Global LPG price response to the Iran war

Global LPG prices soared immediately in response to the US and Israel's attack on Iran, and the subsequent retaliatory strikes by Tehran on many of its Middle Eastern neighbours. In this special insight paper from Argus LPG World, our global team analyse these developments and unpick the fundamentals behind such significant price moves

Major regional LPG supply and export infrastructure has been directly hit or affected by the attacks. But it is the effective closure to LPG carriers of the strait of Hormuz — the vital corridor linking the Mideast Gulf with international markets — that has been the most crucial driver of rising prices.

Around 44.2mn t of LPG passed though the bottleneck last year, equivalent to 3.7mn t/month or 121,000 t/d and 30pc of global seaborne exports, ship tracking data show. While India and China took the majority of this at 20.7mn t and 16.2mn t, respectively, the global nature of the LPG market and the reliance on two key exporting regions — the US Gulf coast and Mideast Gulf — means that every regional market is affected.

To illustrate how concentrated this dependence is, all of the world's 10 largest LPG export terminals in 2025 were in the US and Mideast Gulf — if you include the "unknown" location that is assumed to be from Iran, according to Kpler. The top five in the Mideast Gulf that ship LPG via the strait of Hormuz accounted for 30.5mn t, or 73pc, of the 41.5mn t (*see table*).

Mideast Gulf LPG exports via strait of Hormuz *mn t*

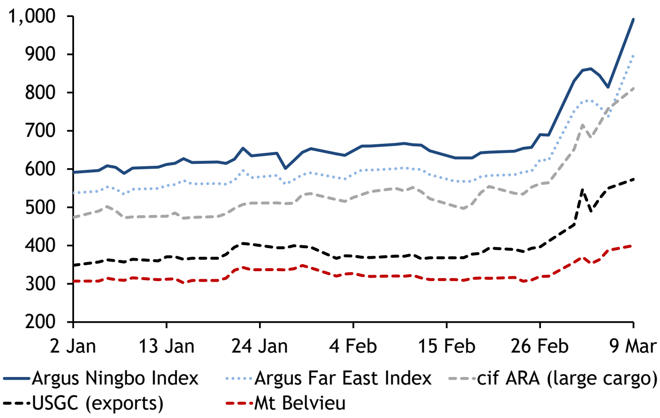
Terminal	Country	Jan-Feb	±% Jan-Feb 25	2025	±% 2024
Ruwais	UAE	1.66	26.0	9.86	1.1
Ras Laffan	Qatar	1.36	-2.9	9.40	3.1
Unknown*	-	0.59	-51.7	5.39	-26.4
Mina al-Ahmadi	Kuwait	0.82	-6.5	5.85	6.4
Juaymah	Saudi Arabia	0.90	10.7	5.24	-2.4
Asaluyeh	Iran	0.40	136.1	1.90	88.2
Das Island	UAE	0.18	0.1	1.04	-10.8
Umm Said	Qatar	0.18	1.3	0.91	-9.2
Umm Qasr	Iraq	0.11	73.1	0.93	71.6
Sitra	Bahrain	0.06	12.5	0.30	-12.2
Other		0.15	443.4	0.66	454.1
Total		6.41	1.7	41.47	0.6

** Assumed to be from Iran*

— Kpler

This Argus Insight Paper focuses on two of the key LPG pricing hubs around the world, namely major regions net short on supply where LPG price discovery takes place — the Argus cif Amsterdam-Rotterdam-Antwerp (ARA) large cargo assessment for northwest European imports and the Argus Far East Index (AFEI) for northeast Asian imports. Both are benchmark prices with substantial underlying financial derivative markets.

