

Energy Tidbits

Sept 12, 2021

Produced by: Dan Tsubouchi

Shut-in GoM Oil & Gas Production Is Returning But Taking Longer Than Expected

Welcome to new Energy Tidbits memo readers. We are continuing to add new readers to our Energy Tidbits memo, energy blogs and tweets. The focus and concept for the memo was set in 1999 with input from PMs, who were looking for research (both positive and negative items) that helped them shape their investment thesis to the energy space, and not just focusing on daily trading. Our priority was and still is to not just report on events, but also try to interpret and point out implications therefrom. The best example is our review of investor days, conferences and earnings calls focusing on sector developments that are relevant to the sector and not just a specific company results. Our target is to write on 48 to 50 weekends per year and to post by noon mountain time on Sunday.

This week's memo highlights:

1. Fri/Sat saw strongest return of shut-in GoM production post Ida but, after 12 days, still 1.12 mmb/d of oil (61.6% of GoM) and 1.35 bcf/d of natural gas (60.7% of GoM) shut in. ([Click Here](#))
2. Its early, but NOAA sees 90% chance of storm development with projected path thru deepwater offshore production and heart of Gulf Coast refineries/LNG exports. ([Click Here](#))
3. Lukoil CEO says tax breaks needed to make key Russia oil growth areas economic. ([Click Here](#))
4. Mexico again lowers oil production growth forecasts, sets up win for Cdn heavy/medium in 2023. ([Click Here](#))
5. Baker Hughes and Mexico Pacific LNG highlight increasing Asian LNG buyer want of long term supply agreements. ([Click Here](#))
6. Please follow us on Twitter at [LINK](#) for breaking news that ultimately ends up in the weekly Energy Tidbits memo that doesn't get posted until Sunday noon MT.
7. For new readers to our Energy Tidbits and our blogs, you will need to sign up at our blog sign up to receive future Energy Tidbits memos. The sign up is available at [LINK](#).

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Natural Gas – Natural gas injection of 52 bcf, storage now -592 bcf YoY deficit

The EIA reported a 52 bcf injection (vs 39 bcf injection expectations) for the Sept 3 week, which was below the 5-yr average injection of 65 bcf, and below last year’s injection of 70 bcf. Storage is 2.923 tcf as of Sept 3, increasing the YoY deficit to 592 bcf from 579 bcf last week and storage is 235 bcf below the 5-year average vs 222 bcf below last week. Production remains slow to recover after Hurricane Ida and continued hot weather across the country, particularly extreme in the U.S. West, has caused further depletion to storage levels. Concerns remain about supply this winter, with each day that production is offline between now and November represents lost time and volumes for replenishing. Below is the EIA’s storage table from its Weekly Natural Gas Storage Report. [\[LINK\]](#)

YoY storage at -592 bcf YoY deficit

Figure 1: US Natural Gas Storage

Region	Stocks billion cubic feet (Bcf)				Historical Comparisons			
	09/03/21	08/27/21	net change	implied flow	Year ago (09/03/20)		5-year average (2016-20)	
					Bcf	% change	Bcf	% change
East	703	678	25	25	803	-12.5	760	-7.5
Midwest	842	812	30	30	949	-11.3	865	-2.7
Mountain	191	190	1	1	215	-11.2	198	-3.5
Pacific	243	243	0	0	307	-20.8	288	-15.6
South Central	943	948	-5	-5	1,240	-24.0	1,046	-9.8
Salt	208	214	-6	-6	334	-37.7	253	-17.8
Nonsalt	735	734	1	1	906	-18.9	792	-7.2
Total	2,923	2,871	52	52	3,515	-16.8	3,158	-7.4

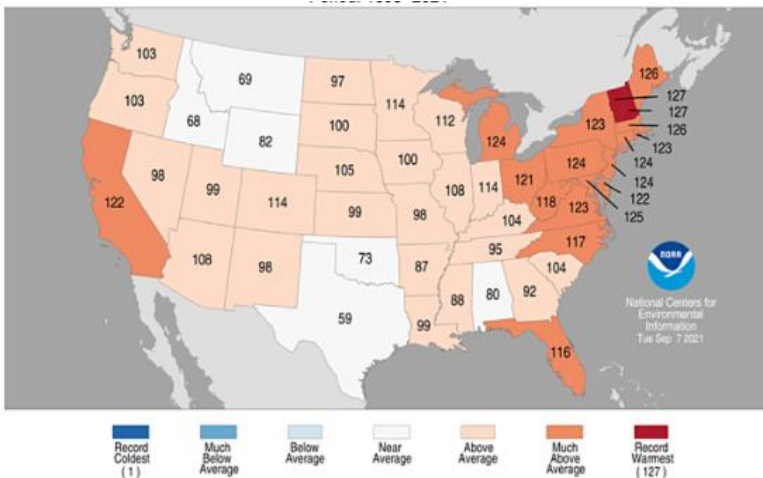
Source: EIA

Natural Gas – Record temperatures for Jun/Jul/Aug in US

It was a good summer for natural gas demand. NOAA posted its recap of August 2021 weather [\[LINK\]](#). August was the fourteenth warmest in the last 127 years. June, July, and August a record 3-month average across all states. The average temperature during meteorological summer for the contiguous U.S. was 74.0 degrees F, 2.6 degrees above average. This technically exceeds the record heat of the 1936 Dust Bowl Summer, but the difference is extremely small (less than 0.01 of a degree F). Below are graphics depicting the state average temperature ranks.

Record heat for June, July, and August

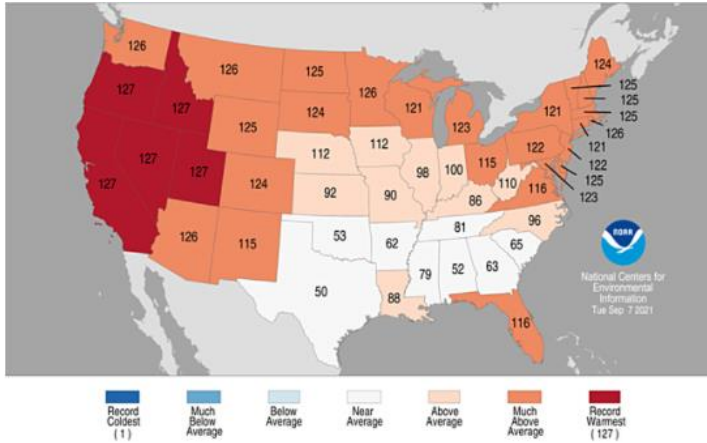
Figure 2: US Statewide Average Temperature Ranks August 2021



Source: NOAA

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Figure 3: US Statewide Average Temperature Ranks June/July/August 2021



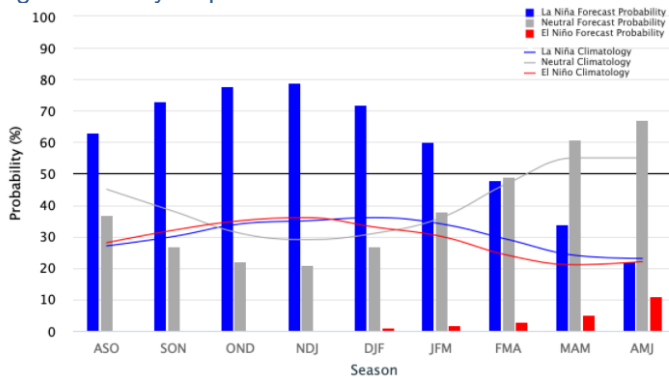
Source: NOAA

Natural Gas – 100% probability for La Nina/Neutral in key hurricane ASO season

The CPC/IRI released its updated monthly El Niño/La Niña outlook, which is issued on the 2nd Thurs of every month [\[LINK\]](#). Its Sept and we are close to the middle of the peak Atlantic hurricane season and there isn't the expectation for any major changes in the conditions for the peak Aug/Sept/Oct hurricane seasons. And the call is still for a La Niña/Neutral ASO with it being too late to switch to El Niño conditions. Focus on El Niño forecasts is on the summer and to the key hurricane season. There has been a continued shift to more of an La Niña vs Neutral for the key Aug/Sept/Oct, which is the peak of Atlantic hurricane season. The consensus forecast for ASO is 63% La Niña (was 53%), 37% Neutral (was 46%), and 0% El Niño (was 1%). Again, weather is never 100% the same, but El Niño summers are normally associated with low Atlantic hurricane seasons, whereas La Niña/Neutral conditions are more likely normal or have the potential for above normal hurricane seasons.

100% La Niña/Neutral conditions for key hurricane ASO season

Figure 4: Early-Sept NOAA El Niño/La Niña Outlook



Source: NOAA

Natural Gas – Early outlook calling for a La Niña/Neutral winter

Its now Sept and the start of winter natural gas season (Nov 1) is less than 2 months away, so the focus for weather now turns to winter and the peak Dec/Jan/Feb. The concern is always if its an El Niño winter that bring the risk (not 100% though) of a warm winter. This new probability forecast is 72% La Niña (was 64%), 27% Neutral (was 33%), and 1% El Niño

Early outlook forecasts La Niña winter

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(was 3%). Correlations are not 100% but the fear in El Nino winters is that it is warmer than normal. Whereas, La Nina winters are typically viewed more likely normal, however as noted below, La Nina winters can be warm.

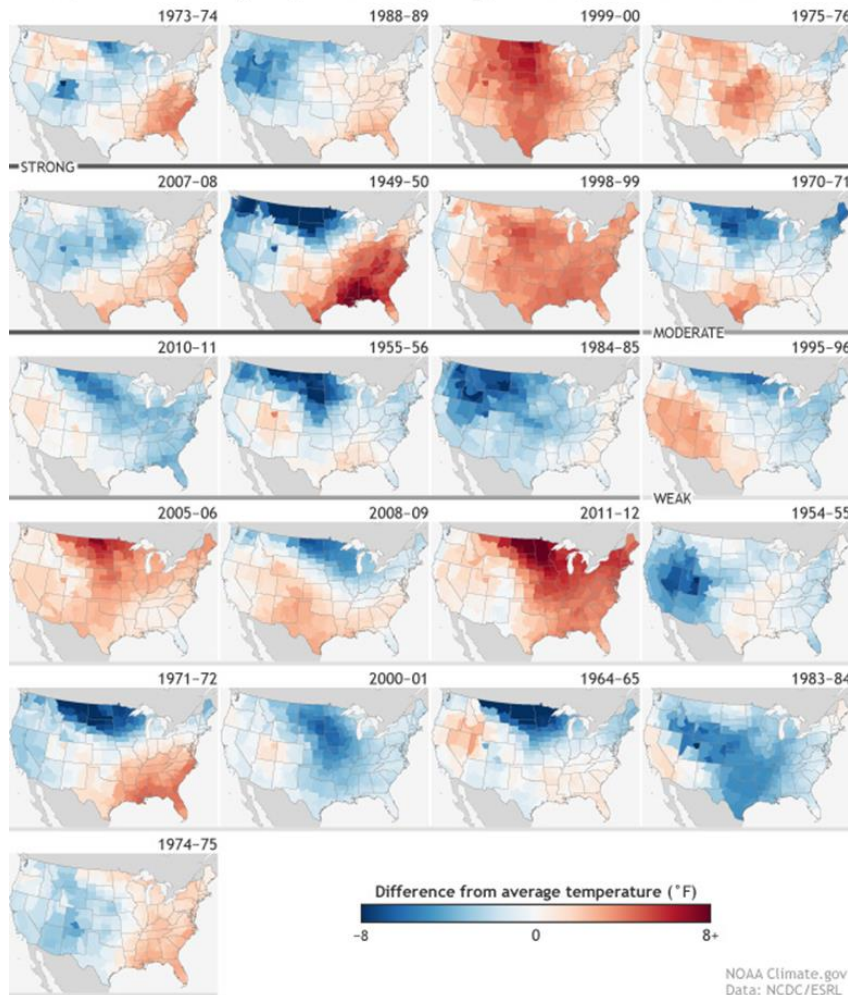
Natural Gas – But La Nina correlations to cold winters are far from 100%

La Nina winters are more often normal to colder than normal than a warmer winter. But we remind of a Oct 6, 2017 NOAA brief “Temperature patterns during every La Niña winter since 1950”, which looked at all La Nina winters from 1950 thru 2016/17, classified them as strong, moderate or weak La Ninas, and then showed the average winter (Dec thru Feb) temperature map. We checked this weekend and the link still works [LINK](#). The bottom line is that it may slightly favor a normal to colder than normal winter, but there have some been near record high temperature La Nina winters. Below is the NOAA graphic. Our Supplemental Documents package includes the NOAA blog.

La Nina winters are unpredictable

Figure 5: Winter (Dec-Feb) Temp in Strong, Moderate And Weak La Ninas 1950 - 2017

Winter (December-February) temperature during strong, moderate, and weak La Niñas since 1950



Source: CPC

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Natural Gas – EIA forecasts US gas production growth in 2022

No surprise that, with stronger than expected natural gas prices, the EIA increased its US natural gas production forecasts. However, what is different this time is that the increase isn't from associated natural gas from oil plays but from dry gas plays. The EIA released its monthly Short Term Energy Outlook September 2021 [\[LINK\]](#). The EIA revised up both its 2021 and 2022 forecasts for US natural gas production. (i) EIA forecasts that US natural gas production will be up +1.01 bcf/d from the Q4/19 peak of 96.58 in Q4/22. (ii) EIA revised up the first two quarters of 2021 with downward trends continuing in the second half of the year. US 2021 natural gas production forecast to average 92.17 bcf/d (up from 92.15 bcf/d previously). (iv) 2022 US natural gas is forecasted to average 95.39 bcf/d (94.88 bcf/d previously), up 3.22 bcf/d YoY. (v) The EIA wrote, "we expect dry natural gas production will average 92.7 Bcf/d in the United States during 2H21—up from 91.7 Bcf/d in 1H21—and then rise to 95.4 Bcf/d in 2022, driven by natural gas and crude oil prices, which we expect to remain at levels that will support enough drilling to sustain production growth." Our Supplemental Documents package includes excerpts from the EIA STEO.

