AUTHOR: SHAUQI WAHAB SECTION: CORPORATE NEWS PAGE: 10 PRINTED SIZE: 473.00cmï¿½
REGION: KL MARKET: Malaysia PHOTO: Full Color ASR: MYR 6,020.00 ITEM ID: MY0064681915

21 JUL, 2025

Malaysia eyes cross-border RE trading as grid projects gain traction

The Malaysian Reserve, Malaysia

Malaysia eyes cross-border RE trading as grid projects gain traction

The HHFS project and green hydrogen hub in Terengganu mark a significant step towards the country's clean energy ambitions

by SHAUQI WAHAB

MALAYSIA is accelerating efforts to strengthen its national and regional energy grid through a series of progressive connectivity projects with neighbouring ASEAN countries — particularly Singapore, Vietnam and Thailand — anchored by renewable energy (RE) cooperation and battery energy storage system (BESS) integration.

According to Tenaga Nasional Bhd (TNB) chief grid officer Hasmarizal Hassan, two major cross-border grid initiatives are currently being developed.

The first involves connecting Sarawak to Peninsular Malaysia, and the second links Vietnam, Malaysia and Singapore, focused on wind power from Vietnam's offshore facilities.

Source: Media Mulia

On July 12, TNB, Petronas and Terengganu Inc unveiled the HHFS project at Tasik Kenyir

"The Vietnam-Malaysia-Singapore (VMS) project will transmit offshore wind power to Tanah Merah, Kelantan, via submarine cables, and from there, a new 500 kilovolts (kV) grid overhead lines will run all the way to Singapore," he said after the launch of a green hydrogen hub and hybrid hydro-floating solar (HHFS) project at Tasik Kenyir, Terengganu, recently.

The VMS interconnection is led by a joint development agreement (JDA) signed between TNB, Petroliam Nasional Bhd (Petronas), Vietnam's Petrovietnam (PVN) and Singapore's Sembcorp Industries Ltd, operating under a special vehicle called MyEC.

Full feasibility studies are expected to begin by the end of this year, including seabed analysis for the 600km subsea cable.

Hasmarizal noted that cost allocation and business models for the interconnections are still under discussion, with possible options including merchant, IBR (incentive-based regulation) or hybrid models.

"We are still in the pre-feasibility stage. Who will bear the cost is yet to be determined, but discussions are ongoing with the Energy Commission (EC), the Ministry of Energy Transition and Water Transformation (Petra) and government-to-government (G2G) stakeholders, including Singapore and Vietnam," he added.

Malaysia is also in talks to upgrade its existing grid link with Thailand from 300 megawatts (MW) to 1,000MW to avoid future bottlenecks, while connectivity proposals with Indonesia, such as the Melaka-Sumatera link, are being spearheaded by the ASEAN Centre for Energy but remain in early stages.

Regarding BESS, Hasmarizal shared that TNB has been awarded a pilot 100MW, four-hour BESS project in Santong, Terengganu. It is one of five 100MW battery systems to be developed across peninsular Malaysia.

"Even though our solar penetration is currently around 4GW, with upcoming projects like Large-scale Solar 5 (LSS5) and Large-scale Solar 5+ (LSS5+), we are looking at 8GW soon. That is why battery storage like BESS is no longer just an option — it is necessary," he added.

Responding to claims that Malaysia was installing BESS prematurely, given its RE share is below 20%, Hasmarizal clarified that solar's share alone has reached nearly 4GW of the national 26GW capacity, or approximately 15%-18%, thus justifying battery integration.

He stressed that RE deployment and grid development must go hand-in-hand, with BESS playing a critical role in smoothing out solar's variability and ensuring that Malaysia's clean energy transition is both sustainable and secure.

On July 12, TNB, Petronas and Terengganu Inc unveiled the Hybrid Hydro Floating Solar (HHFS) project and a green hydrogen hub in Terengganu, marking a significant step towards the country's clean energy ambitions.

Officiated by Prime Minister Datuk Seri Anwar Ibrahim, these initiatives align with the National Energy Transition Roadmap (NETR) and the Hydrogen Economy and Technology Roadmap (HETR), reinforcing Malaysia's commitment to RE and a low-carbon future.