state transformers (SSTs), which also enable fast

charging of electric vehicles. As a result, tech companies are competing with carmakers for components.

Some operators like Amazon Web Services are using workarounds, such as designing proprietary equipment. Others like Microsoft are renting capacity from agile "neocloud" operators like CoreWeave and Nebius. These companies, many of which own repurposed former bitcoin mining facilities, have often secured valuable land, power and permits.

History offers a stark warning of the dangers of investment splurges. Take the commodity boom of the late 2000s, when large oil groups, including Exxon Mobil, Shell, BP and Chevron sharply increased capital spending to take advantage of record crude prices. Global investment in searching, drilling and pumping oil and gas nearly tripled from roughly \$250 billion in 2000 to almost \$700 billion by 2013. But shortages of labour, specialized equipment, and permitting constraints took their toll. Overall production output barely budged while costs spiralled. Returns collapsed, exacerbated by a sharp drop in oil prices from \$147 a barrel in mid-2008 to below \$60 months later.

bKash, City Bank roll out 'Pay Later' for instant mobile top-ups

STAR BUSINESS DESK

The country's leading mobile financial service (MFS) provider, bKash Limited, in partnership with City Bank PLC, has launched a new service, titled "Pay Later", to ensure uninterrupted mobile connectivity and added convenience during urgent moments.

Under the service, customers can instantly recharge up to Tk 1,000 to their own or others' mobile numbers even if their bKash balance is insufficient. The amount can be repaid within seven days without any interest, according to a press release.

Eligible users can recharge between Tk 100 and Tk 1,000 to any mobile operator, although a processing fee will apply. Both prepaid and postpaid users can purchase internet packs, talk time, minutes, or bundled offers through this facility.



Customers may use the approved "Pay Later" limit either in a single transaction or across multiple uses. The service remains accessible regardless of the current balance in the user's bKash account.

To avail of the feature, users need to select the "Mobile Recharge" option in the bKash app, enter the desired number and amount, and choose the "Pay Later" option at the payment stage.

After selecting "Pay in 7 days", they can review and confirm the transaction. The service is available only to eligible customers.

The borrowed amount will be automatically deducted from the user's bKash account within seven days, and customers must ensure sufficient balance by the due date. Early repayment is also allowed.

Failure to repay within the specified period will result in late payment interest in line with the applicable terms and conditions.

The addition of the "Pay Later" feature to bKash's mobile recharge service is expected to enhance user convenience and further encourage cashless digital transactions.

Iran war chokes petrochemical supply, sends plastic prices soaring

REUTERS

Disruptions to oil and petrochemical flows through the Strait of Hormuz following the outbreak of the Iran war have tightened global chemicals supply and lifted prices of plastics and polymer, used in everything from auto parts to toys, to roughly four-year highs.

About \$20 billion to \$25 billion worth of petrochemical products pass through the Strait annually, according to Rabobank, underscoring the fact that continued disruptions to this flow would push producers to pass the higher costs on to consumers.

"Anyone who imports from the Middle East, which is pretty much everyone in the rest of the world to a certain extent, has lost a large supplier and is having to scramble to find replacement resin at extraordinarily higher prices," said Joel Morales of Chemical Market Analytics by OPIS.

The Middle East accounted for over 40 percent of polyethylene exports in 2025, led by Saudi Arabia, and ships to nearly every region outside North America, the next largest exporting region.

Prices for plastics such as polyethylene (PE) and polypropylene (PP) have surged since the Middle East conflict began, tracking higher crude and feedstock costs.

"Global logistics have become uncertain, with up to 50 percent of polyethylene supply either offline, constrained or being impacted following the events in the Middle East," said Dow CEO Jim Fitterling.

FEEDSTOCK SHOCK RIPPLING THROUGH CHEMICALS

Analysts said the Strait's closure could disrupt nearly 1.2 million barrels per day of global naphtha export flows, further tightening feedstock availability for the production of petrochemicals.

The war has sent Asia's naphtha refining margin above \$400 a ton over Brent crude from about \$108 a ton before the conflict started, according to LSEG data.

Maksim Sonin, energy executive at Stanford University's Center for Fuels of the Future and Hydrogen Initiative, said the spike in prices reflects a growing "risk premium", with Asia particularly vulnerable, given its heavy reliance on naphtha as a key petrochemical feedstock in plastics production.



A car rides along the coast of Musandam overlooking the Strait of Hormuz amid the US-Israeli conflict with Iran on March 2.

PHOTO: REUTERS

Japan, South Korea and India, among others, are most exposed due to their dependence on imported crude and petrochemical inputs.

