GELBER MONTHLY JOURNAL
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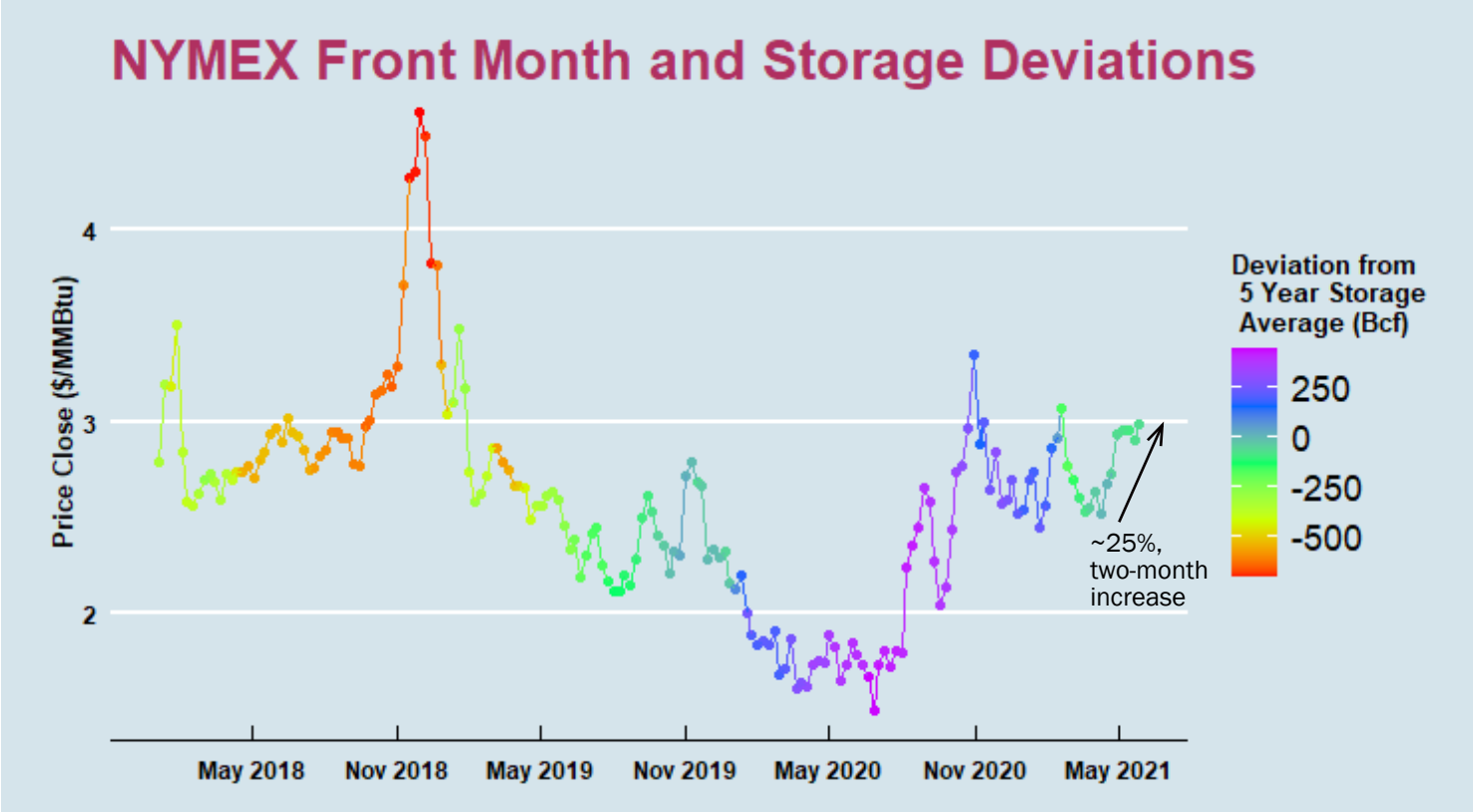
EXECUTIVE SUMMARY

Natural gas prices remain in rally-mode going into June — not unlike many other commodities and asset classes across a quickly reopening US economy. This year's famed "spring giddy-up" (G&A's name for the not-uncommon seasonal rally ahead of an impending summer season) has been notable, with front month prices climbing as much as 25% since their springtime low in early April. However, fundamentals indicate that this uptrend could soon be coming to a close. Mild weather in late May has allowed storage to cut into its deficit under 5-year average levels in recent weeks, and a loosening supply/demand balance (brought on by reduced coal-to-gas fuel switching) will further ease pressure on the market in June. Even with a needed short-term correction, the year ahead maintains its bullish stance. US exports to Mexico are expected to find new heights this summer, and impressive margins for US LNG exporters will keep terminals running steadily. Meanwhile, dry gas production levels haven't budged with drillers scrambling to stave off natural declines in an environment still feeling lagged effects from last year's correction. There is much to come in a world looking forward to brighter (and greener) days ahead.