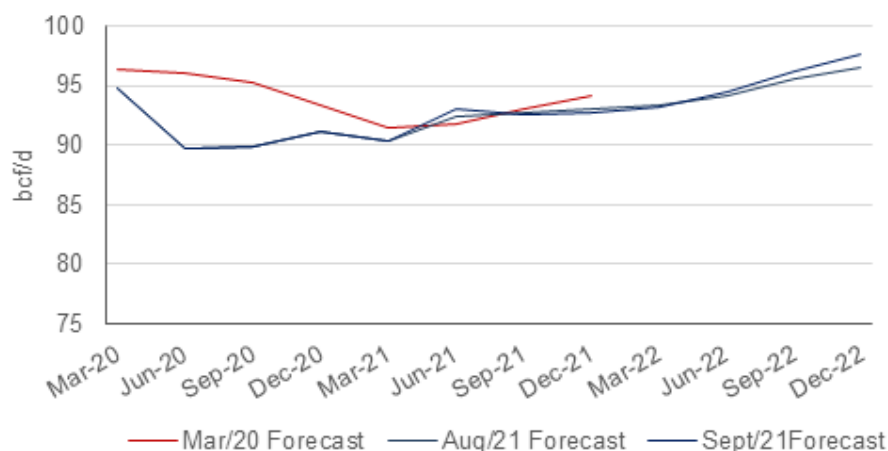
EIA sees U.S. gas production +3.22 bcf/d YoY in 2022

Figure 6 EIA STEO US Natural Gas Supply Forecasts By Forecast Month

bcf/d	Q1/19	Q2/19	Q3/19	Q4/19	2019	Q1/20	Q2/20	Q3/20	Q4/20	2020	Q1/21	Q2/21	Q3/21	Q4/21	2021	Q1/22	Q2/22	Q3/22	Q4/22	2022
Sept 2021	90.01	91.57	94.01	96.58	93.06	94.8	89.68	89.83	91.15	91.37	90.3	93.05	92.64	92.7	92.17	93.17	94.54	96.25	97.59	95.39
Aug 2021	90.01	91.57	94.01	96.58	93.06	94.79	89.68	89.83	91.15	91.35	90.29	92.49	92.67	93.11	92.15	93.34	94.15	95.51	96.47	94.88
July 2021	90.01	91.57	94.01	96.58	93.06	94.79	89.68	89.83	91.15	91.35	90.31	92.88	93.17	93.8	92.55	93.65	94.1	95.16	95.82	94.69
June 2021	90.01	91.57	94.01	96.58	93.06	94.79	89.68	89.83	91.15	91.35	90.53	92.26	92.63	93.26	92.18	93.13	93.48	94.31	94.81	93.93
May 2021	90.01	91.57	94.01	96.58	93.04	94.79	89.68	89.83	91.15	91.35	90.09	90.75	91.34	92.03	91.06	91.97	92.54	93.60	94.36	93.12
Apr 2021	90.01	91.57	94.00	96.58	93.04	94.79	89.68	89.83	91.18	91.36	90.82	90.90	91.59	92.31	91.41	92.23	92.75	93.76	94.39	93.29
Mar 2021	90.01	91.57	94.00	96.58	93.04	94.79	89.68	89.82	91.08	91.34	90.50	91.04	91.71	92.13	91.35	91.87	92.25	93.28	93.90	92.83
Feb 2021	90.01	91.57	94.00	96.58	93.04	94.79	89.68	89.82	90.89	91.29	90.88	90.17	90.40	90.54	90.50	89.95	90.18	91.41	92.26	90.96
Jan 2021	90.01	91.57	94.00	96.58	93.04	94.79	89.67	89.87	88.73	90.76	87.48	87.54	88.54	89.11	88.17	88.54	88.86	90.17	91.02	89.66
Dec 2020	90.01	91.57	94.00	96.58	93.04	94.79	89.67	89.72	89.36	90.88	87.65	87.25	88.13	88.61	87.91					
Nov 2020	90.01	91.57	94.00	96.58	93.06	94.85	89.73	90.14	89.29	90.99	87.50	87.10	88.16	88.86	87.91					
Oct 2020	90.01	91.57	94.00	96.58	93.06	94.48	89.44	89.81	88.86	90.64	86.56	86.02	87.04	87.58	86.81					
Sept 2020	89.32	90.50	92.98	95.97	92.21	94.48	89.50	88.44	87.14	89.88	85.67	85.87	87.07	87.73	86.59					
Aug 2020	89.32	90.50	92.98	95.97	92.21	94.48	89.20	86.27	84.73	88.65	83.21	82.93	84.35	85.55	84.02					
July 2020	89.32	90.50	92.89	95.97	92.21	94.50	89.91	87.27	85.37	89.24	83.48	83.25	84.53	85.63	84.23					
June 2020	89.32	90.50	92.98	95.97	92.21	94.47	90.60	87.95	85.66	89.65	83.96	84.44	85.75	87.34	85.39					

Source: EIA STEO

Figure 7: EIA STEO US Natural Gas Supply Forecasts By Forecast Month



Source: EIA STEO

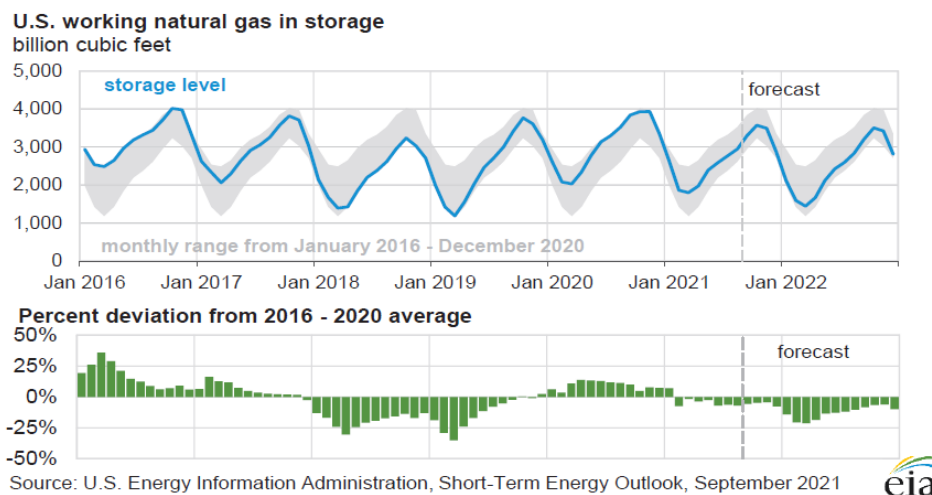
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Natural Gas – EIA forecasts Nov 1/21 storage to be -359 bcf YoY

The EIA STEO also revised lower its forecast for US gas storage to start the winter. The Sept STEO forecasts Nov 1, 2021 storage at 3,570, which would be 182 bcf below the 5 yr 2016-2020 average and 359 bcf lower YoY. The Aug STEO forecast was 3,592 bcf. The Sept STEO assumes that the YoY deficit will narrow from its current -592 bcf YoY to -359 bcf in the next 8 weeks.

Storage 336 bcf lower on Nov 1/21

Figure 8: EIA STEO forecast US gas storage



Source: EIA

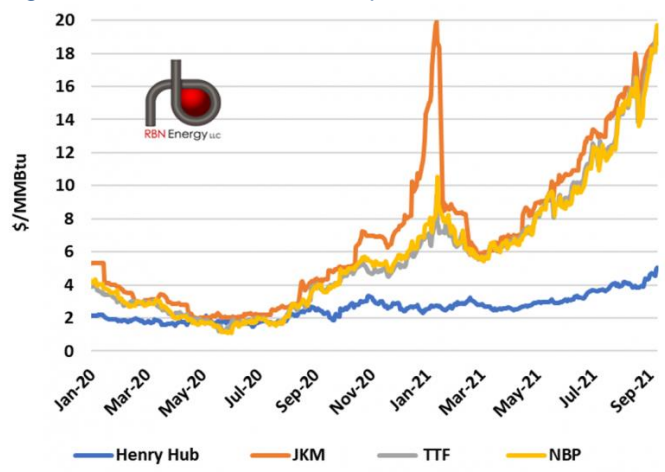
Natural Gas – RBN: reduced natural gas and LNG supply to set record winter prices

The set up for a strong winter for natural gas continues. This theme was highlighted in the RBN Thursday blog *It's Too Late - Global Natural Gas/LNG Supply Squeeze Sets Stage For Record Winter Prices* [LINK], with their expectations that natural gas and LNG prices will reach record highs this winter. The blog is a good recap of why LNG prices and demand will remain strong this winter. RBN highlights how Asian prices have surged with the JKM sitting just below the previous single day high set in January. Europe's markers pushed past January highs with the TTF settling at \$19.61/MMBtu, and the NBP settled at \$19.62/MMBtu. With a late start to injection season, European gas inventories are at an all time low with time to replenish stock running out amid the looming winter season. High demand coupled with the supply squeeze in Europe resulting from low production, decreased imports, and scarcity of incremental LNG cargoes, underpins bullish prices. Increasing reliance on LNG finds gas markets more connected, with competition for cargoes equating European and Asian gas prices. They see US LNG is firmly in the money with terminals at full utilization of their contracted capacity. Below is the RBN chart depicting global gas and LNG prices. Our Supplemental Documents package includes the RBN blog.

RBN on winter LNG

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Figure 9: Global Gas and LNG prices



Source: RBN

Natural Gas – Cheniere sees tight LNG supply now and supply gap emerging

Cheniere continues to put forward a bullish outlook for LNG. We should say that they thought they were playing stupid on this up until the beginning of July [See the below excerpt from the July 4, 2021 Energy Tidbits]. On Wednesday, we tweeted [LINK](#) on Cheniere's new slide deck that went along with its release "Cheniere Announces Comprehensive Long-Term Capital Allocation Plan". Cheniere included a long term LNG supply/demand outlook graph and we tweeted "Bullish #LNG outlook. #Cheniere sees extremely tight LNG supply/demand for next few years & then increasing supply gap. Needs >9 bcf/d of FID now to meet 2020s supply gap, then incremental >20 bcf/d FIDs for 2030s. Big positive for HH & #AECO #NatGas prices." We reached out to Cheniere a couple of times to ask on their assumptions, but, no surprise, no response as 9/10 times the US investor relations do not reply to questions. But we asked Cheniere what did they build in for their supply forecast on average downtimes for LNG export projects and what did they assume for the timing for when the 5 bcf/d of delayed Mozambique LNG comes on stream. In looking at their graph, it seems to imply that that the start of the TotalEnergies Mozambique 1.7 bcf/d Phase 1, 1.3 bcf/d Phase 2 and Exxon Rozuma 2.0 bcf/d is in 2026 or so. Regardless, it looks like there is a bullish LNG supply/demand outlook especially as they say they need FID for >9 bcf/d for LNG supply before 2030, and then FIDs for a further >20 bcf/d for LNG supply in the 2030s. Our Supplemental Documents package includes excerpts from the new Cheniere slide deck.

Cheniere very
bullish on LNG

July 4 Tidbits – Cheniere stops playing stupid on strengthening LNG markets

Here is what we wrote in our July 4, 2021 Energy Tidbits memo. "It looks like Cheniere has stopped playing stupid and trying naïve little tricks like they did on the Q1 call on May 4 with respect to the strengthening LNG market in 2021. We just didn't get it and still don't as we just don't know who they thought they were fooling. It just seemed silly. This week, they came out talking about how commercial discussions have picked up in 2021 and its boosted their hope for a Texas (Corpus Christi) LNG expansion. On Wednesday, Platts reported "Pickup in commercial talks boosts Cheniere's hopes on mid-scale LNG project" [LINK](#) Platts wrote "Cheniere Energy expects to make a "substantial dent" by the end of 2022 in building sufficient buyer support for a proposed mid-scale expansion at the site of its Texas liquefaction facility, Chief Commercial Officer Anatol Feygin said June 30 in an interview." "As a

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result, he said, " The commercial engagement, I think it is very fair to say, has really picked up steam, and we are quite optimistic over the coming 12-18 months to make a substantial dent in that Stage 3 commercialization." Platts also reported Cheniere noted this has been a tightening market all year (ie would have been know by the May 4 Q1 call). Platts wrote "We obviously find ourselves at the beginning of this year and throughout in a very tight market where prices today into Asia and into Europe are at levels that we frankly haven't seen in a decade-plus," Feygin said. "We've surpassed the economics that the industry saw post the Fukushima tragedy in March 2011, and that's happened in the shoulder period." The bottom line is that these were another LNG leader changing their public stance to a more bullish LNG outlook. Our Supplemental Documents package includes the Platts report. "

May 9 Tidbits - Cheniere's Q1 call comments that made us chuckle

Here is what we put in our May 9, 2021 Energy Tidbits on Cheniere's Q&A. "We had to chuckle when we saw Cheniere's response in the Q&A to its Q1 call on Tuesday that they only know what we know from reading the Total releases on Mozambique and its impact on LNG markets. Its why we tweeted [\[LINK\]](#) "Hmm! \$LNG says only know what we read on #LNG market impact from \$TOT \$XOM MZ LNG delays. Surely #TohokuElectric & other offtake buyers are reaching out to #Cheniere. MZ LNG delays is a game changer to LNG in 2020s, see SAF Group blog. Thx @olymppe_mattei @TheTerminal #NatGas". How could they not be talking to LNG buyers for Total and /or Exxon Mozambique LNG projects. In the Q1 Q&A, mgmt was asked about Mozambique and didn't know any more than what you or I have read. Surely, they are speaking to LNG buyers at either Total Mozambique or Exxon Rozuma Mozambique or both. Mgmt is asked "wanted to just kind of touch on the color use talking about for these supply curve. And are you able to kind of provide any thoughts on the Mozambique and a deferral with the project of that size on 13 and TPA being deferred by we see you have you noticed any impact to the market has is there any impact for stage 3 with that capacity? Thanks." Mgmt replies "No. Look, I only know about the Mozambique delay with what I read as well as what you read that from total and an Exxon. And it's a sad situation and I hope everybody is safe and healthy that were there to experience that unrest but no I don't think it's, again it's a different business paradigm than what we offer. So, we offer a full value product, the customer doesn't have to invest in equity, customer doesn't have to worry about the E&P side of the business because, we've been able to both the by at our peak almost 7 Dee's a day of US NAT gas from almost a 100 different producers on 26 different pipelines and deliver it to our to facilities. So we take care of a lot of what the customer needs".

Natural Gas – Baker Hughes, LNG buyers seeking long term supply agreements

On Thursday, we tweeted [\[LINK\]](#) on Baker Hughes CEO Simonelli's comments at a US sellside conference. Baker Hughes should have one of the best insights into LNG developments as it is the big services player in LNG projects and is directly involved in the vast majority of recent and pending LNG export projects. Simonelli highlighted what we consider the key indicator for the strength of the LNG markets for the 2020s – the desire or LNG buyers to want to lock in long term LNG supply. Simonelli said "Near-term fundamentals are equally as firm, if not better than oil as a combination of outages and strong demand in Asia, Latin America and Europe have driven Third Quarter LNG prices to levels not seen since 2015. Importantly, higher natural gas and LNG prices are beginning to support an increased level of long-term contracting activity as buyers once again seek out long-term supply agreements".

