SectorVector

October 2024

Reading the topical trends

Natural gas demand ascends

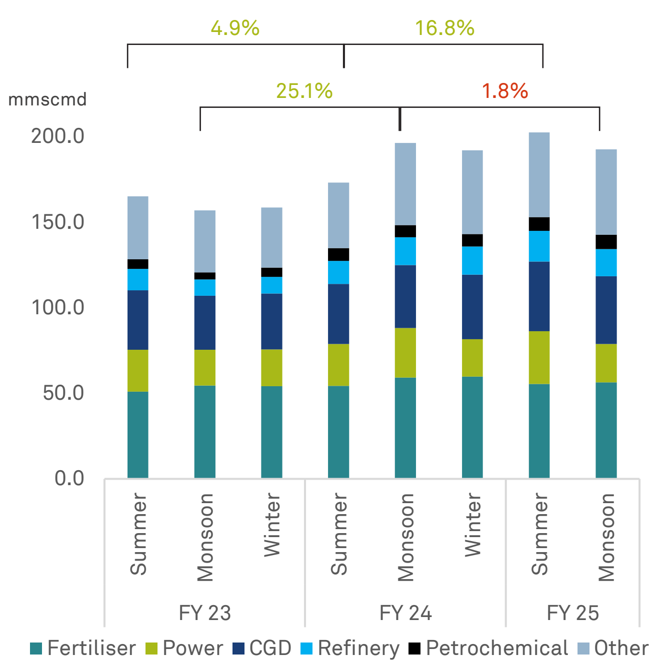
Seasonal surge in power sector consumption, steady city gas distribution drivers

This summer, demand for natural gas surged to a peak of 202.4 mmscmd, as elevated temperatures drove up power needs. The government invoked Section 11 of the Electricity Act, 2003, to ensure gas-based power plants were operational to meet summer electricity demand, which facilitated liquefied natural gas (LNG) imports. Consequently, LNG imports rose 9-10% on-year, whereas consumption by the power sector grew 26.6% during the peak summer months.

This surge was, however, counterbalanced by a 4.8% decline in consumption during the monsoon compared with the summer level. Improved rainfall and lower temperatures contributed to a 1.8% on-year decrease in overall demand.

Yet, for the first half of this fiscal, overall natural gas consumption was up 9-10% on year, climbing from 182.1 mmscmd to 198-201 mmscmd

Demand soars in summer, cools with better monsoon



mmscmd

		Summer	Monsoon	Winter
Fertilisers	FY23	51.0	54.5	54.2
	FY24	54.4	59.1	59.6
	FY25	55.5	56.4	
Power	FY23	24.4	20.9	21.4
	FY24	24.3	29.1	22.0
	FY25	30.8	22.4	
CGD	FY23	34.7	31.6	32.6
	FY24	35.2	36.8	37.8
	FY25	40.7	39.5	
Refinery	FY23	12.6	9.6	9.8
	FY24	13.4	16.2	16.3
	FY25	17.9	16.0	
Petro-chemical	FY23	5.6	4.1	5.4
	FY24	7.4	7.1	7.3
	FY25	8.1	8.4	

Demand de-growth Consumption growth Stable

Note: Summer months: March to July; monsoon months: August to October; winter months: November to February; September figures are estimated; Other sectors include P/L system, agriculture (tea plantation), industrial, manufacturing, LPG shrinkage, sponge iron/steel
Source: PPAC, CRISIL MI&A Research

Robust growth in CGD amid seasonal variability

Amid these fluctuations, the CGD sector was resilient, with demand increasing 15.4% during the summer and 7.3% during the monsoon. This translated to a robust 11-12% on-year increase in overall CGD consumption. The growth reflects the rapid expansion of CGD infrastructure.

