OCTOBER 2020 EDITION

ENKON OIL AND GAS NEWSLETTER

Welcome to the Enkon Insights Newsletter

Every month, we feature three full-length 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

Inside this issue:

U.S. Ethane Prices in for an Uptick?

Ethane prices at Mont Belvieu have been on a roller coaster this year- from the lows of 10 cpg in March 2020, to 25 cpg in August, and more recently back to just under 20 cpg. A similar but more pronounced trend can be observed in the ethane frac-spreads at Mont Belvieu, which have swung from negative frac spreads to 15 cpg in August, and are now settling at just under 10 cpg. While rig counts in oiler basins west of Appalachia have declined, data suggests that ethane extraction volumes remained largely unchanged from 1Q2020 to 2Q2020. Volatility in ethane prices has therefore largely driven by idiosyncrasies and outages in the ethylene industry, while natural gas fundamentals (which impact ethane rejection dynamics) have further contributed to the extreme volatility. Ethane prices can change fast…and it looks like the stars are aligning for ethane price uptick.

Lake Charles, Hurricanes, and Ethane

To understand ethane markets, let's first turn to Lake Charles, which has experienced an eventful summer. The Lake Charles O&G complex is only now coming back online after enduring some nasty hurricanes. As of early October, ~20% of U.S. ethylene cracking capacity was offline due to planned and unplanned outages caused by Hurricane Laura; a large portion remains offline due to delays caused by Hurricane Delta. Hurricane Laura made landfall on August 27th, shutting down over 0.25 million barrels per day (MMBPD) of ethane demand for weeks as exporters raced to clear debris, bring back employees, and restore electricity. Things were getting back to normal – until Hurricane Delta threatened to severely damage the Lake Charles area again in early October.

Fortunately, Hurricane Delta did little damage to the Lake Charles O&G and petrochemical complex. We expect ethane demand to continue to recover as exports rise and ethylene plants turn the lights back on, ramping up to meet a strong export demand from the plastics value chain. With uncertain supply, and demand starting to recover and even increase in 2021/22 as new ethane-based steam crackers come online, ethane prices are primed for an uptick.

Supply in the Permian

There are some signs that ethane supply could face near-term difficulties. Drilled but uncompleted wells, or DUCs, are showing softness. DUC's can go only so far to maintain let alone grow production. U.S. rig counts, on the other hand, have fallen nearly 69% from year-ago levels. While rig counts have ticked up in recent weeks, there's nothing on the horizon that would suggest a crude oil recovery is imminent. With crude oil production under considerable pressure, NGLs output appears set to follow. For ethane, though there is one quirkiness – there are still ~300-350 MBPD of ethane that is being rejected in the Permian basin at current levels of oil production, which at the right price can come to the market.

Ethane demand is rising

Since hurricanes and tropical storms appear to no longer threaten the Gulf Coast this year, we expect that ethylene plants will come online very soon. As of this writing, Entergy has restored power to all but 2,200 customers – far below the 300,000 customers who couldn't access power two weeks ago. We expect that restoring power to Lake Charles will lead to about 0.25 – 0.35 MMBPD of ethane demand coming back online in the very near term. There are also some new crackers coming online, adding to demand. For a more detailed assessment of the Lake Charles petrochemical complex and USGC ethane supply-demand outlook, drop us a line.

Finally, ethane demand could strengthen on two other near-term trends: rising Henry Hub natural gas prices, and a new export outlet at the Orbit terminal in Nederland. Assuming Henry Hub prices continue to show strength, floor on ethane prices will strengthen due to higher rejection price thresholds. Similarly, Energy Transfer and Satellite Petrochemical will soon bring their 0.175 MMBPD ethane refrigeration facility online (we're hearing that they're having some difficulties with the start-up, however). With demand rising and supply under pressure, inventories could face drawdowns, supporting prices as we enter 1Q2021 and progressively increase in 2021 and 2022.

On balance, our view is that prices will settle into a sub-25 cpg price for 4Q 2020, especially if it takes time for natural gas markets to balance, and if there are delays in ramping up cracking operating rates in the USGC. Prospects of increased ethane recoveries in 2021/22 is good news not only for the ethane producers but also for midstream companies that have invested in NGL pipelines and fractionation facilities on the Permian basin growth story.

Winter is coming: COVID and Petroleum products demand

"...if COVID cases continue to rise, energy demand will be curtailed. Commodities (and especially oil) could face substantial-to-severe price pressures this winter. We expect that the glut of diesel will only worsen."

Crude Oil News:

ConocoPhillips in Talks to Buy Concho Resources in Big Shale Bet

Aramco doubles down on oil

Inside the Airline Industry Meltdown

Max Midstream acquires Seahawk pipeline, eyes Calhoun terminal

WPX, Devon Energy to merge

Two-thirds of upstream execs think US oil output has peaked

Scientists have repeatedly warned that colder temperatures in fall and winter could lead to a surge in COVID cases. Initial evidence supports that theory: cases are rising in the United States (especially in many northern states), Canada, and Russia. If COVID cases surge in the winter as predicted, domestic and international oil and gas demand will suffer.

A return to record lows for crude and crude products demand seen in March and April appears highly unlikely, however. Governments, businesses, and consumers have a much better understanding of the virus and are much better equipped to manage risks than they were earlier this year. Still, if COVID cases continue to rise, energy demand will be curtailed. Commodities (and especially oil) could face substantial-to-severe price pressures this winter. We expect that the glut of diesel will only worsen.

