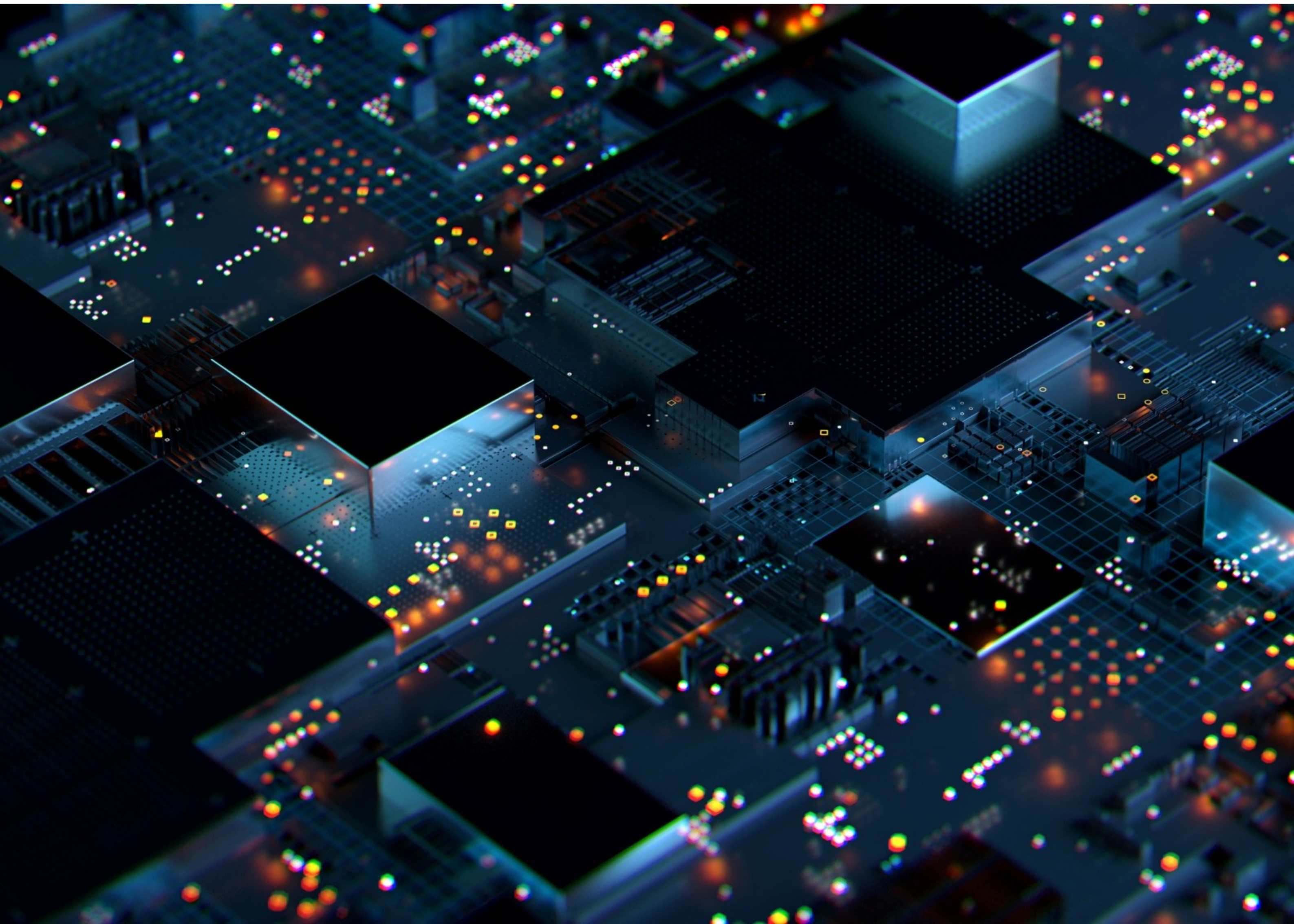
Global Infrastructure Outlook 2026–50: Thailand Factsheet

