## DECEMBER 2020 EDITION

## **ENKON OIL AND GAS NEWSLETTER**





## The good, the bad, and the beautiful

As we've said from the beginning of the COVID crisis, the virus is the primary force shaping all oil and gas market outcomes. US mobility demand is highly likely to rise next year as herd immunity is reached through a combination of immunity from vaccination or infection. We expect life in the US will return to "normal" by mid-to-late summer, although vaccinations from Johnson & Johnson and Oxford/AstraZeneca could significantly accelerate this time-line to as early as mid-March.

That's the good news. The bad news is that a new strain of COVID-19 may be up to 70% more transmissible than earlier variants, increasing the number of COVID infections, population morbidity, and total mortality. Even more stringent containment measures appear likely in the next few months, further constraining mobility demand.

Dark days lie ahead, but with the first vaccines receiving approval, we have likely reached the beginning of the end of the virus.

#### The good: vaccines

According to <u>Bloomberg's vaccine track</u>er, at least 500,000 Americans have already received vaccinations, while up to 5.1 million doses may be distributed through the week of December 21st. Vaccinations are expected to sharply reduce new infections, limit sickness, and provide support for mobility and energy demand. At the same time, a dangerous new strain of COVID threatens to increase the virus' spread.

#### The bad: COVID still looms over this winter

The United Kingdom reports that the SARS-nCoV-2 coronavirus has developed a new <u>variant called the B.1.1.7 lineage</u>. The new variant may be up to 70% more transmissible than the UK's previously primary strain; the UK also reports that B.1.1.7 has been circulating domestically since September. As of this writing, at least 40 countries have cancelled connecting flights with the United Kingdom (the United States, notably, has not). While flight cancellations seem appropriate, the hard truth is that it is extremely likely that other countries (including the United States) already have B.1.1.7 cases circulating domestically. In a nightmare scenario, COVID could mutate into an even more transmissible and deadlier strain than B.1.1.7 – although most public health experts believe this probability to be very low. We expect that COVID cases will continue to rise rapidly over the winter, due to colder weather and the more transmissible variant. Mobility and crude demand will likely suffer this winter on additional COVID-related curtailments—at least until vaccines eliminate the threat.

# The beautiful: the US could eliminate COVID as early as March

The next year could look much different. Fortunately, the new COVID variant does not appear, as of this writing, to degrade vaccine effectiveness, and vaccination progress is continuing apace. The Pfizer/BioNTech and Moderna vaccines are already being distributed, and additional vaccines could receive approval, accelerating the vaccination ramp (and a return to normalcy). We expect energy markets to track closely with results from the Johnson & Johnson vaccine, in particular.

The J&J vaccine, unlike the Pfizer and Moderna vaccines, only requires a single dose and can therefore be distributed quite rapidly. Clinical results from the J&J vaccine are expected in January. J&J says it seeks to produce at least a billion doses in 2021.

The Oxford/AstraZeneca vaccine could prove even more important. The <u>OxAZ vaccine</u>, if approved, could vaccinate up to a billion individuals with two doses in 2021. The OxAZ vaccine, which costs only \$3-\$4 per dose, could prove particularly important for developing economies and crude/LNG demand in south and southeast Asia.

If J&J receives FDA approval in February, and OxAZ quickly follows suit, vaccines could ensure that the US reaches effective herd immunity (through immunity from vaccination and/or infection) by March.

We will continue to monitor COVID dynamics, which are driving all oil and gas market outcomes. While the new B.1.1.7 COVID variant is highly concerning, it does not appear likely to derail vaccination progress. We continue to believe that 2021 will be a much better year than the current one.

#### Welcome to the Enkon Insights Newsletter

Every month, we feature fulllength articles, share critical stories in oil and gas commodities, and break down key trends.

Have opinions? Want to talk shop? Need more insights? Drop us a line:

info@enkonenergy.com

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# Commodity Outlook (90 days out)



#### **Oil Market Movers:**

Refineries are trying to ride out the winter by maintaining inputs within the "Goldilocks" window: keep inputs low to avoid a huge glut in gasoline, diesel, and jet fuel, but not so low as to necessitate a highly expensive shutdown.

