



LPG in Worlds Market

Prices Fall in September, Freights Up Sharply

Global LPG prices fell precipitously in September, eroding relative strength against crude amid lackluster demand from the petrochemical sector and rising production. However, spot VLGC freight rates rose to nearly three-month highs supported by tight vessel availability and spot chartering activity for October and early-November loading dates. Saudi Aramco cut the benchmark October propane contract price (CP) by 9% from the previous month to a 16-month low at \$590/t.

October butane CP was slashed by 11% to \$560/t. Saudi Aramco has been lowering the CP since April due to lower crude price and weak demand from the Asian petrochemical sector. Spot LPG supplies from the Middle East has increased so far this year as producers in the region have increased oil and gas production to meet demand.

Global Propane Price Trend

Other Middle Eastern producers have also cut their official prices for October indicating there should be additional spot cargo available in October similar to previous months. Propane prices in the US Gulf Coast fell 10% in September to average around \$514/t.

The month-over-month drop was mostly in line with the drop in WTI. Although the decline in propane prices was steeper during the final week of September compared with the decline in crude amid surging propane inventories and lower domestic LPG demand. US propane and propylene stocks in the week ending Sept. 30 reached to 6.8 MMt (84.4 million barrels), up 17% from the same week a year ago. (see, US section for details) Following the strong inventory builds USGC propane averaged about 47% of WTI crude in 2H September, down from 51% in 1H.

Meanwhile, demand for LPG is expected to remain weak in Asia and Europe until the weather gets cold. Although several new PDH plants were expected to increase propane demand in China this year, the growth did not materialize as PDH plants reduced operating rates to cope with low margins. Mixedfeed crackers in the region also reduced operating rates.

USGC Propane Ratio to WTI Crude

Additionally, unfavorable propane-naphtha spreads reduced LPG intake as cracker feed. Although propane-naphtha spreads have improved in recent weeks, and some crackers have shown interests to buy LPG; however, weak downstream petrochemical demand, high energy costs and recessionary concerns are expected to weigh on demand from the sector in 4Q.

Asian end buyers are also reluctant to buy prompt spot-cargoes with expectations that shorter wait times at the Panama Canal in the past week will result in early cargo arrivals from the US in October and further cut propane prices in the Far East. Demand could get a boost from the residential sector later in 4Q. The Japan Meteorological Agency is predicting that another La Nina event will result in more snow this winter. Speculations of a harsher winter in South Korea could also increase LPG demand for heating.

US exports to Northwest Europe trended down in the past three months after hitting record highs in June; however, it was still much higher on a year-over-year comparison in each month. Europe will continue to rely on the US to meet higher LPG demand from the retail sector during winter months.

This trend could intensify in 4Q with some European industries planning to use more LPG, among other energy sources, as a substitute to Russian pipeline gas for fuel and power generation.

Demand from the petrochemical sector as a feedstock for ethylene production will be depressed as steam crackers are gradually reducing operating rates amid high natural gas price and lower demand for downstream

chemical products due to inflation Spot cargo buying interests among Mediterranean countries has been weak in September and in early-October. Most of the demand from key buyers like Turkey is expected to be met by term contracts.

USGC Propane Ratio to WTI Crude

Freights strong on winter demand

Despite the drop in LPG prices in the Middle East and in the USGC, arbitrage for either region has been extremely poor mainly due to lackluster demand from the petrochemical sectors. However, that did not have any effect on spot freight rates.

Higher overall exports due to increased supplies from these regions has increased ton-mile demand, while congestion at the Panama Canal this year and at some Asian discharge ports has been supporting freight rates. VLGC rates from Houston to Chiba via the Panama Canal reached nearly \$134/t at the end of September, up 23% since end-August and highest since the first week of June. Although spot fixing from the USGC slowed in the final week of September to early-October due to poor arbitrage, an industry event in Singapore, and some national holidays in Asia, freight rates should continue to garner support.

This is mainly due to tight vessel availability and 2H November cargo fixing that should occur in the coming weeks. Potential higher winter demand in Asia should also increase US exports to the regions. Spot freight rates for Ras Tanura to Chiba increased from about \$62/t at the beginning of August to \$81.5/t at the end of September, up 32% driven by increased number of cargoes offered by Middle East producers.

China and India have significantly increased imports from the Middle East this year. Chinese imports from January to July were up 3% year-over-year, while imports from the Middle East were up by 14%. China has also increased imports from the US by 10% during the same period.

Imports from India were up on a year-over-year comparison in the past two months on anticipation of higher demand during the festival season in October. However, demand could be dampened due to heavy rainfall during one of the two major festivals in the first week of October which could result lower import requirement in November. The second major festival will be celebrated during the final week of October. A strong US dollar and inflation can also dictate import decisions in 4Q.

The OPEC in its recent meeting on Oct. 5 decided to cut 2 MMb/d oil production in November which should result about 5% lower LPG production from the region. However, this level of production will be still higher than average production seen in 2021. The bigger concern is the effects of the cut on oil price which will further bolster recessionary concerns.

US Arbitrage Economics

USGC to Japan via Panama Spot VLGC Rates

Middle East to Japan Spot VLGC Rates