The future of infrastructure in Thailand

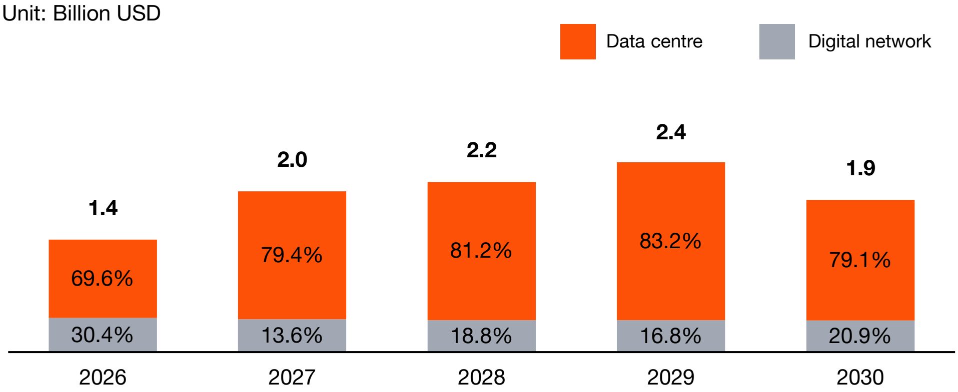
Thailand's infrastructure spending is expected to continue increasing. PwC forecasts that it will rise to THB695bn (USD 21bn) by 2026 and THB937bn (USD 28bn) by 2050, resulting in a cumulative infrastructure investment in Thailand over 24 years (2026–2050) of THB21tn (USD 621bn). This growth is supported by increased infrastructure spending in the transportation sector, while energy and digital infrastructure spending are also accelerating, particularly investments in data centres and networks, which are playing an increasingly important role.



Digital

Investment in digital infrastructure is projected to grow at an average annual rate of 7.8%, peaking in 2029 and driven by data centres.

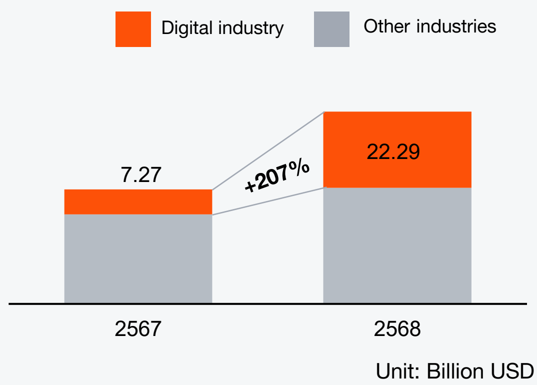
Investment in digital infrastructure
Unit: Billion USD



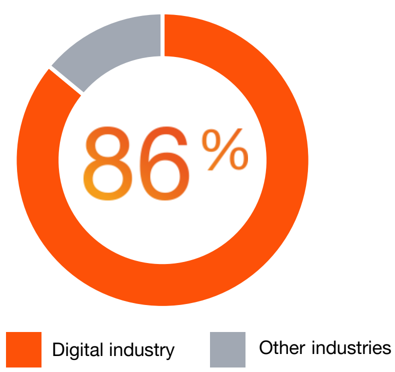
Applications for BOI investment promotion in the digital industry increased by

207%

in 2025 compared with 2024.



Industries with the highest investment in Q1 2026



The digital industry accounted for 86% of the total value of BOI investment promotion applications in the first quarter of 2026, which amounted to THB1.02tn (USD30bn). This was driven by increased investment in artificial intelligence (AI) and businesses' digital transformation efforts.