Global propane price assessments $/t



Mideast Gulf LPG export terminals

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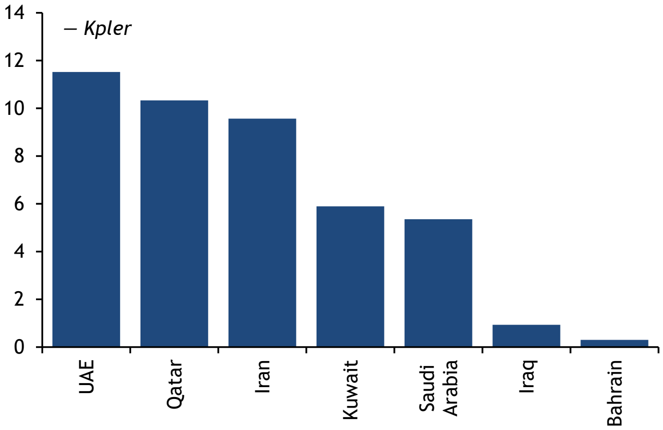
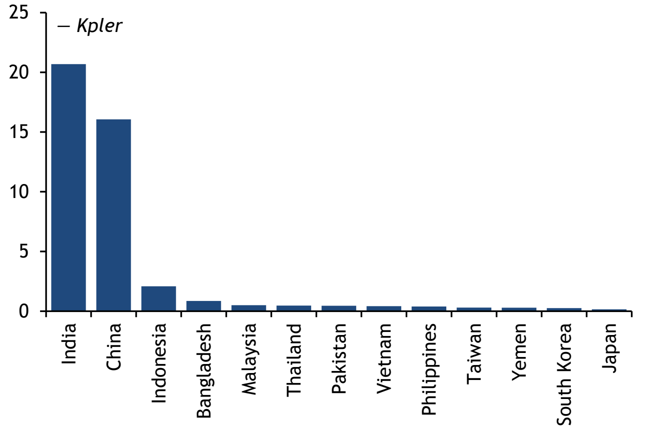
2025 strait of Hormuz exports, origins *mn t*



2025 strait of Hormuz exports, destinations *mn t*



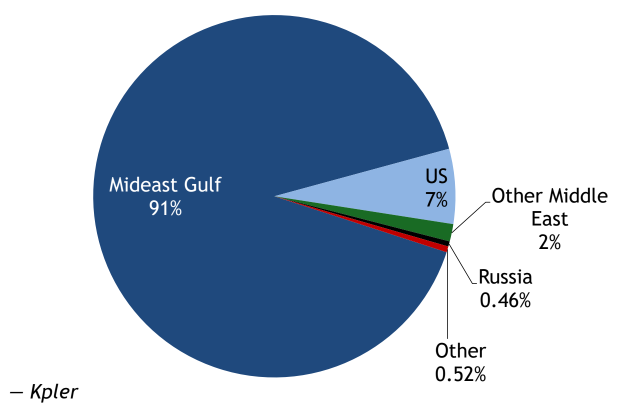
But no market has been or will be untouched. From 20t propane trucks loaded at Polish Baltic ports to large ships delivering 46,000t of 90:10 split propane-butane cargoes to Santos, Brazil. From fob Black Sea coasters carrying 2,000t of LPG mix to 46,000t shipments of a similar grade to Mangalore, India. All are linked by the seaborne nature of LPG trade, with close to 150mn t of the 375mn t of global production hitting the water in 2025. None are immune to the war in the Middle East — the most significant supply shock since LPG became a truly globally traded commodity.

Asia-Pacific

India

The surge in LPG prices and loss of Mideast Gulf shipments through the strait of Hormuz are expected to most significantly impact the price-sensitive residential markets of Asia, particularly India. The country consumed around 33mn t of LPG last year, but less than 40pc of this came from domestic production from refineries and more than 60pc was imported, oil ministry data show. More than 90pc of the around 21.5mn t of imports came from the Mideast Gulf, and 95pc of this sailed through the strait, Kpler data show.

2025 Indian LPG imports by source



India also has limited storage capacity at its import terminals to have sufficient emergency stockpiles, thought to be around 10 days' worth, according to market participants. Plateauing domestic production and a lack of storage means the country's imports must be reactive to demand that continues to expand. The Indian government has asked refineries to prioritise the production and sale of LPG in response to the conflict, but the supply upside of this move is likely to be minimal and certainly not enough to plug the gap from lost Mideast Gulf arrivals.

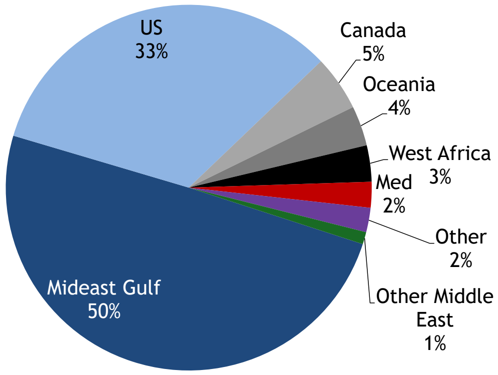
India was close to exhausting its 10-day inventory buffer as of 11 March and buyers were scrambling to secure emergency LPG cargoes at increasing premiums, regional traders said. The looming nationwide LPG shortfall has prompted India's three state-controlled refiners, which set retail LPG prices, to raise the price of 14kg cylinder household supplies by 60 rupees to Rs913 ($9.89) in Delhi, Rs912.50 in Mumbai, Rs939 in Kolkata, and Rs928.50 in Chennai — the first time it has hiked the rate since April 2025. The refiners are turning to the US and other exporting nations to find cargoes while imposing rationing measures. But such moves cannot adequately replace the LPG lost from the Mideast Gulf.

