



POTEN & PARTNERS

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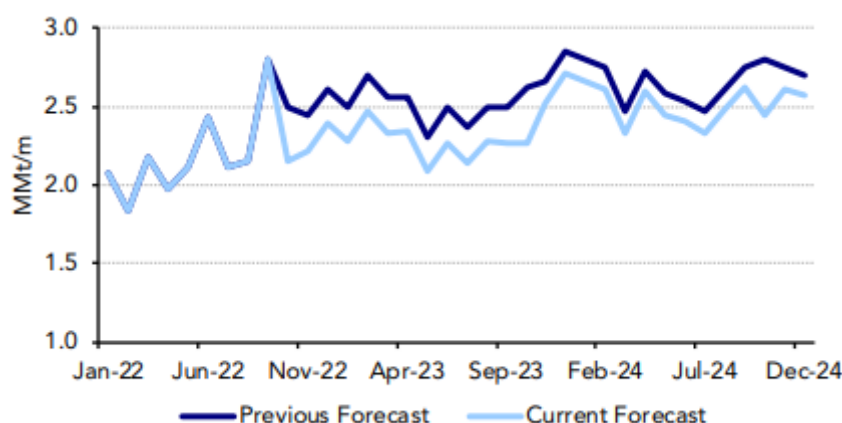
## LPG Market Outlook

### Chinese Imports Revised on Covid-19, Lower Petchem Demand

After hitting record levels in September 2022, Chinese LPG import data showed a decline of 23% to 2.2 MMt/m in October. Imports have averaged roughly 2.1 MMt/m in 2022. The average PDH unit operating rate in China rose from 60% at the end of September to 80% by mid-October.

Margins turned slightly positive in early September, but quickly turned negative by mid-October. Margins in December have moved further into negative territory despite lower propane prices. Several PDH units have opted to undergo maintenance and PDH demand is expected to slow in the next few months.

#### China LPG Import Forecast Comparison



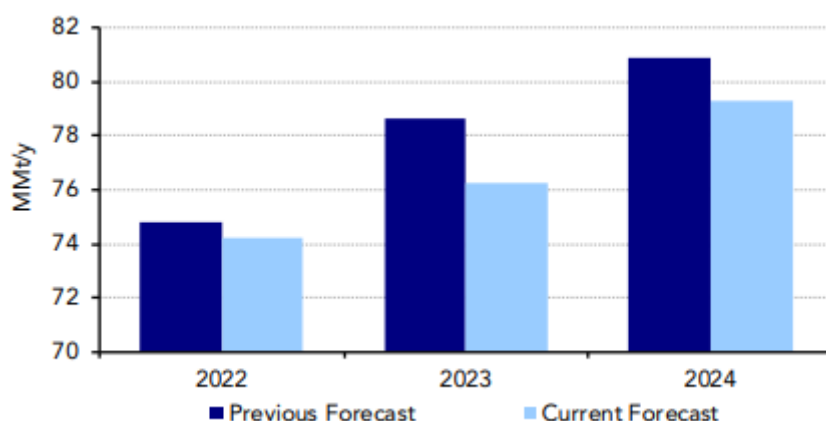
Imports are forecast to total around 7 MMt in both 4Q 2022 and 1Q 2023 but could be lower due to the spread of Covid-19, longer downtime during the New Year Holidays and declining margins at PDH plants.

Additionally, Russia is planning to divert higher volumes of LPG to China in the nearterm which may impact seaborne imports. The LPG import forecast for 2023 has been revised lower due to China's ongoing battle with Covid-19 and the resultant negative impact lockdowns will have on LPG demand.

Imports have been lowered by 2.6 MMt/y in 2023 to 28 MMt/y, while demand has been revised lower by 2.4 MMt/y to 76.3 MMt/y in the current forecast.

For 2024, imports have been lowered to 30.1 MMt/y as opposed to 32 MMt/y in the previous forecast. The new PDH unit has been pushed back to 2024 rather than 3Q 2023. The most growth in imports is forecast in the UK and Poland.

### China LPG Demand Forecast Comparison



PDH demand is anticipated to slow in the next few months, but residential demand will rise due to colder temperatures and an increase in heating demand. However, domestic production is rising as well and the impact higher heating demand will have on imports will be minimal.

Looking ahead, as PDH demand increases in the next couple of years and the petrochemical sector expands, import reliance will increase despite the rise in domestic production. Domestic production is forecast at 48.5 MMt/y in 2022, 49 MMt/y in 2023 and 50 MMt/y in 2024. China has 44 crude oil refinery project expansions expected to begin operations between 2022 and 2026.

Roughly 80% of those projects will be expansions of existing refineries with the remainder being greenfield projects. Natural gas production and processing is also forecast to increase.

### China LPG Production Forecast