**Baker Hughes on
LNG markets**

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Follows Asian LNG buyers abruptly pivoting and locking in long term LNG

Simonelli didn't say specifically that the LNG buyers who were once again seeking out long term supply agreements were Asian LNG buyers but its impossible to believe he was referring to any other group. After all, this is the theme that we clear saw in late June/early July and why, on July 14, 2021, we posted our 8-pg blog "*Asian LNG Buyers Abruptly Change and Lock in Long Term Supply – Validates Supply Gap, Provides Support For Brownfield LNG FIDs*" [\[LINK\]](#). The reason why we write longer blogs is that we try to provide the thesis and backup so readers don't have to do dig up the back up or sign up to get the backup. We believe it is significant that Asian LNG buyers have changed their LNG contracting strategy post the Total Mozambique LNG force majeure and are now moving to lock in long term supply. We believe this is the best validation of the LNG supply gap and also a big plus for LNG supply FIDs. Here is the summary of the blog "*The last 7 days has shown there is a sea change as Asian LNG buyers have made an abrupt change in their LNG contracting and are moving to lock in long term LNG supply. This is the complete opposite of what they were doing pre-Covid when they were trying to renegotiate Qatar LNG long term deals lower and moving away from long term deals to spot/short term sales. Why? We think they did the same math we did in our April 28 blog "Multiple Brownfield LNG FIDs Now Needed To Fill New LNG Supply Gap From Mozambique Chaos? How About LNG Canada Phase 2?" and saw a much bigger and sooner LNG supply gap driven by the delay of 5 bcf/d of Mozambique LNG that was built into most, if not all LNG supply forecasts. Asian LNG buyers are committing real dollars to long term LNG deals, which we believe is the best validation for the LNG supply gap. Another validation, Shell, Total and others are aggressively competing to invest long term capital to partner in Qatar Petroleum's massive 4.3 bcf/d LNG expansion despite plans to reduce fossil fuels production in the 2020s. And even more importantly to LNG suppliers, the return to long term LNG contracts provides the financing capacity to commit to brownfield LNG FIDs. The abrupt change by Asian LNG buyers to long term contracts is a game changer for LNG markets and sets the stage for brownfield LNG FIDs likely as soon as before year end 2021. It has to be brownfield LNG FIDs if the gap is coming bigger and sooner. And we return to our April 28 blog point, if brownfield LNG is needed, what about Shell looking at 1.8 bcf/d brownfield LNG Canada Phase 2? LNG Canada Phase 1 at 1.8 bcf/d capacity is already a material positive for Cdn natural gas producers. A FID on LNG Canada Phase 2 would be huge, meaning 3.6 bcf/d of Cdn natural gas will be tied to Asian LNG markets and not competing in the US against Henry Hub. And with a much shorter distance to Asian LNG markets. This is why we focus on global LNG markets for our views on the future value of Canadian natural gas*". Our Supplemental Documents package includes the July 14 blog.

Natural Gas – Mexico Pacific LNG has Asian LNG buyers wanting long term supply

On Wednesday, we tweeted [\[LINK\]](#) on more Asian LNG buyers seeking long term supply agreements from Mexico Pacific LNG, who are moving towards FID on a greenfield LNG export project on Mexico's west coast. We tweeted "Asian LNG buyers continue shift to long term deal. Mexico Pacific LNG CEO on Asian #LNG buyer interest "this year, its been incredible". Follows MPL Apr comment advanced discussion with CN JP KR on long term contracts. Thx @abakerNGI @coreypaul . Fits SAF July 14 blog below. #NatGas". Natural Gas Intelligence [\[LINK\]](#) spoke with CEO Shanda and wrote "*Interest from Asian buyers in liquefied natural gas (LNG) exports from Mexico's Pacific Coast has reached a full-blown frenzy amid soaring natural gas prices and demand, according to Mexico Pacific Limited LLC (MPL) CEO Doug Shanda. Shanda spoke with NGI's Mexico GPI about the firm's LNG export*

More Asian LNG buyers want long term supply

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terminal planned for Puerto Libertad in Sonora state. “We saw a lot of interest at the end of last year,” Shanda said, but “this year, it’s just been incredible.” In the NGI report, we could not see where Shanda specifically said “long term” but this is a greenfield LNG export project being project financed and they have been focusing on long term LNG supply deals. Plus they have previously noted how their focus was on long term deals and China, Japan and South Korea LNG buyers. On April 21, 2021, Platts reported [LINK](#) “In the meantime, MPL said it is in advanced discussions with buyers serving China, South Korea, and Japan about purchasing supplies under long-term contracts.” Our Supplemental Documents package includes the NGI and Platts reports.

Mexico Pacific LNG is potential 1.7 bcf/d capacity

Mexico Pacific is a greenfield LNG project on Mexico west coast with 3 equal phases and total of 1.7 bcf/d capacity for all 3 phases. On natural gas supply for the LNG, Mexico Pacific [LINK](#) notes how the Permian is an easy natural gas supply and says something that most aren’t aware in terms of distance. It says “Located a similar distance to Waha as U.S. Brownsville projects, and closer than Louisiana projects A robust network of existing, heavily underutilized natural gas pipelines with available capacity”. Below is the NGI map from their report.

Figure 10: Mexico Pacific LNG



Source: Natural Gas intelligence

Natural Gas – Reports of Petronas Bintulu LNG supply delays

Petronas has reportedly said there is no LNG supply disruption at its Bintulu LNG export facility, but the reports have emerged that they have asked some clients to defer some LNG cargoes. Platts reported that Petronas warned customers on the possibility of more LNG cargoes being deferred for Nov-Jan from the Bintulu LNG export facility, according to Platts [LINK](#). The warnings come after reports that Petronas already delayed several August shipments to end-users in North Asia, as mercury was detected in upstream facilities which forced Petronas to curb gas flows to Train 9. Spikes in Covid-19 cases are also being linked to delayed fixes. Platts notes, “Petronas would like to clarify that there is no supply disruption to our operations at the Petronas LNG Complex in Bintulu, Sarawak,” the NOC said in a statement in response to queries, but did not comment on early warnings to its Japanese

**Petronas Bintulu
LNG supply
delays?**

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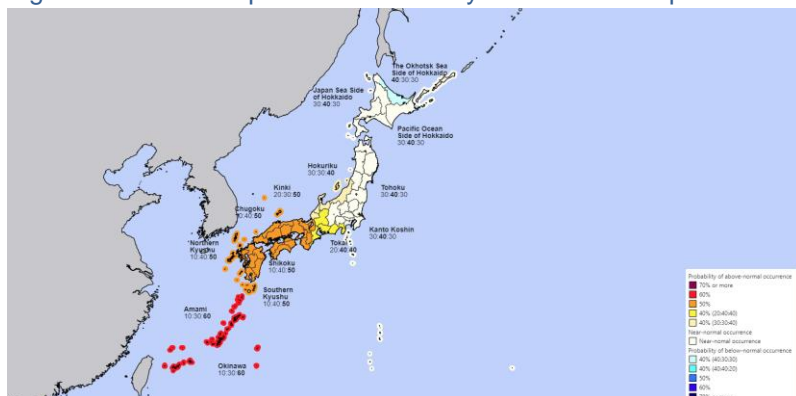
customers about the possibility of winter deferrals.” And “Petronas won support from at least three Japanese off-takers to defer delivery of cargoes from August to September or October, Platts reported Sept. 6, but the NOC may find it tougher to get consent to do the same for those scheduled for November to January as buyers and end-users want certainty on winter supplies. While upstream sources have cited spikes in COVID-19 infections in Sarawak and Sabah that have spread to offshore projects supplying gas to the Bintulu LNG complex, Japanese off-takers said they had also been notified of feed-gas issues due to late production startup at gas fields designed to backfill the project.” Japanese off-takers said the warnings from Petronas relate to cargoes tied to term supply contracts, which may force end-users into a higher dependence on their spot LNG portfolio to make up for any shortfall in supply. Notwithstanding the Petronas denial, when we see these type of reports of delays, there is usually some sort of supply issue. The question will be for how long. Regardless, in a tight LNG market, the last thing LNG buyers want to see is any supply disruption. Its just another support item for near term LNG prices. Our Supplemental Documents package includes the Platts report.

Natural Gas – Japan: warm end to summer with a warm Sept

It looks like a warm end to summer/Sept for Japan. Natural gas demand summer peak is over but a warm Sept will help with natural gas demand. The Japan Meteorological Agency issued its updated month ahead weather forecast for Sept 11 – Oct 10 on Thursday [\[LINK\]](#), which, on an overall basis, calls for a little warmer than normal for Japan. Regionally slightly below normal in the north, normal in the center, and warm/hot in south. Below is the current JMA forecast for Sept and into early Oct.

Warm end to
summer/Sept

Figure 11: JMA Temperature Probability Forecast for Sept 11 – Oct 10



Source: Japan Meteorological Agency

Natural Gas – China’s natural gas imports up 11.9% MoM in Aug

China released the preliminary data of natural gas import data for August this week. As this is a preliminary release, it does not include the split between LNG and pipeline imports, which will be released later in September. China imported 16.17 bcf/d in August, up 11.5% YoY and 11.9% MoM. We expect to see the China split between pipeline imports vs LNG imports this week. We expect China’s LNG imports will be impacted by the numerous reports over the past month on how high LNG prices is forcing them to reduce LNG imports.

China
preliminary
natural gas
imports

Natural Gas – Nord Stream 2 construction complete, now up to Germany

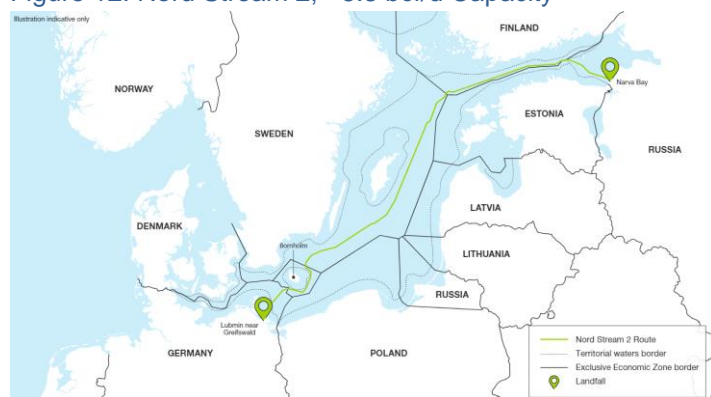
On Friday, Gazprom announced [\[LINK\]](#) “During a morning briefing at Gazprom, Alexey Miller, Chairman of the Management Committee, announced that the construction of the Nord

Nord Stream 2
construction
completed

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Stream 2 gas pipeline was fully completed at 8:45 am (Moscow time) earlier this morning. As to when natural gas will begin flowing from Russia to Germany, it looks to be in Germany's court now for the remaining German national and state approvals. And also looming as a potential complication is the Sept 26 election, which is when Merkel steps down as Chancellor. Nord Stream 2 is the parallel new 5.3 bcf/d pipeline from Russia to Germany. Our Supplemental Documents package includes TASS report on the completion and Germany approvals. [\[LINK\]](#)

Figure 12: Nord Stream 2, ~5.3 bcf/d Capacity



Source: Nord Stream 2

Natural Gas – US says Europe isn't doing enough to prepare for potential gas crunch

On Friday, we couldn't help tweet [\[LINK\]](#) after seeing the Bloomberg report *"Europe Must Better Prepare for Gas Crunch, U.S. Envoy Says."* Bloomberg reported on comments from Amos Hochstein, the recently appointed US State Dept envoy for energy security on the potential natural gas crunch in winter this winter. Two of Hochstein's quotes on the weak natural gas position in Europe coming into the winter were that Russia *"is coming off an extended period of inexplicably low supply"* and that everyone *"has to be prepared and to think about this more than I'm seeing currently in Europe."* After seeing his comments, we couldn't help point out that Europe's natural gas position would be hugely better if the US hadn't been key to stopping the 5.3 bcf/d Nord Stream 2 pipeline from starting up last year. Our tweet was *"Europe isn't doing enough to prepare for a potential gas crunch this winter"* @business @econ1st reporting on comments by new US State Dept energy security advisor @amoshochstein. Did he forget US sanctions was key to keep 5.3 bcf/d #NordStream2 from starting up? #NatGas." We recognize that as the special envoy, he will have analysts and staffers briefing him but, surely, everyone in the US State Dept realizes the impact that that the delay of Nord Stream 2 had on Europe gas supply in 2020. Our Supplemental Documents package includes the Bloomberg report.

US envoy forgets about Nord Stream 2

Natural Gas – Putin says "wise-guy members" of Europe wanted market gas prices

Europe is getting it from two angles on the potential natural gas crunch this winter. Above, US State Dept Hochstein blames Europe for not having the supply and, on Thursday, Putin blamed the "wise guy members of the European Commission" for putting in a pricing mechanism that is leading to sky high prices. At Putin's press conference with the President of Belarus, in the Q&A, Putin said *"You are talking about energy prices. I have said that 1,000 cubic metres cost \$650 on the free European market. But the wise-guy members of the European Commission's previous line-up invented market gas pricing, and the results are here for everyone to see. And we prefer a different approach. We also stipulate market*

Putin on "wise-guy" EC members

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pricing, and this price is pegged to the crude oil price. No one but market regulates it. But the fluctuations are much less pronounced. But here, someone has failed to pump the required 27 billion cubic metres into underground gas reservoirs, causing a shortage in gas supplies, business activity increased or something else happened, and there you are – gas prices start to exceed the prices of crude oil and petroleum derivatives. So you can see a substantial price hike. Gazprom does not charge such selling prices under long-term contracts and our pricing principles. Those Europeans who have agreed to sign long-term contracts with us can rub their hands with joy and feel happy because they would otherwise have to pay \$650. Gazprom sells gas to Germany for \$220; at any rate, this was the case only recently”. Our Supplemental Documents package includes excerpts from the Kremlin transcript on Putin’s Thursday press conference. [LINK](#)

Can see why Merkel wants Nord Stream 2 for Germany

Putin’s comments also show one of the reasons why Merkel wants Nord Stream 2. This is a direct Russia to Germany pipeline so there is no one in between to play natural gas games like has been seen in the past with Russia natural gas transit thru Ukraine. And it’s the pricing mechanism. All 2021 has done is reinforce to Merkel why she wants to have more natural gas not linked to spot prices. As Putin said *“Those Europeans who have agreed to sign long-term contracts with us can rub their hands with joy and feel happy because they would otherwise have to pay \$650. Gazprom sells gas to Germany for \$220; at any rate”*

Natural Gas – Reminder why Europe gas storage is the key indicator for LNG markets

There shouldn’t be anyone who, after living thru 2021 LNG markets, doesn’t realize the significance of Europe gas storage as the key indicator for LNG markets. For the past 4 years, we have been trying to hammer home the significance of Europe gas storage. This is a concept that Shell clearly laid out in 2017 on how Europe gas storage levels and changes in storage since Nov 1 continues to be an excellent indicator for the strength of global LNG markets. We first highlighted this key concept over 3 years ago. On Sept 20, 2017, we posted two related blogs. The first blog was *“Shell: “Every LNG Cargo That Could Technically Be Produced In This World Has Been Produced And Has Found A Well Paying Customer”*, and the second linked blog was *“China’s Plan To Increase Natural Gas To 10% Of Its Energy Mix Is A Global Game Changer Including For BC LNG”*. The concept of the blogs was that the market was understating the fall LNG 2017 market strength, China being serious about increasing natural gas, and the surprising market strength would lead to a BC LNG FID in 2018 ie. LNG Canada. The reason for our believing LNG markets in summer 2017 was due to Shell’s LNG head, Martin Wetselaar) explaining the concept of Europe gas storage. As soon as we heard it, we knew it made sense. And when you look at the Europe gas storage utilization for this winter, it fits to the thesis Wetselaar first outlined in Aug 2017. Long term readers of Energy Tidbits know we think the best insights from companies comes from Q&A, not the slide decks, and that was particularly so in this case. Here is what we wrote in Sept 20, 2017 blog *“The key data support to Wetselaar is that NW Europe storage is not seeing surplus LNG cargos looking for a home. In the Q&A, Wetselaar said the data support for his comment that the market is absorbing all of the new LNG supply is to look at NW Europe storage. Wetselaar did not use the description dumping ground, but it is the right term. Webster’s defines “dumping ground” as “a place to which unwanted people or things are sent”. He noted that if LNG was in oversupply, there would be surplus LNG cargos looking for a home and these surplus LNG cargos would find their way to NW Europe storage. Shell is not seeing any YoY increase in NW Europe storage. Hence, he is firm in his view that demand was absorbing all the new LNG supply in 2017. We pasted the NW Europe storage data into the below graph and it shows exactly what Wetselaar said – the*