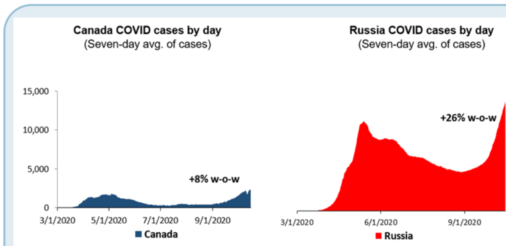
Intemperate Weather, More COVID?

According to the CDC, COVID-19 spreads primarily "from person to person, mainly through respiratory droplets produced when an infected person coughs, sneezes, or talks." COVID appears to spread most easily indoors in poorly-ventilated rooms, and when individuals are in close proximity to one another and not wearing face coverings. According to many epidemiologists, COVID transmission becomes more likely if individuals are confined to indoors (higher-risk) activities rather than outdoors (where droplets can disperse more easily).

While many variables (population density, public policy measures, herd immunity, etc.) impact COVID infection growth cases, temperature also seems to play a role. If outdoor activity becomes unbearably hot or intolerably cold, individuals become more apt to spend more time indoors, where they are at greater risk of infection. For instance, at temperatures of 90° Fahrenheit, a Florida couple might choose to eat indoors at their favorite restaurant – but they might prefer to eat outdoors under balmier conditions. Similarly, if temperatures dip below 10° Celsius, a group of friends in Toronto might cancel their outdoor picnic and instead head to a nearby cinema. In both instances, intemperate temperatures have "pushed" individuals into crowded indoor environments, where they are now more likely to contract (and transmit) COVID.

We are persuaded that weather plays a role in COVID transmission – not just because of the logic of the process described above, but also because it seems to be reflected in the data. In the United States, COVID cases spiked most this summer in hotter, southern states. There's already some evidence that northern states are about to experience rising COVID cases, as 8 of the 10 states with the highest daily reported cases per capita are in "northern" climates (and Missouri and Utah are borderline cases). The international evidence is even more clear-cut.

Canada and Russia are two very different countries, but they share something in common: extremely cold Winters, and chilly Falls. They are also experiencing a rise in COVID cases.



Rising cases in Canada and Russia could prove to be a leading indicator for northern U.S. states. Canada not only shares a border with northern U.S. states but also has a similar climate, as approximately 90% of Canadians live within 100 miles of the U.S. – Canada border. If the intemperate temperatures -> higher COVID cases thesis is correct, then we could see a cascading wave of cases in the U.S., with outcomes varying by latitude.

Winter Products Demand

Crude products demand for gasoline, diesel, and jet fuel consumption peaks in the summer and slows in the winter. Gasoline consumption is particularly strong in the summer as consumers take vacations and road trips; diesel demand generally falls in summer months; and jet fuel demand is strongest in the summer (again, due to vacation season). From 2015 – 2019, monthly products demand peaked in August, at an average of ~15.5 Million barrels per day (MMBPD). Conversely, products demand typically finds a trough in January, when products demand averages 14.3 MMBPD, on average.

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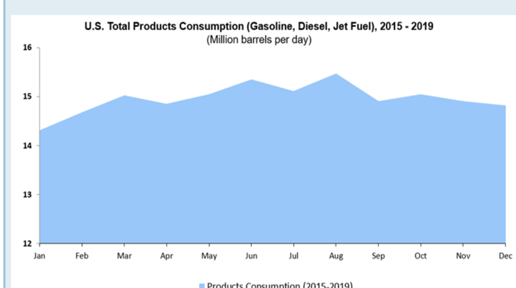
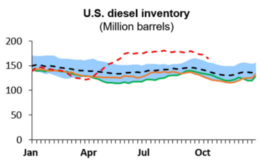
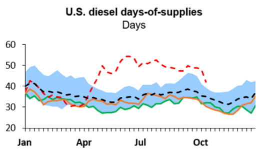


Seasonally lower products demand will reduce any impact of COVID-related economic curtailments, but the effects could still be quite serious. National refinery utilization rates stand a touch above 70%, or the point at which many refineries no longer find it profitable to operate in the short-run. Any further hit to demand could therefore lead to short-term refinery closures. We don't believe widespread refinery closures will occur this winter – but we also can't rule it out. In any event, diesel inventories will likely come under even greater pressure.

Winter is coming: COVID and Petroleum products demand (continued)

Total diesel inventories are already well above 5-year averages. More importantly, diesel inventories are well above projected demand levels. The EIA reports that the U.S. has about 42 days of inventory of distillate supply as of the second week of October. In the same periods in 2018 and 2019, however, the EIA reported days-of-supply of only about 32 days. This divergence appears set to continue over the winter.





Diesel glut: only growing?

As we've mentioned, winter diesel demand could show stark y-o-y declines due to COVID dynamics. Diesel supply is a little more uncertain: refineries are already close to shut-down levels and cannot reduce output without closing down. With demand constrained, and supply potentially holding steady, we expect to see an even larger glut of diesel supply this winter.

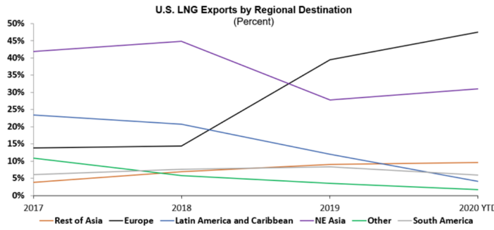
U.S. LNG: Looking Ahead to Next Summer… and Beyond

It's been a difficult year for U.S. LNG exporters: we've repeatedly said this past summer was the Summer from Hell. Will conditions improve next year, or will we see a repeat of this summer, with dozens upon dozens of cargo cancellations?

