

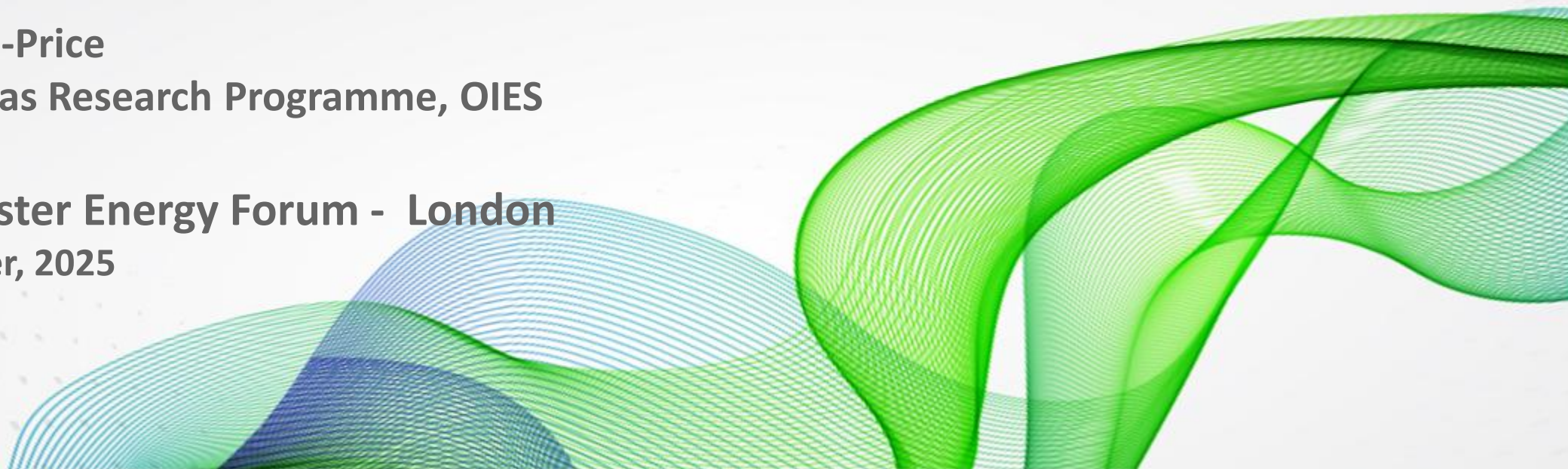


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Global gas markets in focus: Supply cycle and geopolitics

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Westminster Energy Forum - London
9 December, 2025





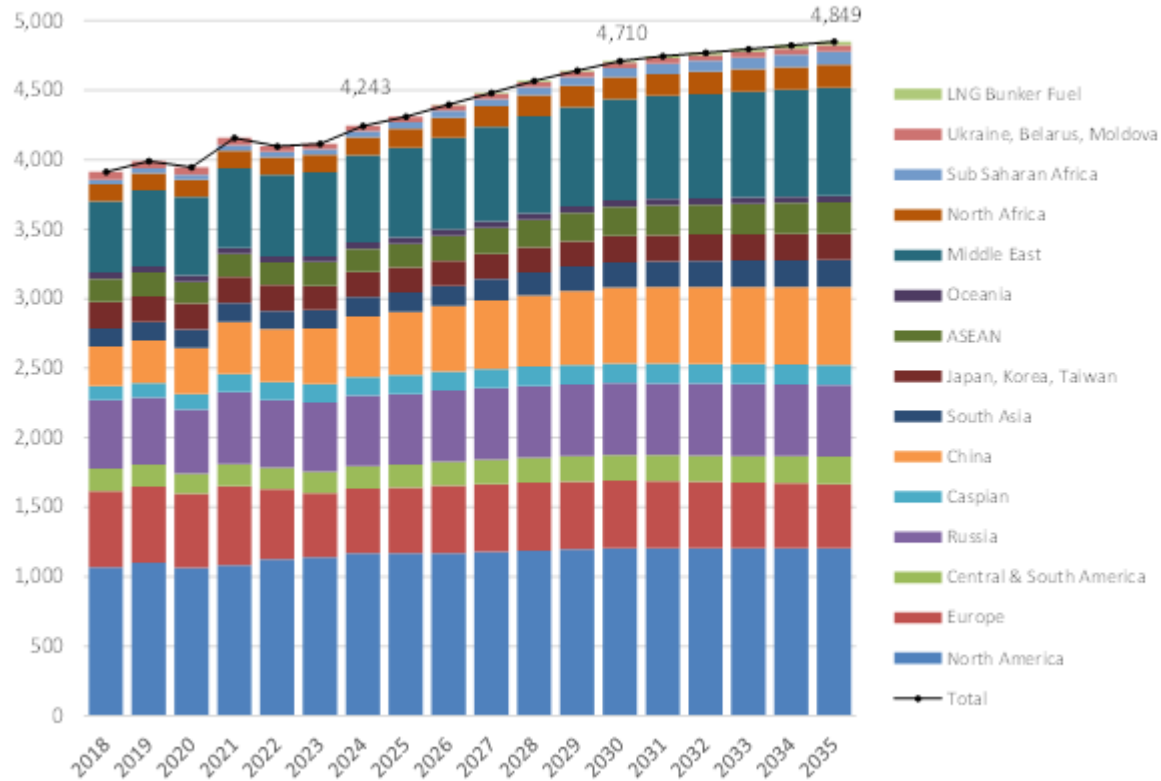
Natural Gas in the New Energy Order: Trends, Prices and Outlook - Agenda