Europe gas storage is key LNG indicator

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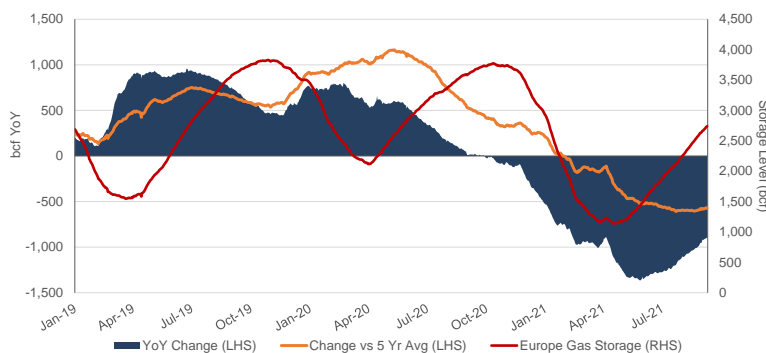
monthly YoY changes in storage do not show increases in the net storage withdraw/injections, which implies that there isn't any dumping of surplus LNG cargos in NW Europe storage. We have not been following NW Europe natural gas storage, but now have it on our regular data check list because of Wetselaar's comments." Our Supplemental Documents package includes our Sept 20, 2017 Shell blog.

Natural Gas – Europe Storage 69.95% full vs 5-year average of 85.59%

As we enter September, the outlook has shifted to how natural gas is set up for the winter. It was a great summer for European gas prices - high Europe demand and strong Asian prices continue to preferentially attract LNG cargos. While Russia's Nord Stream 2 gas link was completed on Friday, and Gazprom PJSC stated they want to start commercial supplies next month when the heating season starts, the pipe still needs the approval from the German regulator, dimming the chance of an end to supply shortage. This leaves European traders scrambling, as they are forced to enter aggressive competition with Asia to attract LNG cargoes, all the while Europe is running out of time to refill its depleted gas storage sites before the heating season starts in October. Inventories are at their lowest level in more than a decade, after a cold and bitter winter, while supplies from Russia have also been limited. The set up for winter natural gas prices in Europe looks strong. The key indicator for winter Europe natural gas prices and also global LNG prices is Europe storage. Europe gas storage started the winter (Nov 1) at basically full levels at 94.66% and had dropped by 65.77% to be 28.89% at Apr 1. This 65.77% decline since Nov 1 compares to the 5 yr average that would be down 53.99% in the same period or to last winter that was only down 43.29% in the same period. We are now seeing storage start to build, but the build is slow due to the above reasons. Europe storage levels bottomed in late Apr at 29%, which was the lowest level since Apr 2018. Storage as of Sept 9 is 69.95%, which is -22.56% less than last year levels of 92.51% , and are -15.64% below the 5-year average of 85.59%. Europe storage levels over the next few weeks will be the key item to watch for indications on LNG markets going into the winter. Below is our graph of YoY change in net LNG flows to NW Europe and Europe Gas Storage Utilization.

Europe gas storage 69.65% full

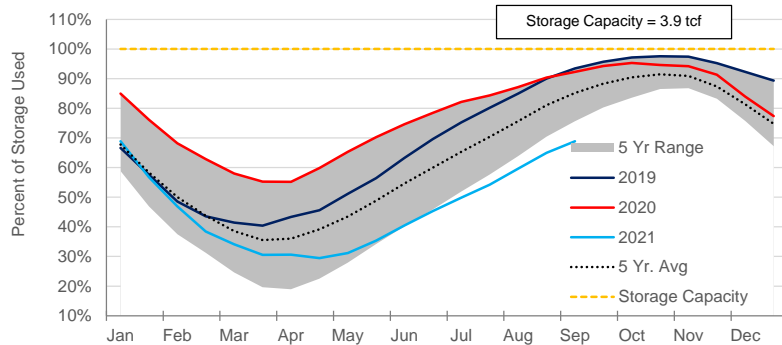
Figure 13: Europe Gas Storage Level



Source: Bloomberg

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Figure 14: Europe Gas Storage Utilization



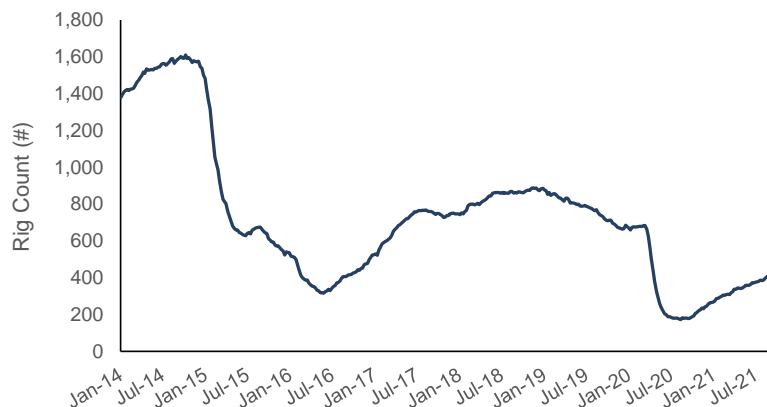
Source: Bloomberg

Oil – US oil +7 WoW at 401 oil rigs

US rigs +7 WoW

This week US oil rigs were up 7 rigs WoW at 401 rigs. Note, offshore up moving back in after Hurricane Ida. Oil rigs are still +229 off the bottom of 172 in Aug14/2020 week. Not much in the basins but the Permian was up and this was expected. Also, “others” was back up and this is due to the oil prices back off the recent dip. Below is our graph of US oil rigs since 2020, which highlights the big decreases in Permian and Bakken oil rigs.

Figure 15: Baker Hughes Total US Oil Rigs



Source: Baker Hughes

Oil – Frac spreads +4 to 244 as of Sept 10

Frac spreads +4 to 244

Every week, Mark Rossano (C6 Capital Holdings) posts a YouTube recap of frac spreads for the week on the Primary Vision Network. [\[LINK\]](#). US frac spreads were +4 to 244 as of Sept 10. He noted a little increase in the Permian and also in the Haynesville. He said the focus to date has been on the oil side with 80-82% of the spreads being for oil, but now the momentum is coming on the natural gas side with the increasing LNG and also, with coal shuttering, can't really switch from gas to coal. Looking ahead, he still sees room to grow for oil spreads in the Permian, Williston and Anadarko, and also 1 or 2 spreads in the smaller basins. And still expect to see 254 spreads in the first week of October. Rossano made an interesting comment with respect to propane worrying specifically if propane inventories get to 20 days of cover, he raised the risk that the US has the ability to throw up a gate (ie. to stop exports) in discussing propane, ie. if there is a really bad cold snap, 3 days of sub zero

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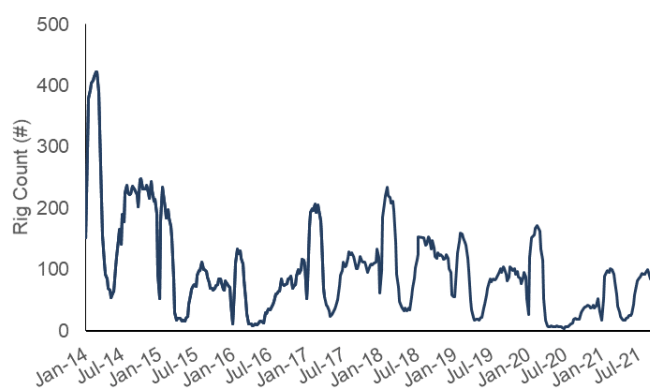
temperature can pull 10 days of inventory in terms of days of cover. Note he stopped providing his frac spread graphs for free in July. Notwithstanding he also stopped providing specific numbers in any basins, we can still get the insight on completions based on the total frac spread data.

Oil – Total Cdn rigs -9 to 143 total rigs and +89 rigs YoY

Total Cdn rigs were -9 this week to 143 total rigs. Cdn oil rigs were -5 at 87 rigs. Cdn gas rigs were -4 to 56 gas rigs. Total rigs are now +130 since the June 26, 2020 all-time low. Decline was in Alberta despite high AECO gas prices, and we have heard some feedback that some of the seasonal heavy oil drilling has been completed. Cdn drilling has recovered YoY, a year ago Cdn oil rigs were 19 and Cdn gas rigs were 35 for a total Cdn rigs of 54, meaning total Cdn rigs are +89 YoY and total rigs are up +8 vs 2019.

Cdn rigs -9 WoW

Figure 16: Baker Hughes Total Canadian Oil Rigs



Source: Baker Hughes

Oil – US weekly oil production down -1.500 mmb/d WoW at 10.0 mmb/d

Hurricane Ida decimated U.S. crude production, as output fell by -1.500 mmb/d, the biggest weekly drop in EIA data going back nearly four decades. US oil production was down -1.500 mmb/d to 10.00 mmb/d for the Sept 3 week, driven by Lower 48 production WoW decrease of -1.500 mmb/d to 9.600 mmb/d. US oil production is still up YoY at +0.100 mmb/d, and is down significantly at 3.1 mmb/d since the 2020 peak of 13.1 mmb/d on March 13. The Sept STEO forecast decreased its US crude expectations thru 2021 by -0.40 mmb/d, nowhere near the Q4/19 peak of 12.88 mmb/d, with Q4/21 US crude of 11.28 mmb/d (down 1.60 mmb/d from peak). In US oil production commentary, the EIA wrote “total U.S. crude oil production averaged 11.3 million b/d in June—the most recent monthly historical data point. We forecast it will remain near that level through the end of 2021 before increasing to an average of 11.7 million b/d in 2022, driven by growth in onshore tight oil production. We expect growth will result from operators beginning to increase rig additions, offsetting production decline rates.” The EIA DPR has the expectation of slight MoM increases in August/September. The EIA Form 914 June actuals were 207,000 mb/d above the weekly estimates average of 11.10 mmb/d for June, following a similar trend from May’s +392,000 mmb/d underestimate.

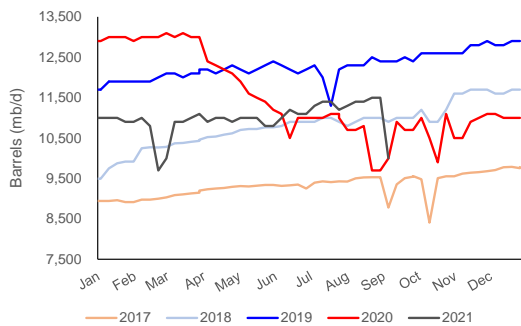
Hurricane Ida decimates U.S. oil production, down -1.5 mmb/d WoW

Figure 17: EIA's Estimated Weekly US Oil Production

Year-Month	Week 1		Week 2		Week 3		Week 4		Week 5	
	End Date	Value	End Date	Value	End Date	Value	End Date	Value	End Date	Value
2019-Jan	01/04	11,700	01/11	11,900	01/18	11,900	01/25	11,900		
2019-Feb	02/01	11,900	02/08	11,900	02/15	12,000	02/22	12,100		
2019-Mar	03/01	12,100	03/08	12,000	03/15	12,100	03/22	12,100	03/29	12,200
2019-Apr	04/05	12,200	04/12	12,100	04/19	12,200	04/26	12,300		
2019-May	05/03	12,200	05/10	12,100	05/17	12,200	05/24	12,300	05/31	12,400
2019-Jun	06/07	12,300	06/14	12,200	06/21	12,100	06/28	12,200		
2019-Jul	07/05	12,300	07/12	12,000	07/19	11,300	07/26	12,200		
2019-Aug	08/02	12,300	08/09	12,300	08/16	12,300	08/23	12,500	08/30	12,400
2019-Sep	09/06	12,400	09/13	12,400	09/20	12,500	09/27	12,400		
2019-Oct	10/04	12,600	10/11	12,600	10/18	12,600	10/25	12,600		
2019-Nov	11/01	12,600	11/08	12,800	11/15	12,800	11/22	12,900	11/29	12,900
2019-Dec	12/06	12,800	12/13	12,800	12/20	12,900	12/27	12,900		
2020-Jan	01/03	12,900	01/10	13,000	01/17	13,000	01/24	13,000	01/31	12,900
2020-Feb	02/07	13,000	02/14	13,000	02/21	13,000	02/28	13,100		
2020-Mar	03/06	13,000	03/13	13,100	03/20	13,000	03/27	13,000		
2020-Apr	04/03	12,400	04/10	12,300	04/17	12,200	04/24	12,100		
2020-May	05/01	11,900	05/08	11,600	05/15	11,500	05/22	11,400	05/29	11,200
2020-Jun	06/05	11,100	06/12	10,500	06/19	11,000	06/26	11,000		
2020-Jul	07/03	11,000	07/10	11,000	07/17	11,100	07/24	11,100	07/31	11,000
2020-Aug	08/07	10,700	08/14	10,700	08/21	10,800	08/28	9,700		
2020-Sep	09/04	10,000	09/11	10,900	09/18	10,700	09/25	10,700		
2020-Oct	10/02	11,000	10/09	10,500	10/16	9,900	10/23	11,100	10/30	10,500
2020-Nov	11/06	10,500	11/13	10,900	11/20	11,000	11/27	11,100		
2020-Dec	12/04	11,100	12/11	11,000	12/18	11,000	12/25	11,000		
2021-Jan	01/01	11,000	01/08	11,000	01/15	11,000	01/22	10,900	01/29	10,900
2021-Feb	02/05	11,000	02/12	10,800	02/19	9,700	02/26	10,000		
2021-Mar	03/05	10,900	03/12	10,900	03/19	11,000	03/26	11,100		
2021-Apr	04/02	10,900	04/09	11,000	04/16	11,000	04/23	10,900	04/30	10,900
2021-May	05/07	11,000	05/14	11,000	05/21	11,000	05/28	10,800		
2021-Jun	06/04	11,000	06/11	11,200	06/18	11,100	06/25	11,100		
2021-Jul	07/02	11,300	07/09	11,400	07/16	11,400	07/23	11,200	07/30	11,200
2021-Aug	08/06	11,300	08/13	11,400	08/20	11,400	08/27	11,500		
2021-Sep	09/03	10,000								

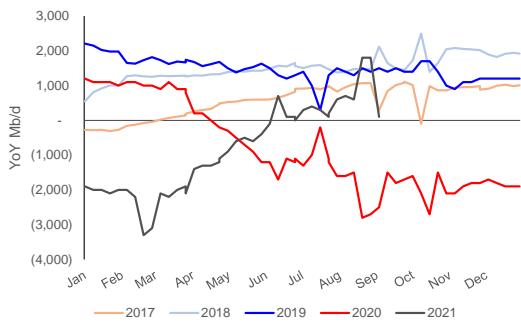
Source: EIA

Figure 18: US Weekly Oil Production



Source: EIA, SAF

Figure 19: YoY Change in US Weekly Oil Production



Source: EIA, SAF

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Oil – EIA STEO expecting sustained production growth to Q4/22

No surprise, the EIA lowered its US oil production forecasts given the large and still uncertain ultimate impact from shut-in production related to Hurricane Ida. The EIA STEO 2021 was adjusted down -0.40mmb/d and 2022 adjusted down -0.05 mmb/d versus last month’s release. (i) The EIA did not adjust its 2019 production numbers, remaining at 12.88 mmb/d. (ii) The EIA forecast slightly decreased its crude expectations through 2021 with Q4/21 expectations of 11.28 mmb/d down -0.02 mm/d from 11.30 mmb/d last month. Full year 2020 US oil production remained unchanged at 11.28 mmb/d, still down -1.01 mmb/d YoY from 12.29 mmb/d in 2019. (iii) Full year 2021 is increased by +0.02 mmb/d vs August STEO to 11.12 mmb/d, which is down -0.16 mmb/d YoY from 2020. (iv) The EIA forecasts a shift back to YoY growth in 2022 with production averaging 11.72 mmb/d, +0.30 mmb/d YoY (was 11.77 mmb/d previously), with Q4/22 production of 12.06 mmb/d, is still down -0.82 mmb/d from Q4/19. (v) In the US oil production commentary, the EIA wrote “we forecast it will remain near that level through the end of 2021 before increasing to an average of 11.7 million b/d in 2022, driven by growth in onshore tight oil production. We expect growth will result from operators beginning to increase rig additions, offsetting production decline rates.”