To look to next summer, let's consider the 2020/2021 winter. Europe and Northeast Asia are the two most important destinations for U.S. LNG. Two factors this winter will likely determine U.S. LNG's conditions next summer: European storage levels, and Northeast Asia's ability to contain COVID-19 cases from surging. The initial signs out of Europe are not encouraging for U.S. LNG: COVID cases are soaring, while the continent could receive a glut of gas from new pipelines from Russia and Azerbaijan. It remains to be seen if Europe will experience another record-hot winter, which would constrain natural gas demand. Northeast Asia is fighting back another wave of infections, for now. Development, production, and distribution of a COVID vaccine will be a major unknown. While LNG winter netbacks will likely remain "in the money," supporting U.S. exporters, next summer could be another difficult one. We think next summer will see improving conditions, but significant cancellations are still possible.

U.S. LNG exports today – and next summer

According to the most recent EIA data, about 80% of all U.S. LNG exports go to Europe or NE Asia. Europe's share of exports has surged over time, as European offtakers started to receive shipments from new trains coming online in Sabine Pass, Corpus Christi, Cameron, and Freeport. Just as importantly, the U.S. – China trade war capped LNG exports and resulted in flows shifting from Asia to Europe. While the Indo-Pacific will likely contribute the lion's share of future, incremental LNG exports, Europe is the most important market for U.S. LNG *today*.



Source: Enkon Research and Analysis, EIA

Given that Europe and NE Asia are the most important export markets for U.S. LNG, how does demand look? As we've said for months, COVID-19 is the single most important variable for all market outcomes. The outlook is grim in Europe, and uncertain in NE Asia.

Europe is now reporting record numbers of COVID cases – higher than even the United States, and hospitals are rapidly filling up with COVID patients. NE Asia is a big question mark. Although cases in NE Asia have been very low, there appear to be some risks going into winter. Mainland China reportedly tested all 9 million residents of Qingdao for coronavirus after a local outbreak; more troublingly, there may be an unreported cluster of cases in Jiangsu province.

To Next Summer… and Beyond

While COVID dynamics will get most of the attention this winter, weather conditions could prove more important for LNG's long-term prospects. Europe experienced its hottest temperature on record last year, limiting demand for LNG and other sources of energy. If winter temperatures continue to rise across the continent, reducing "cooling days demand" and constraining LNG demand, prospects for future U.S. LNG exports will become increasingly grim.

Europe is the single largest destination region for U.S. LNG. If its ability to absorb natural gas is permanently degraded, new LNG projects will be forced to increase their reliance on Asian gas markets and face even greater hurdles to taking FID.

Greater international competition ahead?

On the supply side, U.S. LNG could face even greater competition, particularly from the Qataris. We've heard that Qatari associated gas is costless when oil prices exceed $30/bbl – and Qatar can sell into European spot markets below $2.00-2.50/MMBtu landed (i.e. after including upstream, liquefaction, and shipping costs). U.S. LNG cannot compete at those prices. European could also receive major volumes from two pipelines this year or next year: the Trans Adriatic Pipeline, or TAP; and the highly controversial Nord Stream 2. While EU natural gas production is expected to decline, U.S. LNG exports will face serious competition.

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NGLs News:

US Gulf production, operations restart after Delta

Shell's Pennsylvania ethane cracker about 70% complete

Inter Pipeline to acquire Milk River pipeline system from Plains All American

LyondellBasell and Sasol form Integrated Polyethylene Joint Venture

LNG News:

Europe's Glutted Gas Market Braces for More Flows From Caspian

Naturgy renegotiates long-term LNG contracts

Sempra shifts target for permit, investment decision for Mexico LNG project

Blackstone Energy Partners Closes Sale of 42% Stake in Cheniere Energy Partners, L.P.

LNG newbuild deliveries to buoy fleet size this winter

U.S. LNG: Looking Ahead to Next Summer… and Beyond (Continued)

No U.S. LNG projects expected to take FID this year… or next year

Even before the pandemic, we were skeptical of projects moving forward due to considerable supply/demand imbalances in world LNG markets. With demand taking a hit from COVID (as well as gas-to-coal switching in China), and Qatar waiting in the wings with even more capacity, we see few reasons for optimism about North American LNG. Qatar will most likely play its trump card – mega expansion backed by ridiculously cheap natural gas, thus increasing the bar for greenfield projects globally. The boat for 3rd wave of U.S. LNG may have sailed already.

It's also worth noting that problems in the U.S. oil complex will likely spill over into LNG. Capex budgets are facing major reductions, with producers like Energy Transfer cutting their capex by 10% or more. With capex funds from their sponsors increasingly scarce, marginal LNG projects (such as Energy Transfer's Lake Charles LNG) will face even greater challenges. Some projects will suffer indirectly, such as Corpus Christi Stage III. With many upstream producers struggling to maintain oil and gas production in the Permian and Eagle Ford basins, gas supply agreements could become less viable. Corpus Christi Stage III has inked two GSAs (with EOG and Apache, respectively), but could face greater difficulty signing similar deals with upstream producers in the future.

We continue to believe that no North American projects will take FID in 2020, 2021, or 2022, with the possible exception of Sempra's Costa Azul. Pre-COVID headwinds made FID very risky, and the worst economic conditions since the Great Depression have only worsened the outlook.