- Global Gas to 2035 – the medium-term outlook
- LNG Supply Stack – growth still in the foothills
- Europe gas demand continues to flatline
- Chinese gas demand – not a strategic fuel
- Russia's complex pivot east – LNG growth prospects
- The Geopolitics of Gas – core risks

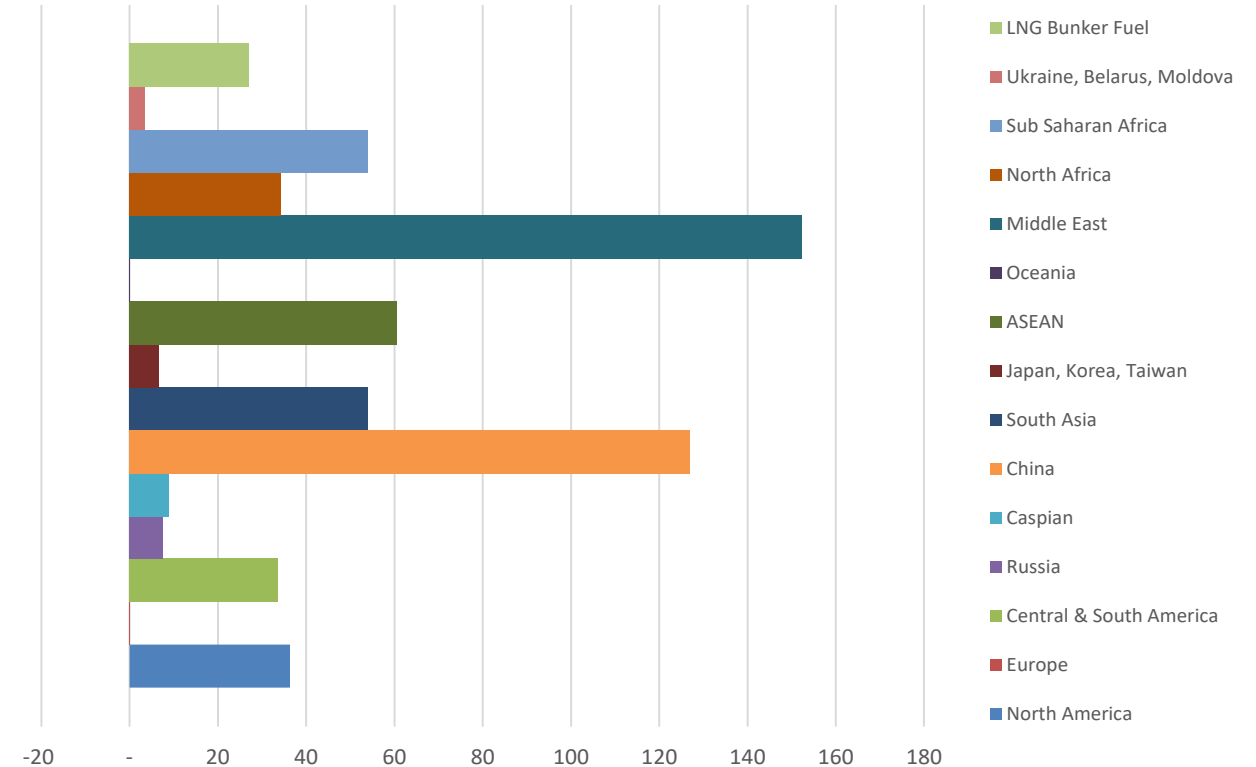


World Gas Demand to 2035 by Region

World Gas Consumption by Region (Bcma)



Change in World Gas Consumption 2035 vs 2024 (Bcm)