EIA forecasts US 2022 oil exit at 12.06 mmb/d

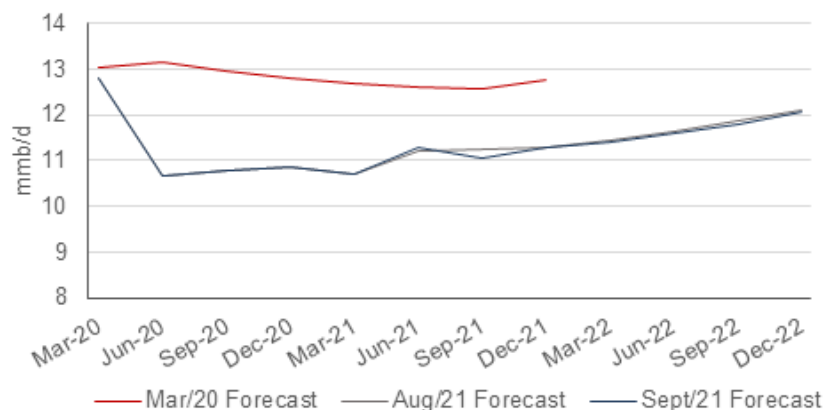
Figure 20: Estimated US Crude Oil Production By Forecast Month

EIA Estimated US Crude Oil Production By STEO Forecast Month

EIA STEO Forecast Month	Q1/19	Q2/19	Q3/19	Q4/19	2019	Q1/20	Q2/20	Q3/20	Q4/20	2020	Q1/21	Q2/21	Q3/21	Q4/21	2021	Q1/22	Q2/22	Q3/22	Q4/22	2022
Sept 2021	11.80	12.15	12.31	12.88	12.29	12.81	10.67	10.79	10.87	11.28	10.69	11.28	11.06	11.28	11.08	11.42	11.58	11.81	12.06	11.72
Aug 2021	11.80	12.15	12.31	12.88	12.29	12.81	10.67	10.79	10.87	11.28	10.69	11.22	11.26	11.30	11.12	11.46	11.62	11.86	12.11	11.77
July 2021	11.83	12.13	12.25	12.78	12.25	12.75	10.81	10.81	10.90	11.31	10.70	11.20	11.17	11.34	11.10	11.54	11.72	11.95	12.20	11.85
June 2021	11.83	12.13	12.25	12.78	12.25	12.75	10.81	10.81	10.90	11.31	10.70	11.04	11.17	11.38	11.08	11.55	11.67	11.88	12.05	11.79
May 2021	11.83	12.13	12.24	12.78	12.25	12.75	10.81	10.81	10.90	11.31	10.65	10.97	11.12	11.34	11.02	11.51	11.68	11.96	12.21	11.84
Apr 2021	11.83	12.13	12.24	12.78	12.25	12.75	10.81	10.81	10.90	11.31	10.75	10.93	11.13	11.35	11.04	11.54	11.74	11.99	12.18	11.86
Mar 2021	11.83	12.13	12.24	12.78	12.25	12.75	10.81	10.81	10.87	11.31	10.79	11.06	11.27	11.46	11.15	11.67	11.84	12.16	12.41	12.02
Feb 2021	11.83	12.13	12.24	12.78	12.25	12.75	10.81	10.81	10.89	11.31	10.98	10.91	11.00	11.18	11.02	11.30	11.38	11.61	11.83	11.53
Jan 2021	11.83	12.13	12.24	12.78	12.25	12.75	10.81	10.81	10.81	11.29	11.06	11.03	11.07	11.25	11.10	11.32	11.37	11.52	11.74	11.49
Dec 2020	11.83	12.13	12.24	12.78	12.25	12.75	10.81	10.80	10.99	11.34	11.02	11.00	11.09	11.29	11.10					
Nov 2020	11.83	12.13	12.24	12.78	12.25	12.75	10.81	10.93	11.07	11.39	11.06	10.97	11.08	11.28	11.10					
Oct 2020	11.83	12.13	12.24	12.78	12.25	12.75	10.82	11.02	11.22	11.45	11.07	11.00	11.05	11.22	11.09					
Sept 2020	11.83	12.13	12.24	12.78	12.25	12.75	10.81	10.91	11.08	11.38	10.96	10.97	11.08	11.32	11.08					
Aug 2020	11.83	12.13	12.24	12.78	12.25	12.75	10.57	10.79	10.96	11.26	11.00	10.99	11.16	11.40	11.14					
July 2020	11.81	12.10	12.23	12.78	12.23	12.74	11.41	11.29	11.10	11.63	11.02	10.93	10.97	11.13	11.01					
June 2020	11.81	12.10	12.23	12.78	12.23	12.74	11.65	11.13	10.74	11.56	10.71	10.83	10.80	11.02	10.84					

Source: EIA STEO

Figure 21: Estimated US Crude Oil Production By Forecast Month



Source: EIA STEO

2nd SPR deal for Exxon

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Oil – DOE makes 2nd exchange deal with Exxon for US SPR oil reserves

Exxon was granted access to strategic oil reserves held by the US for a second time as production in the Gulf of Mexico halted from Hurricane Ida's landfall last week. The DOE announcement was short [LINK](#) and said "Today, the Department of Energy authorized the Strategic Petroleum Reserve (SPR) to conduct a second exchange with ExxonMobil Baton Rouge for an additional 1,500,000 barrels of crude oil. With the release of an initial 1,500,000 barrels to ExxonMobil and 300,000 barrels to Placid Refining, the SPR released a total of 3,300,000 barrels in response to Hurricane Ida. The SPR's ability to conduct exchanges is a critical tool available to refiners to strengthen the fuel supply chain and mitigate disruptions following emergencies, like Hurricane Ida." The SPR has now released a total of 3.3 mmb in response to Hurricane Ida.

Oil – Enbridge sees big Permian oil growth, acquires major oil export assets

One of the interesting insights from the big Enbridge deal this week was their views on Permian oil growth, and the implied view on US oil production. Enbridge's outlook assumes 2.2 mmb/d of Permian oil growth thru 2035 and, with its view that US oil exports will grow >2 mmb/d thru 2035, it seems to imply total US oil production growth of about the same level ie. other non Permian is roughly flat. On Tuesday, Enbridge announced a purchase agreement [LINK](#) with Encap Flatrock Midstream to acquire Moda Midstream Operating, LLC, for \$3.0bn. The acquisition advances Enbridge's US Gulf Coast Export strategy, and its connectivity to low cost and long-lived Permian and Eagle Ford basins. Enbridge acquires 100% operating interest of Ingleside Energy Centre (IEC), which has storage capacity of 15.6 mmb and 1.5 mmb/d export capacity; the IEC loaded 25% of US Gulf Coast exports in 2020. Enbridge acquires a 20% interest of 0.67 mmb/d Cactus II pipeline and 100% interest in 0.3 mmb/d Viola pipeline and 0.35 mmb Taft terminal. Assets are expected to see growth in EPS, dividend growth and free cash flow, strengthening Enbridge's financial flexibility and preserving \$5.6 bn of annual self funded investible financing capacity beginning in 2022. But what caught our eye is their view on the Permian oil growth. The Enbridge slide deck on the deal included the below Light Oil Fundamentals slide that assumes Permian "2.2 MMbpd of forecast supply growth through 2035", "Low-cost Permian light oil supply will drive North American exports to global markets", and ">2 MMb/d of forecasted exports growth through 2035". Note that this looks to be a light oil and not a boe/d increase. This is a significant growth in Permian light oil production especially considering there will be a declining oil ratio over time relative to NGLs and natural gas. Our Supplemental Documents package includes excerpts from the Enbridge slide deck.

Enbridge see big Permian oil growth

Figure 22 – Light Oil Export Fundamentals



Source: Enbridge

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Oil – Terra Nova to resume production with Cenovus Atlantic assets restructuring plan

Cenovus entered into agreements with partners on Sept 8, to restructure working interest in the Terra Nova and White Rose projects, improving economics for the company’s regional portfolio. Working interest in Terra Nova will be up to 34% from 13% and will receive \$78 mm from partners as contribution towards future asset retirement obligations. Terra Nova asset life extension will proceed through 2033 with production resuming before the end of 2022; gross production is expected to reach 29,000 b/d by 2023. Net outlay to Cenovus with Terra Nova restart is expected to be \$60 mm to first oil with contributions from Government of Newfoundland and Labrador. Cenovus will reduce its stake in the West White Rose project to allow partners to increase their respective stake. Cenovus quickly approaches its \$10 bn net debt target and expects to allocate free funds flow to enrich shareholder returns. [\[LINK\]](#)

Terra Nova production to restart

Oil – No change, still at 5 Covid outbreaks in oil sands facilities

Wood Buffalo posted a Sept 9 Covid updates this week [\[LINK\]](#). Recall that they didn’t update for 2 weeks, but last week posted Sept 1 & 3 updates. Those updates showed an increase of 3 oil sands facilities with outbreaks vs the then prior Aug 13 update. This week, the Sept 9 update had no change – there are still 5 oil sands facilities considered outbreak areas: CNRL Albion, CNRL Horizon, CNRL Kirby Jackfish, Private Gathering Anzac and Suncor Fort Hills.

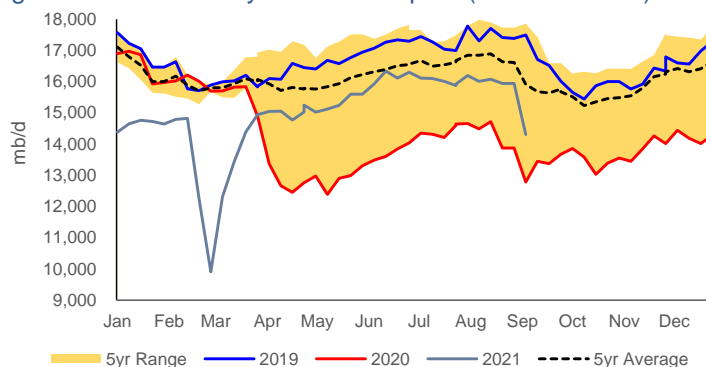
Covid in oil sands

Oil – Refinery inputs -1.636 mmb/d WoW to 14.302 mmb/d, up +1.523 mmb/d YoY

No surprise, there were the aftermath of Hurricane Ida saw crude inputs to refineries were down -1.636 mmb/d this week to 14.302 mmb/d and are +1.523 mmb/d YoY. Refinery utilization was down by 9.4% to 81.9%, which is still +10.1% YoY. Total products supplied (i.e., demand) was down -2.865 mmb/d this week to 19.954 mmb/d. Motor gasoline was effectively flat at 9.608 mmb/d from 9.578 mmb/d last week. So far, the spread of the delta variant and aftermath of Hurricane Ida hasn’t meant a huge reduction in gasoline consumption as the peak of the summer driving season ends. Below is our graph of crude inputs to US refineries and our graph of US motor gasoline supplied.

Refinery inputs down -1.636 mmb/d WoW

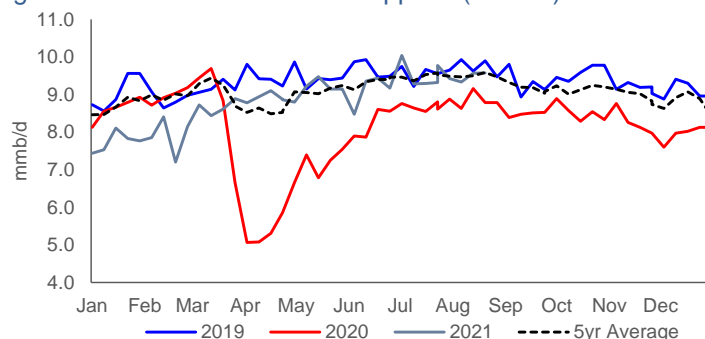
Figure 23: US Refinery Crude Oil Inputs (thousands b/d)



Source: EIA, SAF

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Figure 24: US Motor Gasoline Supplied (mmb/d)



Source: EIA, SAF

Oil – Phillips 66 may idle 255,000 b/d Alliance Refinery

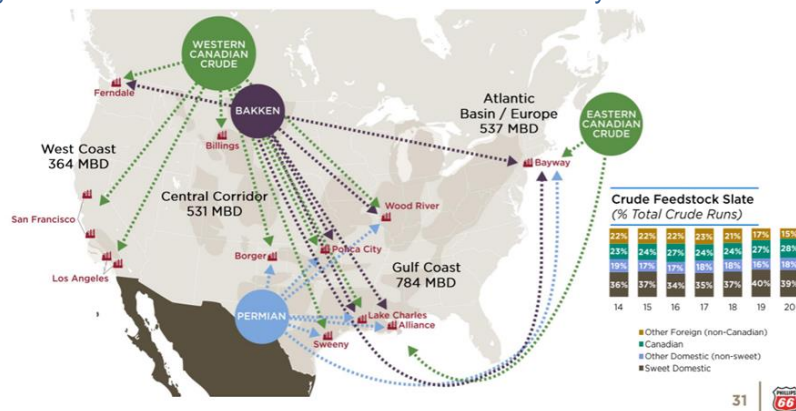
It is looking like there may be a refinery victim to damage from Hurricane Ida. On Friday, Bloomberg reported that Phillips 66 may idle a New Orleans area refinery that sustained significant damage from Hurricane Ida [\[LINK\]](#), with repairs presumed to be too costly. The Alliance refinery (255,000 b/d) closed operations Aug 28, immediately preceding Ida's landfall. The storm bore a hole in the refinery's protective levee and inundated the plant. This renders Phillips 66's ability to find a buyer for an asset it was attempting to unload citing, "market conditions and the evolving energy landscape." Our Supplemental Documents package includes the Bloomberg report.

