ΑΔΕΛΦΟΤΗΣ ΥΔΡΑΙΩΝ ΑΘΗΝΩΝ
ΕΤΟΣ ΙΔΡΥΣΕΩΣ 1890

16th Hydra Shipping Conference
Hydra, September 6, 2025

Energy Commodities, Shipping and Geopolitics

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INSTITUTE OF ENERGY
FOR SOUTH EAST EUROPE

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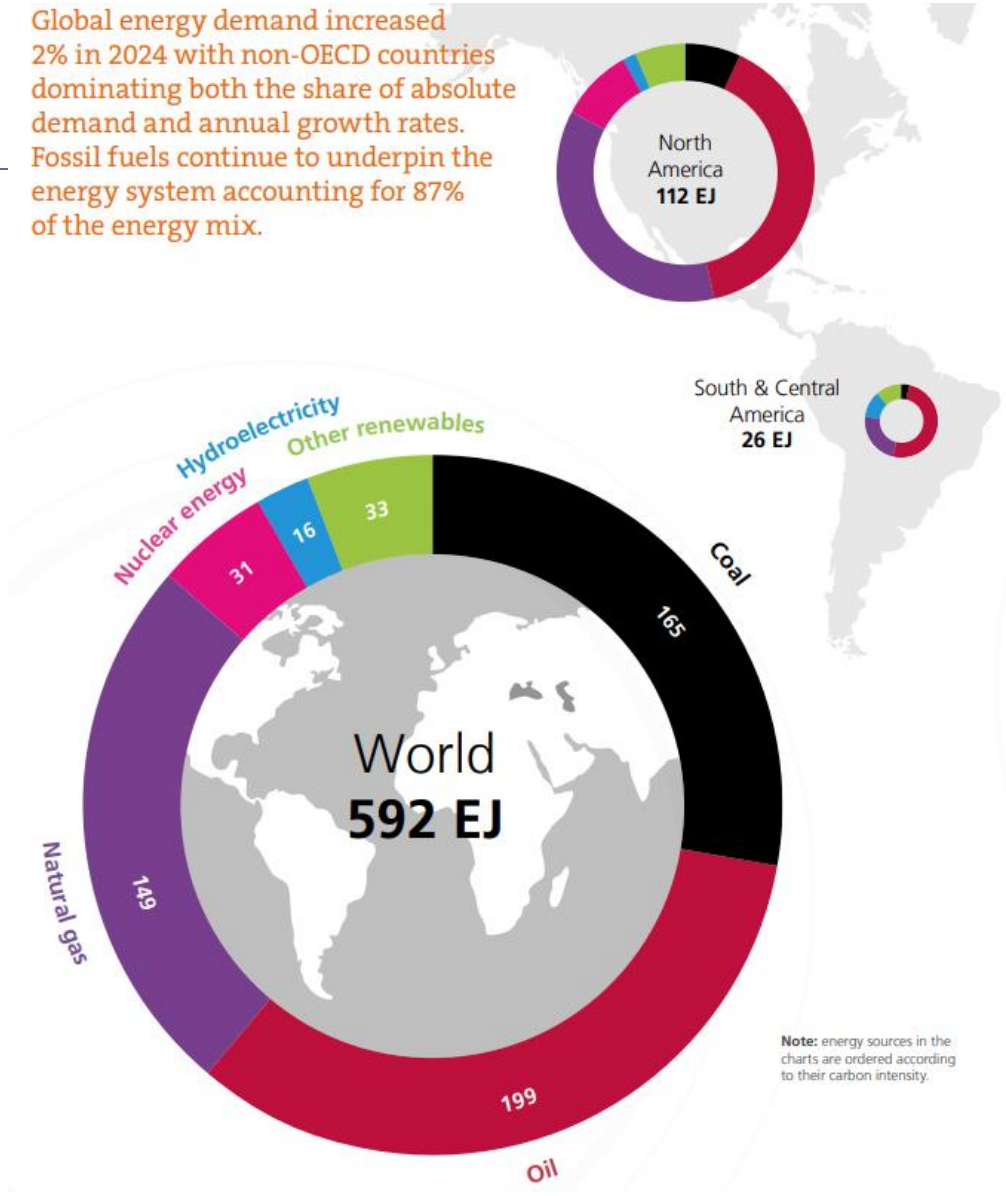
Introduction

- Since last year (September 2024), the global energy scene has not changed much in terms of marine transportation of basic energy related commodities.
- Energy commodities, such as crude oil and products, liquified natural gas (LNG), coal, chemical cargoes, uranium, correspond to a large chunk of global sea trade.
- According to UNCTAD, some 40% by weight of total sea trade corresponds to oil, coal, gas and petrochemicals - 4,500 million tons out of 11,000 milion tons of total maritime shipping.
- In view of the fact that Greek-owned vessels transport large amounts of energy cargoes, roughly corresponding to 50% of global volume, it is important to know the mid- to long-term outlook of fossil fuel related sea trade.
- Given current energy transition policies now in place in the EU but also in many other countries, the question which ship owners and ship operators should ask is what the situation will be like in 5 to 15 years ahead, in terms of transportable energy cargoes. In other words, will there be sufficient quantities of oil, gas, coal and special cargoes to move around by sea?
- The answer is that given current trends and those forecasted by industry organisations, such as OPEC, IGU and EURACOAL, energy demand will continue to increase as long as the global economy remains in a positive trajectory in the range of 2.5% to 3.5% annual economic growth. With energy demand growing at approximately 2.0% per year.
- Hence, the volumes of energy commodities, apart from seasonal fluctuations, are not expected to slump. What is likely to change though, and we are already witnessing that, are the commercial routes. A clear example is the flow of crude oil and oil products from Russia to the rest of the world (see India, the Northern Passage, etc.) and circumnavigation of Africa (avoiding Red Sea and Houthis).