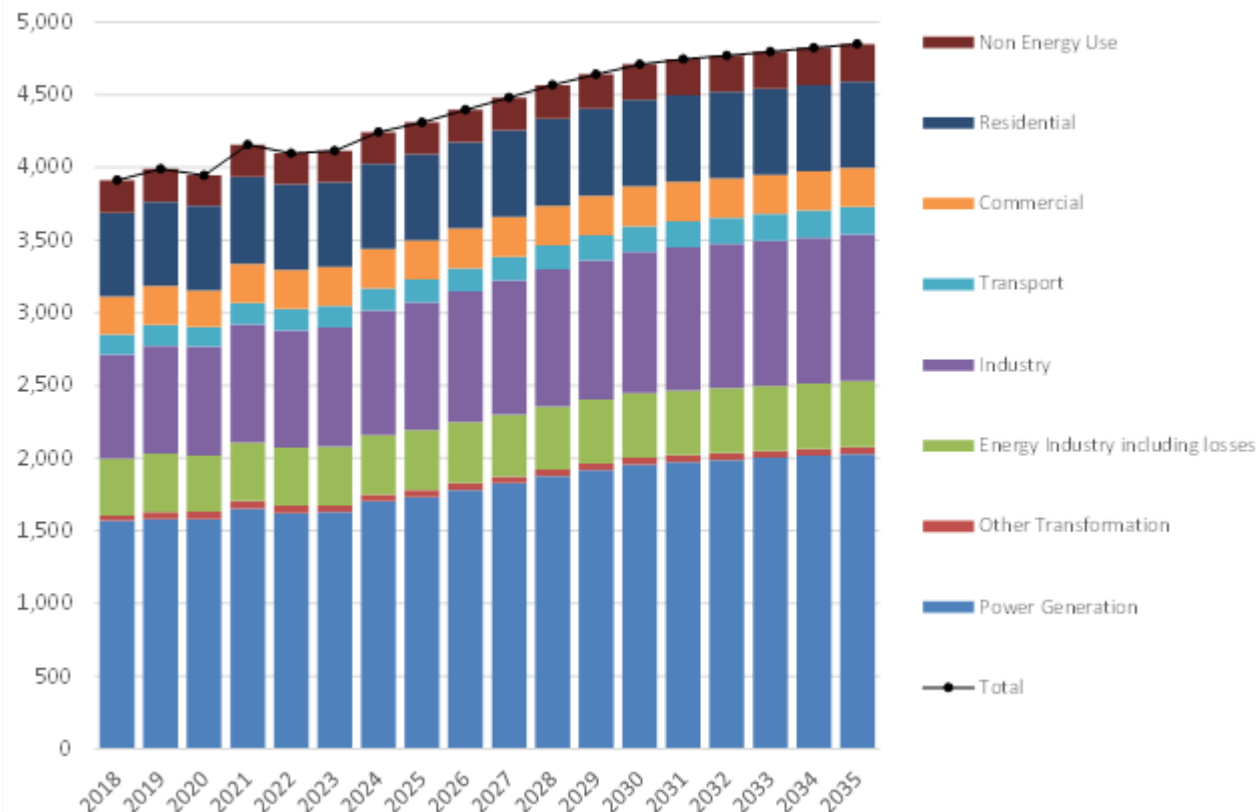


- Growth of 606 bcm (+15%) between 2024 and 2035, of which 45% is in Middle East (+152 bcm) & China (+127 bcm). Supply push & lower prices could spur consumption in ASEAN and South Asia, while Sub-Saharan Africa could see growth in domestic supply in parallel with development of LNG export projects
- European demand is unchanged between 2024-35, following a decline of 112 bcm since 2021. Partial recovery in 2026-2028 (peaking around 490 Bcm) driven by growing LNG supply but is not sufficient to rebound to 2022 level (504 Bcm), let alone pre-crisis 2021 level of 569 Bcm