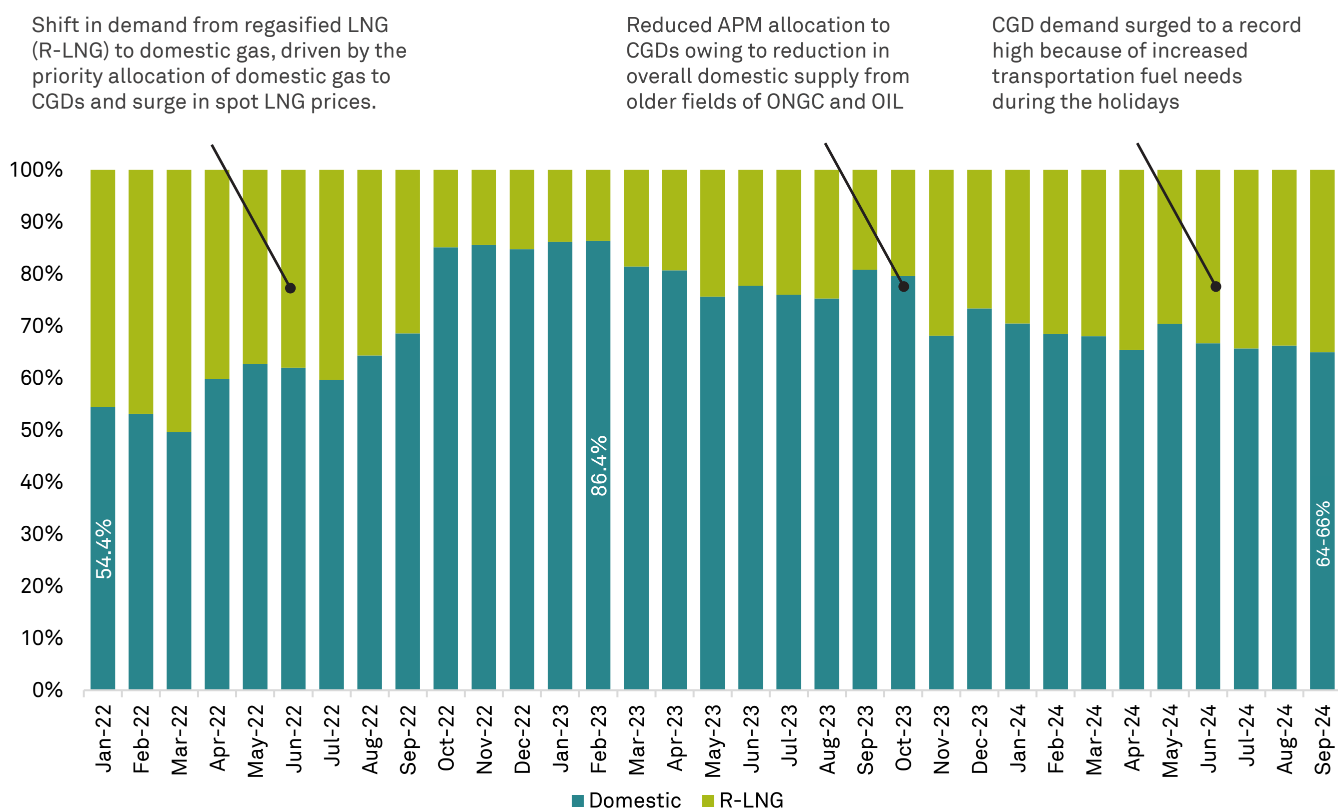
Between fiscals 2017 and 2020, the number of CNG stations grew by ~1,000. However, the expansion accelerated significantly post-2020, with 1,100-1,200 stations added every year on average, taking the total number to 7,125 as of August 2024.

Initially, the top five states accounted for ~94% of all CNG stations in fiscal 2017 and ~83% in 2020. The CNG market has since matured. In fiscal 2025, these states are expected to account for 50-55% of total CNG stations and the top 10 states for 75-80%, reflecting a more balanced growth trajectory nationwide.

The CGD sector does face significant challenges, including dwindling administered price mechanism (APM) gas supplies and rising demand. Contribution of domestic gas to the consumption mix increased from ~54% in January 2022 to 64-66% as of September 2024, peaking at 86.4% in February 2023 owing to new domestic supplies.

That said, allocation of APM gas has decreased from around ~90% in H1 2023 to 50-60% currently. The imbalance highlights a critical issue: expanding geographical reach resulting in consumption outpacing available supplies. Projections indicate a sharp decline in allocations by ~20% on-quarter in October, further increasing the sector's reliance on imported gas.

