

Weber Refinery Report



September 2020



In this month's Charles R. Weber refinery report, we provide readers with the latest developments in the refinery sector as they relate to the seaborne refined product trade and refined product tanker shipping. The report mixes up-to-date news with detailed information about global refinery capacity and seaborne trade in order to understand how seaborne trade patterns and product tanker profitability will develop, in both the short and medium term.



New Chinese refinery capacity coming online - Sep 2020 - PetroChina has completed a major upgrade of its 130kbd (6.5Mnta) Daqing Petrochemical refinery, increasing processing capacity to 200kbd (10Mnta) and allowing the plant to now process 70kbd (3.5Mnta) of Russian ESPO Blend crude along with 130kbd (6.5Mnta) of local sweet Daqing crude.

The two-year project, in Heilongjiang, involved a revamp of its 24kbd (1.2Mnta) hydrocracker and 24kbd (1.2Mnta) gasoline and diesel hydrotreating units, as well as adding a series of facilities, including a fluid catalytic cracker, gas fractionation unit and two sulphur recovery units.

Meanwhile, Sinopec's Zhongke Refinery and Petrochemicals plant is currently undergoing trial production, with commercial output expected in mid-September. The plant may supply mixed xylene to other Sinopec paraxylene units or sell cargoes directly on the spot market.

There are two additional Chinese refinery projects approaching completion, at Quanzhou (60Kbd) and Jingmen (40Kbd).



Iraq to increase refinery capacity - Sep 2020 - Iraq plans to add new units at its 20Kbd (1Mnta) Qayara refinery to boost capacity to 90Kbd (4.5Mnd). This initiative is part of a plan to expand Iraq's refining capacity from approx. 875kbd (43.75Mnta) to 1.5Mnbd (75Mnta) by 2022.

However, only one new refinery project, the 140kbd (7Mnta) Karbala refinery, has progressed and that will be funded entirely from the Iraqi budget, with the others failing to secure investment. The oil ministry hopes to complete construction by 2023.

It also plans to boost the capacity of the Baiji refinery to 140kbd (7Mnta) over the next few months and then to 280kbd (14Mnta). The refinery's nameplate capacity is 310kbd (15.5Mnta) but is currently only running at 75kbd (3.75Mnta).

Latest

If you have questions or comments, please contact Charles R. Weber Research.

John M Kulukundis at: jmk@crweber.com

www.crweber.com

 **NNPC to give up majority stakes in its 4 refineries to private investors** - Sep 2020 - The Nigerian Government has announced that it plans to give up majority stakes in four refineries, as it seeks to realise Nigeria's refinery throughput potential.

Its plans seek to position Nigeria as a net exporter of products by 2022. This would be achieved through the combined capacity of 375kbd (18.75Mnta) from 27 modular refineries, 650kbd (32.5Mnta) from the Dangote refinery and 450kbd (22.5Mnta) from the government refineries.

 **Recovering from Laura, now Sally lands** - Sep 2020 - The Lake Charles refineries owned by Citgo and Phillips 66 were the worst affected by Hurricane Laura. Calcasieu Refining Co., a small independent oil refinery in southwest Louisiana, was also severely impacted, although this facility was already shut down in August in response to poor market conditions.

Both the Citgo and Phillips 66 are gradually recovering production in a phased start-up, with the Citgo refinery not expected to resume full scale operations until October.

Before Hurricane Laura and the coronavirus pandemic, crude oil refineries across Louisiana had capacity to collectively refine 3.3Mnbd of oil. Now there's more than 0.8Mnbd of capacity offline, which includes the Citgo, Phillips 66 and Calcasieu Refining. That leaves only about 2.5Mnbd of capacity online in Louisiana.

While the recovery from Laura continues, Hurricane Sally made landfall early on 16 Sept near Gulf Shores, Alabama. It has brought intense rain and flooding. It is estimated to have shut around one quarter of US Gulf offshore operations, with two coastal refineries so far impacted.

 **Saudi Aramco to pause/review refinery investments** - Sep 2020 - Saudi Aramco is pausing investments in refineries in China, India and Pakistan. This is part of its review of plans to expand at home and abroad in the face of sharply lower oil prices and a heavy dividend burden.

As part of this process, Saudi Aramco will no longer invest in a project to build a 300kbd (15Mnta) refining and petrochemicals complex in China's northeastern province of Liaoning.

Closer to home the oil company is delaying plans by a year to boost domestic crude production capacity from its current 240kbd (12Mnta) to 260kbd (13Mnta), while the startup of the 400Kbd Jizan refinery has been delayed until 1Q21.