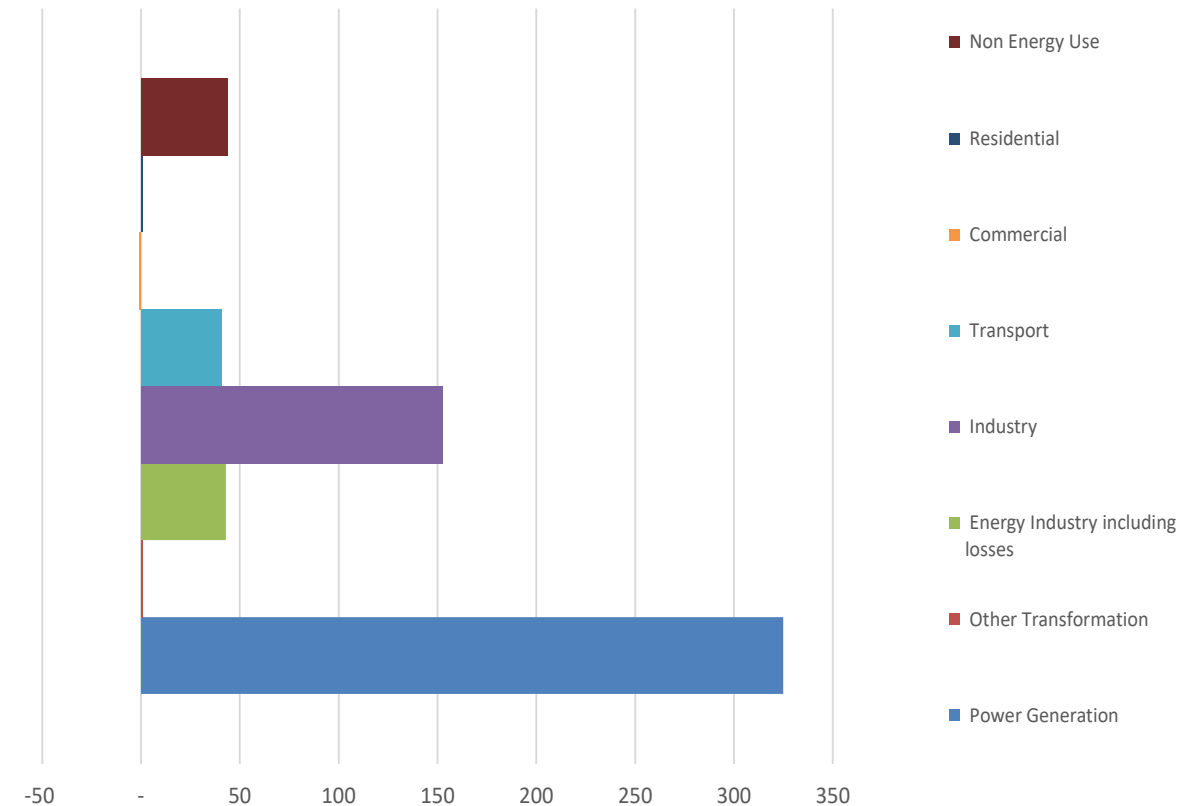


World Gas Demand to 2035 by Sector

World Gas Consumption by Sector (Bcm)



