



ENGINEERED TO OUTFRAN

POWERING MALAYSIA'S DATA CENTRE GROWTH SUSTAINABLY



Malaysia's data centre market is growing rapidly, with projections that it will hit more than US\$13 billion (RM55 billion) by 2030 – up from US\$4.04 billion (RM17 billion) last year.

While the country is seeing a 22% annual growth rate, making an increasingly valuable contribution to the economy, the energy use of large-scale data centres is likely to be at odds with sustainability targets.

Data centres globally already consume around 1% of the world's total electricity, a figure expected to reach 4% by the end of this decade. For Malaysia, data centres could account for nearly 40% of additional power demand within the next few years, posing a challenge to the country's commitment to reach net-zero by 2050.

To meet these targets, companies need to consider the most effective ways of optimising electricity use in data centres.

Making data centers more efficient

With hyperscalers including the world's largest tech companies operating in Malaysia, ABB has established itself as a key technology partner. The company's solutions span the entire electrical infrastructure, from medium voltage switchgear to low voltage distribution, uninterruptible power supply and, crucially, energy-efficient motors and drives for heating, ventilation and cooling (HVAC) applications.

"Malaysia's digital ambitions depend on data centres that run reliably, efficiently and sustainably," said R Narayanan, ABB's Senior Vice President and Head of Motion for Asia.

"Energy-efficient technologies can help data centre operators reduce their electricity consumption by up to 40%, aligning business growth with Malaysia's ESG objectives while delivering significant cost savings over the operational lifetime of facilities."

ABB's high-efficiency motors and variable speed drives (VSDs) are particularly valuable for cooling systems. A key development is IE5 ultra-premium SynRM synchronous reluctance (SynRM) motor technology, which delivers up to 40% lower energy losses compared to conventional IE3 motors. Together with ultra-low harmonic (ULH) drives for power network stability, these solutions significantly reduce energy use, lower CO₂ emissions and operational costs, and maintain ideal conditions for sensitive computing equipment.

For power distribution, ABB offers advanced medium- and low-voltage switchgear, including eco-efficient gas-insulated switchgear (GIS) featuring AirPlus™ technology, the first green alternative to SF₆ which deliver the same high performance with nearly 100% lower global warming potential.

Beyond hardware, ABB's comprehensive digital platform, ABB Ability, lets data centre operators monitor energy use in real time, perform predictive maintenance and optimise asset performance throughout the lifecycle of the facility.

"Digital innovations like these help us drive efficiency, minimise downtime, and support optimal reliability, which are all vital for the continuous operations and stringent uptime requirements of modern data centres," said Adeline Soh, Vice President Electrification Distribution Solutions

(Medium Voltage) at ABB Malaysia Sdn Bhd.

In total, this reduces the environmental impact and improves sustainability performance for any data centre.

Building a sustainable data center market

While Malaysia continues to position itself as a regional data centre hub, balancing digital growth with sustainability is becoming increasingly crucial. The country's ability to meet its energy transition goals will depend on how efficiently its expanding data centre sector can operate.

But with deep experience and knowledge around data centre efficiency, ABB is already helping to make Malaysia's tech hub more sustainable.

"ABB's complete portfolio of electrical and automation solutions can empower Malaysia to achieve its net-zero ambitions while supporting the country's digital economy growth," said R Narayanan.



R Narayanan
Senior Vice President & Head of Motion Business, Asia, ABB



Adeline Soh
Vice President, Electrification Distribution Solutions (Medium Voltage), ABB Malaysia Sdn Bhd

Decarbonising data centres