 **Myanmar planning 2 new refineries** - Aug 2020 - Myanmar Chemical and Machinery (MCM) plans to invest in an 160kbd (8Mnta) oil refinery in the Dawei Special Economic Zone (SEZ), in Tanintharyi, and has sought government approval to conduct a feasibility study. Construction of a port will be included in the project.

The Ministry of Electricity and Energy is also still making plans to construct a 100kbd (5Mnta) Thanbayarkan refinery in the Magway region.

 **Australian refiners authorised for COVID-19 co-operation** - Sep 2020 - The Australian government has authorised the co-operation between the Australian Institute of Petroleum (AIP) and Australia's four refinery operators BP, ExxonMobil, Viva Energy and Ampol (formerly Caltex Australia), allowing them to co-ordinate arrangements to address fuel supply issues arising as a result of the pandemic. The authorisation expires on 31 March 2021.

This initiative comes shortly after Viva Energy announced that it may be forced to close its Geelong oil refinery for good if the Victorian government's COVID-19 restrictions are not eased by November.

 **Deal signed for Oman's first bitumen refinery** - Aug 2020 - Sohar Asphalt has signed an engineering-procurement-construction (EPC) contract with China Chemical Hualu Engineering Company (CCEC), signalling the imminent start of construction of Oman's first bitumen refinery.

The facility will be built at Sohar Industrial Port near the Sohar refinery. Heavy crude as raw material for the bitumen refinery will be sourced from several international producers.

Production of the facility, which will be fully operational by 2023, is estimated to be 20kbd (1Mnta) of bitumen and 12kbd (0.6Mnta) of naphtha, straight-run distillates and vacuum gas oil.

 **Hengyi awards contract for new alkylation unit at Brunei refinery** - Aug 2020 - Zhejiang Hengyi has awarded a contract to DuPont to license technology for an alkylation unit to be built at Hengyi Industries' 160kbd (8Mnta) integrated refining and petrochemical complex on Pulau Muara Besar island in Brunei. The new unit will enable the plant to generate low-sulphur, high-octane, low-Reid vapor pressure (RVP) alkylate with zero olefins and zero aromatics for the production of gasoline that complies with China 6-quality standards for cleaner fuels.

***Disclaimer:** Whilst every care has been taken in the production of this study, no liability can be accepted for any loss incurred in any way whatsoever by any person who may seek to rely on the information contained herein. All information is supplied in good faith and Charles R. Weber Company Inc. accepts no responsibility for any errors and omissions contained within this study.*