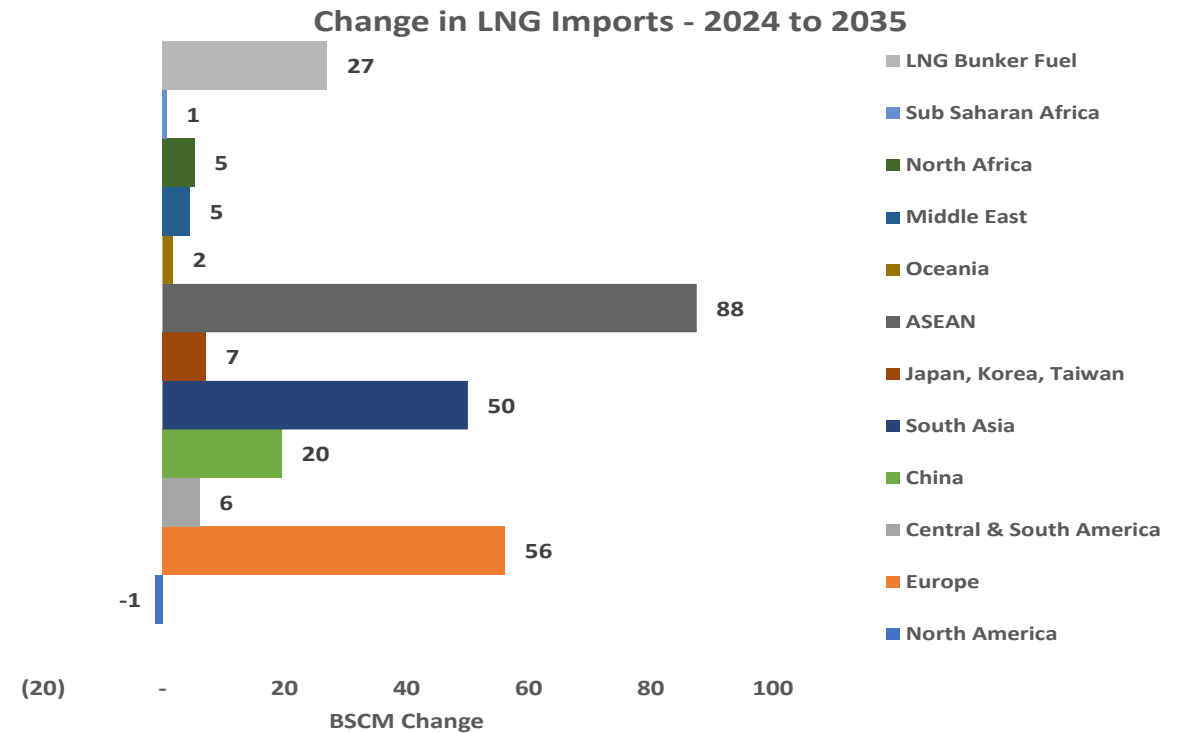
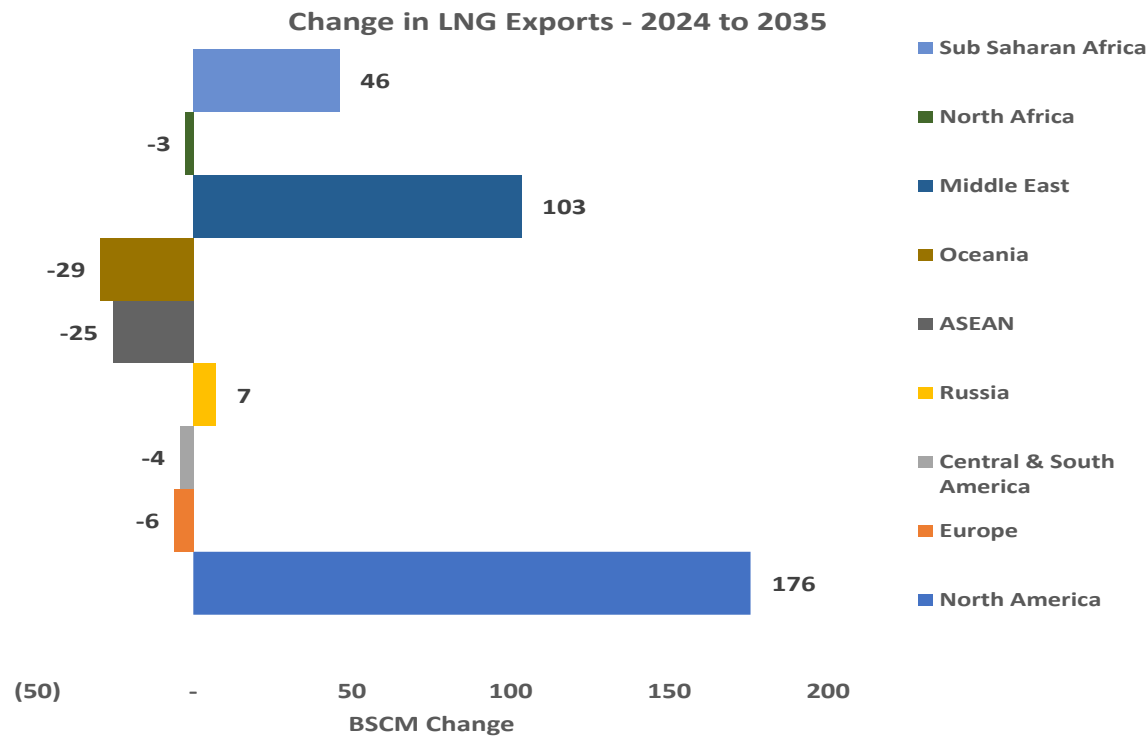
Change in World Gas Demand by Sector - 2035 vs 2024 (Bcm)



- Growth in demand in 2024 -2025 is concentrated in the power generation (+325 Bcm) and industrial (+152 Bcm) sectors, accounting for 80% of growth in 2023-35
- By contrast, virtually no growth in gas demand for residential & commercial (i.e., space heating) at a global level. Growth in Res-Comm demand in China is offset by decline in Res-Comm demand in Europe & North America in the same period.