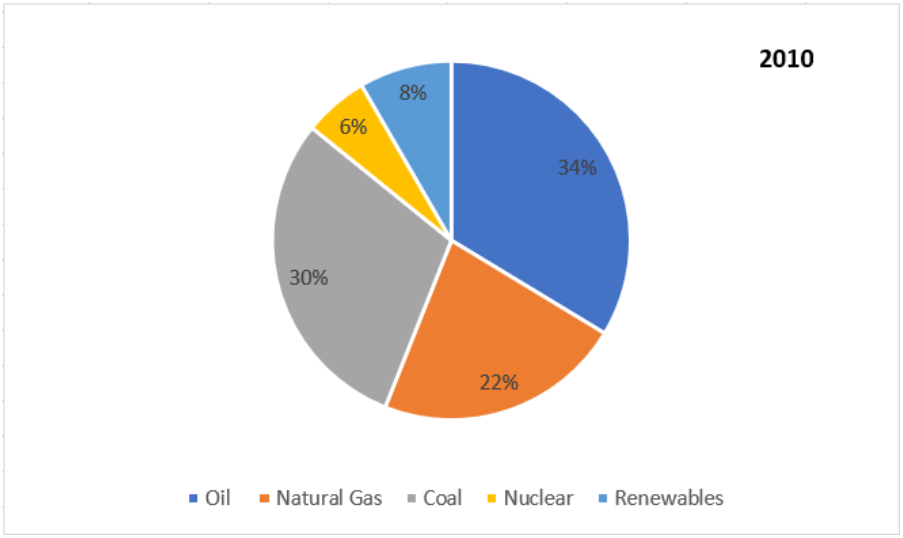
2024 Regional Overview

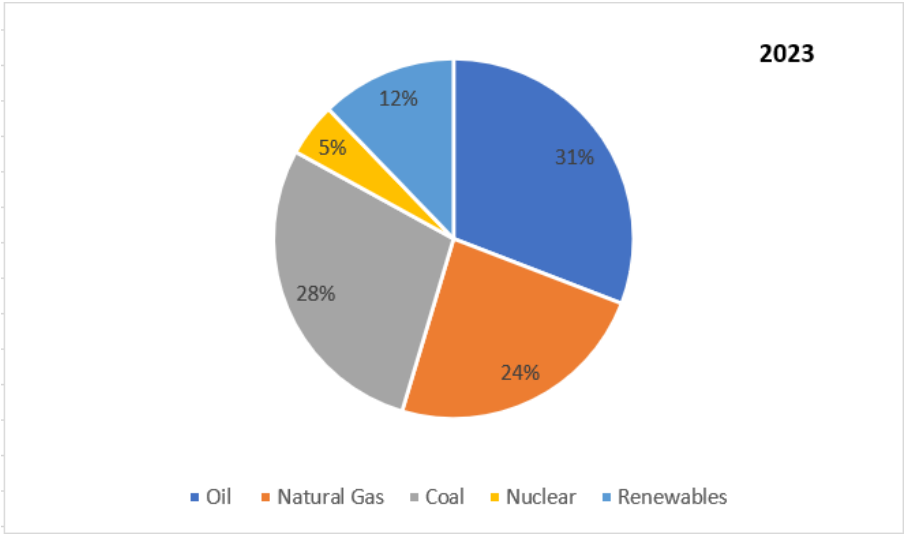
Global energy demand increased 2% in 2024 with non-OECD countries dominating both the share of absolute demand and annual growth rates. Fossil fuels continue to underpin the energy system accounting for 87% of the energy mix.