U.S. total weekly refinery utilization rates have remained low, but stable, since the beginning of the pandemic. After falling to a low of 67.9% utilization in early May, refineries witnessed a slow recovery over the summer and have shown remarkable stability in the Fall. Weekly refinery utilization since September has not fallen below 71.8% nor exceeded 79.9%.

We expect this trend to continue through winter, now that the end of COVID is in sight. Refineries will likely continue to produce whatever minimum quantities can forestall an economic shutdown. Similarly, we see no reason why refineries will suddenly ramp up inputs for at least several months.

Interestingly, while jet fuel inventory levels are very high relative to current demand, stocks are actually below 5year averages. We suspect refineries will begin to reprioritize jet fuel production in the coming year, as passenger throughput is expected to surge on COVID vaccines and pent-up travel demand.

Libya's light, sweet Es Sider and Sharara export grades directly compete with U.S. exports of light, sweet crude. According to Platts, Libyan oil exports could rise to a 1.24 MMBPD in December, a 13-month high. Assuming this trend continues through 2021, U.S. crude exports could face some difficulties even though a post-COVID world will very likely lift world crude demand.

The future of Venezuelan and Iranian crude is unclear, but it's worth noting that some market observers believe U.S. sanctions pressure may be lessened in the coming months. At the same time, the U.S. Navy <u>reported</u> that two U.S. ships and one U.S. submarine transited the Strait of Hormuz on December 21st. COVID has largely muted geopolitical risks, but they could return in 2021.

OPEC+ cooperation will prove highly interesting in 2021. Besides the typical Iran/Saudi tensions, many producers are grappling with enormous budget deficits from COVID and are increasingly uncertain about the future of world oil demand. It's possible that several producers could splinter from the group in 2021, or that Russia could become less cooperative with the oil cartel.

#### LNG Market Movers:

LNG feed gas inflows are routinely exceeding 11 Bcf/d as terminals run at close to 100% capacity. It's easy to see why: LNG netbacks to Asia are extraordinarily high relative to the rest of the year on surging JKM prices, and terminals are rushing to take advantage. It's not all good news for US LNG, however: shipments could face pressure next year due to a shortage of available vessels.

Why are JKM prices currently trading above \$10/ MMBtu? The story is three-fold: first, the region has limited storage, and LNG/nat gas demand has held up well despite COVID.

Second, Chinese electricity demand is exceeding supply from baseload power sources, including coal. LNG has benefitted from the price of a substitute good rising.

The <u>People's Republic of China</u> has been trying to coerce Australia through tariffs on wine, barley, timber—and coal. Tthe PRC has not levied tariffs on Australian LNG, to our knowledge, however.

And it probably won't. The attempt to coerce Canberra may have represented some bad timing by Beijing, as it is suffering from increasingly <u>severe coal shortages amid</u> <u>hydropower outages</u>. With baseload fuel increasingly scarce in NE Asia, prices have risen.

Third, maritime shipping is increasingly scarce and expensive. LNG vessels are facing on-again, off-again troubles at the Panama Canal. More interestingly, Bloomberg <u>reports</u> that US LNG buyers are cancelling cargoes due to vessel unavailability. We will be watching maritime shipping very closely in 2021: a tight shipping market could be a major inflationary driver for many commodities next year.

Corpus Christi Train 3 is receiving substantial volumes already, although netbacks from spot cargoes to Asia have been constrained by rising shipping costs and issues at the Panama Canal. But with JKM spot prices above \$10/MMBtu, we think Cheneire will be quite willing to accept these costs and continue shipments.

#### NGL Market Movers:

Propane markets are still "in the money," although European demand is slipping and freight rates are pressuring export cargoes.

In ethane markets, we expect that ethane rejection will rise until inventory is worked off in the USGC (stocks have risen due to COVID19 and the series of hurricanes this year).