LNG Imports and Exports

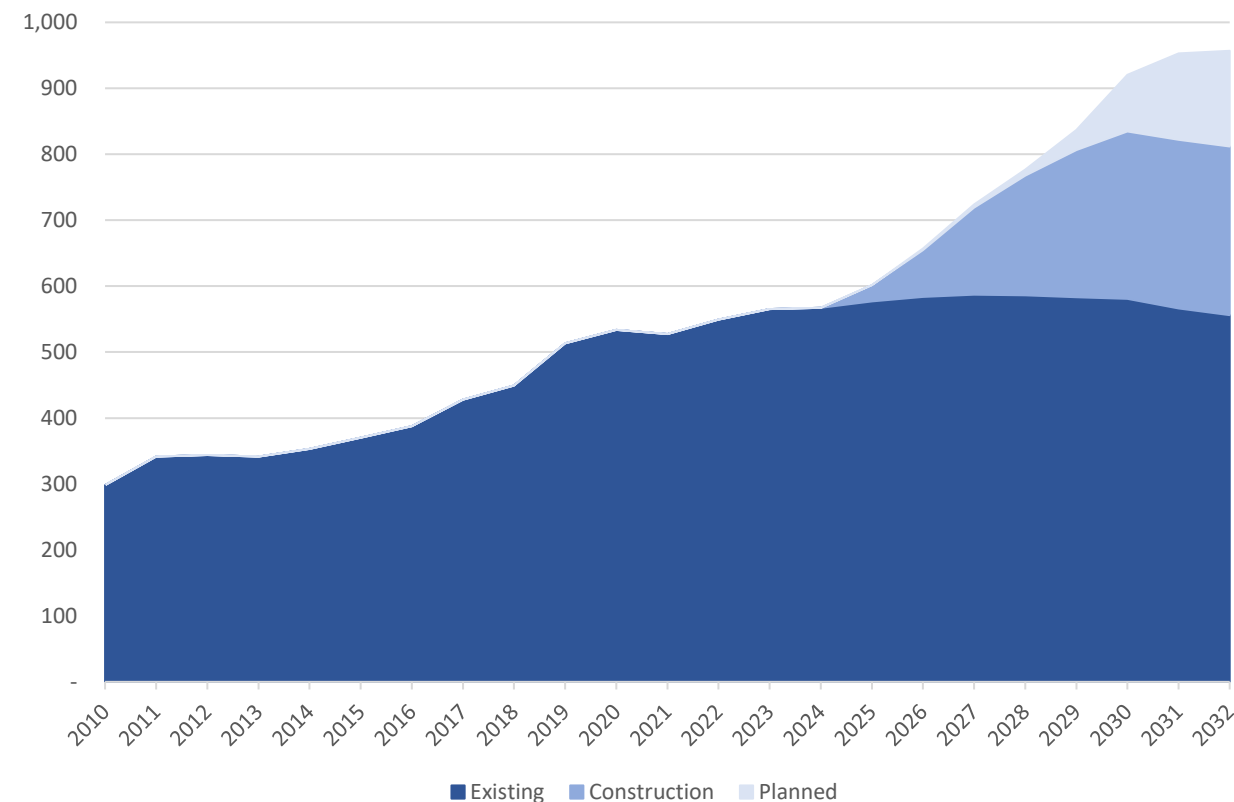


- Total LNG import growth between 2024 and 2035 is some 264 bcm, of which 27 Bcm is growth in LNG as bunker fuel.
- LNG export growth follows the rise in export capacity, so North America tops the list, accounting for over half the rise in LNG exports, followed by the Middle East – Qatari expansions – and Sub-Saharan Africa – largely Mozambique, Nigeria, and Tanzania.
- Regarding imports, ASEAN has the most significant increase (76 bcm) as production declines and demand grows. China's growth peaks around 2030 at 132 bcm, declining to 126 bcm by 2035 (20 bcm growth in 2024-35), partly recovering from the 20 bcm decline in 2022 following weak economic activity and lockdowns.
- Europe sees a growth of 56 bcm as production and pipe imports decline. South Asia shows strong growth as prices stimulate demand



LNG Export Projects to Watch: 2025-2031

Global LNG Liquefaction Capacity (Bcma)



- **2025:** Plaquemines Phase 1 (13.3), Corpus Christi Phase 3 T1-4 (6.0), Tortue FLNG (2.3), LNG Canada T1+2 (14.0)
- **2026:** Plaquemines Phase 2 (6.7), Corpus Christi Phase 3 T5-7 (4.5), Corpus Christi Phase 3 T8+9 (3.0), Corpus Christi Phase 3 Debottlenecking (2.0), Golden Pass T1+2 (12.0), Qatar NFE T1+2 (16.0), Energia Costa Azul (3.25), Pluto 2 (5.0), FLNG Congo Brazzaville (2.4), Cap Lopez Gabon (0.7)... and Arctic LNG 2 T1+2 (13.2)?
- **2027:** Qatar NFE T3+4 (16.0), Golden Pass T3 (6.0), Sabah ZLNG Malaysia (2.0), Kasuri FLNG Indonesia (1.2), Altamira FLNG 2 (1.4)
- **2028:** Qatar NFS T5+6 (16.0), Port Arthur T1+2, United States (13.0), Nigeria LNG T7 + debottlenecking T1-6 (7.6), Cedar FLNG, Canada (3.3), Woodfibre, Canada (2.0), FLNG Hilli Episeyo, Argentina (3.0)
- **2029:** Ruwais UAE (9.5), Woodside Louisiana Phase 1 (11.0), Marsa LNG, Oman (1.0), Rio Grande Phase 1 T1-3 (17.6), **Calcasieu Pass Phase 2 (10.0)**, **Oman Sur T4 (3.8)**
- **2030:** Mozambique T1+2 (13.0), Qatar NFW T7+8 (16.0), Woodside Louisiana Phase 2 (T3) (5.5), **Papua LNG, PNG (4.0)**, **Delfin FLNG (3.25)**, **Rio Grade Phase 2 T4+5 (10.7)**
- **2031:** **Rovuma T1-2 (18.0)**, **Tanzania T1+2 (10.0)**

Note: Capacities in Mtpa per year given in brackets. Red indicates pre-FID.