***Notes:** Mnta = million tonnes per annum, Kbd = 1000 barrels per day, Mnbd = million barrels per day.*



**Latest
continued...**

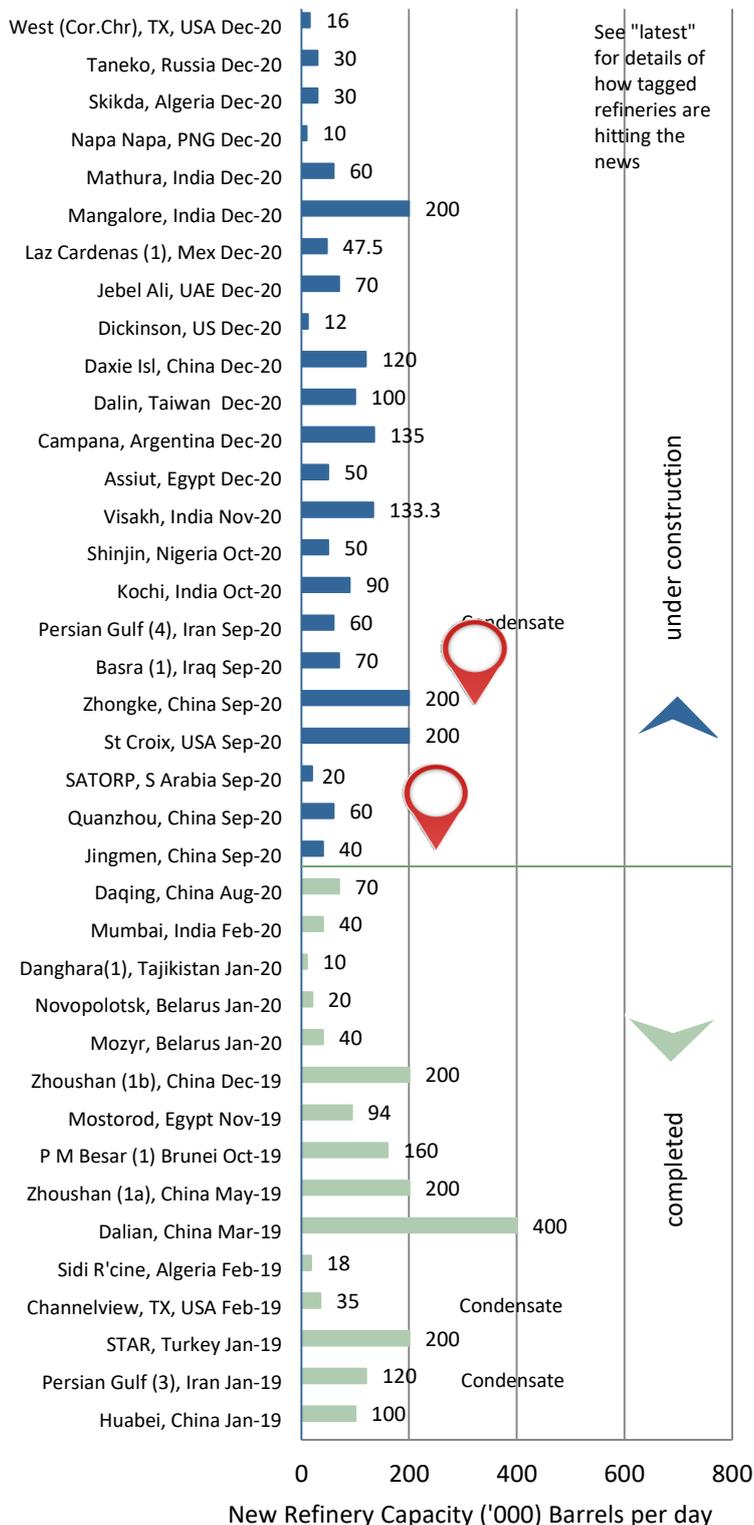
If you have questions or comments, please contact Charles R. Weber Research.

John M Kulukundis at: jmk@crweber.com

www.crweber.com

Timeline

Recent and Planned Refinery Additions



We estimate that net global refinery capacity increased by 1.5Mnbd in 2019. This built on increases of 0.8Mnbd in 2018, 0.7Mnbd in 2017, 0.8Mnbd in 2016, 1.1Mnbd in 2015, 0.9Mnbd in 2014, 1.3Mnbd in 2013 and 1.1Mnbd in 2012 (the latter two numbers are based on BP data).

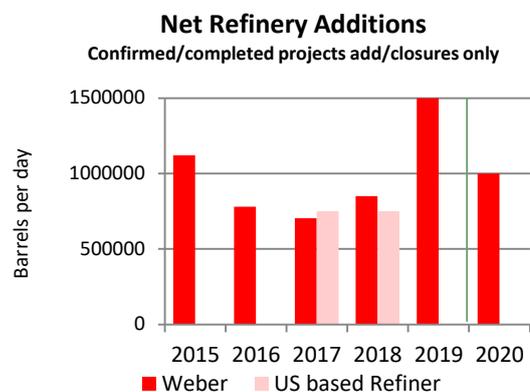
In 2020, almost 2Mnbd of new capacity (38 refineries) is currently under construction, although we anticipate capacity additions of around 1Mnbd, down from 2Mnbd at the start of the year. China (0.4Mnbd) is expected to lead the way, with a further 16 countries having >100Kbd under construction.

16 new refinery additions (each adding >=10Kbd) in 2014, 24 in 2015, 20 in 2016, 15 in 2017, 17 in 2018 and 10 in 2019.

In 2014-15, closures accounted for more than 1Mnbd of capacity. The rate of closures declined to 0.5Mnbd in 2016, 0.9Mnbd in 2017 and 0.2Mnbd in 2018.

Further expansion in domestic crude oil production will mean that the US remains a major driver of seaborne product trade in 2020. However, it can expect ever-intensifying competition from China, which returned product export gains of 8.3% in 2019 compared with a contraction of 3.6% in US exports.

The refinery timeline chart (left) is derived from Weber's own detailed tracking of new refinery projects. The chart below compares our summary forecast for refinery additions 2015-2020 with that provided by a large US based refiner. This comparative forecast factors in project delays beyond those reported by the refiners themselves.



If you have questions or comments, please contact Charles R. Weber Research.

John M Kulukundis at: jmk@crweber.com

www.crweber.com