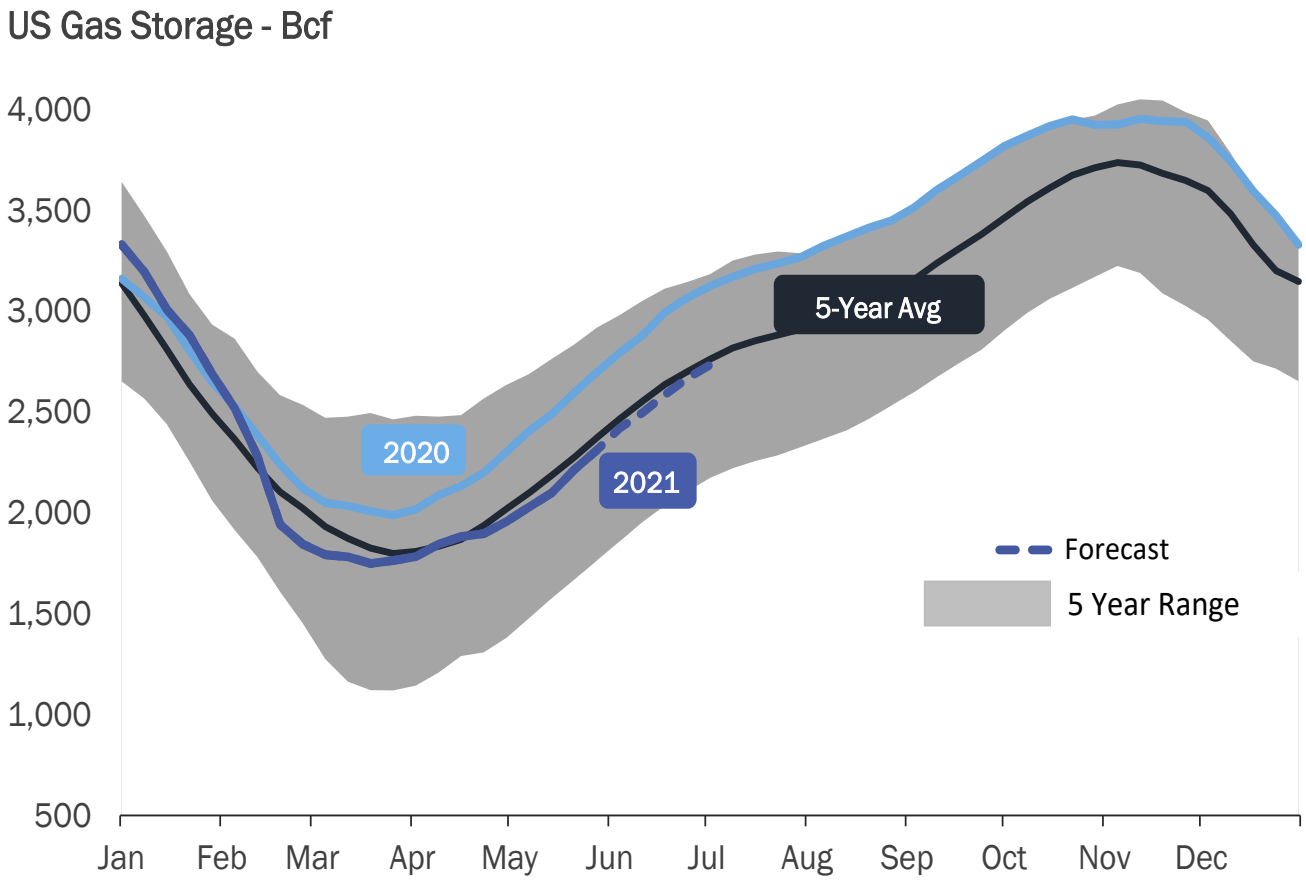
Price and Storage



STORAGE REMAINS KEY PRICE DRIVER

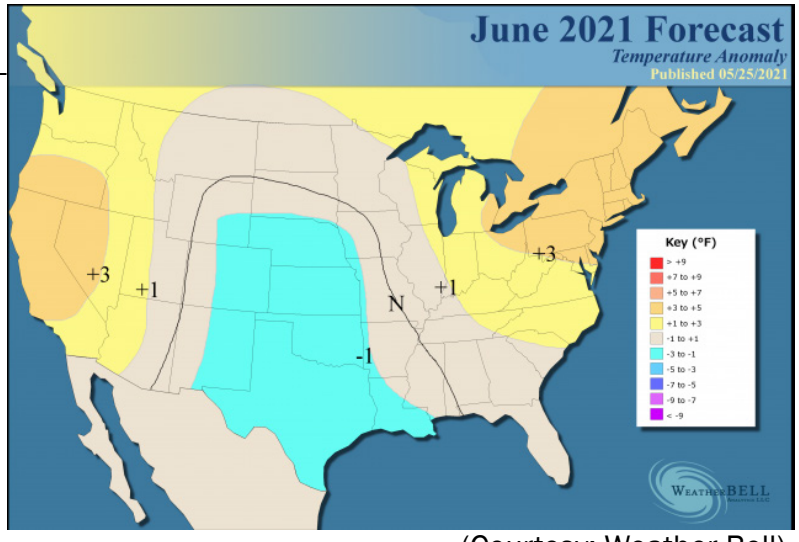
Storage inventories are the arbiter between supply and demand in the natural gas market — storage levels increase when supply is higher than demand in order to cover the market when supply is short. Given this outsized role, it shouldn't be surprising the importance the storage takes in determining prices at a given point in time. Historically, one of the best indicators for prices has been the deviation of a year's storage levels versus the 5-year average for that time. Above-average storage levels would suggest lower prices, and below-average storage levels may often signal the opposite. The graph above illustrates this point, showing that deviations from 5-year average storage (high or low) often drive the most extreme outcomes in the market. For example, in 2018, storage was more than 500 Bcf below the typical 5-year mark (displayed in deep red) going into the winter season, driving a wild surge in prices past $4/MMBtu. Conversely, storage levels were well above average levels when prices fell to a 25-year low last June (shown in violet). As indicated above, storage is currently trending just below the five-year average and is colored in green. Although this may seem to be a relatively neutral position for the time being, the market's most recent cycle from over to under-supplied has raised concern around the direction of relative storage levels in the future and shapes G&A's price outlook for months to come.