China

Surging international LPG prices has curbed demand in China, the world's largest importer. Buyers serving the heating sector have sought alternative origins, but most of the country's import demand is price sensitive, with over three-quarters consumed by the petrochemical and MTBE industries. The propane Argus Ningbo Index (ANI) for deliveries into east China rose by $303/t, or 44pc, to $991.75/t by 9 March since the start of the war, while the Pearl River Delta Index (PRD) for imports to south China rose by $215/t to $907.60/t by 10 March.

China imported 36mn t of LPG in 2025, customs data show. Demand from propane dehydrogenation (PDH) plants, ethylene steam crackers, the heating sector and MTBE plants

2025 Chinese LPG imports by source %



— *Kpler*

stood at 19mn t, 5.2mn t, 8.5mn t and 3.3mn t, respectively, Argus data show. The US was the source for 32pc of these imports, with 25pc from Iran, 25pc from the rest of the Middle East, and 18pc from other countries, customs and Kpler data show.

Production margins at PDH plants, crackers and MTBE facilities have dropped to multi-year lows since the war began. Most of these plants kept operating rates unchanged in the aftermath to capture rising profits by using lower-cost inventories bought prior to the conflict. But at least six PDH units with a combined capacity of 4.2mn t/yr may face propane shortages in the coming weeks or even days, according to market participants as of 11 March.

Butane-fed MTBE plants may soon cut run rates because of supply disruptions. A 500,000 t/yr plant in Shandong can operate as normal because part of its butane comes from an integrated refinery, while an 800,000 t/yr plant in Guangdong may shut down at any time because of a lack of butane, the plants said. Most crackers meanwhile stopped using LPG feedstock at the beginning of winter, while those that can use ethane are running normally as ethane supply is unaffected.

LPG imports accounted for about 40pc of China's heating sector demand in 2025, Argus estimates. Some buyers turned to domestic refinery supplies in early March as result of surging international prices. Some industrial buyers meanwhile turned to more competitively priced trucked LNG in south China, alleviating some of the supply constraint.

Northeast Asia

Japan and South Korea have been less affected by the supply disruption as most of their supplies arrive from the US, although import prices have soared. Delivered northeast Asian propane prices on the Argus Far East Index (AFEI) rose to a four-year high of $898.25/t on 9 March, an increase of more than 40pc since the start of the war on 28 February, supported by the close to $37/bl jump in front-month Brent crude prices.

Japan has only received US LPG for the last six months as its traders have been selling their non-US cargoes to China, whose 10pc import tariff on US goods limits its ability to buy from the country. Japan's imports from the US rose to 8.5mn t in 2025, about 85pc of the total — up by 22 percentage points. Mandatory LPG stockpiles in Japan of at least 90 days also provide a strong buffer against such supply shocks, the country's energy ministry said on 8 March.

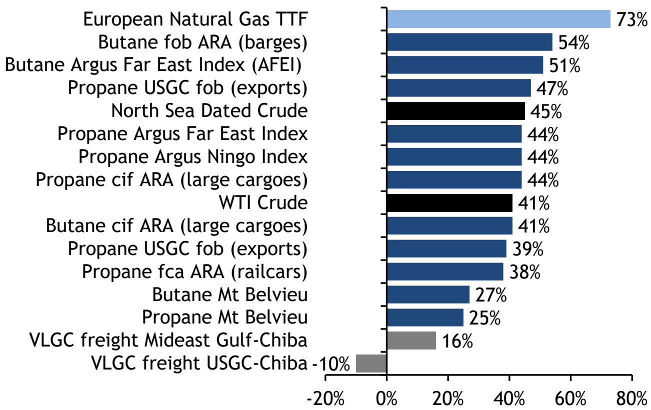
Southeast Asia

In southeast Asia, countries such as Vietnam, Indonesia and Philippines also depend heavily on LPG imports from the Mideast Gulf for their residential cooking markets, if not quite to the same degree as India. Buyers in the region have adopted different strategies based on their import dependence and the downstream markets they serve.