Alliance refinery may idle due to excessive damage

Alliance refinery has crude throughput of 255,000 b/d

Phillips 66's background on Alliance refinery [\[LINK\]](#) notes crude throughput is 255,000 b/d, and resultant gasolines production is 130,000 b/d and distillates production 120,000 b/d. Alliance was built in 1971, and "The alliance refinery processes mainly light, low-sulfur crude oil. The single-train refinery's facilities include fluid catalytic cracking, alkylation, coking, and hydrodesulfurization units, a naphtha reformer and aromatics units that enable it to produce a high percentage of gasoline, diesel and aviation fuels. Other products include petrochemical feedstocks, home heating oil and anode-grade petroleum coke [\[LINK\]](#). Its refined products are distributed to eastern US customers by common carrier pipelines and barge. Below is a graphic depicting North American crude feedstock." Below is their map from their August investor presentation.

Figure 25: North American Crude Feedstock Flexibility



Source: Phillips 66

Oil – US “net” oil imports up +0.167 mmb/d to 3.468 mmb/d

US “NET” imports were up +0.167 mmb/d to 3.468 mmb/d for the Sept 3 week. US imports were down -0.531 mmb/d to 5.810 mmb/d. US exports were down -0.698 mmb/d to 2.342 mmb/d. The WoW decrease in US oil imports was driven by -0.302 mmb/d from Mexico and -0.195 mmb/d from Ecuador (now 0 mmb/d), as well as decreases from Iraq, Canada, Saudi and Others. Some items to note on the by country data. (i) Canada was down this week by -0.032 mmb/d to 3.580 mmb/d, which is now ~0.120 mmb/d below the average levels in Jan/Feb of 2020. (ii) Saudi Arabia was down -49,000 b/d to 0.296 mmb/d this week. (iii) Colombia was up +74,000 to 0.145 mmb/d, erasing last weeks decrease and slightly below two-month average of 0.162 mmb/d. (iv) Ecuador recorded zero imports this week, down by 195,000 b/d. (v) Iraq was down -68,000 b/d to 106,000 b/d. (vi) Venezuela remained at 0 due to US sanctions. (vi) Mexico was down by 302,000 b/d to 0.372 mmb/d.

US “net” up +0.167 WoW

Figure 26: US Weekly Preliminary Oil Imports By Major Countries

	June 25/21	July 02/21	July 09/21	July 16/21	July 23/21	July 30/21	Aug 06/21	Aug 13/21	Aug 20/21	Aug 27/21	Sept 03/21	WoW
Canada	3,282	3,744	3,480	3,611	3,476	3,228	3,371	3,057	3,555	3,612	3,580	-32
Saudi Arabia	565	316	347	359	363	351	302	363	286	345	296	-49
Venezuela	0	0	0	0	0	0	0	0	0	0	0	0
Mexico	747	408	648	797	621	634	601	629	595	674	372	-302
Colombia	139	154	140	144	144	141	293	143	370	71	145	74
Iraq	142	229	182	480	145	82	120	150	77	174	106	-68
Ecuador	260	0	95	171	168	46	150	197	261	195	0	-195
Nigeria	33	142	187	195	55	212	150	214	95	43	116	73
Kuwait	0	0	0	0	0	0	0	0	0	0	0	0
Angola	0	0	0	0	0	0	0	0	0	0	0	0
Top 10	5,168	4,993	5,079	5,757	4,972	4,694	4,987	4,753	5,239	5,114	4,615	-499
Others	1,238	882	1,142	1,340	1,535	1,738	1,409	1,597	918	1,226	1,195	-31
Total US	6,406	5,875	6,221	7,097	6,507	6,432	6,396	6,350	6,157	6,340	5,810	-530

Source: EIA, SAF

Oil – Mexico lowers 2022 oil production

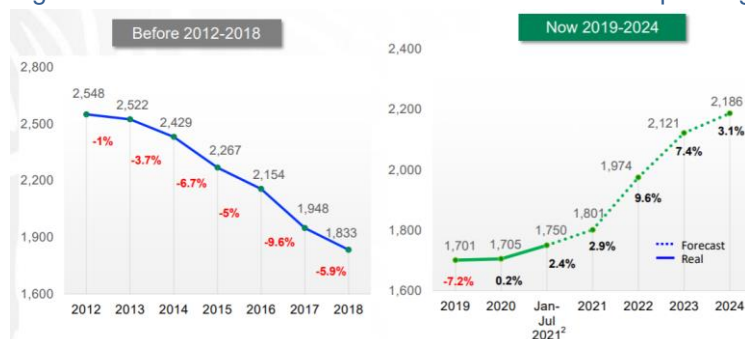
It looks like Mexico is behind on its oil production growth expectations for 2022. We haven’t seen it show up in the Pemex forecasts yet but, on Wednesday, Bloomberg reported on a draft of Mexico’s Finance Ministry that is being presented this week. Bloomberg reported “Mexico is cutting its 2021 forecast for oil production at Petroleos Mexicanos by 8.4% as the state producer struggles under a \$107 billion debt load and the impact of the deadly coronavirus. The country’s Finance Ministry lowered its preliminary estimate for output next year to 1.857 million barrels a day, down from 2.027 million in an April forecast, according to a draft of next year’s budget proposal obtained by Bloomberg News.” The reduction for 2021

Mexico lowers 2022 oil production

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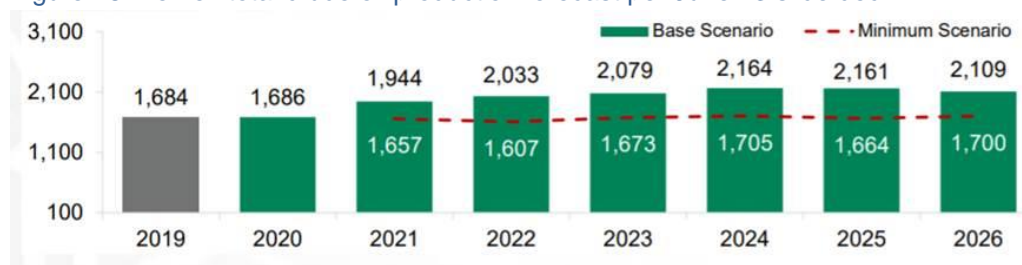
can be blamed to some degree on the supply interruptions. However, the reduction for 2021 oil production forecast would more represent what we have been expecting – their forecasts were just too aggressive. Also, the 2022 forecast of 1.857 mmb/d is below the recently Aug revised Pemex 2022 forecast of 1.974 mmb/d. Below are the Pemex oil production forecasts in the Aug 19 and June 23 slide decks. Our Supplemental Documents package includes the Bloomberg report.

Figure 27: Pemex Total Crude Oil Production Forecast per Aug 18 slide deck



Source: Pemex

Figure 28: Pemex total crude oil production forecast per June 23 slide deck



Source: Pemex June 23, 2021 investor presentation

Lower 2022 Mexico oil production helps set up 2023 win for Cdn heavy/medium

Mexico’s lowering of its 2022 oil production growth is setting up a big potential win for Cdn heavy/medium crude in 2023. The big winner for declining Mexico and Venezuela oil exports into the US Gulf Coast PADD 3 has been Cdn heavy and medium oil. AMLO is still driving ahead to have the new Dos Bocas refinery in his home state of Tabasco completed in 2022. Dos Bocas has a planned capacity of 340,000 b/d. Once completed, this will more than offset any modest Mexico oil production growth and mean there should be at least 200,000 b/d less Mexico oil for export.

Oil – Colombia July production 731, 255 b/d, down 0.5% YoY and up 5.3% MoM

Colombia oil production rebounded after the blockades of the National Strike were lifted. On Monday, Colombia Ministry of Mines and Energy released its July oil and gas production data [\[LINK\]](#). Our Aug 8, 2021 Energy Tidbits memo noted how anti-governmental protests affected May and June oil production by ~55,000 b/d. however July saw recovery in production since protests have ceased. Colombia reported that July 2021 oil production was 731,255 b/d, down -0.5% YoY from 734,987 b/d in July 2020, and up +5.3% MoM vs 694,151 b/d last month. The Columbian Ministry of Mines and Energy stated, “the increase in production occurred mainly in

Colombia output up 5.3% MoM

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the Rubiales Castilla Norte, Chichimene, Chichimene SW, Andina and Castilla, due to the restoration of production after the lifting of the blockades caused by the National Strike.” The drilling of 3 exploratory wells and 41 developmental wells announced in June began in July. Our Supplemental Documents package includes the Google Translate version of the Colombia release.

Figure 29: Colombia Oil Production

million b/d	2015	2016	2017	2018	2019	2020	20/19	2021	21/20
Jan	1.036	0.986	0.860	0.860	0.899	0.884	-1.7%	0.745	-15.7%
Feb	1.030	0.955	0.864	0.823	0.893	0.878	-1.6%	0.746	-15.1%
Mar	1.023	0.917	0.804	0.856	0.885	0.857	-3.1%	0.745	-13.0%
Apr	1.029	0.915	0.857	0.865	0.891	0.796	-10.6%	0.745	-6.4%
May	1.027	0.904	0.851	0.866	0.895	0.732	-18.2%	0.703	-3.9%
June	1.010	0.888	0.857	0.864	0.892	0.730	-18.2%	0.694	-4.9%
July	0.947	0.843	0.856	0.860	0.869	0.735	-15.4%	0.731	-0.5%
Aug	0.968	0.827	0.858	0.866	0.883	0.742	-15.9%		
Sept	1.009	0.859	0.851	0.869	0.879	0.749	-14.8%		
Oct	1.005	0.846	0.864	0.879	0.883	0.751	-14.9%		
Nov	0.990	0.855	0.851	0.883	0.880	0.761	-13.5%		
Dec	0.999	0.837	0.870	0.889	0.882	0.759	-14.0%		

Source: Bloomberg, Colombia Ministry of Mines and Energy

Oil – Venezuela international reserves hit 5 yr high at \$11.3b

It sounds like higher oil prices and a little higher oil production are making a big difference to Venezuela’s bank account. On Friday, Bloomberg, and others similarly, reported *“Venezuela’s central bank on Friday published data showing that its international reserves have jumped to a five-year high of nearly \$11.3 billion. The South American nation’s reserves rose by \$5.1 billion on Wednesday, according to a spreadsheet published on the central bank’s website that tracks daily reserve movements. That increase was removed from the spreadsheet around mid-day but restored by the afternoon. It was not immediately evident where the funds came from.”* It won’t explain all of the increase, but Venezuela oil production has been >500,000 b/d for most of 2021, about ~100,000 b/d higher than Q4/20. Prices started to jump in late March. But if we assume 100,000 b/d at \$60, and the base 400,000 b/d at an extra \$10, it gets to ~\$2 billion. Oil alone won’t explain the increase, but it has likely been a huge help to Venezuela. Our Supplemental Documents package includes the Bloomberg report.

Venezuela
international
reserves up

Oil – Will far left parties become kingmakers in Norway’s election tomorrow

We hadn’t focused on the Norway election until listening to this morning’s Gulf Intelligence podcast *“Daily Energy Markets Forum – New Sild Road “Live” Sep 12th”* [\[LINK\]](#) and Vitol’s Mike Muller (Head Vitol Asia) reminded that the expected result is a switch from the centre-right government to a left government, which “may” note be able to govern without going into collation with the Greens or further left Communists. Norway’s parliamentary election is tomorrow and the expectations seem to be that Prime Minister Erna Solberg’s coalition of right and centre-right parties will lose control of parliament and therefore a new leader. The polls have her Conservatives behind the Store’s Labour party, but both well short of the needed 85 seats to form a majority. The expectation is that Labour will be asked to form government but will need support of the Socialist Left and Centre party. The big issue from an oil side is that this group is currently expected to fall short of the 85 seats so may need to call on the far left Green party and the Red Party. Earlier this morning, Bloomberg report *“Norway’s Oil Addiction at Stake in Election About Climate Change”* noted this issue writing *“So even if the opposition Labor Party ousts a Conservative-led government, as polls indicate they will, the reality is that change to oil and gas policy can only happen if smaller parties*

Norway election
tomorrow

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gain enough backing to become kingmakers. The Socialist Left, which already has experience governing with Labor, enjoy more support than the Greens. Both would call for a halt to new exploration licenses and make it a condition for joining any ruling coalition.” Our Supplemental Documents package includes the Bloomberg report.

Oil – Lukoil CEO, tax breaks needed for future of Russia’s oil production to work

We believe it is a bullish sign for oil prices to hear Russia keep saying that most of their key oil reserves for the future don’t work at \$50 or \$55 oil. Last week’s (Sept 5, 2021) Energy Tidbits memo noted our Sept 2 tweet [\[LINK\]](#) “Only half of Russia’s #Oil reserves are profitable at \$50 says Deputy Energy Minister Sorokin. Fits Jan 27 linked tweet. Bullish for mid/long term oil prices. Detailed comment in SAF Group Jan 27, 2021 Energy Tidbits memo”. There was a typo in the tweet as we should have said the Jan 31, 2021 Energy Tidbits memo that was titled “Russia Says Increasing Water Cut, Deteriorating Development, Etc Mean Only 36% of Its Oil Reserves are Profitable.” This week, it was Lukoil CEO Alekperov with a similar view. Lukoil produced ~1.6 mmb/d of oil in H1/21. On Tuesday, we tweeted [\[LINK\]](#) “the future of oil production in Russia is associated with complexly constructed fields, super-viscous reserves” & need tax breaks so can be economic at \$50/55 #Oil says #Lukoil CEO. Positive for #Oil in 2020s. #OOTT”. Russia’s Kommersant posted its interview with Alekperov [\[LINK\]](#). Alekperov was blunt in his view on the economics of the oil that will drive Russia’s future oil growth – it isn’t economic unless there are tax breaks. Alekperov said “We believe that the future of oil production in Russia is associated with complexly constructed fields, super-viscous reserves, and the sooner we introduce technologies in this area and carry out industrial work, the more reliable the country’s raw material base will be in the long term. So I hope that in the future there will be a tax solution for these fields, because they should be effective at an oil price of \$ 50–55 per barrel. Then there is an incentive for active investment, the construction of new roadways in order to involve new reserves in development.” Our Supplemental Documents package includes the Kommersant interview.

