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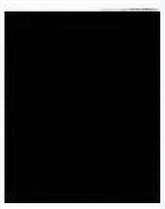

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Hyperscalers power energy shift

The Star, Malaysia

Hyperscalers
power energy shift

THE stage is set for Malaysia's power sector to shift into high gear this year, as massive data centre (DC) investments and grid upgrades spark a wave of infrastructure spending.

Although global uncertainties may briefly dent the momentum, the long-term outlook remains solid, according to Apex Securities.

The brokerage notes that 2025 will be a pivotal year for Malaysia's power sector, with global cloud providers committing to 1,313 megawatts (MW) of new DC projects, up from 505MW of live capacity as of December 2024.

These developments are underpinned by major players like Amazon Web Services, Tencent Cloud, Google Cloud and others doubling down on Malaysia as a key location in their Asia-Pacific expansion strategies.

This, in turn, is pushing electricity demand to new highs, especially in Peninsular Malaysia.

"Electricity demand in Peninsular Malaysia is accelerating, now matching gross domestic product (GDP) growth due to the expansion of DCs and artificial intelligence (AI) infrastructure," Apex notes.

In fact, the firm says that 12 projects with a combined maximum demand of 2.2 gigawatt (GW) have already signed electricity supply agreements but are still pending delivery – a signal of the scale at play. This isn't just a story about power generation – it's about what comes next.

To support the spike in demand, the grid itself is getting a major facelift.

Tenaga Nasional Bhd (TNB), Malaysia's national utility company, has been given the green light to significantly ramp up spending during the fourth regulatory period (RP4).

"In RP4, the allowed capital expenditure (capex) has increased by 108% to RM42.8bil, comprising RM26.6bil in base capex and RM16.3bil in contingent capex," Apex highlights.

And while the base capex covers DC projects with signed electricity supply agreements, TNB expects that 60% to 70% of the contingent capex will be triggered, particularly as more DCs formalise their power needs, it adds.

That's big news for the mechanical and electrical (M&E) segment – including electrical contractors, underground utility solution providers and power distribution equipment makers – which Apex believes will enjoy strong earnings visibility.

"The surge in RP4 capex is poised to benefit M&E service providers over the near to medium term," the brokerage highlights.

Despite some near-term market jitters, particularly around global tech policy and chip supply, Apex remains upbeat.

"While we acknowledge a potential slowdown in the data centre growth due to macroeconomic uncertainties, we remain positive about the longer-term outlook," it says.

"The recent weakness in share prices of power ancillary players presents an attractive buying opportunity for investors," it adds.

Apex has maintained its "overweight" stance on the power sector, with top small-to-mid-cap picks, including CBH Engineering Holding Bhd, UUE Holdings Bhd, Pekat Group Bhd, and Southern Cable Group Bhd.

- 2025 a pivotal year for Malaysia's power sector, says Apex Securities
- This isn't just a story about power generation – it's about what comes next
- Current slowdown in DC investments a temporary headwind rather than a structural shift

Improving numbers

The optimism is well-grounded in numbers. Malaysia's installed electricity capacity in Peninsular Malaysia stands at 27.7GW as of September 2024, with a healthy 38% reserve margin – slightly above the International Energy Agency's recommended optimal range of 20% to 35%.

TNB still dominates with roughly half of generation market share, while the rest is filled by independent power producers, large-scale solar developers, and new enhanced dispatch arrangement participants.

That said, the energy mix still leans heavily on fossil fuels, with coal making up 56.7% and gas 36.4% of the generation mix.

Solar only accounts for 2.1%, though this is expected to grow in line with the national energy transition roadmap.

To future-proof the grid, TNB has even bigger plans.

"TNB plans to allocate RM35bil towards transition-related grid infrastructure from 2025 to 2030, in addition to its RM54bil non-energy transition allocation for the grid during the same period," Apex notes.

This would bring total grid investment to nearly RM90bil over five years – almost double the RM46bil allocated between 2018 and 2024.

Apex further explains that 64% of the contingent capex under RP4 is earmarked for the energy transition, including initiatives like distribution automation, smart meters and EV infrastructure.

"This presents significant upside in tender opportunities for players in the M&E sector," it notes.

The scope of services includes everything from "system design, power cabling, power installation, cleanroom facilities, uninterruptible power supply systems, and integrated security systems."

In terms of electricity demand, the shift is no longer cyclical – it's structural.

After years of lagging GDP growth, electricity consumption has caught up thanks to the explosion of data centre activity.

TNB has already revised its demand growth forecast to 3.5% to 4.5% for 2025, closely tracking the national GDP forecast of 4.5% to 5.5%.

Main driver

Malaysia's DC story is at the heart of this shift. Since 2021, the country has drawn in roughly RM90bil in data centre investments from major players including AirTrunk, Microsoft, Bridge, GDS, Keppel and Google. Johor, in particular, is becoming a key hub.

"Johor's total information technology capacity is nearly 1,600MW, with about 20% operational and 80% committed or in early planning stages," Apex says, citing a DC Byte report.

The power needs of AI aren't trivial either.

"A 100MW DC can generate enough power to supply around 80,000 homes," Apex points out.

And as AI models like ChatGPT scale up, their energy requirements grow too.

OpenAI's chatbot, for example, consumes 2.9-watt-hour per request, with the cumulative effect of billions of queries adding up to an estimated 10 terawatt hours annually – about 3.9% of Peninsular Malaysia's installed capacity.

Global data centre capex by hyperscalers like Amazon, Microsoft, and Meta is set to reach US$320bil, almost double the US$151bil spent in 2023.

"Hyperscalers have committed over US$44bil in the coming years, with more than half allocated to Malaysia," Apex says.

It's not just the power – it's Malaysia's location, affordability and connectivity that make it such a magnet for digital infrastructure.

On top of that, the Malaysian government is doing its part by investing US$250mil over 10 years into a strategic AI partnership with ARM Holdings.

The initiative aims to build local chip design capabilities and reduce reliance on foreign suppliers, including training 10,000 engineers and supporting IP access.

Even if geopolitical uncertainties emerge – like US tariffs on AI chips or the rise of rivals such as China's DeepSeek – Apex remains unfazed.

"We believe the current slowdown in DC investments reflects a temporary headwind rather than a structural shift," it states.

"Malaysia's abundant resources, balanced diplomatic approach and ongoing commitment will ensure its competitiveness as an emerging DC hub," it adds.