

# Spotlight on Mid-East Petchems Brightens

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**P**ETROCHEMICALS represent the world's fastest-growing source of oil demand. Middle

Eastern petrochemicals producers have enjoyed decades of market leadership but now have to adapt to new competition from the US and the Middle East's own client base in Asia. How can the historic epicenter of fossil fuels sharpen its competitive edge?

For now, the Middle East dominates global polyethylene (PE) exports, controlling around 80% of supply going into Asia and around 60% into Europe. The region is expected to remain the largest global PE supplier in terms of net export trade, with S&P Global Platts Analytics expecting the region's surplus to hold at around 12mn mt in 2019 and move to 16.9mn mt by 2029 – a staggering 40% climb in just a decade. And in the short term, the region's producers are benefitting from the trade issues between the US and China.

## WATCH OUT

Middle East producers need to consider how to counter the rapid growth of US market share buoyed by the abundant availability of low-cost shale gas. Historically, US export prices have commanded a premium over delivered markets in Asia, but the trend has now reversed. Just one year ago, FAS Houston prices for low density polyethylene (LDPE) were close to \$140/ton higher than in Asia, but prices this May were \$70/ton lower, according to prices assessed by S&P Global Platts. The US exponential growth of US liquefied natural gas (LNG) exports serve as a reminder to Middle Eastern petchem producers who may be pausing to catch their breath. Despite only starting LNG exports in 2016, the US will be the third largest exporter worldwide by 2020, behind Qatar and Australia, respectively. Relative

acceleration will likely be echoed in the petchems market as we head into the 2020s.

There's also another pressure point for the Middle East. The largest ever domestic capacity build is underway in China. With Asia as the Middle East's biggest client this could impact the region's appetite for imports. The Zhoushan refinery will come online later this year with 4mn mt/yr paraxylene. Together with 4.5mn mt/yr of Xylenes at China's Dalian refinery and other sizeable product capacity at both facilities, Middle East producers need to adapt.

## THE GOOD NEWS?

Appetite abounds. Petrochemicals are set to account for more than a third of the growth in world oil demand to 2030 and nearly half the growth to 2050, according to the International Energy Agency's (IEA) forecasts. Chemicals feedstock demand for oil as a percent of oil supply is forecast to grow from around 13% in 2019 to close to 20% by 2040, according to S&P Global Platts Analytics. At the same time, due largely to other non-fossil fuel forms of transportation growing, the pull on oil demand for transportation (mostly vehicle) use could potentially decrease from close to 26% in 2019 to 21% by 2040. The rising middle class across the global economy is driving demand for consumer goods and services, with petrochemicals playing an integral role in the manufacture of a near-endless list of products, from food production, consumer goods to industrial purposes.

## KEEP SHARPENING

In this positive but competitive mix, how can the Middle East stay ahead? Governments and industry must keep investing in capacity expansions, leveraging the region's own low-priced feedstocks. Projects

such as Dow Chemical and Saudi Aramco's joint-venture Sadara and the phased expansions of Petro-Rabigh have added PE capacity. There will also be PE capacity attached to SABIC and Saudi Aramco's crude to chemicals complex in Yanbu, which is scheduled to come online in 2026. In Oman, the Liwa Plastics Industries Complex (LPIC) will include an 800,000 mt/yr mixed feedstock ethylene cracker. Plus, Saudi Aramco's Jizan refinery has 420,000 mt/yr capacity for benzene and 1,300,000 mt/yr of paraxylene, while the company's Ras Tanura refinery is expected to come online by the end of 2020 with 285,000 mt/yr of benzene and 1,200,000 mt/yr paraxylene. And then significant volumes of capacity will be coming online by 2025, including Petrochemical Industries Company at Shuaiba in Kuwait and Borouge 4 at Ruwais in the UAE.

## EFFICIENCY? GOLD DUST

Greater efficiency will also intensify the Middle East's tail wind in the global race. The region's demand is expected to climb by 1.7% (CAGR) annually over the next 10 years, with current plant utilization levels in the Gulf averaging 82% for PE. While adequate to help balance global markets, using the digital tools of the 4th Industrial Revolution can help push this utilization percentage higher, especially when market conditions become tighter at the backend of S&P Global Platts Analytics forecasts, when the industry comes out of a cyclical trough. Plus, the region's population size – Saudi Arabia's 34 million versus China's 1.4 billion – means more domestic supply can be siphoned towards the export market. This is especially pertinent as re-emerging sanctions on Iran, a key petchem player, are a thorn in the region's export plans. The Middle East can retain its market leadership position if it leverages over three decades of experience and revs up its speedometer. ■