Storage Tracks 5-Year Average



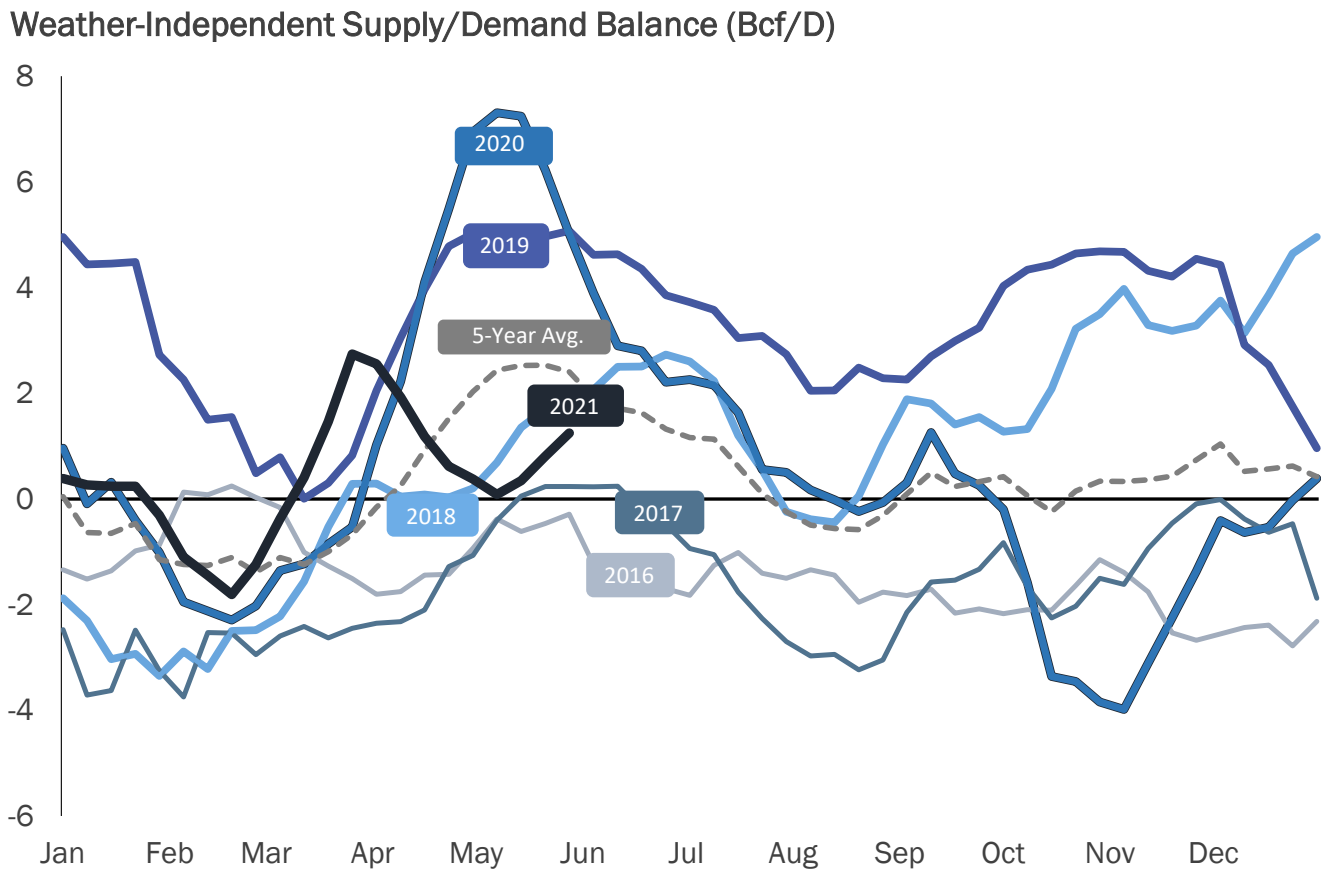
ONE MORE TRIPLE-DIGIT SPRING INJECTION FORECAST

US gas in storage continues to track under 5-year average levels, thanks to a deficit set by relatively strong shoulder season demand. However, a turn to milder weather in late May has now allowed for a string of storage builds near or above the noteworthy 100 Bcf standard, which was capped off with the Memorial Day holiday week ending June 4. Thereafter, storage builds will begin to shrink as the first real heat of the summer hits the northern US in the second week of June. Heat in the West and below-normal temperatures in Texas are also characteristics of the weather pattern that will be present throughout June. Regardless, a loosening weather-adjusted S/D balance (exemplified by rising residuals) should move storage within 1-2% of the 5-year average and could begin to temper the market's current bullishness later this month.



(Courtesy: Weather Bell)

Market S/D Balance Loosens

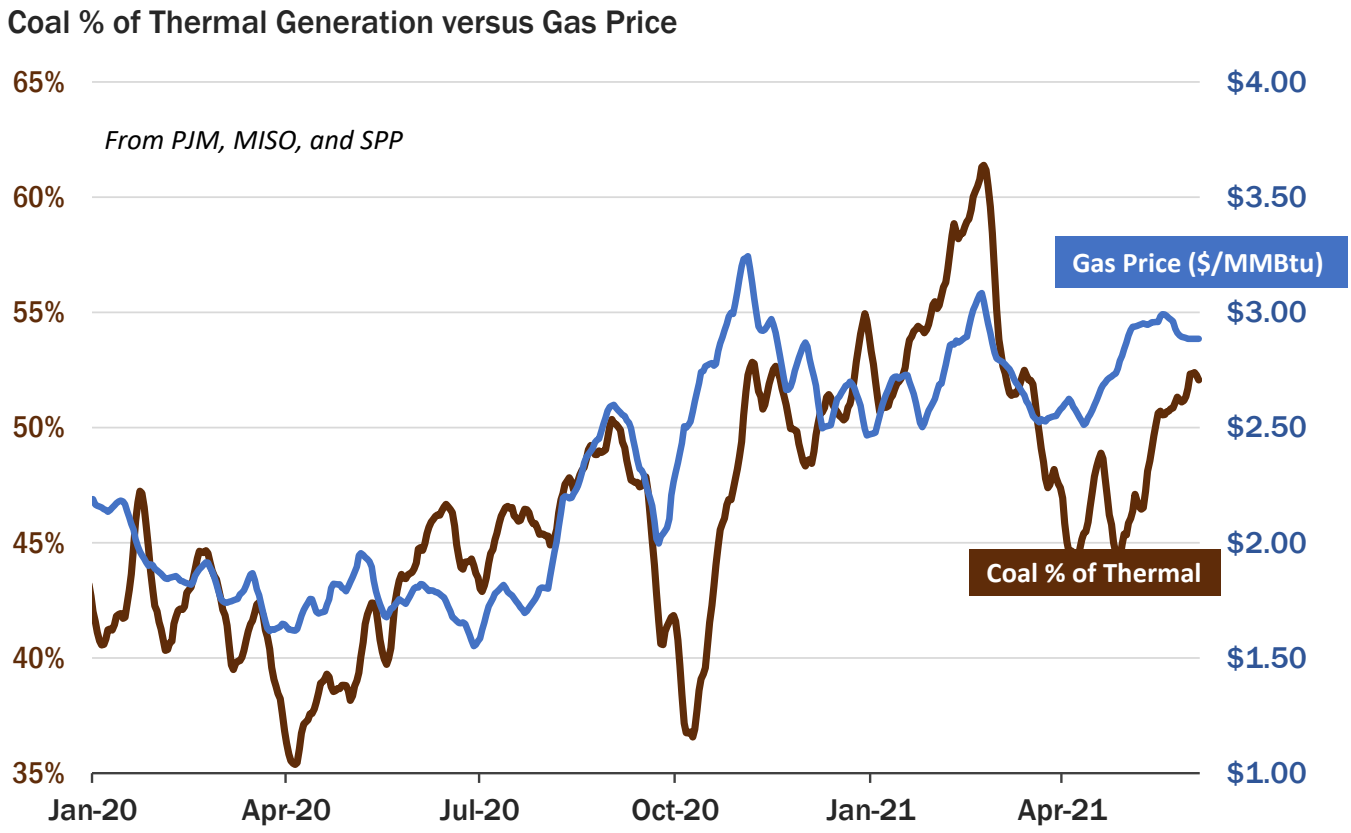


POSITIVE RESIDUALS INDICATE OVER-SUPPLY

As anticipated in last month's Journal, G&A's storage model residuals are beginning to creep higher as we enter the early part of the summer season. With maintenance contributing to offsetting pull-backs in both production and LNG feedgas flows, almost all of the market's recent supply/demand shifts can be attributed to price-responsive fuel switching. Now that summer is approaching, the pressure on prices is leading fuel switchers to choose a higher proportion of coal over gas. The pattern of loosening residuals is expected to continue at least for the first half of June until prices ease or peaking demand appears — whichever comes first.