Source: IEA World Energy Outlook 2024

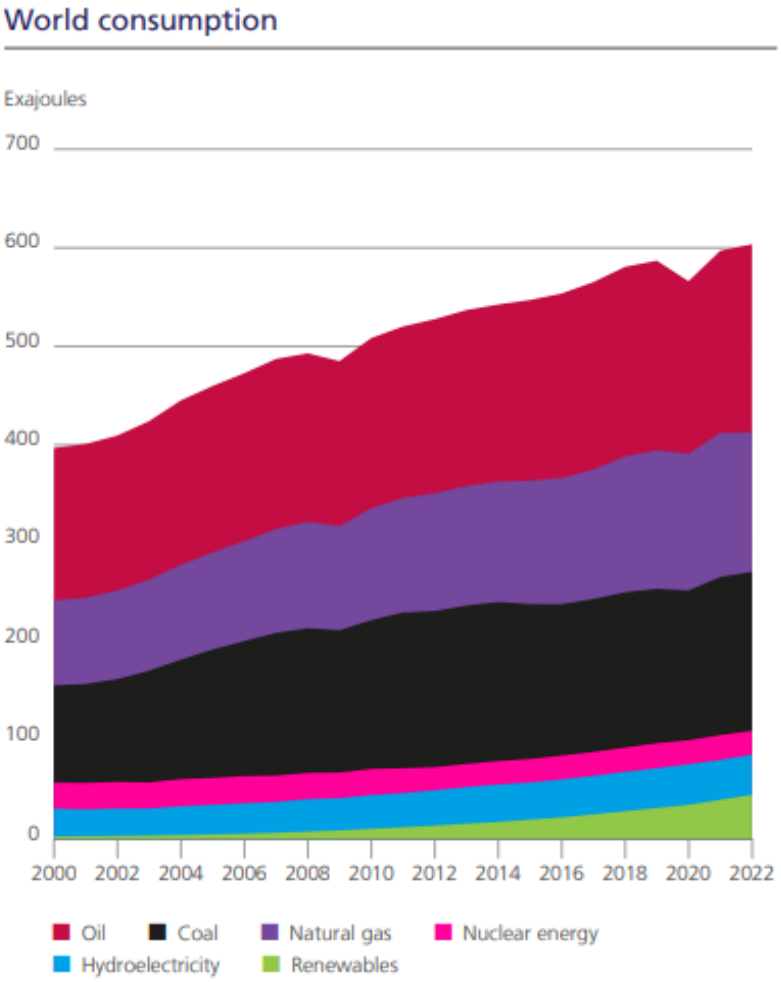
Global Energy Mix, 2010 and 2023

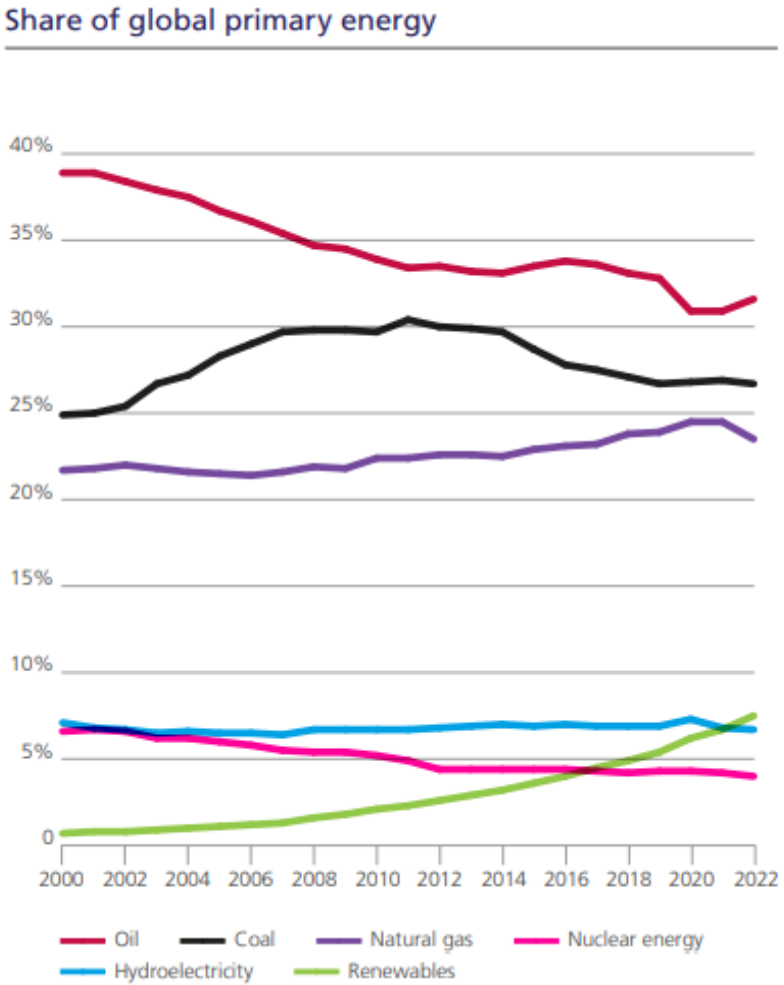




Source: IEA World Energy Outlook 2024

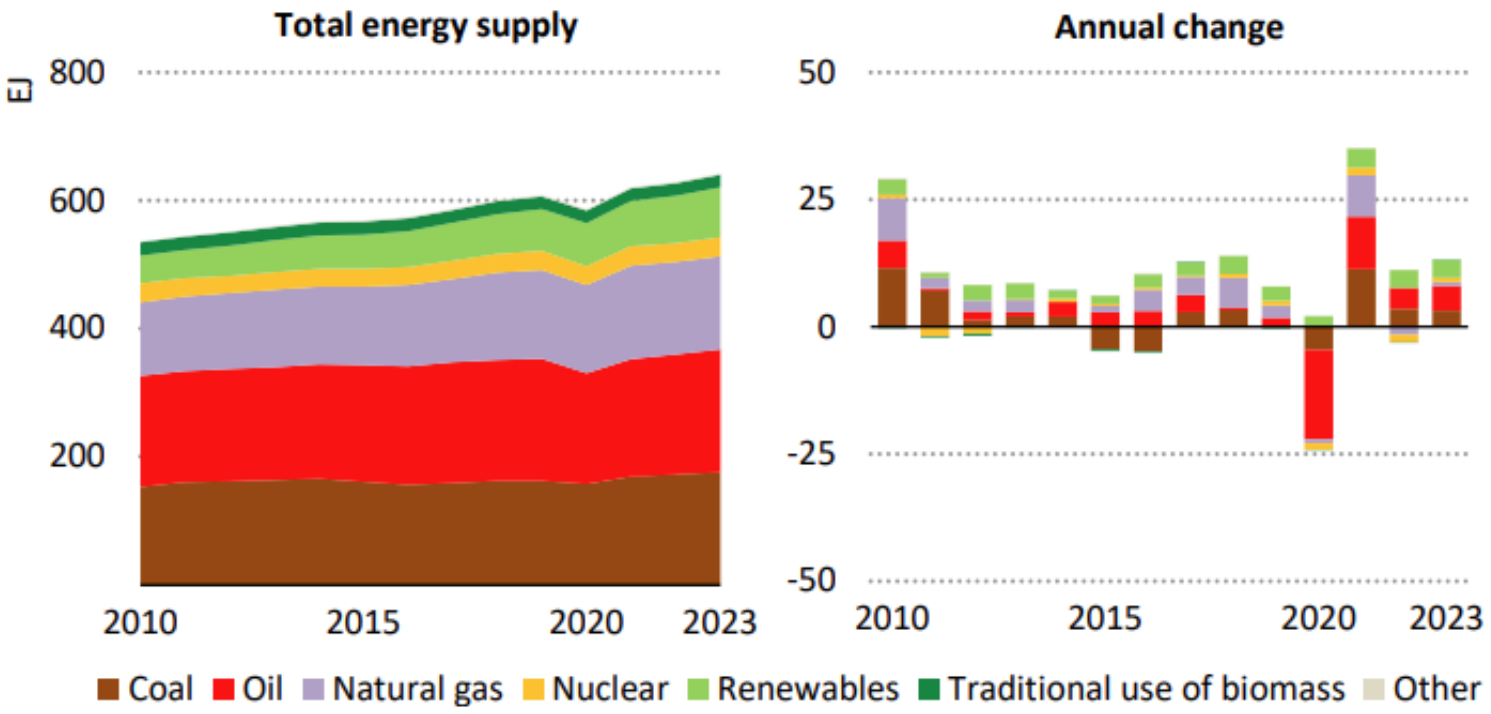
Global Energy Consumption and Shares of Global Primary Energy