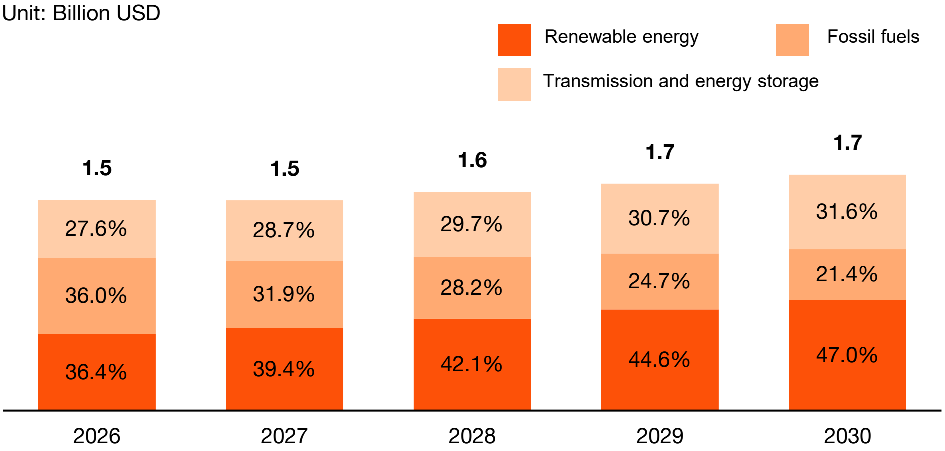
In 2025, investment promotion applications in the digital industry worth THB 530bn (USD16bn), or 71% of the total applications, were concentrated in the Eastern region, which may put pressure on infrastructure supporting clean energy and water services.

Exchange rate as of 1 July 2026: 1USD = THB33.4

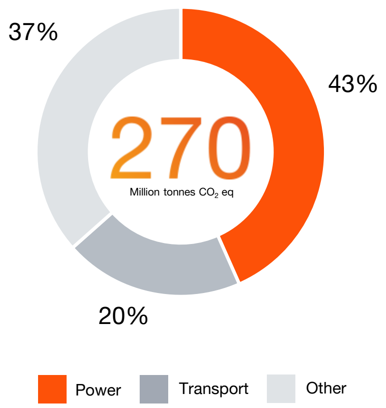
Energy

Investment in energy infrastructure is projected to grow at an average annual rate of 2.9%, driven by investment in renewable energy.

Investment in energy infrastructure
Unit: Billion USD



Thailand's Nationally Determined Contribution (NDC 3.0) targets a 47% reduction in greenhouse gas emissions by 2035, in line with the Paris Agreement and the country's goal of achieving Net Zero emissions by 2050.



The energy sector is expected to play the largest role in emissions reduction, requiring emissions to decline by an average of 2.8% per year through 2035, with significant implications for Thailand's energy planning.

The draft Power Development Plan (PDP) 2026–2050 serves as a key policy framework supporting Thailand's clean energy transition and Net Zero ambitions.

Increase the share of electricity generated from clean energy sources to 60% to support NDC 3.0 and Net Zero targets.

Promote direct PPAs and Third-Party Access (TPA) to support the industrial sector and data centres.

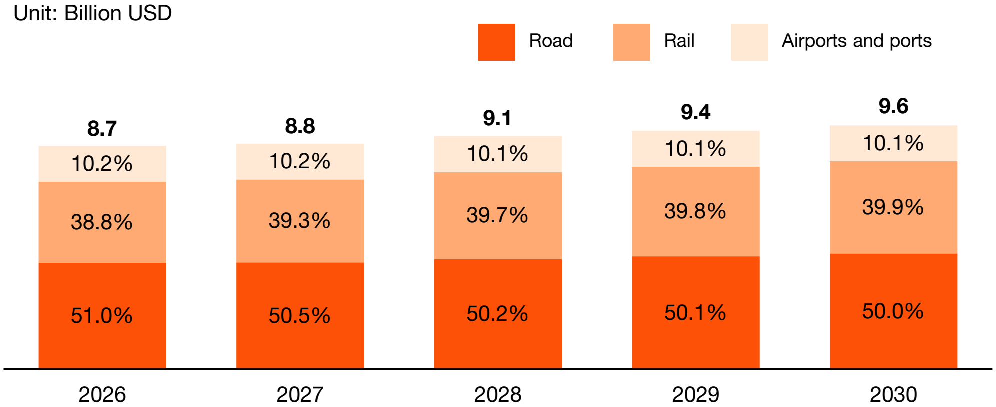
Promote energy storage systems and small modular reactors (SMRs) to enhance the stability of the electricity system.