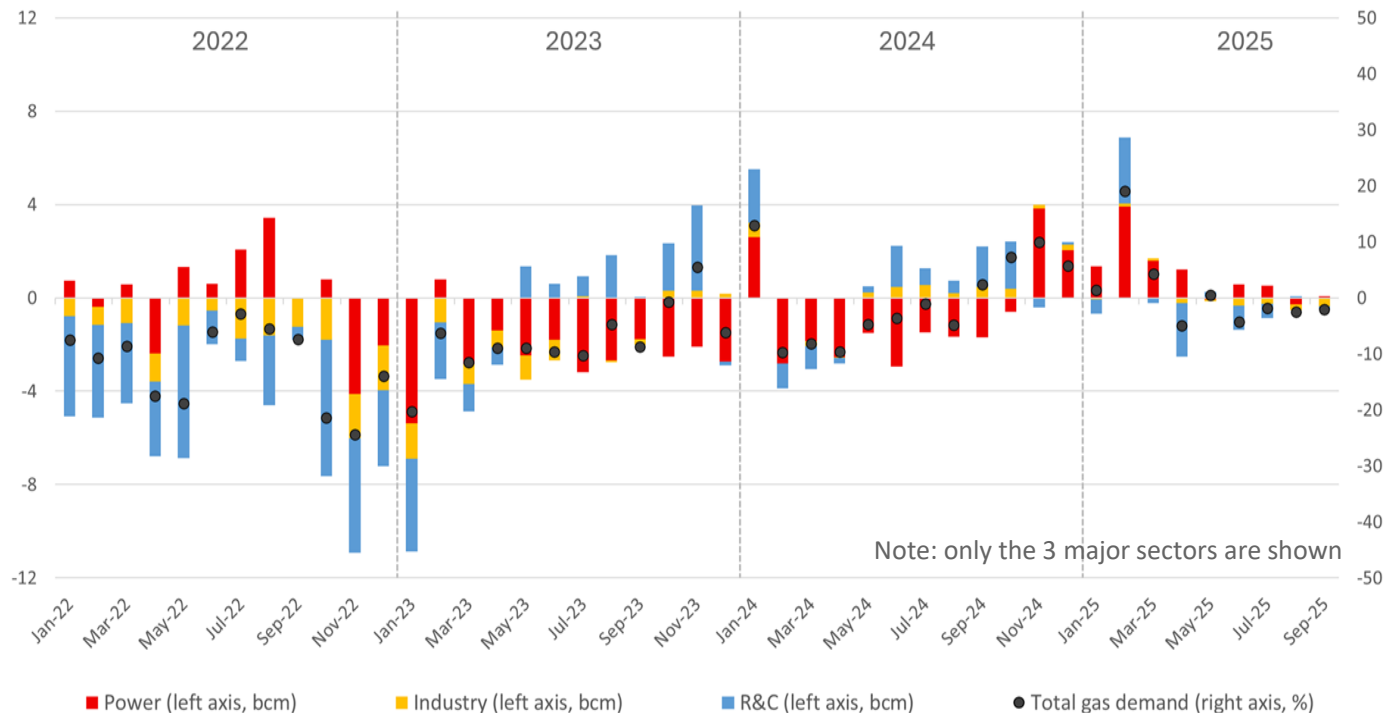
- Global LNG liquefaction capacity is set to grow by 100 bcma from c.557 Bcma at the end of 2024 to 657 Bcma by the end of 2026
- This global LNG capacity is likely to reach at least 770 Bcma by the end of 2028, based on projects already under construction
- The potential range for 2030 is wider, as it include pre-FID projects (listed in red, above)
- Growth of 50% between end of 2024 and end of 2030 would be 850 Bcma of capacity – the midpoint between ‘construction’ and ‘planned’ in the graph above



European gas demand: All sectors below pre-crisis levels

Sources: A. Honoré (OIES). Data calculated by this author using raw data from various sources, including data from IEA, Eurostat, ENTSOG Transparency Platform, and TSOs. Graph by the author.