Source: Energy Institute Statistical Review of World Energy 2023

Global Total Energy Supply, 2010-2023



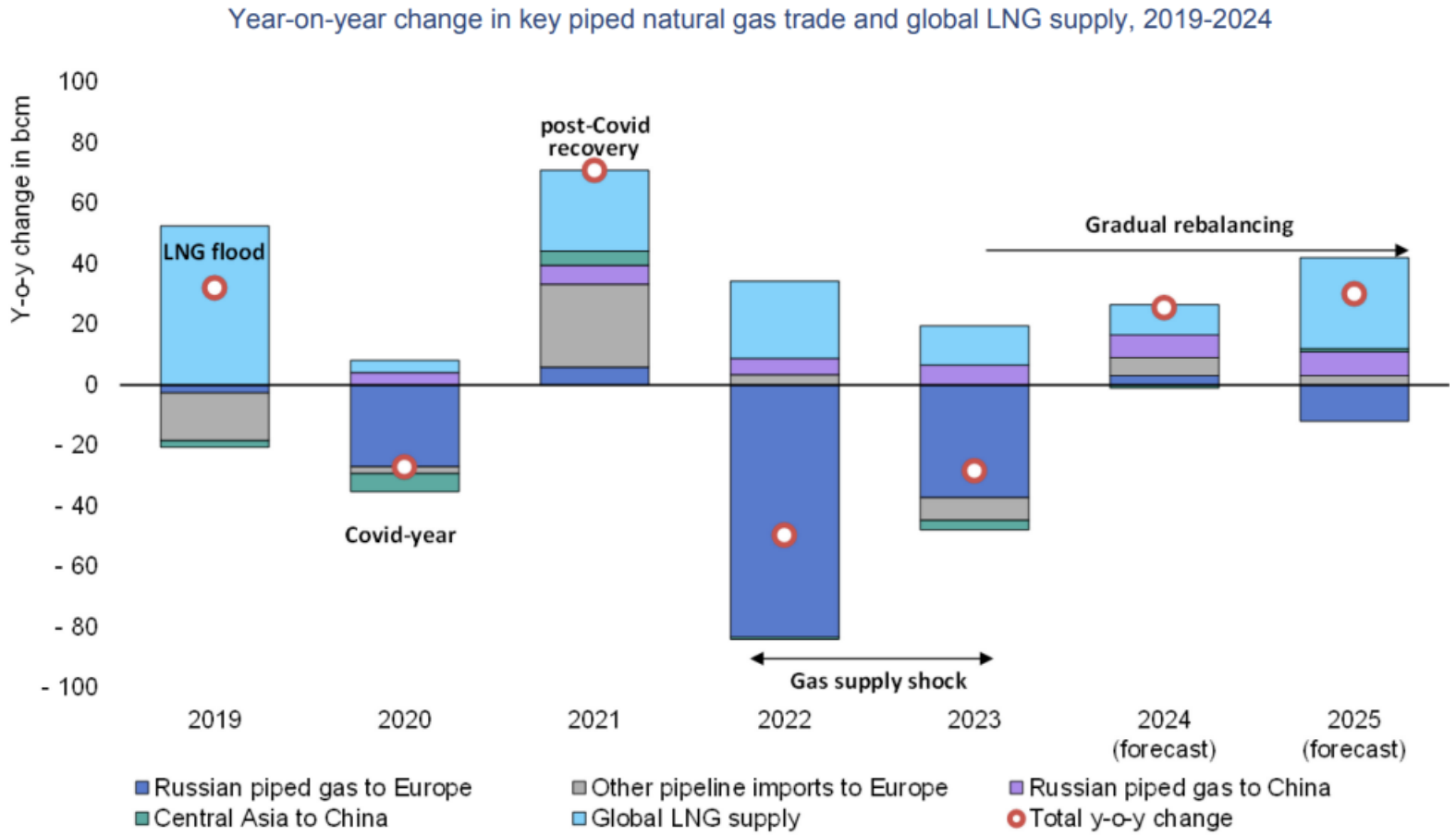
Source: IEA World Energy Outlook 2024

IEA: Global Oil Demand by Region (mb/d), 2019-2030

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2024-30 Growth Rate	2024-30 Growth
North America	24.9	21.9	23.7	24.3	24.6	24.5	24.6	24.5	24.4	24.3	24.1	24.0	-0.4%	-0.6
S&C America	6.7	5.7	6.3	6.6	6.7	6.8	6.9	7.0	7.1	7.2	7.4	7.4	1.4%	0.6
Europe	15.8	13.7	14.4	14.9	14.8	14.9	14.9	14.8	14.6	14.5	14.3	14.1	-0.8%	-0.7
Africa	4.2	3.9	4.4	4.5	4.6	4.6	4.8	4.9	5.0	5.2	5.3	5.4	2.9%	0.9
Middle East	8.9	8.3	8.6	9.1	9.2	9.2	9.4	9.5	9.6	9.6	9.4	9.2	-0.1%	0.0
Eurasia	4.3	4.0	4.3	4.4	4.4	4.3	4.4	4.4	4.5	4.6	4.6	4.6	1.1%	0.3
Asia Pacific	36.0	34.2	35.6	36.3	38.0	38.6	38.9	39.4	39.8	40.1	40.4	40.7	0.9%	2.0
World	**100.7**	**91.7**	**97.4**	**100.0**	**102.2**	**103.0**	**103.8**	**104.5**	**105.1**	**105.4**	**105.6**	**105.5**	**0.4%**	**2.5**
Annual change	**0.7**	**-9.0**	**5.7**	**2.7**	**2.2**	**0.9**	**0.7**	**0.7**	**0.6**	**0.2**	**0.2**	**-0.1**		

Source: IEA Oil 2025

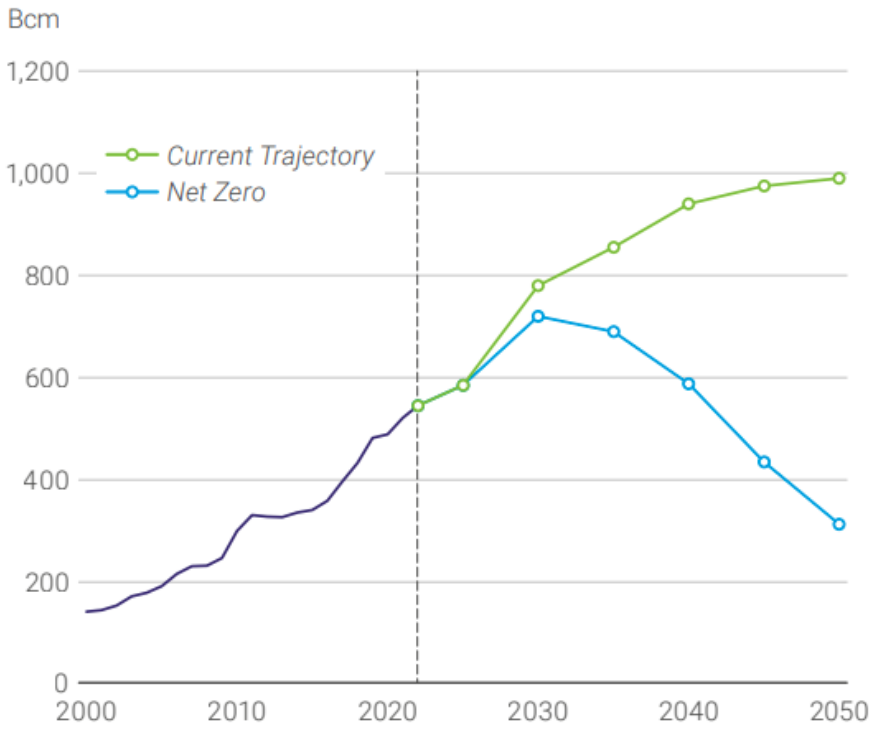
Global Gas Trade is Set to Continue to Grow in 2025, Supported by Higher LNG Supply



