

# NOTOS MARKET REPORT | GAS

US propane stocks are poised to rise significantly in 2019. We estimate a further demand for 20-30 additional VLGCs which outnumber the current expected deliveries and would lead to increased utilization of the fleet and (hopefully) increasing rates.

## VLGC COMPANIES SUFFERED FROM OVERSUPPLY

Very Large Gas Carriers (VLGCs) transport liquified propane and butane. These gases are used mainly as a feedstock in the petrochemical industry but also for residential heating, especially in developing countries like China and India.

The rapid expansion of the US shale gas production has led to an increase in the production of propane and butane, too. Given an almost saturated domestic market, nearly all additional production goes into the export markets.

Shipowners like BW LPG, Avance Gas, Aurora LPG, Dorian or Exmar decided to invest in tonnage in order to participate in this bonanza.

However, markets are highly fragile and any imbalance between supply and demand can cause hefty price reactions. Rates and asset prices skyrocketed between 2014/15, but fell back again in 2017/18.

Share prices followed this pattern and built a new low end of 2018. In this article we take a look at the development of the US export markets and explain our positive view on the sector.

## VLGC CHARTER RATES SEASONALLY DEPRESSED



Source: Notos

## LPG STOCKS SET TO REBOUND?



Source: Notos

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**US LPG STOCKS FOLLOW A SEASONAL PATH**

The supply-demand balances in the LPG markets can be visualized by analyzing the stocks of propane in the US. These stocks follow a strong seasonal pattern. In the stocking period from spring to autumn, the US production exceeds the domestic demand and stocks are built, causing prices to fall and exports to rise. The destocking period normally begins in October/November when the heating and corn-drying season starts.

**WARM WINTER AND NEW PIPELINE WILL BOOST EXPORTS**

US propane stocks suffered in the past from a harsh winter a year ago and some production problems due to the hurricane seasons.

However, the mild winter 2019 has already reduced the demand for heating gas in the US. Furthermore, the operational start of the East Mariner 2 pipeline which connects the gas fields in Ohio with the Markus Hook export terminal will give a further boost to transportation capacities by approx. 15% in 2019.

In order to estimate the impact on export capacities, we built a simple model for the development of US propane stocks. Assuming a constant production level of 2.07m barrels of propane per day and otherwise unchanged demand and export-import balances compared to last year, we estimate the propane stocks to reach a new high of 140m barrels in this autumn.

This development is displayed in **SCENARIO 1**, the grey line in the graph below.

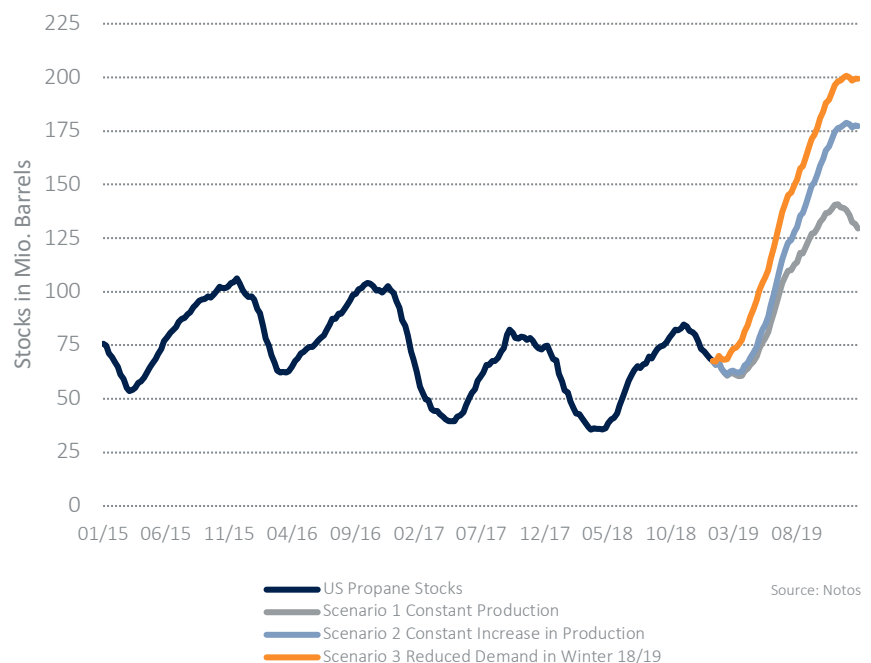
As the storage facilities are limited, this hypothetical stock implies an additional amount of up to 29m barrels for the export markets (+9%) if we assume a maximum stock of 100m barrels at the end of 2019.