*Storage Model Residual Definition:
Storage model residuals are created by subtracting Gelber's weather based storage estimate from the actual weekly EIA storage change. This essentially removes the weather component from storage changes, leaving the non-weather balance of supply and demand. Positive residuals imply an over-supplied market and negative residuals imply an under-supplied market.

Fuel Switchers Favoring Coal

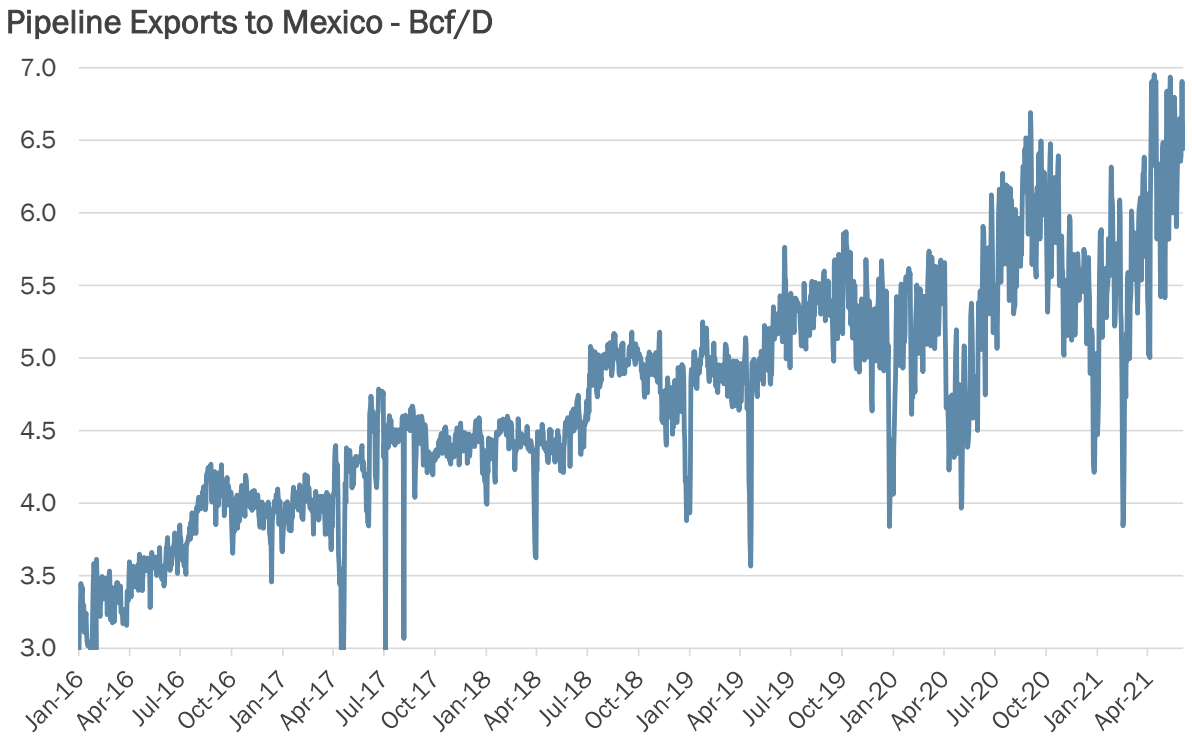


$3-PLUS HENRY HUB PRICES PUSH GENERATORS AWAY FROM GAS

With the first tastes of summer heat hitting parts of the northern US in early June, natural gas-fired power generation has begun making its annual ascent. Unlike last year, when total US electricity consumption decreased by 3.9% year-over-year, the EIA is anticipating that electricity consumption will increase 2.2% in 2021, much of that demand falling in the summer period. However, front month prices that are more than 100% higher than last June's 25-year low suggest that a smaller proportion of generation will go to natural gas in the coming season. In recent weeks, key fuel switching regions have begun to burn a higher proportion of coal than natural gas — a move anticipated by G&A last month. Given the current NYMEX summer strip averaging nearly $3.10/MMBtu, gas-fired power generation is giving up about 2 Bcf/D of demand compared to two months ago when front month prices were near $2.50.

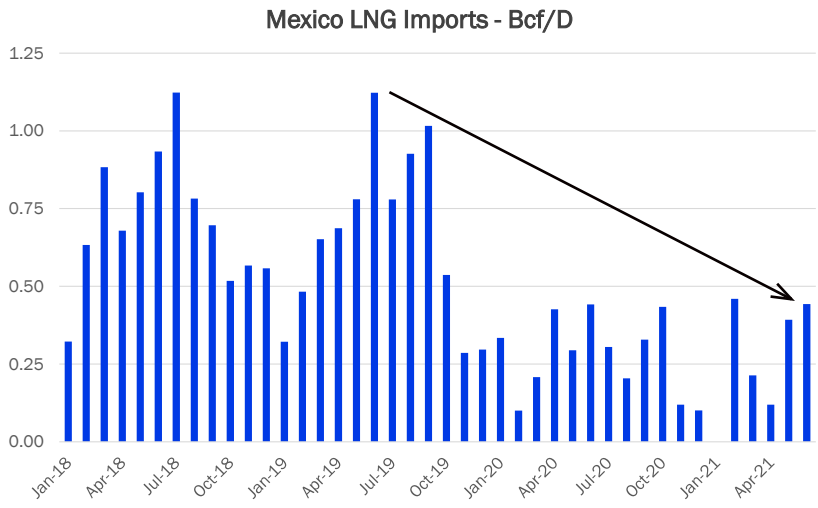
More on chart data: In the analysis above, G&A focuses on three key regions with the greatest remaining fuel switching capabilities: PJM, MISO, and SPP. This chart exhibits the reliable positive correlation between coal's proportion of thermal generation (defined as gas+coal) and gas prices - as prices rise, coal takes a larger share of power generation and vice versa.