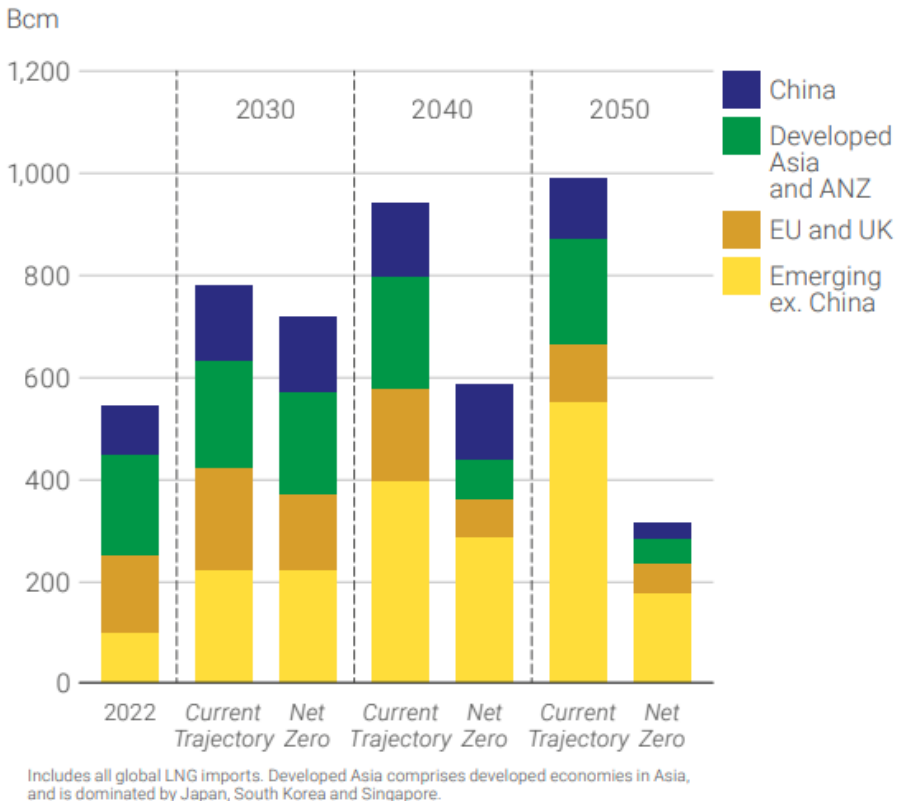
Source: IEA Global Gas Security Review 2024

LNG Demand Depends On Gas Consumption in Europe and Asia, Which are Reliant on LNG Imports For Supplies of Gas

LNG traded volume



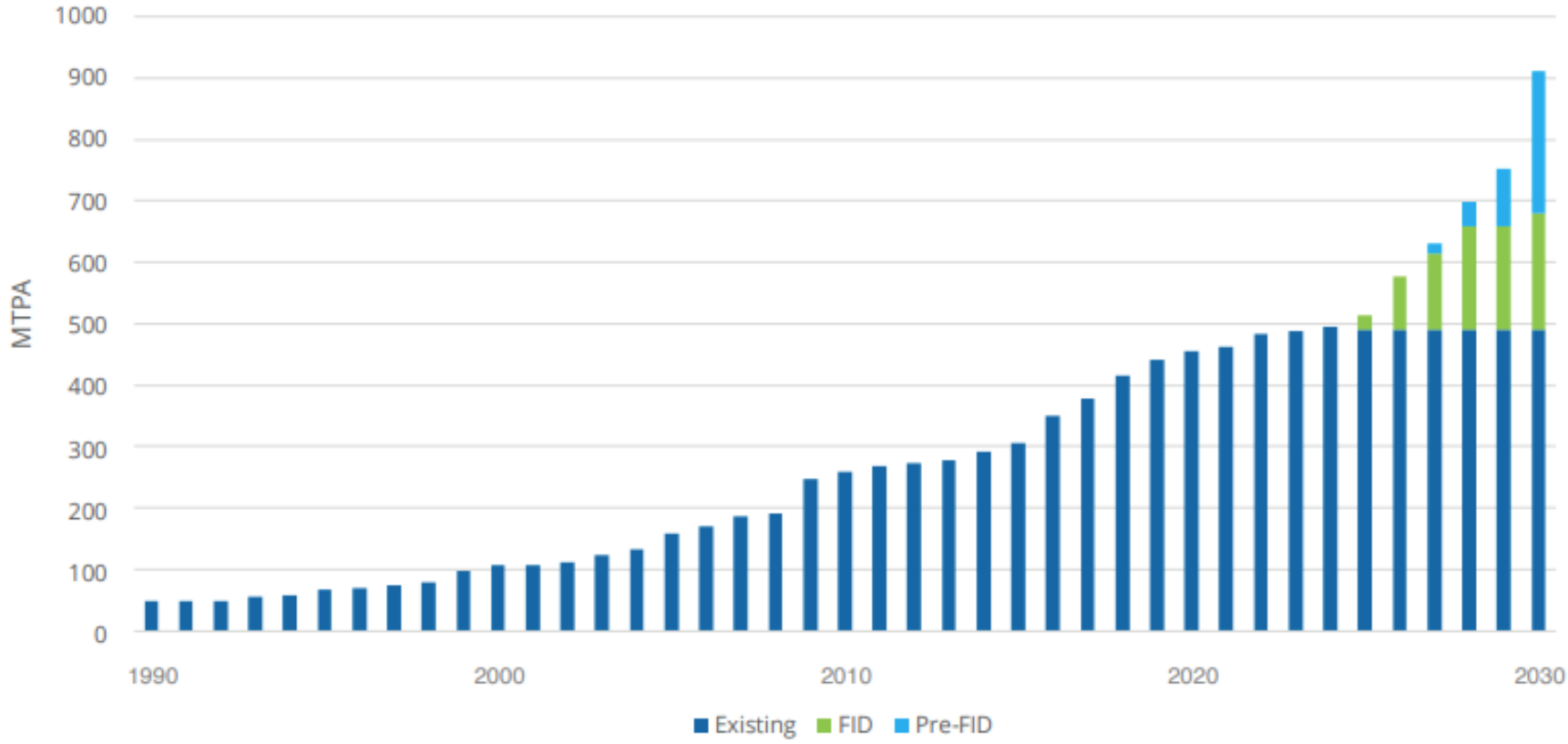
LNG imports by region



Includes all global LNG imports. Developed Asia comprises developed economies in Asia, and is dominated by Japan, South Korea and Singapore.