Better, but still bad – or even worse?

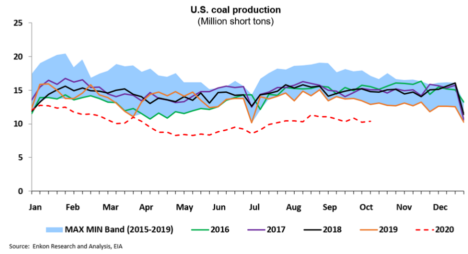
COVID continues to inject uncertainty into the macroeconomy and world energy demand. Nevertheless, we see some discouraging signs for U.S. LNG. COVID cases are rising across the world, constraining economic activity and energy consumption, while the LNG industry still suffers from excess capacity. Summer 2021 probably won't be as bad as this year, particularly if a vaccine is developed and distributed quickly. Still, many of the risks are to the downside. It's too soon to rule out a second Summer from Hell for U.S. LNG.

A post-Coal U.S. is in sight

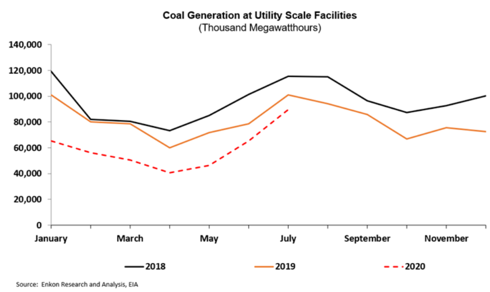
It's only a matter of time before U.S. coal consumption plummets . In this article, we'll discuss how coal's struggles will provide significant opportunities for natural gas and renewables.

Upstream woes continue

United States YTD coal production is down over 25% from 2019. This cannot be totally attributed to COVID-19, either: production levels in (pre-pandemic) January 2020 were about 15% lower than January 2019. Declining coal production is a consistent, years-long trend.



Declining coal production is reflected in electricity generation statistics. According to the EIA's latest data, coal generation at utility-scale facilities reached nearly 90,000 Megawatt hours in July 2020, down 10% and 22% from the same prior-year periods in 2019 and 2018, respectively. And it's worth noting that July was a relatively good month for coal consumption.



Except for July, monthly coal consumption at utility scale facilities this year is down more than 30% from comparable 2018 levels. There are three explanations for this shift: electricity consumption is tied to economic activity, which is down sharply this year; weather patterns and temperatures vary significantly from year-to-year; finally, coal is getting squeezed by more competitive generation sources, such as natural gas and renewables. Low natural gas prices and the renewed focus on climate change will likely restrict coal's future.

Coal's share of electricity generation at utility-scale facilities has shown year-over-year declines for over 30 months. Indeed, the recent uptick in coal consumption could reflect something akin to a "dead cat bounce," as surges in coal inventories cratered prices and incentivized greater purchases. We expect coal usage to continue to trend downward, especially over the medium-term.

Coal's decline benefits natural gas and renewables

As coal has declined, renewables – and especially natural gas – have become increasingly dominant players in the U.S. electricity generation mix. In (pre-pandemic) January 2020, natural gas burn stood at 39% of all generation at utility-scale facilities, up from 30% in January 2018. With coal's share falling from 32% to 19% over the same time period, natural gas took the bulk of generation that would have gone to coal. We suspect that trend to continue over the medium-term: natural gas will be a major beneficiary of coal's decline. In a future article, we'll take a closer look at how natural gas and renewables could fare as we move closer and closer to a post-coal U.S.

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Natural Gas News:

Milder US weather to limit upside for gas-fired heating demand this winter

Southeast, Texas gas storage surpluses risk another cash-market rout at Henry Hub

EIA sees rising US gas demand, exports pushing up winter Henry Hub prices

Annual Report Mileage for Natural Gas Transmission & Gathering Systems—US DOT PHMSA

Coal News:

US company hopes to build underground CO2 storage facility in Louisiana

US weekly coal production totals 10.3 million st, down 22.9% on year: EIA

Coal, nuclear retirements in US Midwest might boost gas-fired power demand

Oregon's only coal-fired power plant closes for good

Images from Wikimedia Commons: Maciek Kwiatkowski, Martian-2007, Downtowngal, Qyd, Joshua Doubek, Carol M. Highsmith

Commodity Outlook (90 days out)

enkon energy advisors

Oil Market Movers:

Most models show that this winter will see the worst COVID environment yet. With COVID cases rising across the world, significant economic curtailments this winter are expected, weighing on crude and crude products demand. Hold fast.

We expect jet fuel demand to take even further hits later this year. While the jury is still out on whether or not the activity of air travel is safe, we suspect that very few individuals and firms will be willing to travel (or host visitors) if COVID cases hit record highs, hospitals don't have enough beds for patients, etc.

Further reductions in jet fuel demand will only compound refineries' problems in managing their product mixes, as jet fuel inventories are already at historic highs. If gasoline demand levels maintain at about their same range, then refineries will have to either 1) maintain crude runs, which would lead to a glut of jet fuel (and probably diesel); or 2) cut crude runs, limiting gasoline sales but forestalling a glut in jet fuel and diesel inventories.

We think that refineries will prefer to overproduce jet fuel (and diesel) if they're forced to choose, since there appears to be ample storage capacity— but things will be weird this winter. Some regional or local markets could see strange outcomes, and, with refinery utilization rates hovering around 75% in some markets, we won't be shocked if a refinery or two undertakes a short-term shut down. Global oil supply is still under pressure, with Saudi indicating it will add more spare capacity over the medium-term and higher potential for OPEC quota cheating.

