

Fact Sheet

Key Considerations for Cambodia's LNG Ambitions

Rapid economic growth and electrification have driven major changes in Cambodia's energy sector. Electricity generation has come mainly from hydropower and coal in recent years, but the country is set to begin a new phase of power sector development focused on renewable energy and the introduction of imported liquefied natural gas (LNG).

Recent power sector targets aim to:



Reach 70%
renewable energy
generation by 2030



Deploy 1,000
megawatts (MW) of
solar by 2030 and 3,200
gigawatts by 2040



Add 200MW of
battery storage by
2030 and 420MW
by 2040



Complete 900MW
of LNG-to-power
capacity by 2040

Some forecasts estimate Cambodia's LNG-fired power capacity could reach **2,700MW by 2040 and 8,700MW by 2050**. These LNG plans may threaten **energy security, affordability, and renewables targets** without careful consideration of **market and infrastructure risks**, including:

LNG markets have been highly unstable in recent years.



For many South and Southeast Asian countries, market volatility and an inability to secure affordable LNG has resulted in fuel and power shortages, undermining energy security.

Cambodia — as a potential new market entrant with limited bargaining power, uncertain LNG requirements, and a small demand profile — may struggle to access affordable LNG supplies.

LNG imports may significantly increase Cambodia's fuel import bill.



Cambodia spent **US\$555 million** on coal imports in 2022. Recent LNG prices are two to three times coal prices.

One 900MW LNG plant could require **US\$361 million** and **US\$722 million** (KHR 1.48-2.95 trillion) in annual fuel costs.

Fuel for 2,700MW of LNG capacity could cost between **US\$1,083 million** and **US\$2,167 million** (KHR 4.43-8.86 trillion) per year.

Relying on LNG for power generation could increase electricity tariffs, hindering government efforts to reduce rates.



In Cambodia, average electricity tariffs are among the highest in Asia, at US\$0.16/kilowatt hour (kWh).

The cost of LNG-fired power generation at current fuel prices could be more than five times the price of recent solar projects in Cambodia.

Recent LNG prices in Asia have been roughly US\$14 per million British thermal units (MMBTu). LNG prices would have to fall below US\$5/MMBTu to compete with other electricity sources, but prices have rarely fallen this low.

Case studies of other Asian markets show that LNG importation can increase electricity prices, complicating power sector development.

Cambodia can buy LNG on a short or long-term basis, but each entails important tradeoffs for energy security and cost.



Spot markets can be highly risky during periods of global market volatility.

Long-term contracts can incur costly penalties if LNG is not needed.

The right buying strategy should depend on the role of LNG power plants. If LNG plants are used for flexibility and grid balancing, it may call for short-term purchases rather than fixed contracts.

Cambodia's LNG demand is likely to remain small, which could increase the cost of imported LNG.



Cambodia may explore smaller-scale LNG infrastructure — including small-scale import terminals and containerized LNG configurations — given the small demand.

However, small-scale concepts could raise per-unit costs of LNG by roughly US\$5/MMBTu, depending on demand, value chain configuration, and many other factors.