In Vietnam, residential and industrial demand make up roughly 60pc of the country's LPG needs, Argus data show. Significant importers PV Gas and Hyosung Vina declared force majeures on sales to domestic customers this month in response to the conflict and lost Mideast Gulf shipments. PV Gas, the country's largest natural gas distributor, has since ramped up LPG production at its Dinh Co and Ca Mau gas processing plants while seeking alternative supplies. Increased output from these facilities could add about 5pc more LPG. The firm also bought an LPG mix cargo from Australia for April delivery in early March, pricing details for which remain unclear, according to market participants.

Indonesia, southeast Asia's largest LPG importer, has diversified away from the Middle East in recent years. The country imported nearly 7.4mn t in 2025, of which US supplies made up 70pc — nearly 11 percentage points higher on the year. The remainder comes from the Middle East. State-owned Pertamina in early March sought additional supplies through three spot tenders to buy 45,000t equally split propane-butane cargoes scheduled to arrive between mid-March and early May, market participants said. They added that offers for April deliveries were in triple-digit $/t

Price changes 27 Feb to 9 Mar %



premiums to April CP Mideast Gulf swaps, more than 10 times their term price. Results of the tender were unknown as of 11 March.

The Philippines has smaller LPG demand of around 1.6mn t/yr. The government on 3 March said it had sufficient stockpiles of around 29 days.

Northwest Europe

The large cargo propane benchmark in northwest Europe surged to a four-year high of $810.50/t cif Amsterdam-Rotterdam-Antwerp (ARA) on 9 March — the highest since the Russian invasion of Ukraine. These tracked the gains in Asia-Pacific and came in recognition of intensifying competition for US LPG from Asian importers. These gains outpaced those on crude, widening the ratio to ICE Brent crude futures by over six percentage points to a peak of 69pc on 3 March, nearly a three-year high.

The market was already under supply pressure prior to the war as a more favourable US-Asia arbitrage was pulling US LPG away from the region, ending a dividend of ample transatlantic imports resulting from the US-China trade war. Northwest European imports of US LPG slid by 10pc on the year to 21,000 t/d (588,000t) in February, with forecasts for March showing a further contraction to 19,000 t/d (589,000t), the latest Kpler data show.

The conflict has caught the ARA terminals off guard. They hold limited inventories because a steeply backwardated forward curve had reduced incentives to store product. The March-April cif ARA spread has since ballooned to $98/t, a 14-year high. European paper netbacks for US cargoes more than tripled to $108.50/t after strong bidding from two major terminal operators, but the region still remained less attractive than Asia-Pacific.

North Sea LPG production has simultaneously remained under pressure from high natural gas prices, deepening the continent's dependence on imports. Loadings at Norwegian and UK terminals fell by a quarter to 9,500 t/d over 1-10 March from already depressed 2025 levels. The spike in European benchmark TTF gas prices tiggered by the loss Qatari LNG supply has also begun to threaten European refinery supplies of LPG, which account for almost 75pc of Europe's LPG output, as the plants swap gas for LPG for internal needs.

But surging prices failed to pass fully into the downstream heating markers served by the ARA terminals, with railcar price gains at the hub $32.25/t lower than those on large cargoes. Railcar buyers retreated, taking advantage of a seasonal decline in heating demand and a light spring refinery maintenance season.

Petrochemical demand in the region is also affected as the region's flexible steam crackers are minimising output in response to rising feedstock costs. Propane bullishness had briefly narrowed the discount to naphtha to $8/t for March swaps, the tightest since January 2023, but it has since dropped back below the $50/t switching threshold.