In other news, the U.S. oil sector is consolidating and becoming more efficient as upstream producers achieve greater scale. Chevron announced it will acquire Noble Energy, while ConocoPhillips is in talks to buy Concho Resources. Like everyone else, we are very curious to see if Oxy will be bought out. We wouldn't be surprised if some private equity folks are examining opportunities in the O&G space. While some assets may be underpriced, we're also hearing more concerns about two peaks: peak world oil demand, and peak U.S. oil production. We don't dismiss either proposition out of hand. We'll discuss these topics more in future newsletters.

Overall, there are significant headwinds that will prevent WTI crude oil to trade consistently above $40/Bbl over the next few months.

LNG Market Movers:

Conditions are finally improving for LNG: netbacks are positive, and we're (probably) past this year's rather nasty hurricane season. But what next year's hurricane season be any better, or is this the new normal?

In the article above, we talked about how this past summer was extremely unfavorable for LNG exporters: it started with mass cargo cancellations, and was bookended with debilitating hurricanes which devastated communities around the terminals, led to electricity shortages, and scattered personnel. Cameron has faced reduced capacity for over a month, while Sabine Pass was down for weeks.

Sabine and Cameron are resuming operations post-Hurricane Delta while Cove Point has exited maintenance; exports will likely exceed 8 Bcf/d soon and reach 10-11 Bcf/d by Nov. On the demand side, If COVID hits very hard this winter, it may potentially constrain European LNG demand – we are not out of the woods yet...

NGL Market Movers:

We're waiting for an uptick in ethane demand as 300-350 MMBPD of Lake Charles-area cracking ethane demand is coming back online after summer storms. We expect a much tighter 4Q, but ethane can be volatile. Stronger natural gas price would raise the bar on ethane rejection in key producing basin.

Propane markets are getting support from stronger exports, which are now "in the money" on seasonal demand. Crude oil price around $40/bbl has helped maintain U.S. exports at/above 1.0 MMBPD as exports arbs improved- but this also makes naphtha a more competitive feedstock in Asia.. If the Asian LPG demand recovery proves to be sustainable, growing international arb post lifting of shipping constraints may allow MB propane more headroom to rise in 4Q2020.

Butane markets seems balanced and may get tighter if crackers resume operations and gasoline demand picks up. Fundamental support butane prices to trade at 65-70% of WTI in 4Q2020. We raise our prior guidance for C5+ to between 85-90% in 4Q2020, however downside to gasoline demand due to COVID exists.

Natural Gas Market Movers:

It's choose your own adventure time in natural gas markets. There is a lot of uncertainty and volatility in natural gas markets at the moment...and no wonder some natural gas storage assets are on the sales block again!

We believe there is significant upside potential to Henry Hub natural gas prices as we get into the winter—but also some risks. Normal/colder winters, resumption of LNG exports at/near capacity and increased flows to Mexico all lend support to higher gas prices. However, as mentioned earlier, natural gas faces risks from sluggish LNG demand due to COVID, or if the U.S. winter fails to increase heating demand. Inventories are also relatively high.

There aren't many signs that U.S. suppliers are prepared for a sharp decrease in demand, should it materialize. Gas production was down in the EIA's most recent data, —but that was likely due to the lingering effects of Hurricane Delta. Importantly, rig counts have slowly risen in recent weeks, but the increase doesn't seem meaningful to sustain let alone grow gas production in key basins. DUC monetization can only carry U.S production so far...

Assuming there is no meaningful recovery in rig counts, natural gas markets will be tighter as we enter injection season in 2021. If you'd like more insights into our natural gas outlook, drop us a line.

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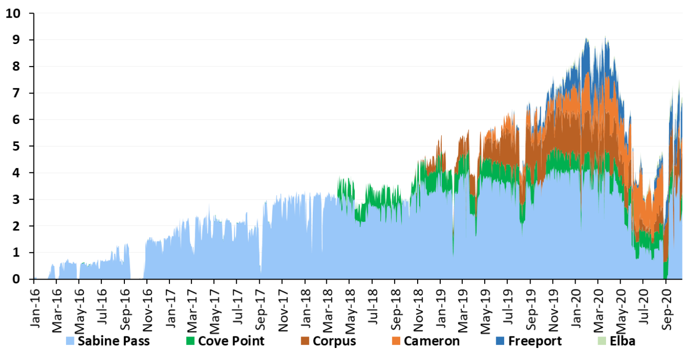
Images from Wikimedia Commons: Maciek Kwiatkowski, Martian-2007, Downtowngal, Qyd, Joshua Doubek, Carol M. Highsmith

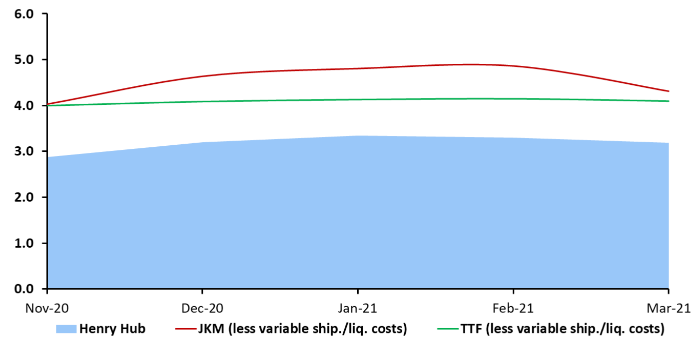
Key Market Dashboards

Firm Feed Gas Receipts into U.S. LNG Terminals
(Billion Cubic Feet per Day)