Year-on-year change in sectoral gas demand in Europe, 2022 to 2025 (bcm and %)

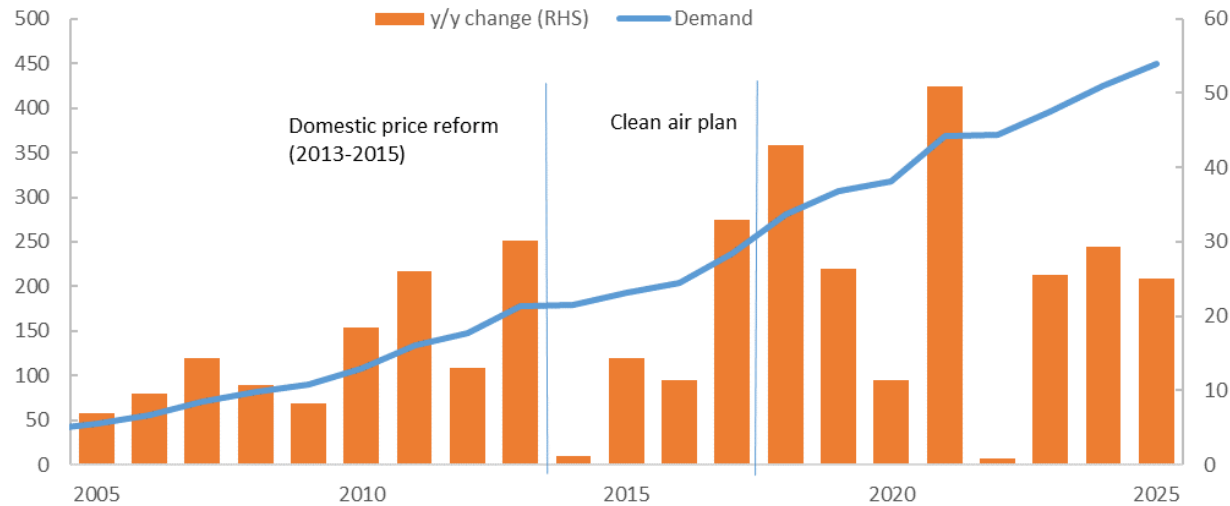


- **Industrial sector:** most price-responsive sector in 2022 with a strong decline, very limited (and concentrated) rebound in 2023-2024
- **Commercial sector:** most price responsive in 2023-2024, muted in 2025
- **Power sector:** large variations driven by availability of other fuels, especially wind and hydro



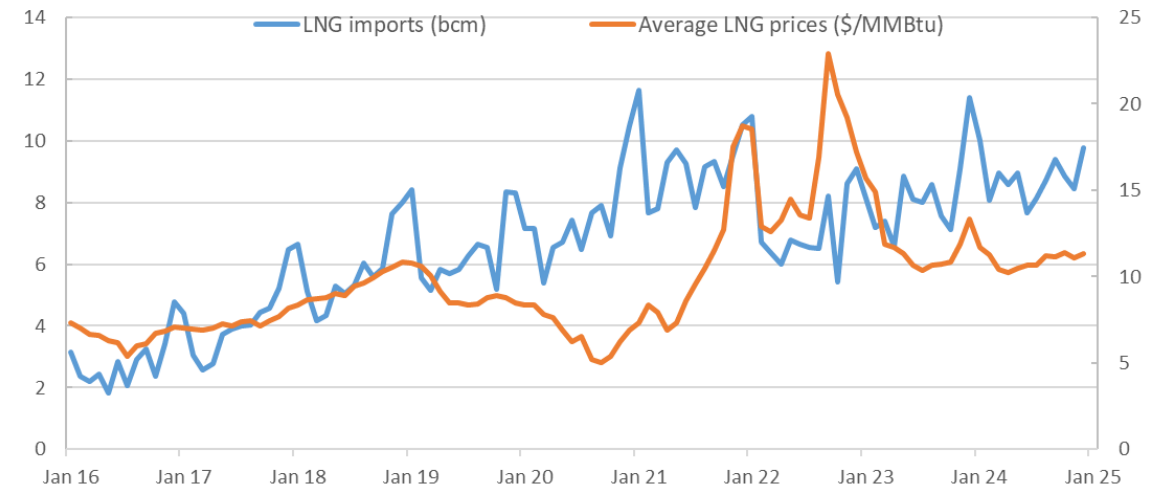
The drivers of China's gas demand

China gas demand and y/y change, bcm



Source: NBS, NDRC, OIES

China LNG imports (bcm) and LNG delivered price (\$/MMBtu)



- Is China's gas demand policy driven or price driven?
- The 2017-2018 Clean Air Plan led to a surge in gas consumption even as prices spiked because there was a coal-to-gas fuel switching policy mandate.
- Was the diesel to LNG fuel switching in trucking in 2024 policy driven or price-driven?
- LNG imports and prices are inversely correlated, with the exception of winter
- Policies that play a key role: macroeconomic policies and policies in support of gas (13th FYP)
- Fuel-switching away from coal, oil – favours gas when supply and prices are right



Russian pipeline gas network and LNG plants: Pivot East will be neither easy nor fast





The Geopolitics of Gas

Key Questions:

- Gas as a foreign policy lever for producers and consumers?
- Does geopolitical risk damage long-term market size?
- How significant is price for market development?
- Is energy transition an opportunity or a headwind for global gas?

Thank you!

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