Mexican Exports Reach New Heights



US PIPELINE EXPORTS DISPLACE LNG

Exports to Mexico have risen to record levels (approaching 7 Bcf/D) in recent weeks as flows south of the border find new outlets with the peak summer season on its way. Currently, it is thought that the increase in pipeline exports to Mexico is the result of LNG displacement caused by new pipeline interconnections rather than strict increases in Mexican gas demand. There are two main corridors that have seen an increased volume of gas flowing to Mexico: the recently completed Wahalajara system flowing southwest out of the Permian basin and the Sur de Texas-Tuxpan marine pipeline that runs along Mexico's east coast. Increases on these systems have corresponded with a steady decrease in LNG imports to Mexico's Manzanillo (in the west) and Altamira (in the east) import terminals which previously supplied demand centers that could not be reached by pipelines in the interior of the country. The height of LNG imports into Mexico this summer is projected to be 60% less than volumes in 2019 and not expected to be hampered by COVID-19 related demand losses like 2020. This 0.8 Bcf/D of displaced gas will instead be supplied by cheaper pipeline flows from the US. With increasing interconnectivity with the US and within Mexico, this trend is only expected to continue.



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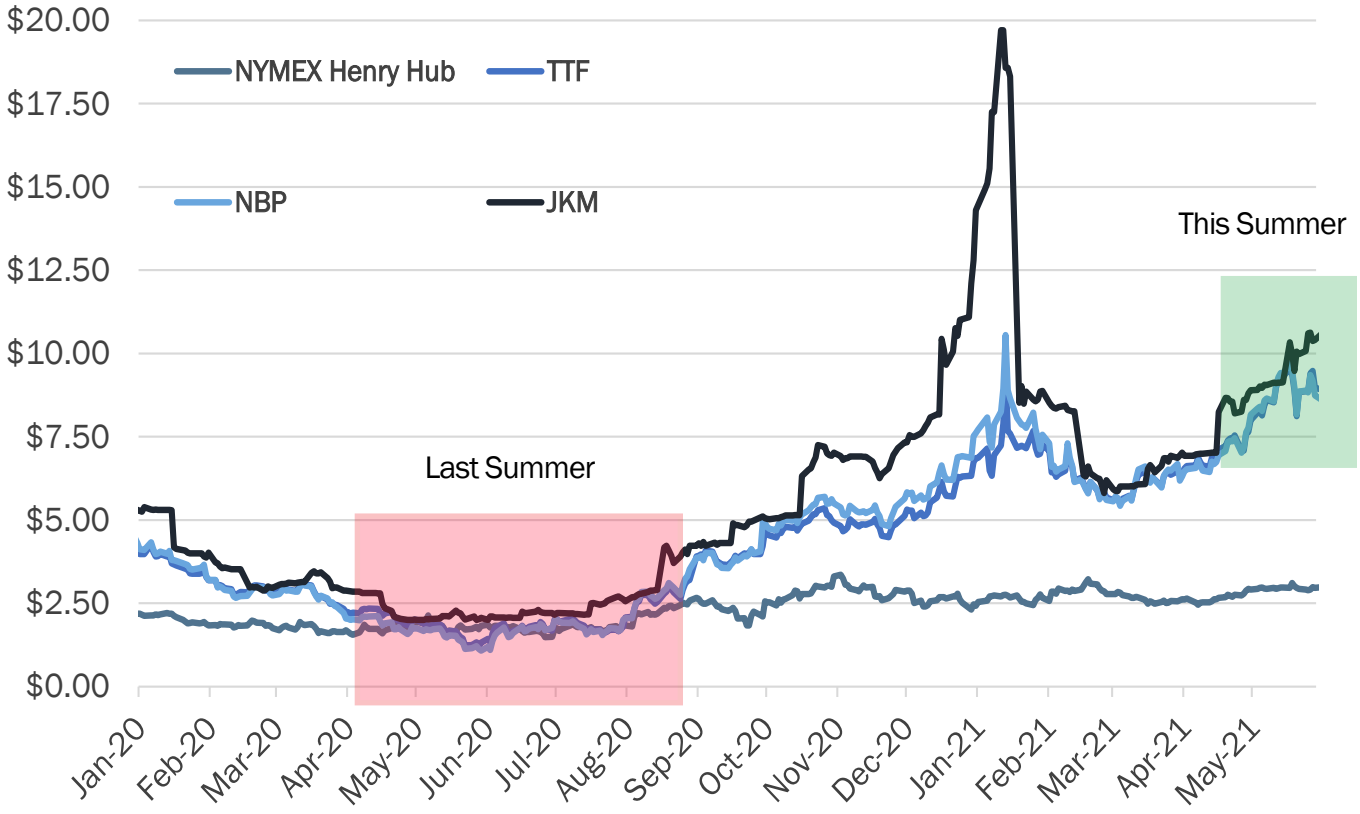
International LNG Prices Soaring

International Natural Gas Benchmarks ($/MMBtu)