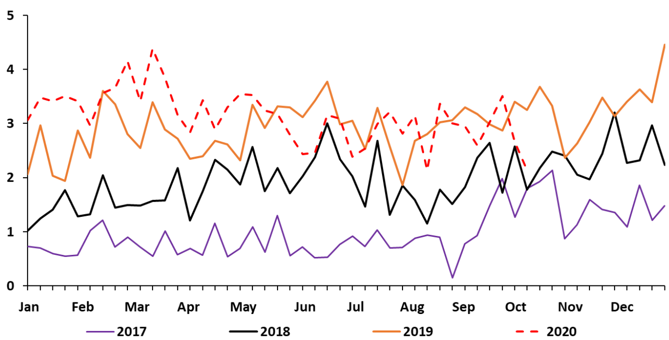
U.S. LNG feed gas flows beginning to approximate "normal" levels amid positive netbacks

LNG Netbacks to U.S. (on Cash Basis)
($/MMBtu)



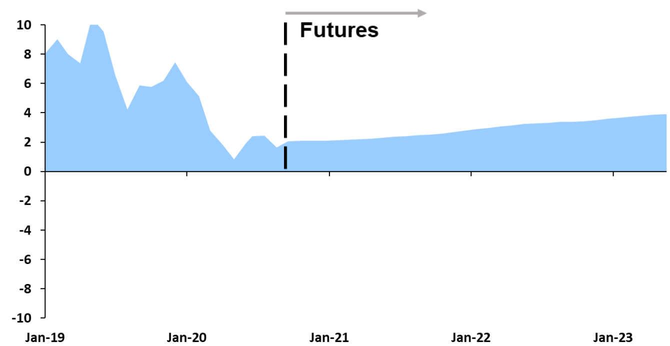
Netbacks are positive, but there are some real risks from COVID in Europe and India

U.S. Crude Oil Exports
(Million Barrels per Day)



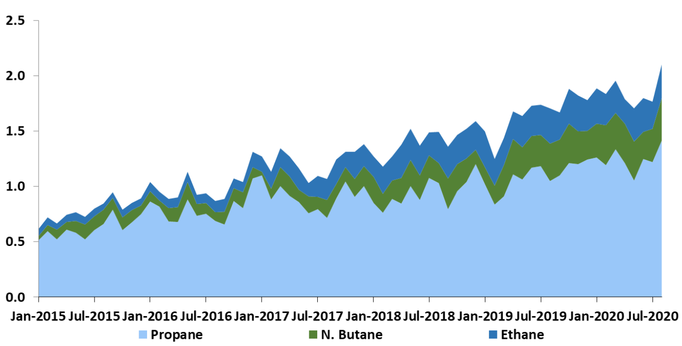
Crude exports have held up relatively well amid Gulf Coast storms

Brent—WTI Spread
($/Barrel)



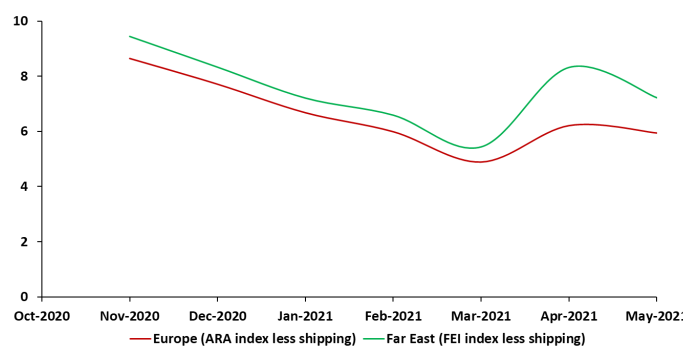
Brent-WTI spread is projected to rise gradually, but overseas COVID dynamics could pressure Brent and threaten this trend

U.S. NGL Product Exports
(Million Barrels per Day)



U.S. LPG export remain above 1.0 MMBPD, the level we believe is required to balance domestic market

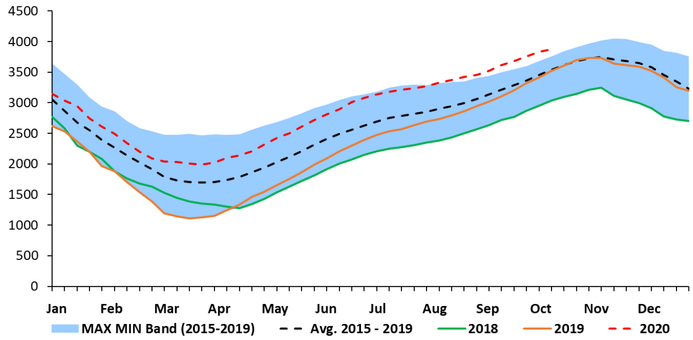
International Propane Netbacks (to Mt. Belvieu)
(Cents Per Gallon)



Netbacks expected to rise in winter months, but we see downside risk for U.S. propane prices in the near term