Lukoil CEO on Russia oil potential

Jan 31, 2021 Energy Tidbits, Sorokin said 64% of oil reserves not profitable

Here is what we wrote in our Jan 31, 2021 Energy Tidbits when we saw the first Russia revelation of how most of their oil reserves aren’t economic. This was based on Sorokin’s Jan 27 comments. “Imagine what markets would say if Exxon were to come out in their year end reporting and say that 64% of its existing oil reserves are not profitable at >\$50 oil. The stock would be creamed as markets would think Exxon wouldn’t have oil growth potential and its oil production had likely peaked. This is what Russia said this week for their oil reserves. We were surprised by a TASS Russian news story on Wed morning and would have thought it was a fake if it wasn’t on TASS as we would never have thought Russia’s #2 oil official (after Novak) would be saying what he did. We tweeted [\[LINK\]](#) “1/2. must read, bullish for oil @tass_agency story "only 36% of oil reserves in Russia are profitable". multiple indicators of maturing oil supply ie. deeper, smaller pools, etc. Effectively says RUS has more or less reached peak oil supply unless #Oil prices are higher #OOTT ..” and [\[LINK\]](#) “2/2. surprising RUS lays this out, but fits to Novak’s Dec comments and why they would want higher oil prices for 2020s sooner. see SAF Group blog Russia Says its a Price Taker at \$45 in 2021, May Be the New Strategy Needed for OPEC+ to Fix Post Covid Oil Prices For 2020s. #OOTT”. TASS wrote “Only 36% of 30 billion tons of oil reserves in Russia are profitable, which is associated with the deterioration of development conditions and a drop in the quality of reserves, writes the Deputy Minister of Energy of the Russian Federation Pavel Sorokin in an article for the Energy Policy magazine. “According to the data of the inventory of the

economics of field development, carried out on behalf of the Russian government, out of 30 billion tons of recoverable oil reserves in Russia, only 36% is profitable in the current macroeconomic conditions. This is due to the deterioration of development opportunities: an increase in water cut, the need to permeability and compartmentalization of reservoirs, withdrawal into marginal zones and strata with small thicknesses, and so on, "Sorokin explained." This is significant, Sorokin is basically saying Russia has more or less reached peak oil supply, or at least peak oil supply unless prices are going higher. Maybe there is some growth but Russia has to first arrest declines. This is very different than what we see in the Middle East. Russia is saying its maturing oil production/reserves base needs higher oil prices as its oil base is maturing and they are going after smaller pools (higher cost per barrel), deeper zones (higher costs per barrel) and need new technology (we wonder if this means shale, although Putin has been negative). And also very different than Saudi Arabia. Their costs are going up to, but they aren't saying their oil production/reserves needs higher oil prices to be economic. Rather they and others like we saw with Kuwait this week need higher oil prices to balance their govt budget. They don't say they need higher oil prices to develop its oil reserves. One reminder, producing oil reserves isn't like drinking a glass of water, where you turn the cup down and the water flows out at the same rate until the glass is empty. As oil reserves produce more from a reservoir that is economic today, the oil recovery rate declines over time and the future barrels become more expensive to produce. This is more than food for thought. If peak oil demand isn't here until 2030, then its bullish for oil post Covid. Even if oil demand only recovers to pre Covid, its bullish or at least supportive of higher prices. Our Supplemental Documents package includes the Google Translate version of the TASS Russian story."

Oil – OPEC reportedly will be reducing its oil demand forecast

It shouldn't come as a surprise that OPEC may be backtracking on its raising on its oil demand outlook. The increasing Covid cases from the rapidly spreading Delta variant are leading to a slower reopen. (i) Recall that one of the reports in the leadup to OPEC+ meeting that reaffirmed the plan to lift Oct production by 400,000 b/d was the Reuters report "[OPEC+ raises 2022 oil demand growth forecast](#)" [LINK](#) "OPEC+ revised up its 2022 oil demand forecast ahead of a meeting of the oil producing group on Wednesday, amid U.S. pressure to raise output more quickly to support the global economy". This was part of the set up to the OPEC+ meeting and no change to the planned +400,000 b/d increase for October. Reuters reported that two OPEC+ sources said OPEC's internal forecasts for 2022 oil demand growth were increased by 0.92 mmb/d from YoY growth of +3.28 mmb/d up to +4.2 mmb/d. Most importantly, Reuters reported "As a result, commercial oil inventories in the OECD, a group of mostly developed countries, would remain below their 2015-2019 average until May 2022 rather than the initial forecast for January 2022, the JTC presentation showed, according to the sources." (ii) However, it sounds like they may be backtracking on that demand upgrade. On Friday, Reuters reported "OPEC will likely revise down its 2022 oil demand growth forecast on Monday, two OPEC+ sources said, as the spread of the Delta coronavirus variant puts the speed of a recovery in fuel use in doubt. On Sept. 1, separate sources said the Organization of the Petroleum Exporting Countries and allies, known as OPEC+, increased its 2022 oil demand forecast to 4.2 million barrels per day (bpd) from 3.28 million bpd previously. The new figure was seen as optimistic by some in the group, likely prompting revisions, the two OPEC+ sources said. OPEC is scheduled to make its latest supply and demand forecasts public in a report on Monday. "OPEC may review the figures again for the upcoming monthly report," one of the sources said, declining to be named". Our Supplemental Documents package includes the Reuters report.

OPEC lowering oil demand forecast?

Oil – Argus survey, OPEC+ only +100,000 b/d MoM in Aug vs +400,000 b/d target

There was a good reminder this week from Argus Media of why OPEC+ discipline really only relies on a handful of members. On Friday, we tweeted [LINK](#) on the Argus survey of OPEC production for August [LINK](#), which highlighted the estimate that 19 countries involved in the OPEC+ deal, increased collective crude production by 0.1 mmb/d in August. Our tweet was “#OPEC+ only +100,000 b/d MoM. Its in total, but well below scheduled +400,000 b/d increase for Aug. Reminds as long as KSA, UAE, KW, RU stay reasonably disciplined, most of remaining OPEC+ seem to have some sort of supply challenge regularly pop up. Thx @ArgusMedia #OOTT #Oil.” The big picture number was the survey estimating OPEC+ was only +100,000 b/d MoM in August, whereas the OPEC+ agreement provided for +400,000 b/d in August. Argus survey estimates OPEC+ deal participants produced 35.85 mmb/d, up from 35.75 mmb/d in July, still 0.89 mmb/d below the August ceiling of 36.74 mmb/d. And that the higher output in both Saudi Arabia and Russia by 0.15 mmb/d and 0.11 mmb/d respectively, offset losses in Kazakhstan and Nigeria. Operational problems continue to befall Nigeria, with production at a 7-month low of 1.34 mmb/d. The survey is a reminder that the key to OPEC+ discipline is to make sure Saudi Arabia, UAE, Kuwait and Russia stay reasonably disciplined because the reality of most of the rest is that issues regularly pop up that hurt their ability to deliver volumes. Our Supplemental Documents package includes the Argus survey.

**Argus survey
OPEC+ only
+100,000 b/d in
Aug**

Figure 30: Argus Survey of OPEC+ August production

Opec+ wellhead production					Opec+ wellhead production				
	August	July*	August target	Compliance %		August	July*	August target	Compliance %
Opec 10	22.69	22.43	23.29	118	Non-Opec production				
Non-Opec 9	13.16	13.32	13.45	115	Russia	9.71	9.60	9.60	92
Total	35.85	35.75	36.74	117	Oman	0.76	0.75	0.77	113
Opec					Azerbaijan	0.60	0.61	0.63	134
Saudi Arabia	9.57	9.42	9.60	102	Kazakhstan	1.29	1.51	1.49	194
Iraq	4.04	3.96	4.06	104	Malaysia	0.38	0.40	0.52	287
Kuwait	2.44	2.44	2.45	103	Bahrain	0.18	0.18	0.18	95
UAE	2.79	2.73	2.77	94	Brunei	0.09	0.07	0.09	103
Algeria	0.92	0.91	0.92	101	Sudan	0.05	0.06	0.07	290
Nigeria	1.34	1.39	1.60	210	South Sudan	0.12	0.15	0.11	33
Angola	1.05	1.05	1.33	245	Total non-Opec†	13.16	13.32	13.45	115
Congo (Brazzaville)	0.26	0.26	0.28	159	<i>*revised figures</i>				
Gabon	0.19	0.18	0.16	8	†Iran, Libya and Venezuela are exempt from the agreement				
Equatorial Guinea	0.10	0.10	0.11	200					
Opec 10	22.69	22.43	23.29	118					
Iran	2.43	2.44	na	na					
Libya	1.13	1.14	na	na					
Venezuela	0.52	0.53	na	na					
Total Opec 13†	26.77	26.54	na	na					

Source: Argus Media

Oil – TotalEnergies to invest \$27bn in Iraq’s Energy Infrastructure

The French energy giant signed an agreement on Sept 6 to invest \$27bn in Iraq energy infrastructure over the next 25 years, this at a time when Western companies are rethinking their exposure in the region. The deal includes various energy projects with \$10bn pledged as an initial investment. The aim is to recover gas being flared over three oil fields and supply 1.5 GW of power capacity in the first phase, growing to 3GW in the second phase. These projects include: the construction of a new gas gathering network and treatment units to supply local power stations and optimize oil and gas production in the Ratawi oil field; construction of a large-scale seawater treatment unit to increase water injection capabilities without increasing water withdrawals, and the construction and operation of a photovoltaic power plant to supply 1 GWp of electricity to the Basra region. Iraq hopes the projects will

**TotalEnergies:
\$27bn investment
in Iraq energy**

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improve the country's electricity supply, which has been subject to chronic shortages driving multiple protests in recent years. The planned investment should lessen Iraq's dependence on Iran for energy and alleviate US pressure regarding the relationship. TotalEnergies has been operating in Iraq since the 1920s and has a 22.5% interest in the Halfaya oil field producing 20,000 b/d. [\[LINK\]](#)

Libya oil power struggle

Oil – Libya NOC has ongoing questions at its ports and for its Chairman

There were clear reminders this week that Libya's oil supply is at risk of interruption. We have to believe that we will see more uncertainty in Libya in the runup to the planned Dec 24 election and, even more, if the election gets delayed. And the Libya National Oil Corporation is likely right in there for uncertainty. We don't profess to understand all the nuances of Libya politics, tribal disputes, etc, but there are clearly significant differences being seen in the run up to the election. (i) Ports reopening. This week, there were holdups at loadings from protests/blockades, but this was resolved quickly. On Thursday, the Libya NOC announced [\[LINK\]](#) *"The National Oil Corporation (NOC) announces the resumption of crude export operations this morning, Friday 10 September 2021, in both Esidra and Ras Lanuf ports, after a shutdown which lasted a day. It was perpetrated by groups of demonstrators without any legal basis who issued misleading media statements and deceived and exploited a group of young people. Despite the delay in shipping resulting from this temporary shutdown, production from all fields was not reduced. The patriotic role played by the Army General Command in restoring security in both ports must be recognised by all Libyans."* (ii) Threatened shut in of ~300,000 b/d Sharara oil field. On Wednesday, The Libyan News Observatory tweeted [\[LINK\]](#) *"Breaking.] Statement was issued by the Fezzan Rights Movement in front of the Sharara Oil Field in the southwest, demanding that Mustafa #Sanalla be dismissed from the #NOC within a week or they threaten to close the oil field. #Libya"*. (iii) Libya NOC Chair vs Oil minister. Last week's memo noted the power struggle between NOC chair Sanalla and Libya oil Minister Mohamed Oun. It seemed to be resolved in Sanalla's favor last Sunday afternoon, but then it seemed like Prime Minister Abdel Hamid Dbeibeh was opening up some cracks on Wednesday. On Wednesday, Libya Update reported [\[LINK\]](#) *"Prime Minister: NOC status is being settled. Prime Minister of the Government of National Unity (GNU), Abdel Hamid Dbeibeh, said on Wednesday "the status of the National Oil Corporation (NOC) is being settled, or it is reconstituted, legally and administratively." "We are studying moving the Corporation's headquarters from Tripoli to Benghazi. There is no objection in this regard," Dbeibeh said in a questioning session for his government that the House of Representatives held in Tobruk today."* The inference is that they are looking at NOC board changes, which would seem to suggest the power struggle is not over. We aren't certain all the implications of moving the headquarters from Tripoli to Benghazi, but are concerned it will be part of a move to shift more control to the oil ministry which is in Tripoli. If so, it would suggest that last Sunday's early view that Sanalla came out on top may be premature and would add geopolitical risk to Libya oil.

Oil – Oman: reminds no investment in oil E&P could lead to \$100 or \$200 oil

We recognize the energy transition is happening but our concern remains that politicians are attacking and causing less future oil and natural gas supply, but really aren't materially changing the near to mid term demand outlook. Its why, even though there is a lesser outlook for oil and natural gas demand, we see the set up for stronger for longer oil and gas prices in the 2020s. Oman's energy minister reminded of this same concept. On Thursday, Platts reported on comments from Oman's energy and minerals minister. responding to IEA's assessment for reaching net zero emissions by 2050, Oman's energy and minerals minister warns that global oil prices could soar to \$200/b should there be no new short-term

Oman oil prices could see \$100 or \$200

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investment in oil and gas. The May 18 IEA report suggest that in any scenario, no new developments will be needed to achieve net zero emissions and that global oil and gas demand will collapse by 75%. Mohammed al-Rumhy stated, “recommending that we should no longer invest in new oil.... I think that’s extremely dangerous, there will be energy starvation and the price of energy will just shoot [up]. The demand for oil and gas may go down but in the short-term we could see \$100/b or \$200/b scenario, which although it sounds very attractive today [to producers], it’s something that I think many of us, if not all of us, would not like to see happening in the market.” Our Supplemental Documents package includes the Platts report. [\[LINK\]](#)

Oil – China has 1st ever sale of oil from state petroleum reserves to try to cool prices

One of the stories in 2020 on the hot commodities markets has been that China was prepared to sell down some reserves to cool off markets, and this included oil. This was confirmed this week that China will sell an undisclosed amount of oil from its state petroleum reserves for the first time. On Thursday, the State Bureau of Grain and Material Reserves issued a very short press release stating it would release batches of oil for sale to “domestic refining and chemical integration enterprises to alleviate the pressure of rising raw material prices [\[LINK\]](#). Putting national reserve crude oil on the market through open auction sales will better stabilise domestic market supply and demand and effectively guarantee national energy security.” We suspect that many will look at the announcement more as an attempt to talk down markets, that is unless there is a massive sale of oil.

China to sell oil from SPR, first time ever

Oil – China’s oil imports rise to 5-month highs to 10.53 mmb/d in August

China’s is the near term look ahead oil story with the increasing Delta impact over the next few months. Oil imports rose to 5-month highs after private refiners were allocated new import quotas and as cargoes delayed by Typhoon In-Fa were delivered. On a look back basis, Bloomberg reported that China’s customs data showed August imports were 10.53 mmb/d, up 8% MoM from 9.75 mmb/d in July, representing a YoY decrease of ~5.81%. China’s demand for crude oil is recovering after nearly five months of slower purchases, caused by a shortage of import quotas, with buyers increasing purchases and paying higher premiums to secure supplies. A fourth batch of quotas is expected to be issued in September or October that could revive demand from private refiners. Our Supplemental Documents include the Bloomberg report.