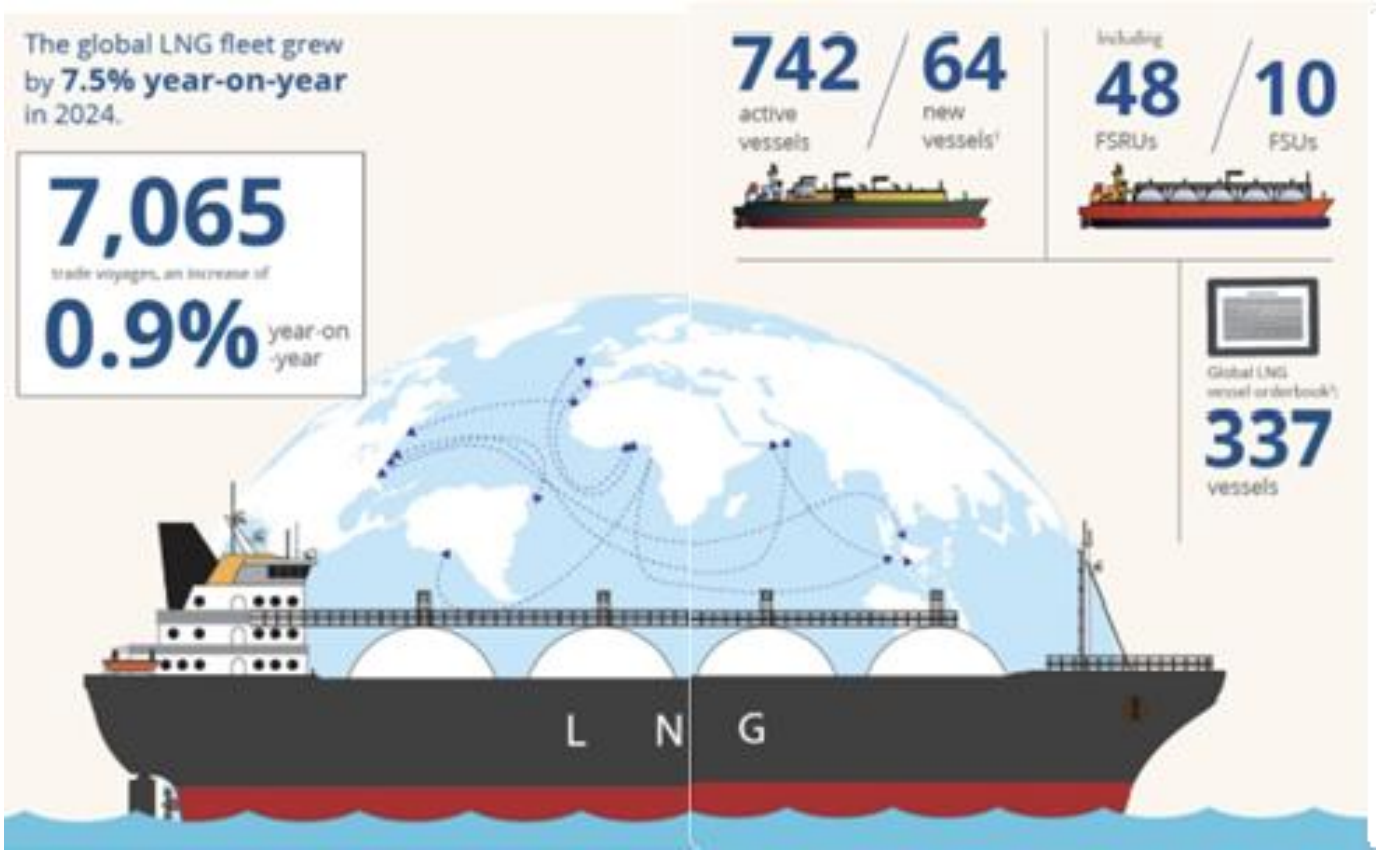
Source: BP Energy Outlook 2024

Global Liquefaction Capacity Development, 1990-2030



Source: IGU LNG Report 2025

Global LNG Shipping

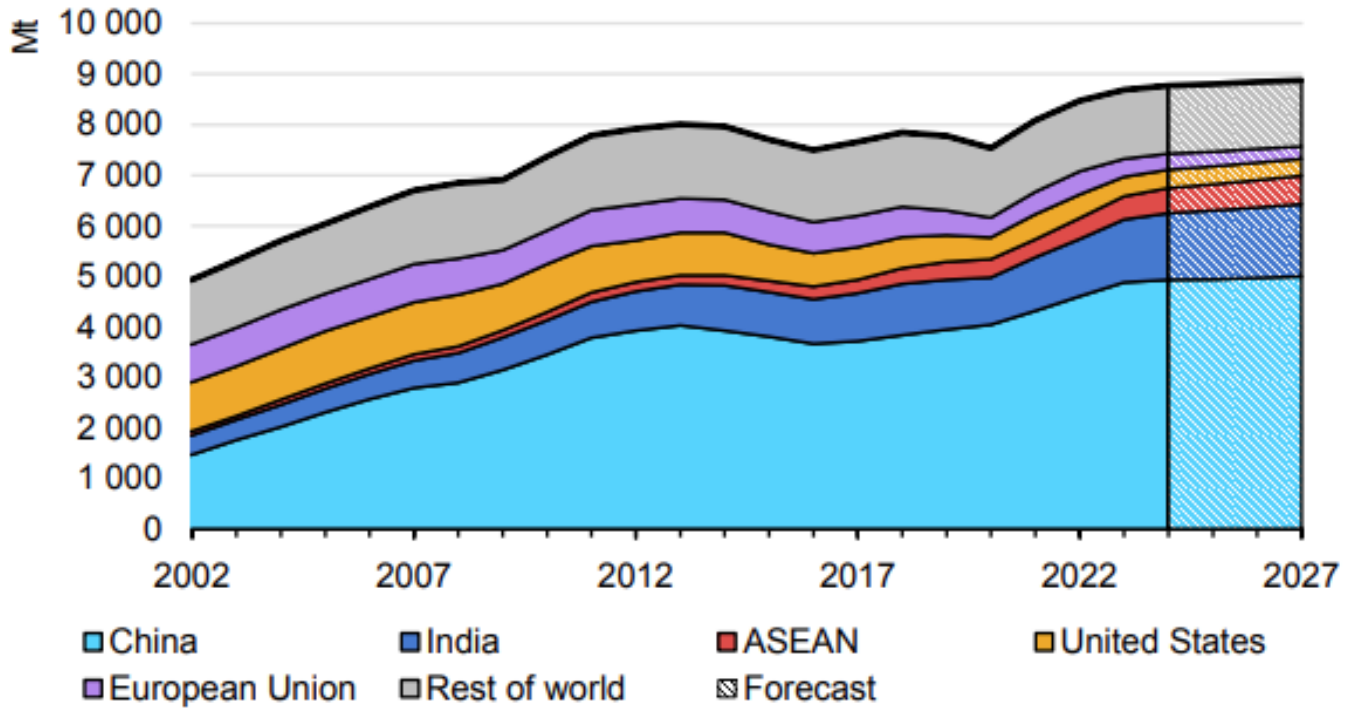


Source: IGU LNG Report 2025

LNG Trade Between Regions, 2024

Source: IGU LNG Report 2025

Global Coal Consumption, 2002-2027



Source: IEA Coal 2024 - Analysis and forecast to 2027

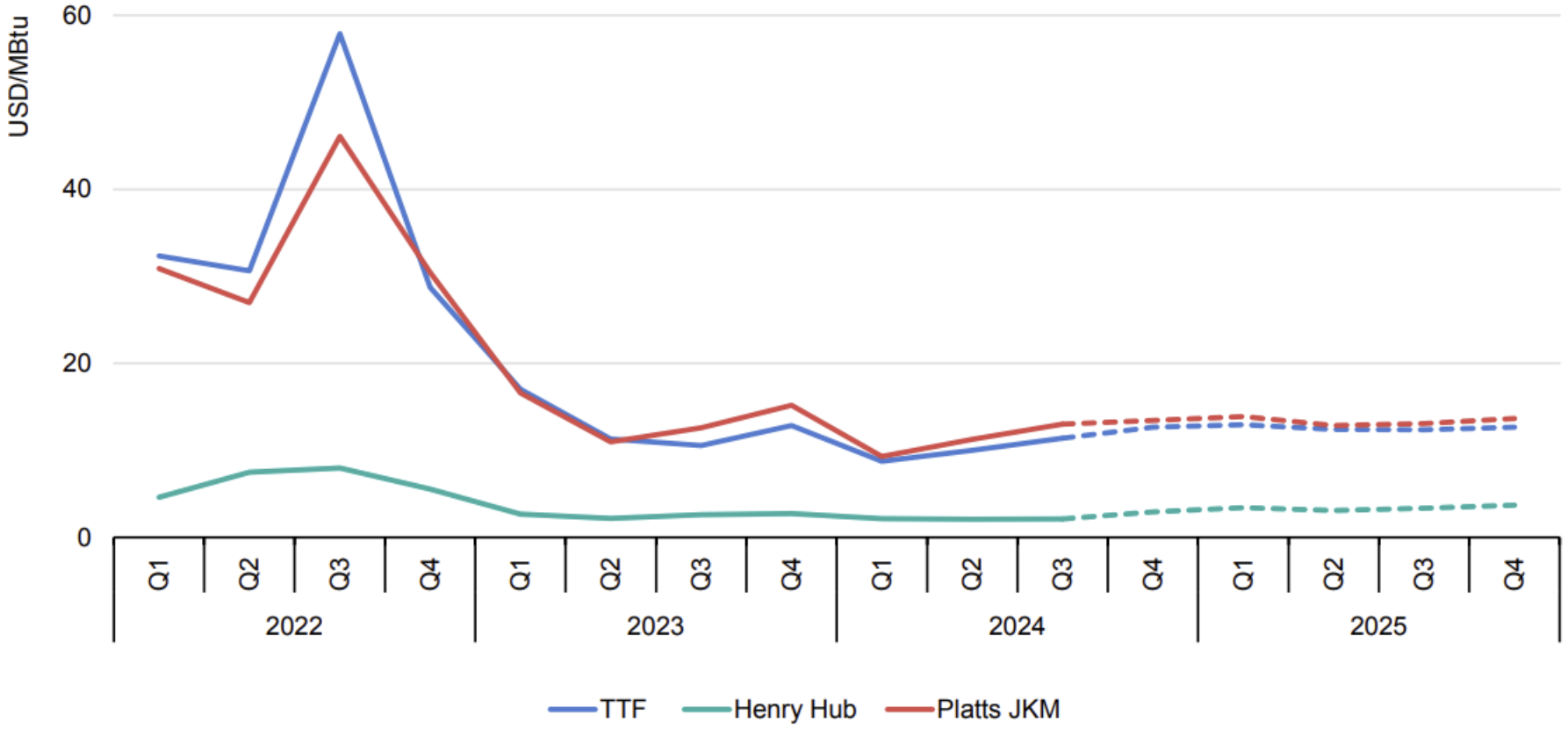
ICE Brent Crude Oil Front Month Prices

5 years

6 months

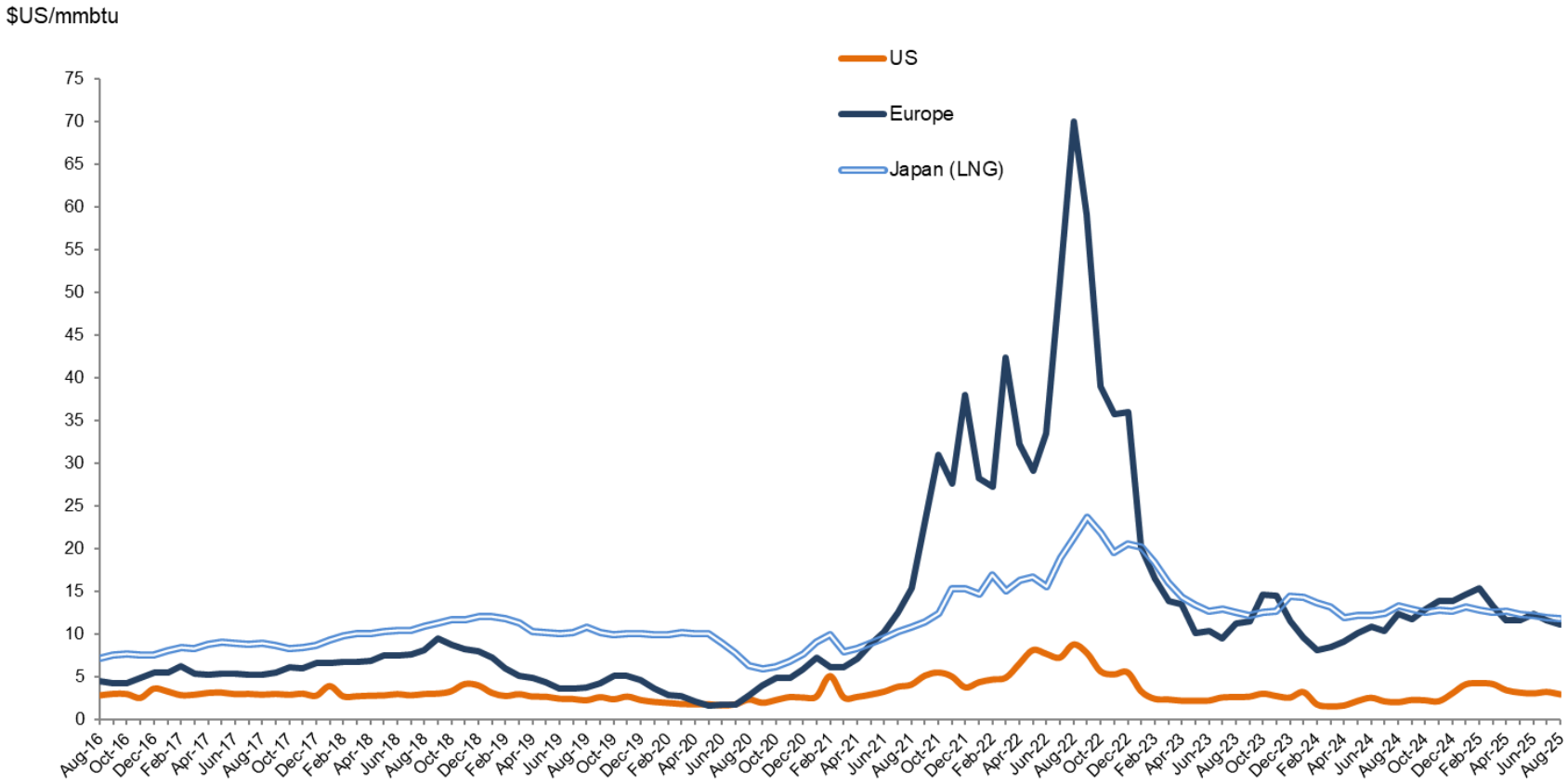
Sources: ICE, Financial Times

Main Spot and Forward Natural Gas Prices, 2022-2025



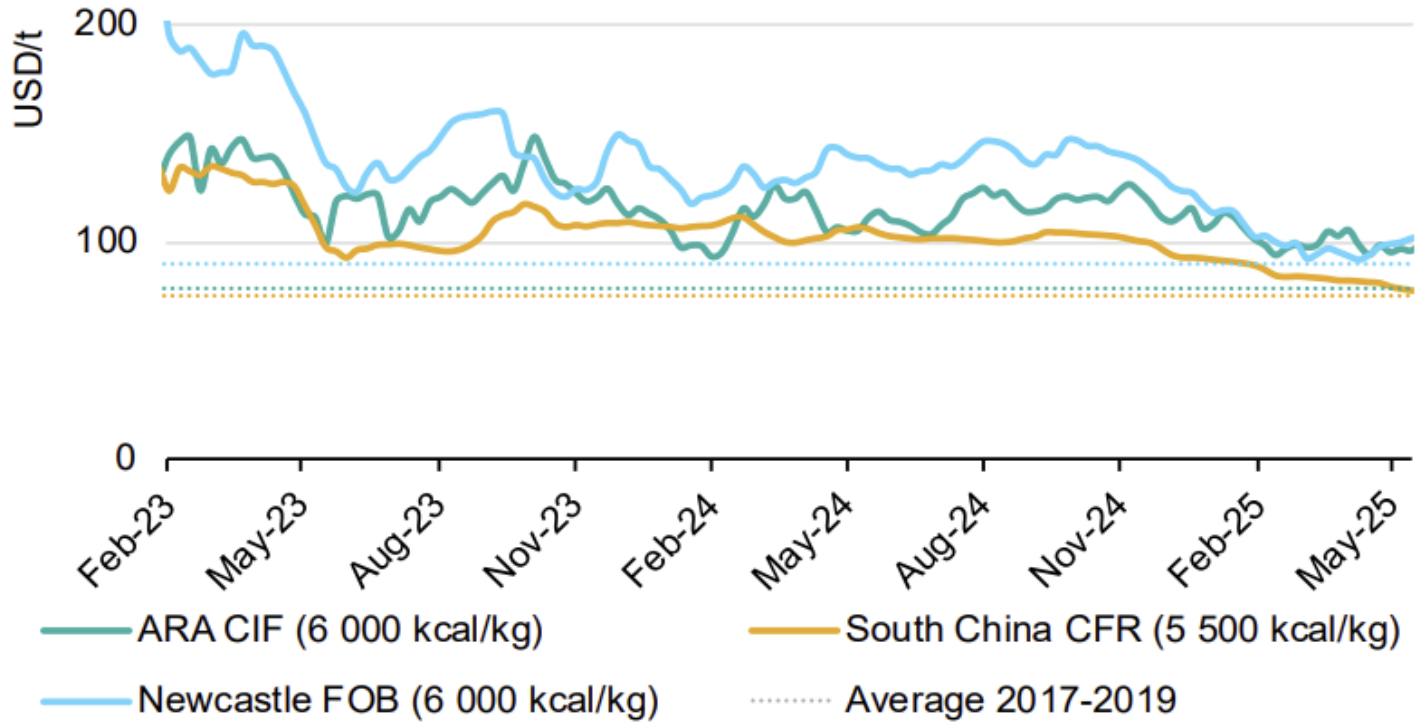
Source: IEA Global Gas Security Review 2024

Main Natural Gas Prices, August 2016-August 2025



Source: World Bank

Thermal Coal Price Markers, 2023-2025



Note: ARA = Amsterdam Rotterdam Antwerp. FOB = free on board. CIF = cost, insurance and freight. CFR = cost and freight.

Source: IEA Coal Mid-Year Update 2025

Concluding Remarks (I)

- Pressure by governments and international organisations to fast track energy transition by imposing emission inspired changes on fuel in industries, transportation, buildings and shipping have not been successful in curtailing demand for oil, gas and coal. On the contrary, we see a rise in demand.
