Thailand is taking a decisive step toward energy market liberalization with the introduction of a pilot framework that enables data centres to directly procure renewable energy through the national grid. On 25 June 2024, the National Energy Policy Council ("**NEPC**") approved a policy allowing eligible data centres to source up to 2,000 MW of renewable energy directly from power producers. The initiative, jointly driven by the Energy Regulatory Commission ("**ERC**"), Energy Policy and Planning Office (**"EPPO"**), Board of Investment ("**BOI**"), and the major utility operators such as the Electricity Generating Authority of Thailand ("**EGAT**"), the Metropolitan Electricity Authority ("**MEA**"), and the Provincial Electricity Authority ("**PEA**"), marks a significant policy milestone in aligning Thailand's energy and digital infrastructure strategies.

In October 2025, the ERC released draft regulations detailing the implementation framework, signaling the start of a public consultation and legislation process. While still in draft form, these regulations provide a clearer picture of how renewable energy producers and large-scale data centres will engage within an increasingly open market.

1. The Rise of Data Centres to Power the Global Digital Race

According to the BOI, between 2022 and 2024, 27 data centre and cloud service projects with a combined investment value exceeding THB 290 billion applied for investment promotions. The surge in activity reflects Thailand's ambition to become a regional hub for digital infrastructure. At the same time, global operators are under growing pressure to meet environmental, social, and governance ("**ESG"**) targets, particularly in securing clean energy sources for energy-intensive operations.

This regulatory shift also reflects a broader global trend — the intensifying race to support artificial intelligence ("**AI**") and digital infrastructure. AI development and cloud computing rely heavily on data centres, which consume massive amounts of electricity. According to the International Energy Agency ("**IEA**"), U.S.-based data centres consumed 183 terawatt-hours (TWh) of electricity in 2024, accounting

for over 4% of the nation's total power use — roughly equivalent to the annual demand of Pakistan. By 2030, that figure is expected to rise by over 130% to 426 TWh.

Although not all data centres are AI-focused, the rise of hyperscale facilities catering to AI workloads has accelerated global demand for sustainable power sources. A typical AI-focused data centre consumes as much electricity as 100,000 households, and new-generation facilities may require up to twenty times more.

Against this backdrop, Thailand's reform is timely. By enabling large-scale, renewable energy procurement through grid access, the policy ensures that the country remains competitive in attracting data-driven and AI-oriented investments while balancing sustainability and grid resilience.

2. Eligibility at a Glance: Who Can Participate

Thailand's proposed pilot framework directly addresses the growing energy needs by permitting BOI-promoted data centres to contract renewable power through Thailand's national grid, rather than relying exclusively on traditional utility models. This not only accelerates access to clean energy but also introduces a competitive dynamic among renewable energy producers seeking to participate in the scheme.

The draft framework imposes clear qualification standards:

- **Power producers** must generate electricity exclusively from renewable sources and may incorporate battery storage systems. Only newly established generating facilities without pre-existing Power Purchase Agreements (**"PPAs"**) are eligible. Furthermore, each power facility must have a capacity of at least 1,000 kVA.
- **Data centres** must hold BOI promotion, commit to 100% renewable energy usage, and maintain a minimum IT base load of 50 MW per building. Applicants must also submit a ten-year electricity plan and demonstrate a backup supply arrangement with a government utility operator.

Although the ERC does not prescribe a standard contract form, Direct Power Purchase Agreements will need to meet minimum standards under existing ERC notifications applicable to large-scale customers.

3. Market Impact: What This Means for Key Players

For data centre operators, the framework represents a practical mechanism to secure renewable energy and align with corporate sustainability mandates. For renewable energy producers, it opens a new commercial pathway independent of government-backed offtake arrangements, broadening market opportunities. Meanwhile, utility operators will need to adapt to new operational requirements under the

forthcoming Third Party Access ("**TPA**") Code, particularly regarding grid balancing and wheeling services.

An analyst from the Thailand Development Research Institute ("**TDRI**") noted that the ability to access clean energy is increasingly linked to trade competitiveness. While the pilot scheme currently applies only to data centres, the broader TPA framework could pave the way for similar access across other industries, supporting Thailand's long-term goals of carbon neutrality and net-zero emissions.

4. Looking Ahead: Timing and Next Steps

As the ERC finalizes the Direct Power Purchase and TPA regulations, stakeholders should monitor the ongoing consultation process and prepare for implementation once the framework is enacted. Recent reports indicate that the ERC expects to finalize and implement the Direct Power Purchase framework by the end of 2025. This timeline underscores Thailand's accelerating commitment to energy market reform and its readiness to support large-scale renewable energy adoption across digital infrastructure sectors. For investors and operators in the digital infrastructure space, this policy evolution signals both opportunity and responsibility — to participate in shaping Thailand's cleaner, more competitive energy future.

Further information

Should you have any questions on how this development may affect you or your business, please get in touch with the following:

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