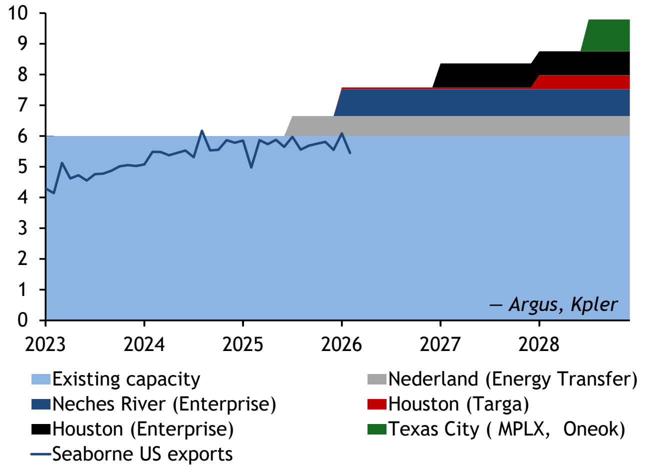
US

The US propane arbitrage to Asia-Pacific surged to two-year highs in early March following the start of the war as AFEI prices spiked. The AFEI-Mont Belvieu paper spread widened to $320/t on 9 March, the widest since December 2023, as AFEI swaps surged. US propane lagged gains in international prices as US inventories remain historically elevated, at 54pc above the five-year average for the time of year. In-well prices at the Mont Belvieu LST hub on the US Gulf coast hit an eight-month high of 79.875¢/USG ($416.15/t) 9 March as Nymex WTI crude breached $100/bl in intraday trading but has averaged only 39pc of WTI crude since the war began, well below the 54pc during the same period a year earlier.

Recent expansions to US LPG export capacity at terminals in Houston and Nederland on the Gulf coast can to some extent help with lost Mideast Gulf supply. But recent US shipments have been curtailed owing to earlier seasonal fog, creating a lagged effect on loading schedules. US propane exports averaged 1.87mn b/d over the four weeks ending 27 February, in line with a year earlier, according to US government agency the EIA,

The fog delays have also prompted US terminals to refrain from offering any incremental spot cargoes above their term commitments in April, leaving spot cargo availability tight for Asian buyers with suddenly urgent needs. At least two April-loading cargoes were sold at just over 28¢/USG premiums to Mont Belvieu EPC prices and a third at just over a 30¢/USG premium in the first week of March, before market participants retreated. That is just shy of a 10-year high.

US LPG exports vs capacity *mn t/month*



The US remains oversupplied as the world's supply tightens because of the Mideast Gulf war. But it is unlikely to be able to tip the balance sufficiently until additional export capacity is added. The next 300,000 b/d capacity addition is scheduled to come online at midstream firm Enterprise's 835,000 b/d Houston terminal by the end of this year.

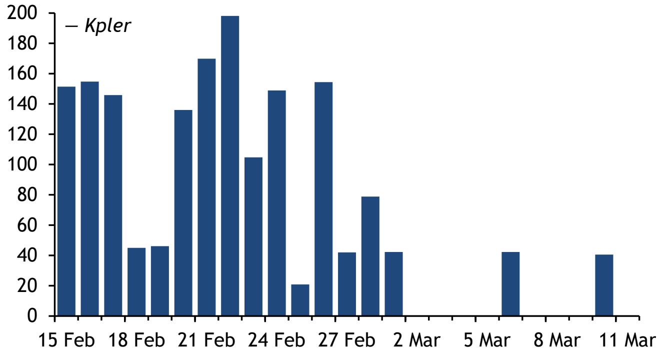
Freight

On the VLGC market, The Ras Tanura-Chiba rate for Mideast Gulf shipments to northeast Asia surged by almost $30/t to $111/t on 2 March, while India-bound voyages hit $113/t — their highest since January 2024 — as charterers paused and assessed the transit risks through the strait of Hormuz, prior to the effective stoppage of ship passages along the channel.

Rates on the Houston-Chiba route from the US Gulf coast meanwhile initially jumped in response to the conflict, climbing by $14/t to $161/t on 2 March as Asian buyers sought alternative LPG supply. But the rally quickly lost momentum. A week later, the rate had fallen by $28/t to its lowest since late January because of limited April-loading availability on the Gulf coast, restricting interest in a growing number of available VLGCs in April.

US Gulf coast LPG fob cargo values also rose to a record high premium of 33¢/USG ($172/t) to Mont Belvieu levels on 3

LPG daily transits via the strait of Hormuz *'000t*



March — six times higher than in early February — on limited spot availability. The drop in exports further weighed on VLGC demand.

The VLGC market had already been hit by state-controlled Saudi Aramco on 26 February declaring force majeure on March-loading LPG cargoes from its Juaymah NGL facility after a trestle collapse days before. The unit normally supplies around 400,000 t/month of LPG, about 75pc of the country's total. Rates initially fell on the news, with the Ras Tanura-Chiba falling by $15/t to $80/t on 26 February, and India-bound rates slid to $82/t. US Gulf rates held stable that day at $147/t, as buyers switched to US LPG instead.