

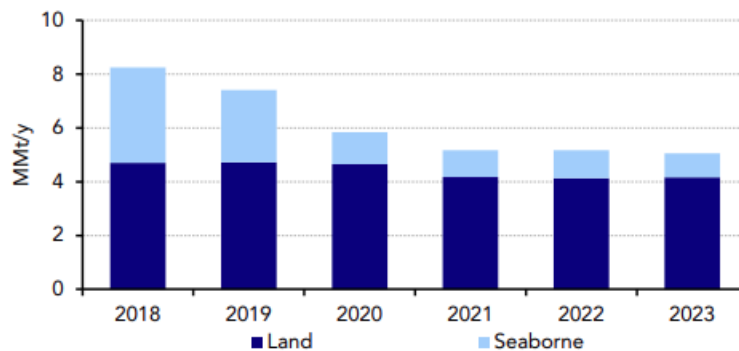


LPG Market Outlook

Russia's LPG exports seek new destinations

The news of Russia's invasion of Ukraine rattled energy markets around the world. LPG prices rose in line with the prices of other energy commodities. However, Russia does not play a major role in international LPG markets. In 2020, Russian petrochemical company, Sibur, began operations at the ZapSibNeftekhim plant and waterborne exports fell from 3.5 MMt/y in 2018 to only 1 MMt/y in 2021. Rail exports, on the other hand, have not fallen so quickly. Exports by land were stable at around 4.7 MMt/y from 2018 to 2020 but fell to 4.2 MMt/y in 2021.

Russia LPG export forecast



Export levels for both methods are forecast to be flat with 2021 levels throughout the forecast period. Total exports are forecast at around 5-5.2 MMt/y in 2022 and 2023. From 2018 to 2020, Russian LPG demand grew by 60% from 7.3 MMt/y to 11.6 MMt/y. Most of the increase can be attributed to rising consumption in the petrochemical sector. Demand is forecast to rise from 11.6 MMt/y in 2021 to 12.2 MMt/y in 2022 and 12.6 MMt/y in 2023.

Russia LPG demand forecast

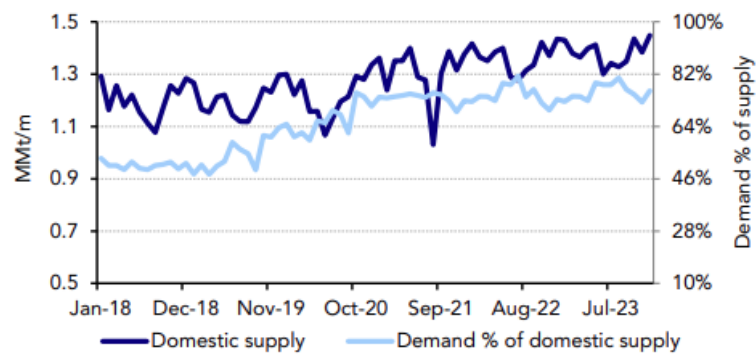


Due to sanctions, Russian LPG export flows have changed. For instance, LPG exports are being diverted to China, Afghanistan, and Turkey. Attempts to offload cargoes in Europe have been unsuccessful as European banks are unwilling to support transactions for Russian products. There

are no sanctions on Russian LPG, but they do affect the Russian financial system which has complicated payments and other things like freight and insurance in the LPG trade.

European traders are also restricting Russian LPG in their bids. LPG rail exports to China are climbing. Russia exported around 60,000 t in 2021 from the Far East gas terminal on the Russia-China border to China. In March, Russia sent 70,000 t to China by rail from the terminal.

Russia LPG supply forecast and demand % of supply



Russia's LPG production increased by 7% in 2021 to 15.7 MMt/y, but roughly 75% went to domestic consumption. LPG production is forecast to rise from 15.7 MMt/y to 16.4 MMt/y in 2022 and 16.6 Mt/y in 2023. However, 75% of supply will be consumed in the domestic market and exports kept near their current levels.