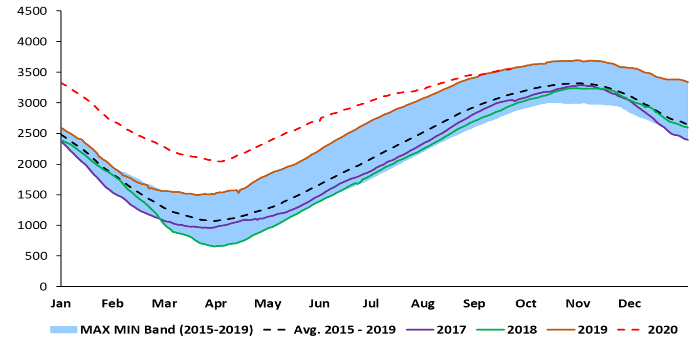
Key Market Dashboards

Natural Gas in Storage, Lower 48
(Billion Cubic Feet)



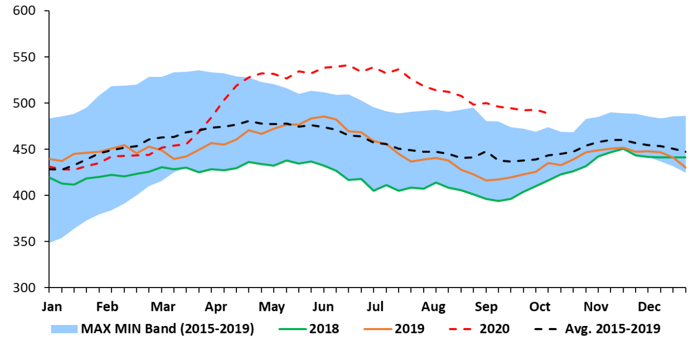
Will LNG exports relieve growing inventory pressures?

European Storage
(Billion Cubic Feet)



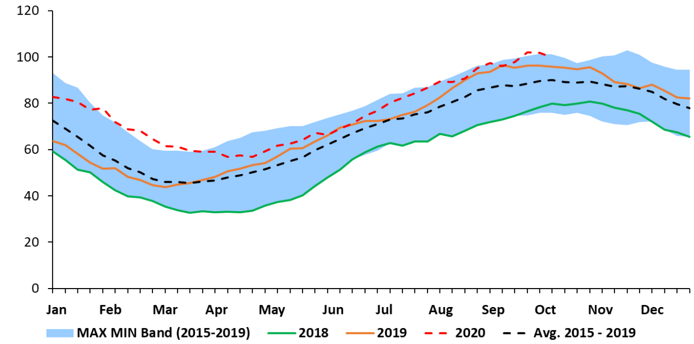
European demand/COVID remains a real concern although storage levels are now settling within 5-year averages

U.S. Crude Oil Commercial Storage Inventory
(Million Barrels)



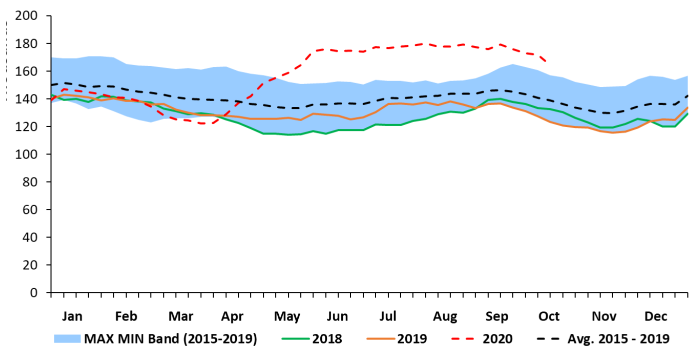
Crude storage levels remain elevated heading into a challenging winter season

U.S. Propane/Propylene Storage Inventory
(Million Barrels)



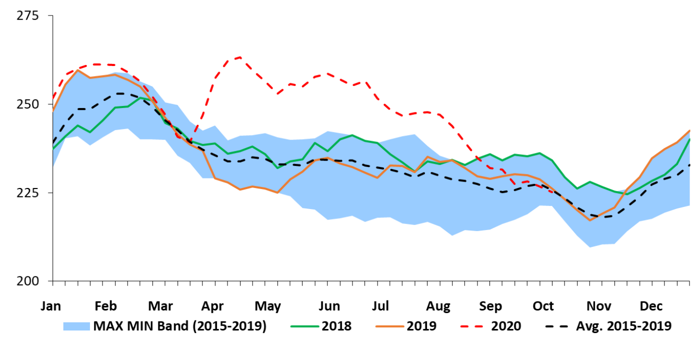
U.S. Propane inventories remain elevated and without sustained export volumes there is a significant downside risk to price

U.S. Diesel Storage Inventory
(Million Barrels)



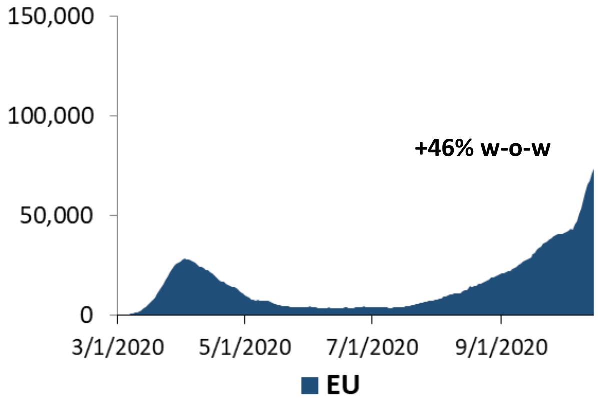
Diesel (and jet fuel) dynamics are worth watching carefully this winter