Exchange rate as of 1 July 2026: 1USD = THB33.4

Transport

Investment in transport infrastructure is projected to grow at an average annual rate of 2.6%, driven by investment in highways and roads.

Investment in transport infrastructure
Unit: Billion USD



Key projects completed or nearing completion

Highways and roads

Motorway No. 8 (Nakhon Pathom–Pak Tho) is under feasibility study; Motorway No. 9 (Bang Bua Thong–Bang Pa-In) is expected by 2030; and Motorway No. 82 has plans to expand the Ban Phaeo–Pak Tho section.

Intercity rail system

The first high-speed rail line (Bangkok–Nakhon Ratchasima) is 53% complete and scheduled to open in 2031. Phase 2 is currently in the tender preparation stage.

Airports

Suvarnabhumi Airport plans to increase its capacity to 120 million passengers per year, and Don Mueang Airport plans to expand Phase 3 to 50 million passengers per year, with the project currently under review.

Ports

Development focuses on Public-Private Partnerships (PPP) models for cruise port facilities. Feasibility studies for the proposed cruise terminals at Samui Island and Bali Hai have been completed, while the proposed multipurpose port at Don Sak remains under feasibility study.

Exchange rate as of 1 July 2026: 1USD = THB33.4

Future infrastructure will address the ability to connect sustainability, technology and sources of funding effectively.

PwC estimates the appropriate level of infrastructure investment to be 5.8% of GDP by 2050. Annual infrastructure investment is projected to increase by approximately THB242bn (USD7bn), rising from THB695bn (USD21bn) in 2026 to THB937bn (USD28bn) by 2050. However, to elevate infrastructure investment to 5.8% of GDP, the investment value would need to reach THB1,607bn (USD48bn) by 2050. This implies an infrastructure investment gap of around THB670bn (USD20bn) in 2050.

Public-Private Partnerships (PPP) and fundraising through the Thailand Future Fund will be the main mechanisms for financing Thailand's infrastructure in the future, given the increasing fiscal constraints. As of the end of April 2026, Thailand's public debt stood at THB12.8tn (USD382bn), or 66.7% of GDP, and is projected to reach the 70% ceiling by 2027, resulting in limited fiscal space within the budget framework. This contrasts with the continuous presence of large-scale investment projects. Therefore, mobilising private sector capital through PPP mechanisms is a crucial solution for driving investment.

Green finance is expected to expand due to accelerated transition towards a low-carbon economy, driven by escalating environmental issues, the Net Zero target for 2050 under NDC 3.0, and demand from the private sector, such as data centre businesses requiring clean energy. The primary mechanism will come from commercial banks, which are likely to increase green loan issuance, alongside government policies promoting more sustainable infrastructure, such as green PPPs and the issuance of ESG bonds. In 2025, government ESG bond issuance amounted to THB160bn (USD5bn), representing 77% of all new bonds issued, with ESG bond issuance growing at an average rate of 5.4% over the past five years.

The demand for investment in social infrastructure is set to increase due to the pressures of becoming a fully aged society. In 2025, Thailand's elderly population reached 14.5 million people, accounting for 22% of the population, while the old-age support ratio stood at just 4.3 working-age individuals per elderly person. This compares with an average of ten in Cambodia, Laos, Myanmar and Vietnam. Meanwhile, the National Health Security Fund budget increased by 8.4% in 2025 and has grown at an average annual rate of 4.9% over the past five years, exceeding GDP growth. This reflects the necessity for long-term care service centres and housing for older people, especially those in low-income groups.

In the short term, AI adoption will accelerate investment in digital infrastructure, especially in the Eastern Economic Corridor (EEC). Over the long term, various types of infrastructure will transition to digital, including smart port development projects, smart industrial estates and smart cities. These changes will transform infrastructure into intelligent and adaptable systems through technologies like 5G, IoT, automation, big data and digital platforms.

Lead authors

Nath Asadithsakul
Deals Partner
PwC Thailand
nath.asadithsakul@pwc.com

Saranya Chongrungruang
Deals Senior Manager
PwC Thailand
saranya.chongrungruang@pwc.com