#### Natural Gas Market Movers:

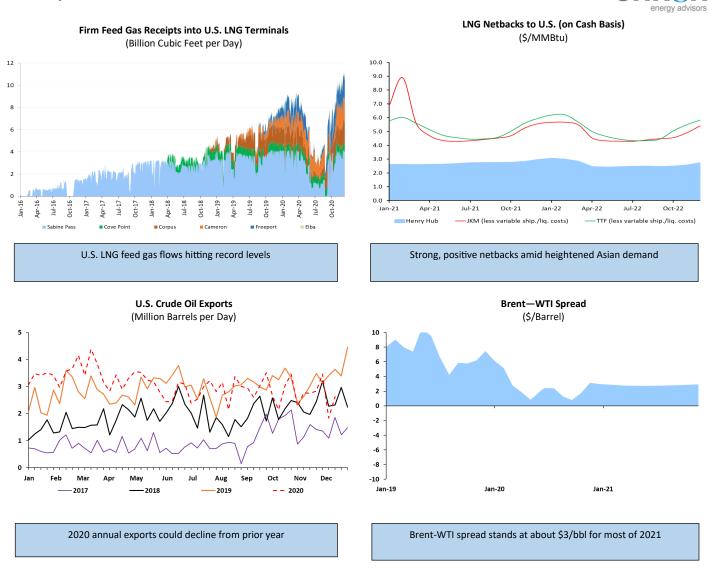
The most important factor in domestic natural gas markets remains the winter weather. The latest forecasts we've seen suggest some colder weeks ahead (giving rise to more nat gas consumption), but we'll just have to wait and see.

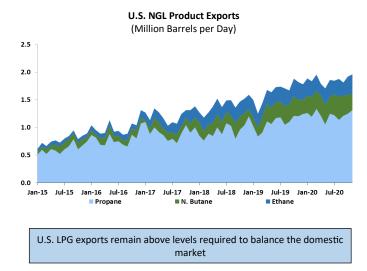
Since July 2nd, rig counts in Permian + Eagle Ford are up by 62; Haynesville + Marcellus rig counts rose by only 6 over the same period. We see associated gas production as an increasingly important factor in near-term markets. LNG feed gas inflows are routinely exceeding 11 Bcf/d as terminals run at close to 100% capacity. It's easy to see why: LNG netbacks to Asia are extraordinarily high relative to the rest of the year on surging JKM prices, and terminals are rushing to take advantage. It's not all good news for US LNG: shipments could face pressure next year due to a shortage of available vessels....

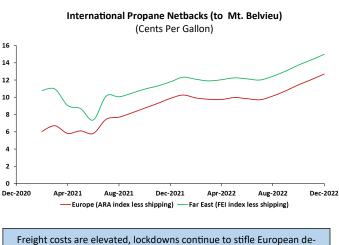
We will be watching maritime shipping very closely in 2021: a tight shipping market could be a major inflationary driver for many commodities next year.

Photos courtesy of Wikimedia user: <u>Aero-</u> prints.com and OKJaguar

## **Key Market Dashboards**





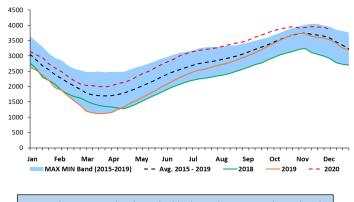


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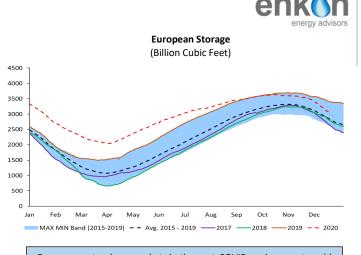
## **Key Market Dashboards**

### Natural Gas in Storage, Lower 48

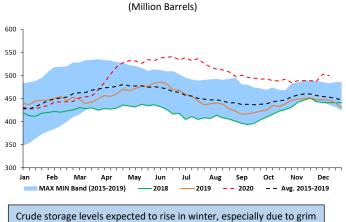


Natural gas storage levels are highly dependent on weather-related demand — LNG exports at peak capacity

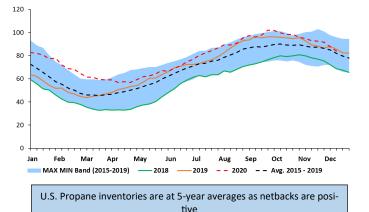
U.S. Crude Oil Commercial Storage Inventory