- Peak oil demand is now forecasted beyond 2040 while gas demand may not climax until a much later. In any event, there are divergent views among forecasters and nobody really knows when exactly we might see peak fossil fuel demand happening – but not very soon!
- It is safe to assume that beyond 2050 the global energy mix will shift towards greater electricity input. This means that over the 20-25 years we shall need more vessel capacity to transport energy related commodities, especially LNG and special cargo vessels.
- There are opportunities in new type of special type vessels such as CO2, Hydrogen, Methanol, Ammonia carriers as CCUS technologies take hold.
- At the same time and in view of increased environmental regulation and the weighing of ESG criteria in shipping and chartering operations, a clear direction will be towards new builds.
- The extra costs involved for the building and operation of vessels which comply with the new low carbon criteria will be covered by improved efficiencies in the management and running of vessels (e.g. lowering of fuel costs, increased automation, etc.).

Concluding Remarks (II)

- Greek shipowners are well placed to take advantage of the new global energy and environmental order. By constantly modernising their fleets and showcasing responsible ship management (by expertly managing HR and environmental issues) and versatility in operations Greek shipowners will continue to compete successfully in a most challenging global environment.
- The mid- to long-term prospects, say over a 10-15 year span, for seaborne energy commodities can be regarded as positive with increased volumes requiring transportation.
- As compared to last year, today we are facing a slightly changed geopolitical reality with efforts under way to reconfigure economic and defence alliances (see USA-Russia rapprochement, strengthening of China's circle of allies, South America becoming once again net energy exporter, etc.)
- Over the last 12 months, we have been observing some important geoeconomic shifts as new country grouping is emerging influenced by BRICS and the China-inspired Shanghai Cooperation Organisation.
- A new geopolitical reality is now shaping up with the East moving ahead of the West. This development sooner rather than later is going to impact the economic situation at both regional and global level.
- Part of this reality is that the current military conflicts in Ukraine and Israel-Middle East and Africa (Sudan) for the moment appear to be self contained, although they have laid the seeds for broader geopolitical turmoil. This cannot be ruled out. In such an eventuality we shall witness rallies in energy commodity prices which so far have been avoided.

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