US EXPORT DEMAND STRONG GOING INTO SUMMER

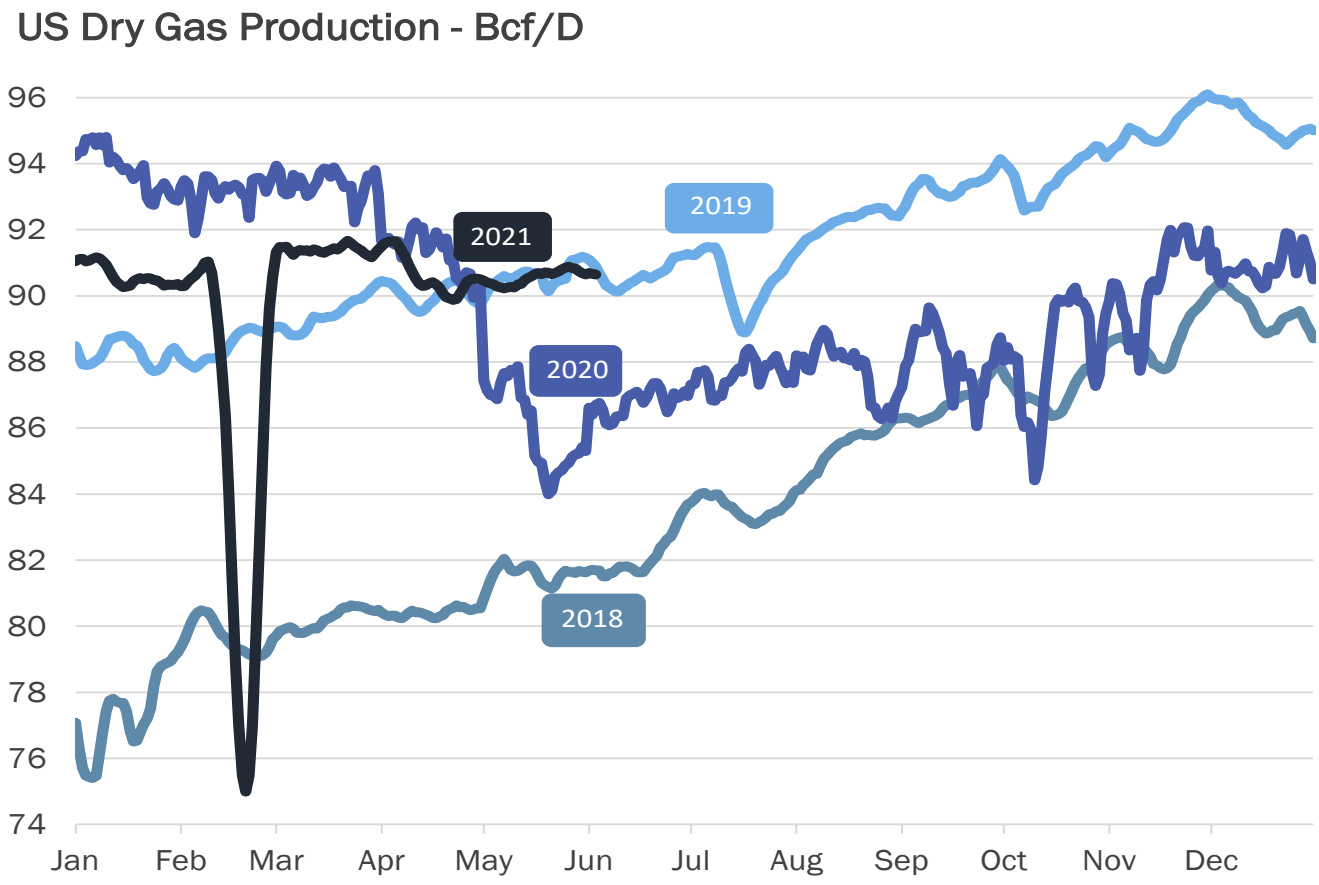
International LNG prices have continued to rise abroad in anticipation of peaking summer demand in both Europe and Asia. European storage that is threatening the lower bounds of its five-year range is another driver behind higher European prices. At this point last year, all international benchmarks were trading near $2/MMBtu as a result of cargo cancellations and demand destruction prompted by COVID. Now, the price environment is stunningly different — European prices are trading beyond their traditional summer range into $8-9/MMBtu territory. The JKM, as usual, has maintained spacing between itself and its European peers — it is currently above $10 and seeking to go higher. Despite recent maintenance events, US LNG feedgas demand is averaging a healthy ~11 Bcf/D, only one Bcf/D below max capacity. With the US LNG export market throttling at full speed to satisfy impressive international demand, investment prospects in additional US LNG infrastructure is finally beginning to look up. Tellurian is just one company of many making headlines after securing two new commercial agreements for 6 MTPA (about ~40% of Phase 1 capacity) at its proposed Driftwood LNG facility.

LNG Sailing into a Green Future

BRINGING SUSTAINABILITY TO LNG

Increasing market competitiveness in the LNG industry has historically pushed back against risky, innovative, and capital-intensive sustainability measures. The word "sustainable" brings with it a negative connotation in the oil and gas industry, where producers and exporters associate "greenness" with lower profit margins. However, a growing focus on sustainability measures in Europe and elsewhere is beginning to have an effect on the LNG industry's overall approach. In these last few months, a remarkable number of companies have attempted to contribute to green-ify the industry by opting to carbon offset their LNG transportation emissions as well as by incorporating plans for carbon capture and sequestration (CSS) alongside planned liquefaction facilities. In mid-April, Cheniere partnered with Shell to deliver a carbon-neutral LNG cargo — LNG whose lifecycle greenhouse gas emissions were offset with investments in nature-based initiatives that removed an equivalent amount of GHGs. Elsewhere, Venture Global has announced plans to capture at least 500,000 tons/yr of carbon by adding CCS to both of their planned second-wave LNG facilities — Calcasieu Pass and Plaquemines, and NextDecade's proposed Rio Grande project will attempt to integrate CCS as well. All of these developments indicate that the attitude towards sustainability is changing, and what once may have been a luxury may be a necessary investment in the future.