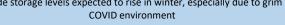


European natural gas markets in the post-COVID environment could provide important signal for future of natural gas





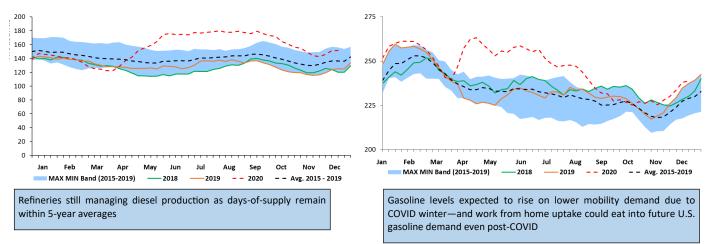




**U.S. Diesel Storage Inventory** 

(Million Barrels)





# **Our Subscription Product Offerings**

# Regional NGL Benchmarking & Outlook

## (Research, intelligence and insights into Supply, Logistics, Pricing, Disposition and Outlook)

Each quarter, Enkon provides clients a unique, bottom-to-top analysis of NGL supply, logistics, pricing, netbacks, product disposition and outlook for eight NGL producing basins in the U.S. The granularity of the analysis makes this product unique. The analysis identifies NGLs (by purity product) produced at each of the ~700 U.S. gas processing plants as the building block of the analysis to quantify asset utilizations across the midstream value chain.

Ap	palachian	Rockies	Haynesville-Bossier
I	Permian	Bakken	Barnett
Ea	agle Ford	STACK/SCOOP/MERGE	LA Gulf Coast
	Deliverables	Format	Update Frequency
1	NGL Benchmarking	Report (MS PowerPoint)	Quarterly
2	NGL Benchmarking Report discussion & review	Report (MS PowerPoint) In-Person Meeting/Conf Call	Quarterly Quarterly
	0		
2	Report discussion & review	In-Person Meeting/Conf Call	Quarterly

## U.S. Gulf Coast Liquid Cavern Storage Benchmarking (Research, intelligence and insights into NGL, Olefins, Refined Product Cavern Storage)

Once a year, Enkon provides clients a one-of-a-kind, comprehensive lay-of-the-land and granular benchmarking for ~250 non-crude liquid-hydrocarbon salt cavern storage wells in Texas and Louisiana. The report provides regional analysis of cavern storage capacity versus brine pond capacity in each of the dome locations. The report also identifies product storage in each of the cavern wells along with historical product injection, withdrawal, inventory and cavern utilization.

Texas Cavern Coverage		
Barbers Hill (Mont Belvieu)	Hull	
Stratton Ridge	Spindletop	
Markham	Fannett	
Clemens	Sour Lake	
Pierce Junction	Boiling	
West/Panhandle Texas	East Texas	

Louisiana Cavern Coverage			
Sulphur	Bayou Choctow		
West Hackberry	Napoleonville		
Arcadia	Sorrento		
Pine Prairie	Venice		
Anse La Butte	Section 28		

## **Regional Fractionation and NGL Export Terminal Benchmarking & Outlook**

Each quarter, Enkon provides clients a provide a historical benchmarking and comprehensive outlook of Y-grade NGLs in the U.S. Gulf Coast with the objective of quantifying incremental need for fractionation capacity in various locations in US Gulf Coast, namely Mont Belvieu, Sweeny and Louisiana, and adequacy of NGL export capacity in the USGC and Northeast.

## North America LNG Export Project Benchmarking & Outlook (Research, and insights into U.S. Liquefaction Projects)

Each quarter, Enkon undertakes an exhaustive review of over 24 post and pre-FID North American LNG export terminals; summarizing the North American LNG export terminal landscape, LNG nameplate capacity and feed gas forecasts, key market trends, and a competitive assessment of pre-FID North American terminals. For each project, we report terminal attributes, commercial models, key regulatory milestones, risk assessments, and, for existing terminals, historical feed gas receipts (by pipeline), and estimated weighted average landed cost of feed gas into the terminal.



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