Institute for Energy Economics and Financial Analysis

Fact sheet

Pakistan’s energy transition reduces exposure to LNG market disruptions

The 2026 Middle East conflict disrupted Pakistan’s liquefied natural gas (LNG) supply, highlighting the risks of reliance on LNG imports and inflexible long-term contracts. Despite reduced LNG availability, Pakistan maintained a stable electricity supply, supported by rapid solar expansion and a more diversified power mix.

Greater contributions from solar, hydropower, and other domestically available sources reduced gas demand and reliance on LNG for electricity generation. Pakistan nevertheless sought spot LNG cargoes despite a surplus of contracted LNG, highlighting the limitations of rigid procurement arrangements and the need for greater flexibility, alongside continued expansion of solar and battery storage.

38GW
Distributed solar installed since 2018 reducing demand for LNG-fired power

177
Excess LNG cargoes between 2026–2032

USD5.6 billion
Potential liability from LNG oversupply

17%
Qatar's LNG production capacity damaged, limiting supply

Onset of the 2026 Middle East crisis

28,000MW
Expected peak demand in summer 2026 necessitating spot market procurement

Timeline: From LNG surplus to shortage

2022 — The Russia-Ukraine crisis disrupted global LNG markets. Term suppliers defaulted on deliveries, while intense competition from regional buyers pushed Pakistan out of the spot market. Consumers faced widespread loadshedding and high electricity tariffs.

2024 — Pakistan's LNG imports recovered through long-term contracts, reaching 7.85 million tonnes (Mt), up 13% from 2023. Qatar supplied 90% of Pakistan's LNG through two long-term contracts indexed to Brent crude at slopes of 10.20–13.37%.

2025 — Weaker electricity demand growth and high distributed solar uptake contributed to an 11% decline in grid-based consumption compared with fiscal year (FY) 2022. LNG-based generation declined by 4.5 terawatt-hours (TWh).

Late 2025–Early 2026 — Pakistan deferred five LNG cargoes and renegotiated supply agreements with Qatar and Italian gas producer ENI to resell 45 excess cargoes between 2026 and 2027. Pakistan faced a contracted LNG surplus of up to 177 cargoes by 2032.

March 2026 — The Middle East conflict disrupted Qatar's LNG supplies as the Ras Laffan facility sustained damage. Pakistan's LNG surplus disappeared as Qatar has shipped only six cargoes through the Strait of Hormuz to Pakistan.

April–July 2026 — Pakistan turned to spot LNG procurement as alternative fuels remained expensive, importing seven cargoes at elevated prices.

Rapid solarization and a diversified power mix support energy resilience

- Unlike during the 2022 LNG crisis following Russia's invasion of Ukraine, Pakistan avoided prolonged fuel shortages during the 2026 Middle East crisis by diversifying its electricity generation mix and reducing its exposure to imported fuel disruptions.
- The addition of 38 gigawatts (GW) of distributed solar since 2018 has reduced daytime power demand by 6–7GW, along with higher shares of hydropower, local coal, and nuclear power. However, meeting peak summer demand, particularly during non-solar hours, remains a challenge, necessitating spot LNG procurement.

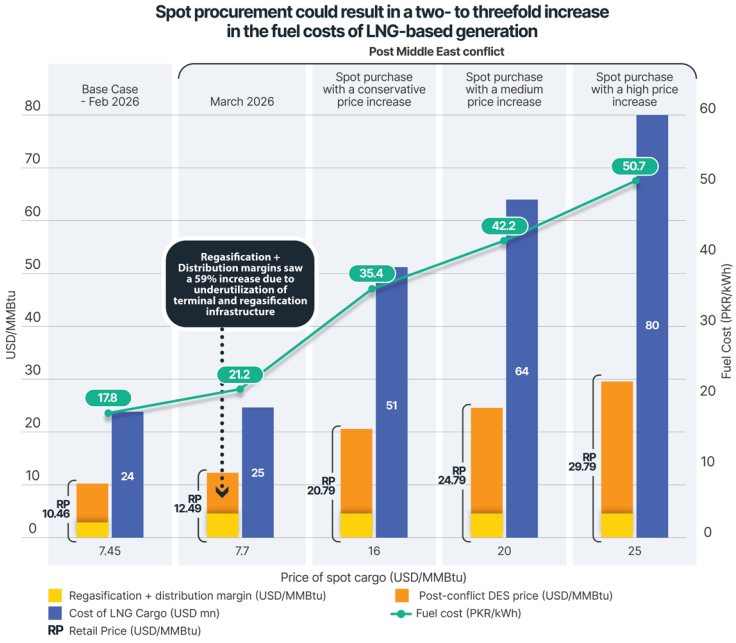
Change in Pakistan's electricity generation mix between 2021–2022 and 2024–2025

Source	Hydel	Coal (local)	Coal (imported)	HSD	RFO	Gas	RLNG	Nuclear	Imports (Iran)	Wind	Utility-scale solar	Rooftop solar (estimate)	Bagasse
2021–2022 (GWh)	35,546	4,424	22,152	1,158	13,144	14,838	26,870	18,294	514	4,585	785	6,935	826
2024–2025 (GWh)	39,973	15,548	9,065	0	519	11,219	22,229	22,452	454	3,843	1,186	35,414	670
Variation in generation	+0.9%	+6.6%	-9.2%	-0.8%	-8.4%	-3.0%	-4.2%	+1.6%	-0.1%	-0.7%	+0.2%	+17.2%	-0.1%

Source: NEPRA States of the Industry Reports 2022 and 2025; Ember.
Note: Rooftop solar includes all behind-the-meter installations, including net-metered, off-grid, and non-net-metered.
HSD = High speed diesel; RFO = Residual fuel oil; RLNG = Regasified liquefied natural gas.

The cost of returning to the spot market

- Pakistan imported seven LNG cargoes on the spot market between April and July 2026, including one at USD21.88 per million British thermal units (MMBtu) — the highest price Pakistan has paid for a cargo since the 2022 Russia-Ukraine crisis.
- Oil-indexed term deliveries have reflected elevated oil prices, with landed Qatari cargo prices increasing from USD7.7/MMBtu in March 2026 to USD13.1/MMBtu in June 2026.
- As a result, the marginal cost of LNG-based power generation rose from PKR19 per kilowatt-hour (kWh) (USD0.07/kWh) in February 2026, before the start of the Middle East conflict, to PKR32/kWh (USD0.12/kWh) in July 2026.



Key priorities for Pakistan's energy transition

- Align future LNG procurement with changing demand through a smaller, more diverse, and flexible LNG portfolio to reduce exposure to volatile global markets and future oversupply risks, while maintaining access to competitively priced spot cargoes.
- Remain prepared for a potential LNG surplus once current market disruptions subside.
- Continue expanding solar deployment to reduce reliance on imported LNG and strengthen resilience against global fuel price shocks.
- Accelerate battery energy storage systems (BESS) deployment to reduce evening peak demand and emergency LNG procurement, supported by smart meters, grid monitoring, and feeder-level automation.

Note: This fact sheet updates and expands on IEEFA's previous research on Pakistan's LNG surplus and supply risks, incorporating developments through 2026.

Read more:

Commentary | Breaking Pakistan's LNG dependence cycle

Briefing note | Pakistan's LNG surplus crisis: Assessing evolving energy dynamics and the need for flexibility

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