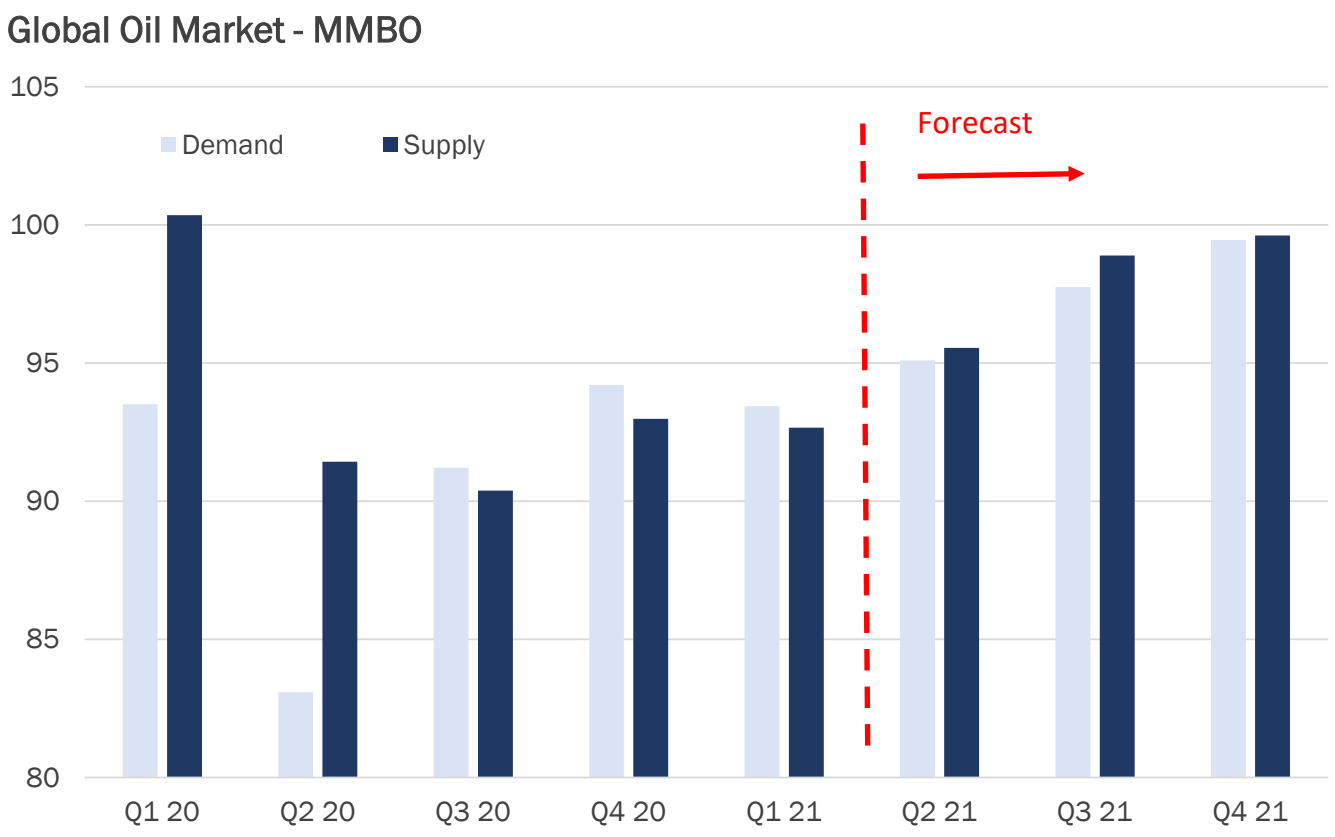
Production Little Changed



SPRING MAINTANENCE HOLDS PRODUCTION IN CHECK

2021 production remains stagnant around the 91 Bcf/D mark in early June, on par with production from 2019 at this time. On the ground, many key pipelines, including Transco and TETCO, are also undergoing routine springtime maintenance to prepare for year-long operations. Restricted flows on these and other pipelines has contributed, alongside producer hesitancy, to the relative inertness of total U.S. production. Oil and gas prices both point to favorable environments for drillers in the months to come; however, rig counts on both sides are still in recovery from the initial impacts of COVID over a year ago. The lack of any upward movement in production levels over the past couple of months suggests that for now, it is all producers can do to stave off natural declines.

Oil Demand Roaring Back

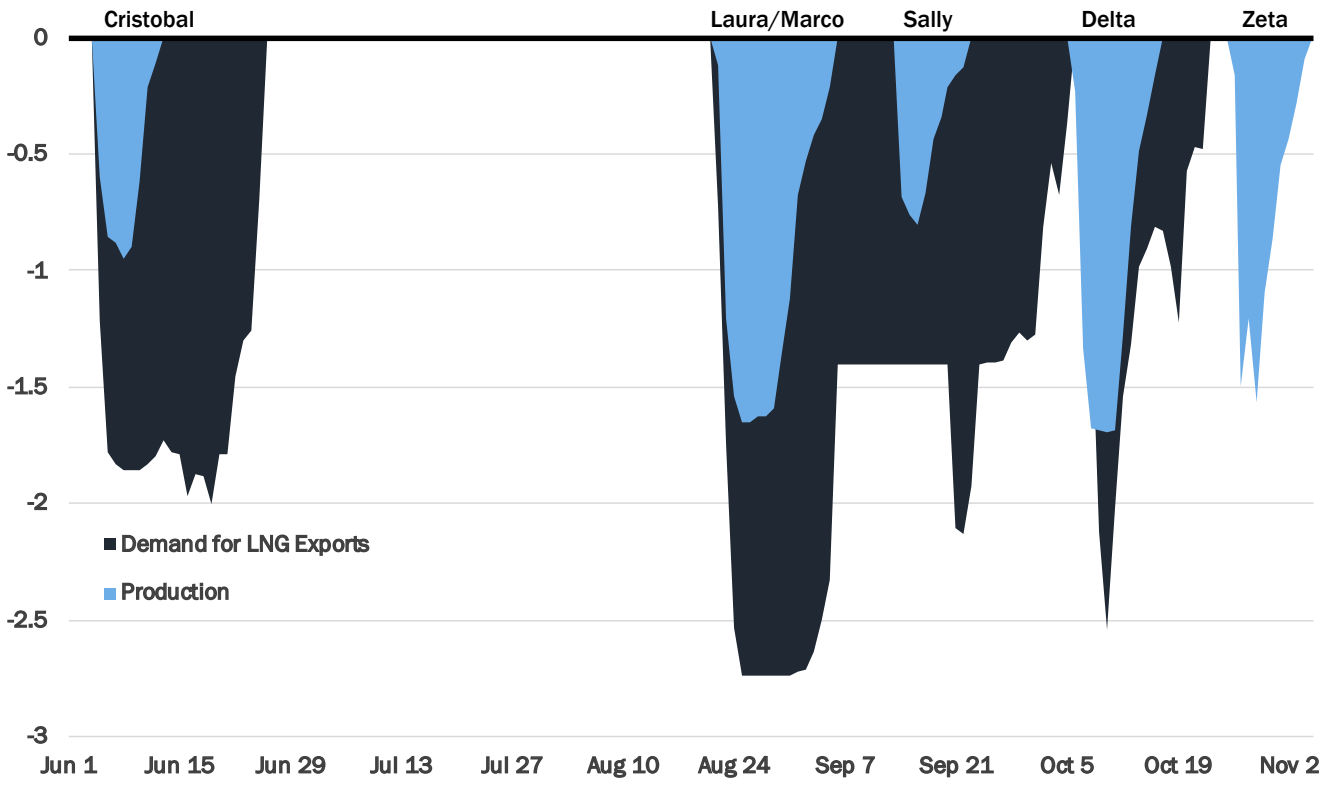


WTI RALLY CONTINUES

A global economic reawakening is pressuring commodity prices higher across the board, and one of the clearest examples is occurring in oil markets, where more output is going to be needed to satisfy the incoming surge in demand. In the US, oil storage inventories lie nearly 50 million barrels beneath the five-year average and are supporting near-$70 WTI prices. Despite being profitable at these prices, drillers have not responded as aggressively as in years past. The pain caused by the onset of the COVID-pandemic last year — when demand collapsed at a time with record-high supply — continues to haunt oil producers this year and has led to a cautious approach. Many companies in the US have decided that consolidation and increasing diversification, rather than expanded capital budgets, are the best strategies to generate positive free cash flows in the coming years. Cimarex and Cabot Oil & Gas are one of the latest such mergers. Even with the gradual return of global industries, there are several bearish factors that may begin to provide resistance to the current rally. The 17th OPEC and non-OPEC Ministerial Meeting (ONOMM) recently decided that 2 million barrels/day would be incrementally returned to the market, and potential for Iran to resume higher oil exports after a removal of US sanctions also threatens to pull down a euphoric WTI price in months ahead.