Share of imports remains elevated for CGD

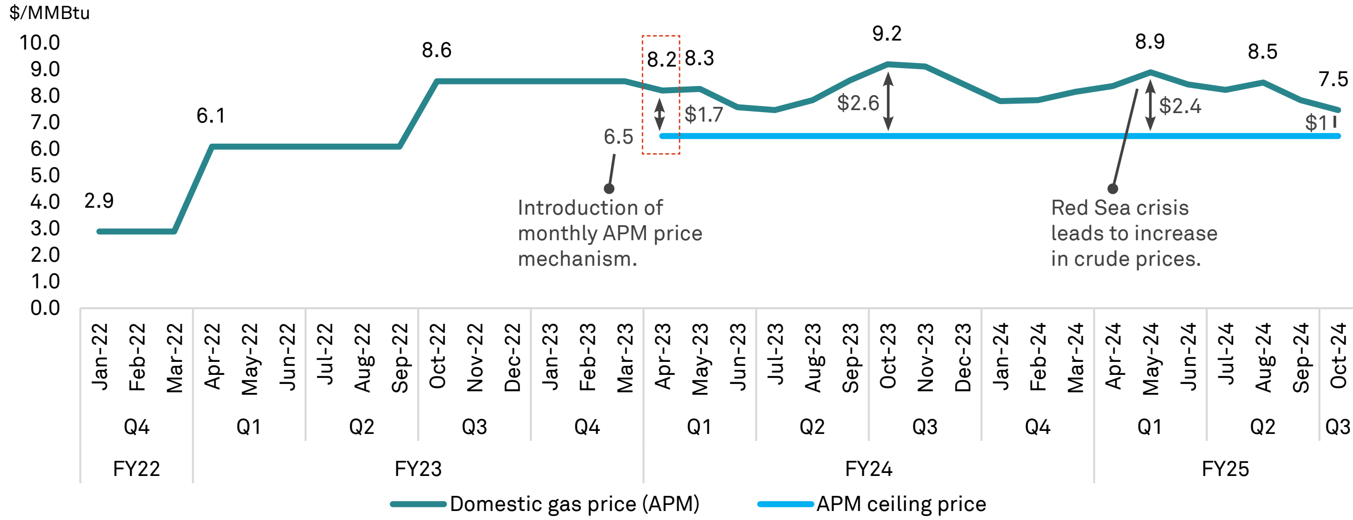


Note: September figures are estimated
Source: PPAC, CRISIL MI&A Research

Market-linked pricing mechanism, timely price adjustments ensure stable pricing environment

A new pricing mechanism adopted in April 2023 to address price fluctuations and time lags has been fairly successful in protecting customers from sudden price swings. The monthly APM price gap narrowed further in September, indicating a stabilised pricing environment.

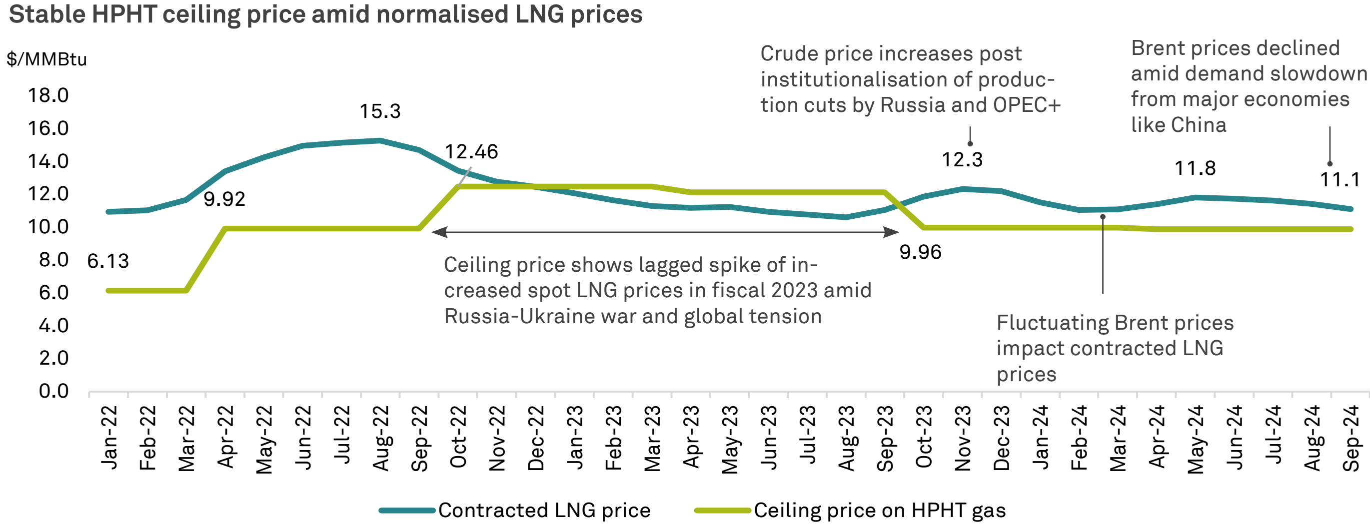
Monthly APM price gap with its ceiling narrows further on-quarter



Note: Monthly APM price is derived at 10% of the average of Dated Brent prices from the 26th day of M-2 till the 25th day of M-1 with a ceiling of $ 6.5/MMBtu. [M = Month of price applicability]
Source: PPAC, CRISIL MI&A Research

Contracted LNG prices have trailed fluctuating Brent prices amid supply cuts, geopolitical tensions and demand slowdowns, while the high pressure-high temperature (HPHT) ceiling price has remained stable since the decline in H2 fiscal 2024 owing to stable Asian LNG prices.

Stable HPHT ceiling price amid normalised LNG prices



Note: (i) HPHT gas prices are notified on a half-yearly basis by the government. A ceiling on the price of gas, which is the lowest of the landed prices of alternate fuels i.e. fuel oil, substitute fuels (basket of coal, naphtha, fuel oil) and LNG, is considered for HPHT.
(ii) Contracted LNG price (in $/MMBtu) is computed at 12.7% of the previous three months' average of the Dated Brent (in $/Barrel) plus assumed shipping cost, insurance cost and other related costs of approximately $ 1 per MMBtu
Source: PPAC, CRISIL MI&A Research

CGD will continue to support demand, but reduced APM allocation can cause hiccups

Winter demand is projected to remain stable, driven by the fertiliser and industrial sectors in a steady pricing environment. However, this may be partially offset by a decline in power demand.

While CGD demand is expected to remain strong owing to infrastructure growth, gas supply could influence its stability.

The reduction of APM allocation will increase gas sourcing costs, potentially leading to a rise in CNG prices of up to Rs 6 per kg or margin compression for CGD entities, especially those with higher exposure to CNG.

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