ASIA, EUROPE SQUEEZED AS US GAINS EDGE

Plastic manufacturers in Asia and Europe, which are heavily reliant on imported feedstocks and Middle East supply, are facing higher input costs and tighter margins.

Europe is being squeezed by rising feedstock costs and imports, while surging naphtha prices have created a disconnect with contract pricing, leaving producers struggling to pass costs onto customers, LyondellBasell said.

But North America is relatively advantaged, due to its feedstock availability. Agustin Izquierdo, CFO of US-based petrochemicals maker LyondellBasell, said PE and PP prices, along with oxyfuels linked to crude, have risen significantly since the conflict began, adding that April order books are the strongest in several months despite the price hikes.

"It's becoming obvious that North America is an advantaged region in terms of feedstock, and we'll continue to take advantage of that going forward."

Plastics in the US are largely made from natural gas and related feedstocks, according to the Energy Information Administration, unlike elsewhere, where producers mainly rely on naphtha, a crude oil derivative.

With more than 50 percent of polyethylene output exported, US producers are seeing "super-normal" profits, said Utpal Sheth of Chemical Market Analytics by OPIS.

CONSUMERS TO PAY

US chemical producers are passing on the higher costs to consumers. Celanese has raised prices across its engineered materials and acetyl lines, while Dow plans polyethylene price hikes in March and April.

European firms such as BASF and Wacker Chemie are also lifting prices to offset higher raw material and transport costs.

Germany's Lanxess has gone further, hiking prices for flame retardants and other specialty additives by up to 35 percent, and as much as 50 percent for plasticisers, citing sustained cost pressures.

India's biggest bottled water company, Bisleri, has raised prices by 11 percent, putting a strain on customers as access to clean drinking water remains uneven in the country.

Middle East war: updates on global economic fallout

FROM PAGE B4

The Philippines is heavily dependent on imported fuel, the cost of which has hit historic highs since the war forced the partial closure of the Strait of Hormuz.

US ISSUES E15 FUEL WAIVER

The US Environmental Protection Agency issued a temporary emergency waiver to allow nationwide sales of higher-ethanol E15 fuel in the summer, Administrator Lee Zeldin said, easing smog controls amid government concerns about adequate supply.

The government has issued similar waivers in recent years under both the Trump and Biden administrations.

FUEL COSTS HIT US POST OFFICE

The US Postal Service announced an eight-percent rate increase for some retail and commercial products, with the "transportation-related" move coming as global oil prices spiral due to the war on Iran.

WTO WARNING

As World Trade Organization ministers prepared to meet in Cameroon, the head of the

International Chamber of Commerce warned that the conflict could cause the "worst industrial crisis" in decades.

WTO SOUNDS FERTILISER WARNING

Disruptions to fertiliser supplies caused by the Middle East war pose a double threat to global food security through scarcity and high prices, a top World Trade Organization official warned.

RED SEA SHIPPING THREAT

Iran will target shipping in the Red Sea, a crucial conduit for global oil and other goods leading up to the Suez Canal, if the United States launches a ground invasion, a military official told local media.

IRAN SAYS KEY STRAIT 'CLOSED ONLY TO ENEMIES'

Iranian Foreign Minister Abbas Araghchi said the Strait of Hormuz was "closed only to enemies", with the Middle East war having all but shut the vital oil and gas shipping route.

Iran had informed the International Maritime Organization on Tuesday that "non-hostile vessels"

could transit the strait if they meet safety and security regulations in coordination with the relevant authorities.

IEA READY FOR ANOTHER OIL STOCKS RELEASE

The head of the International Energy Agency said he was "ready to move forward" with an additional release of oil reserves "if and when necessary".

Fatih Birol's comments in Tokyo came after Japanese Prime Minister Sanae Takaichi asked the agency "to prepare to implement an additional release in case the situation drags on" with the war in the Middle East.

Cosco's ships are a new gauge

FROM PAGE B4

China's Cosco Shipping Lines, a subsidiary of state-owned giant COSCO Shipping, announced on March 25 that it has resumed new booking services for ordinary freight containers from the Far East to the Middle East, including the United Arab Emirates, Saudi Arabia, Bahrain, Qatar, Kuwait, and

Iraq, effective immediately.

It had previously suspended these services on March 4, citing escalating conflict in the region and resulting restrictions on maritime traffic through the Strait of Hormuz.

Chinese Foreign Minister Wang Yi urged Iranian counterpart Abbas Araghchi in a phone call to engage in negotiations as soon as

possible with the United States to end the war between the two sides, according to a Chinese government statement on March 24.

Oil prices sank 5 percent on March 25 after reports the United States had sent Iran a 15-point proposal aimed at ending the conflict. Iran denied that direct talks had taken place, Reuters reported.