Preparing for Hurricane Season

2020 Atlantic Hurricane Season – Production and Demand Destruction (Bcf/D)

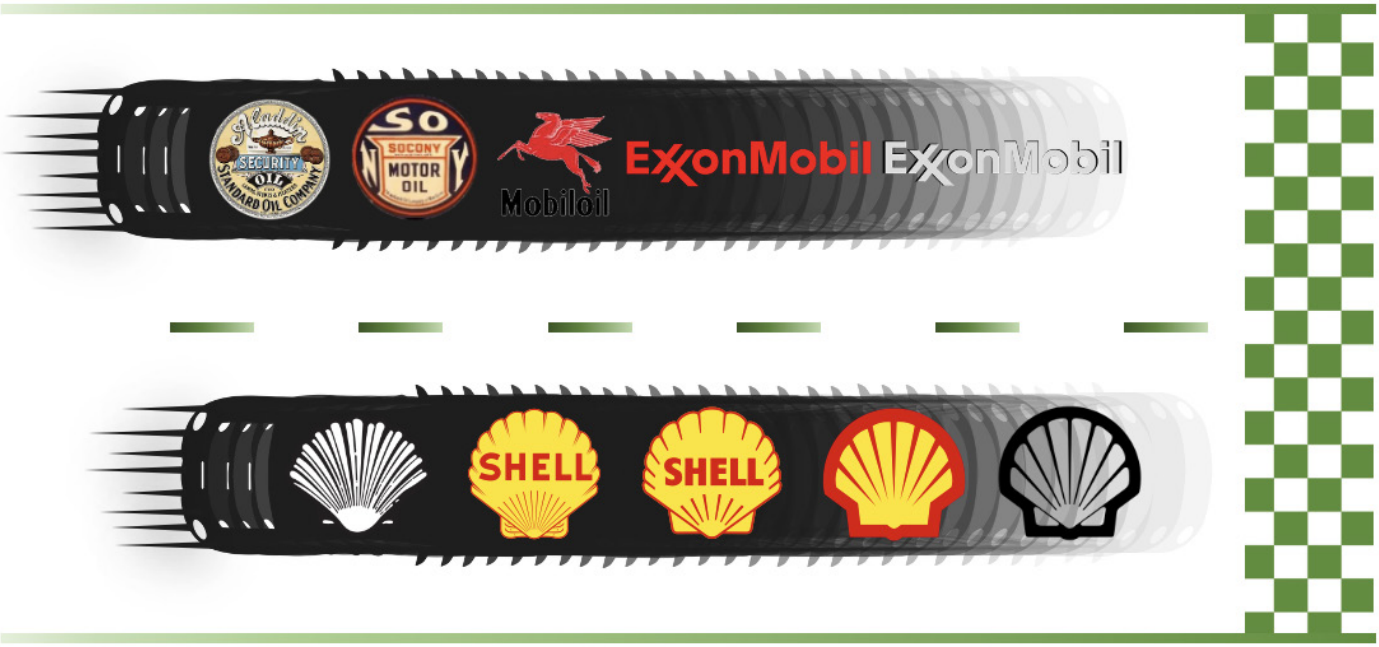


ACTIVE ATLANTIC HURRICANE SEASON ON THE WAY

With the 2021 Atlantic hurricane season officially underway, at-risk energy infrastructure along the coasts will be on high alert in coming months. Last year's was the most active Atlantic hurricane season on record, causing widespread destruction and, as far as natural gas was concerned, creating multiple disruptions for both LNG exports and Gulf of Mexico (GOM) production. Above, G&A has charted LNG export demand disruptions as well as GOM production losses as a result of last year's storms. In total, it is estimated that nearly 45 Bcf of Gulf of Mexico production was lost during the six month hurricane season, while a much larger 130 Bcf of LNG export demand was disrupted. This demonstrates a trend seen in recent years: although GOM production may be the first factor to face interruptions as storms gather intensity over the water, demand destruction (primarily to power and LNG export sectors) caused by storms that make landfall in unfortunate areas can be much more extensive and long-lasting. This hurricane season, the official NOAA forecast and private forecaster WeathBELL are consistent in predicting another above-normal Atlantic Hurricane season, albeit not necessarily the historic level of activity seen in 2020. Although long-term forecasts should be taken with a grain of salt, those along the coast know too well that it only takes one storm in the right (or wrong) location to cause severe destruction.

	2020 Season	2021E NOAA	2021E WeatherBELL
Named Storms	30	13 – 29	16 – 22
Hurricanes	13	6 – 10	9 – 13
Major Hurricanes	6	3 – 5	3 – 6

Race to Net Zero



TRADITIONAL OIL MAJORS FACING DECARBONIZATION EFFORTS

As governmental and societal pressure to create a more sustainable future intensifies, energy companies around the globe vary in their approach to address the push towards "Net Zero" carbon emissions. Two recent stories illustrate the burden that is being placed on traditional fossil fuel-focused companies: Last week, a Dutch court found that Royal Dutch Shell was partially responsible for climate change and ordered them to reduce carbon emissions by 45% (from 2019 levels) by 2030. In the US, ExxonMobil faced a challenge from activist investor group Engine No. 1, who eventually snagged three seats on the Exxon board for members whom the fund believes will actively push to accelerate the company's de-carbonization efforts.

The energy transition is not an existential threat to the energy business, but it is an existential threat to many energy companies. As exemplified by Shell and Exxon, companies around the world have to acknowledge increasing investor support for sustainability initiatives. Recent studies emphasize that firms' responses to the energy transition are not identical. Size matters, as does location – especially Europe versus the U.S. Further, there is a dichotomy between those companies taking a long-term approach and those focusing on short-term actions. The majors are leading the way by pursuing a variety of energy diversification strategies, while other companies are focusing on reducing their emissions intensity. Investments in renewables are hot, and divesting more carbon-intensive assets is also becoming popular. Although the path ahead is unclear, almost everybody is doing something. Paying attention to carbon intensity, as well as other ESG matters, will be an essential competency for energy companies going forward.

Further Discussion

Don’t hesitate to call us at (713) 655-7000 or email us at info@gelbercorp.com with comments or questions.

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