This additional export amount equals a monthly demand for five additional VLGC liftings, if all additional propane would be exported by ship. Please bear in mind that this **SCENARIO 1** unveils just the base effect from already improved production figures in 2018 without any further growth in production.

**EVEN MORE EXPORTS LIKELY**

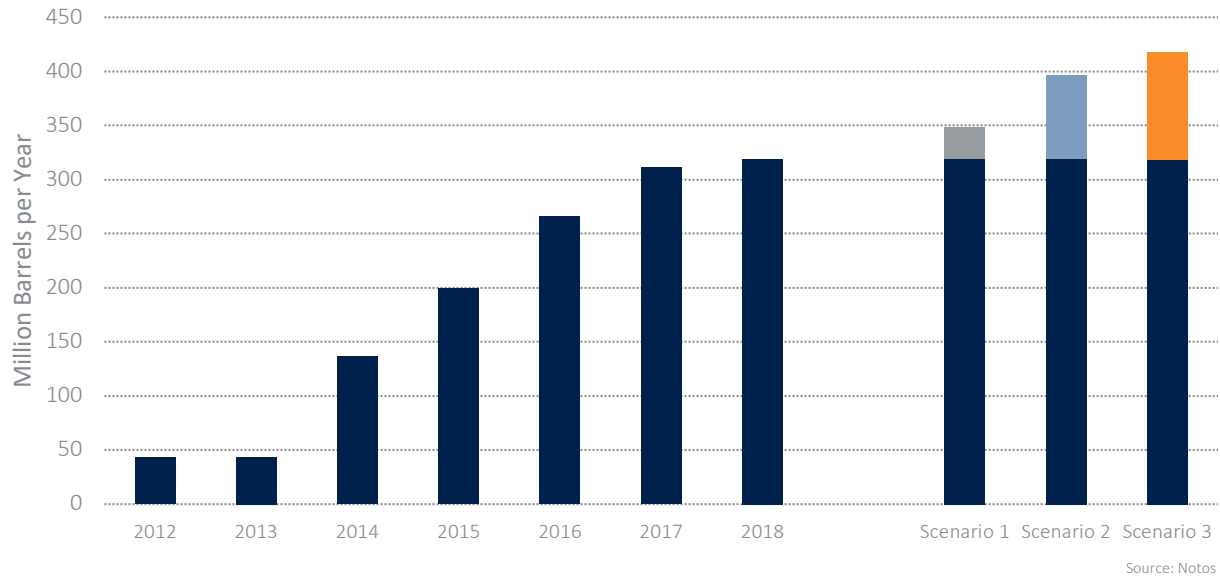
Further growth in US production, supported by the new pipelines is modeled in **SCENARIO 2**, the blue line in the graph below. US propane production is currently growing by 250k barrels per day year-on-year. If we assume this trend to continue throughout 2019, the additional export capacity would increase to 77m barrels (+24%) or 12 additional liftings per month.

**US POTENTIAL PROPANE STOCKS TEND TO RISE IN 2019**



Source: Notos

## US PROPANE EXPORTS EXPECTED TO RISE IN 2019



Our most aggressive **SCENARIO 3** takes the current warm US winter into account by estimating a 200k barrels per day lower demand this winter season. Such additional assumption would lift the export capacity by 99m barrels to 417m barrels or 15 additional VLGC liftings per month.

The above chart shows the potential development of US propane exports in 2019 for the three scenarios.

#### IMPACT ON SUPPLY-DEMAND BALANCES

According to Clarksons Research, the VLGC fleet is expected to grow by 17 vessels this year. The standard VLGC trip from Houston to Chiba, Japan via the Panama Canal takes two months for a round trip, which means that our scenario 1 would already absorb 10 newbuildings.

Scenario 2 would need 24 vessels and scenario 3 would absorb 30 vessels. Both scenarios are outnumbering the expected deliveries for this year. It should be noted that the above calculations do not take into account any further trade growth for LPG around the globe.

We therefore expect the fleet utilization for VLGCs to improve in 2019, which in turn should have a positive impact both on rates and vessel values.

As some of the listed VLGC owners are already trading at substantial discounts to their NAVs, we currently overweight the sector in our trading strategies.

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