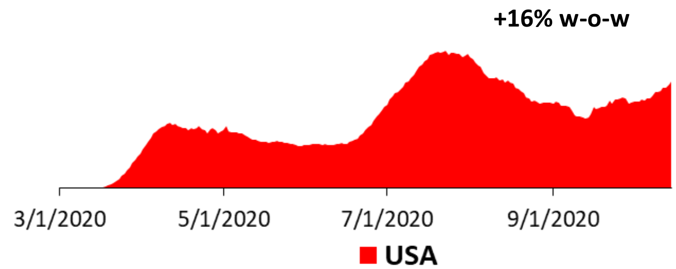
U.S. Gasoline Storage Inventory
(Million Barrels)

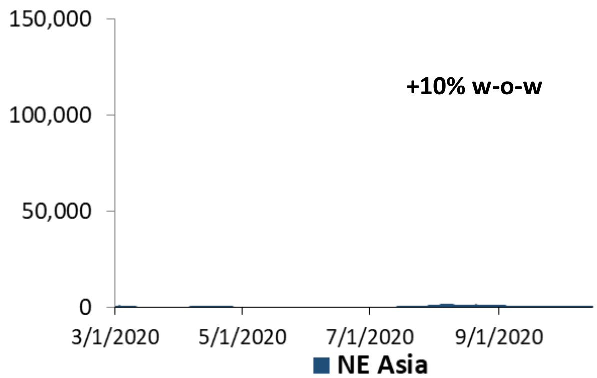


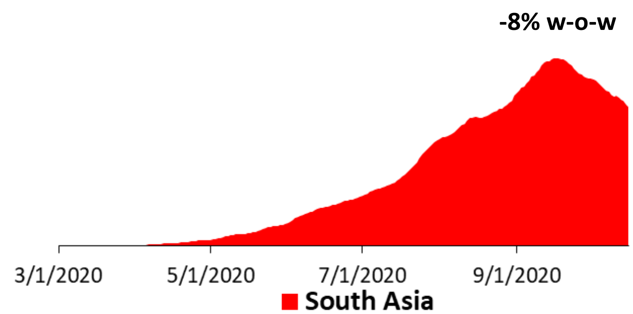
Gasoline days of supply (as calculated by the EIA) approaching normal levels

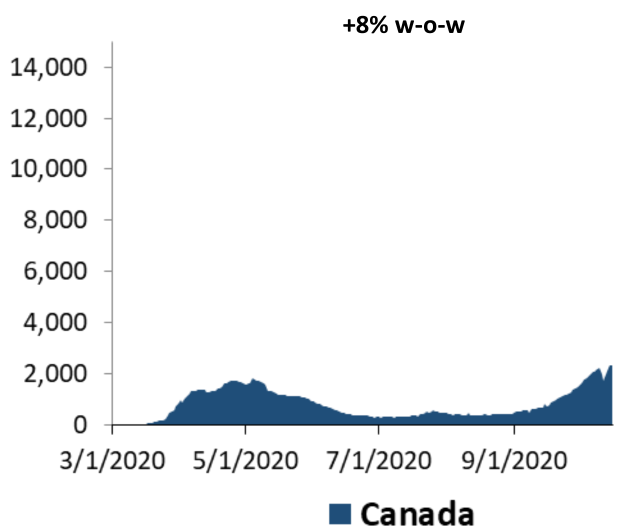
Key COVID Daily Case Dashboards (7-day averages)

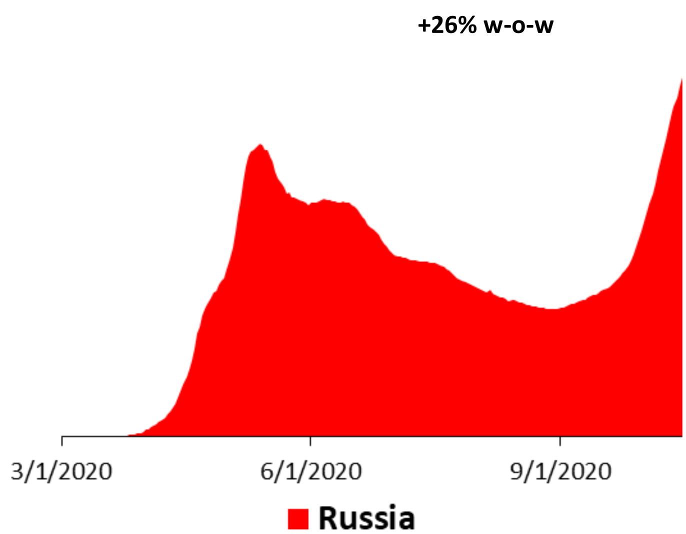












Our Subscription Product Offerings

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.

Appalachian	Rockies	Haynesville- Bossier
Permian	Bakken	Barnett
Eagle Ford	STACK/SCOOP/MERGE	LA Gulf Coast

	Deliverables	Format	Update Frequency
1	NGL Benchmarking	Report (MS PowerPoint)	Quarterly
2	Report discussion & review	In-Person Meeting/Conf Call	Quarterly
3	Supporting data sets	Secured online portal	Quarterly
4	Market insights	Memo	Monthly

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		Louisiana Cavern Coverage	
Barbers Hill (Mont Belvieu)	Hull	Sulphur	Bayou Choctow
Stratton Ridge	Spindletop	West Hackberry	Napoleonville
Markham	Fannett	Arcadia	Sorrento
Clemens	Sour Lake	Pine Prairie	Venice
Pierce Junction	Boiling	Anse La Butte	Section 28
West/Panhandle Texas	East Texas		

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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