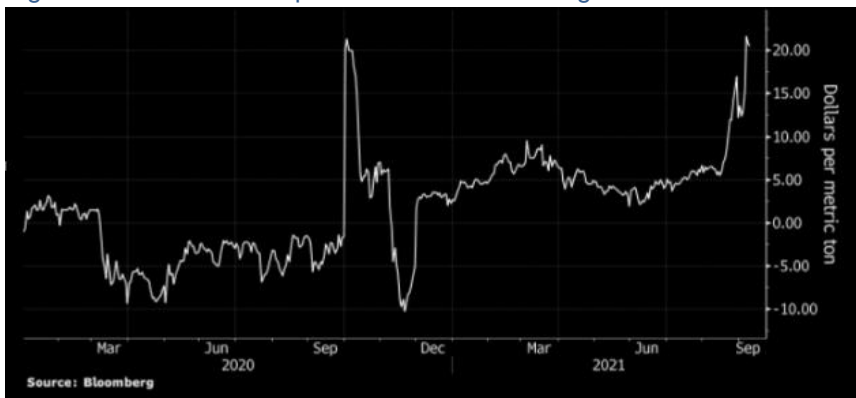
China preliminary oil imports

Oil – High LNG prices drive some Asian utilities to switch to cheaper fuel oil

One of the themes this summer that has accelerated is how high LNG prices are forcing some Asian buyers to switch from LNG to fuel oil. On Thursday, Bloomberg indicated that south Asian buyers are moving to purchase fuel oil in replacement of high-cost shipments of LNG; this may only be a temporary measure with LNG prices surging. Fitch analytics notes that this comes at a time of prolonged refinery outages, reduced production by OPEC+, and strong demand from China. The switch by Pakistan and Bangladesh away from LNG is likely to be between 50,000 – 75,000 b/d. Bloomberg fair value data reports 180 centistroke grade fuel oil for October delivery, is trading at a premium of +\$21 a metric ton to supplies for December. This greatly outpaces the \$5 at the beginning of July. High spot prices are expected to continue generating downside risk in near-term demand as buyers seek cheaper alternatives [\[LINK\]](#). Below is a chart depicting Asian utilities buy up of fuel oil cargoes. Our Supplemental Documents package includes the Bloomberg report.

High LNG spot prices drive switch to fuel oil

Figure 31: Asian utilities purchases of fuel oil cargoes



Source: Bloomberg

Oil – Vortexa floating storage est at 87.09 mmb at Sept 10, +8.92 mmb since June 25

On Saturday, Bloomberg posted the Vortexa crude oil in floating storage as of Sept 10. Bloomberg writes it weekly Vortexa floating oil storage story on Mondays. Yesterday, we tweeted [LINK](#) on the data. Vortexa estimated crude oil in floating storage as of Sept 10 is 87.09 mmb, which is down 10.53 mmb WoW from 97.63 mmb as of Sept 3. Note that there was an upward revision to Sept 3. It was revised to 97.63 mmb, but was originally reported at 95.92 mmb. Also note Aug 27 was revised down to 93.83 mm from last week’s estimated 95.97 mmb as of Aug 27. Sept 10 of 87.09 mmb is up 8.92 mmb vs the recent trough of 78.17 mmb as of June 25. Sept 10 of 87.09 mmb is down 133.41 mmb from the June 26, 2020 peak of 220.50 mmb. Sept 10 of 87.09 mmb is up 37.85 mmb vs pre-Covid of 49.24 mmb as of Sept 9, 2019. Below is the Bloomberg graph of the Vortexa data.

Vortexa floating storage

Figure 32: Vortexa Global Floating Storage Sept 9, 2019 to Sept 10, 2021



Source: Bloomberg, Vortexa

Oil – Bloomberg Oil Demand Monitor, Motorists return to roadways as school resumes

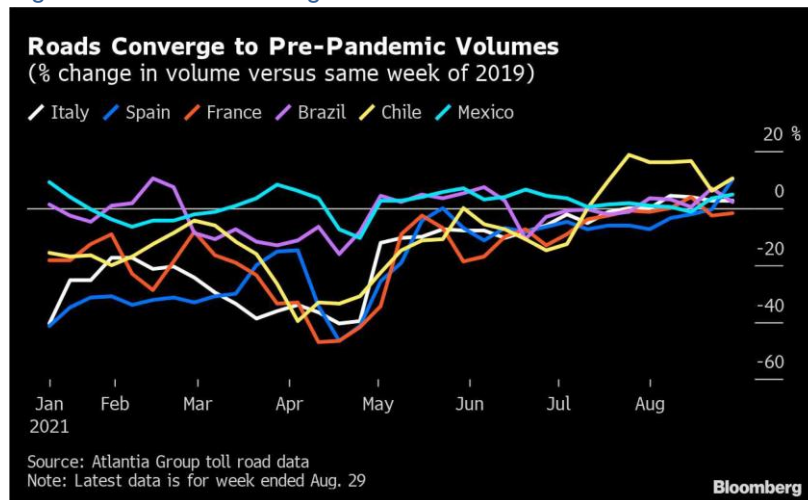
We recommend reading the weekly Bloomberg terminal Oil Demand Monitor for a good recap of key oil demand indicators around the world. With summer coming to an end and air travel stagnating, weekly toll data shows roadway volumes returned to pre-pandemic levels in three European and three Latin American countries; France appears just -1.6% below 2019 levels compared to a 47% deficit in April. Bloomberg surveys revealed a third MoM gain in gasoline consumption, as vehicles take back to roadways with restrictions being lifted. School

Bloomberg’s Oil Demand Monitor

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resuming contributed to higher congestion; Berlin and Paris reported +13% and +9% above 2019 levels, respectively. EIA reported jet fuel demand at an all time high along with other oil-based fuels. Capacity reductions in 14 of the largest 20 airline markets this past week illustrates a bearish outlook for jet fuel. US seat capacity is down -16% from 2019; worldwide seat capacity is down -32% since 2019 and total global commercial flights are down -22%. China remains an outlier with seat capacity increasing from June, however still down -5.7% from 2019 levels. Below is a chart depicting the increase in road volume with summer coming to an end. Our Supplemental Documents package includes the Bloomberg Oil Demand Monitor.

Figure 33: Roads Converge to Pre-Pandemic Volumes



Source: Bloomberg

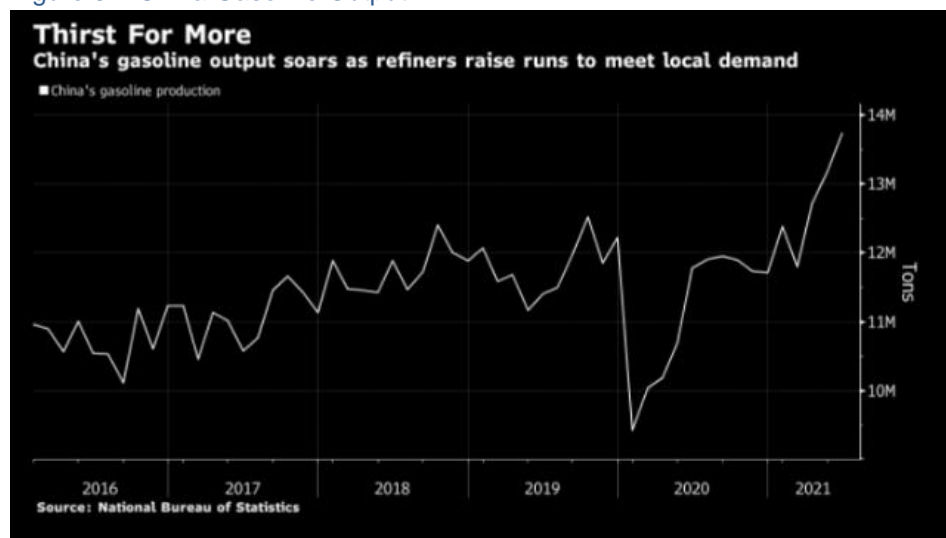
Oil – Oil consumption in largest global economies surpasses Pre-Pandemic levels

Its pretty clear that the world can't wait for Covid to be over and that, until it is done, the desire of people and politicians for another hard lock down is gone away and people want to get back to normal. We are seeing high frequency data and oil demand indicators to show the largest global economies are seeing oil consumption rise and, in many cases, surpass pre-Covid-19 levels. On Thursday, Bloomberg's report "*World's Top Oil Guzzlers Surpass Pre-Pandemic Consumption*" highlighted how oil consumption was recovering in China and India. The key headline from the report was "*Some of the world's biggest economies are seeing oil consumption turn the corner and even surpass pre-pandemic levels as falling Covid-19 infection rates drive a recovery in activity. Oil demand in China, the world's top energy consumer, will be 13% higher next quarter than in the same period in 2019 before the pandemic, according to SIA Energy. Indian fuel sales extended a rebound last month, while American consumption of petroleum products just hit a record high. Europe has also just had its best August for gasoline demand in 10 years, IHS Markit said.*". Below is a graph depicting China's oil consumption since 2016. Our Supplemental Documents package includes the Bloomberg report.

Gas Guzzling economies surpass Pre-Pandemic consumption

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Figure 34: China Gasoline Output



Source: Bloomberg

Oil – European motorists driving continents oil demand

On Monday, Bloomberg reported [\[LINK\]](#) on the big rebound in European road traffic in August. Bloomberg wrote “Europe has transformed from an oil-market weakling into a source of strength -- whether it's crude consumption from the continent's refineries, surging traffic data, or rebounding fuel prices. “August 2021 would be the best month of August since 2011,” *Hedi Grati*, an executive director at IHS Markit, said of the firm's estimate for European gasoline demand. “The ten years in between were all lower.” Europe emerged as a source of oil market strength with August oil consumption at its highest since 2011. The pickup in automotive fuel consumption is attributed to the high volume of people driving to take their vacations. Traffic data tracking toll usage suggests higher automobile usage. Spain was +10% of the equivalent week in 2019 according to data by toll operator Atlantia. The firm's data reveals Italian and Polish highways were 3% busier than in 2019. French highways saw a 6% volume increase from 2019 during July. European demand appears to be filtering into wider markets with refineries exhibiting a strong demand for crude; traders report the crack spread at \$9/b, double that of January. Traders report the strong European demand in sweet crude is offsetting the lackluster interest from Asia curtailed by high Brent crude price and a cut in import quotas for teapot refineries. Bloomberg also wrote “pent-up demand to some extent is helping, but also lifting of restrictions earlier this year and no additional measures despite rising cases.” It's a reminder that politicians and people do not want another hard lock down. Our Supplemental Documents package includes the Bloomberg report.

Gas Guzzling economies surpass Pre-Pandemic consumption

Oil & Natural Gas – Excellent Platts interactive Oil Security Sentinel

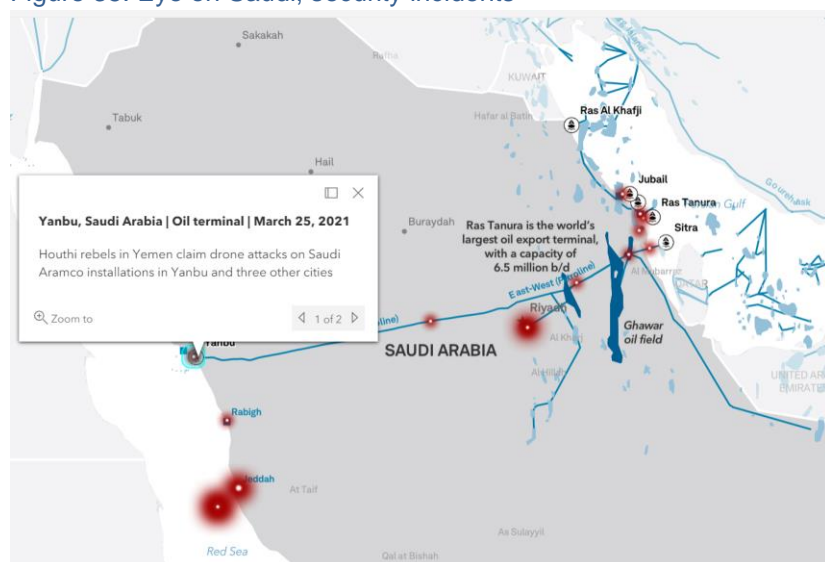
On Friday, we tweeted [\[LINK\]](#) to recommend “An excellent interactive (can zoom in for detail) reference maps/data from @SPGlobalPlatts “Oil Security Sentinel”. Saudi, Libya base maps attached. Also Iraq, Nigeria, VEN, Chokepoints. Definite one to bookmark. Great job @SPGlobalPlatts. #OOTT.” We recommend bookmarking Platts “Oil Security Sentinel: An interactive study of geopolitical risk and price” [\[LINK\]](#). Platts leads off “Security incidents targeting oil facilities, pipelines and tankers are on the rise. According to data compiled by S&P Global Platts, security events such as physical attacks on petroleum infrastructure, or

Excellent Platts oil security sentinel

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shipping, in the Persian Gulf and the Arabian Peninsula region have tripled on an annualized basis since 2017. This year has seen a peak in the number of incidents reported by Platts over the period, with 27 confirmed security events verified through to Sept. 6. This analysis shows how diversity of supply, higher levels of global spare capacity and the expansion of strategic petroleum reserves have helped to insulate markets from the risk of supply disruptions in the Middle East and beyond. The Oil Security Sentinel is an interactive editorial project exploring the changing relationship between geopolitical risk and the price of crude.” Platts has 7 key tabs representing areas to drill down for maps and data including security tracker, War sanctions and climate, eye on Saudi, eye on Iran, eye on Iraq, eye on Libya, eye on Nigeria and eye on Venezuela. There are interactive maps and data in each section. Below is the Saudi map, but remember this is an interactive map so you can drill down on each of the red dots which represent a security incident. These maps are also excellent reference maps for oil and gas infrastructure. On the map, we hit the Yanbu note. There is more than the map, there is info and data. Our Supplemental Documents package includes the eye on Saudi section to illustrate one of the tabs.

Figure 35: Eye on Saudi, security incidents



Source: Platts

Oil & Natural Gas – Excellent shipping insights from GMS Dr. Anil Sharma

One of our go-to daily podcasts to listen to are from Gulf Intelligence. Normally we reference their Daily Silk Road Live, but this week, we recommend listening to their 25 min Gulf Intelligence Half-Time Talk “Offshore Oil & Gas Vessels are Taking a Sharp Beating!” [\[LINK\]](#). Host Sean Evers (Founder & Managing Partner Gulf Intelligence) interviewed Dr. Anil Sharma (President & CEO, GMS), GMS is the world’s largest buyer of ships, rigs, and offshore assets for scrapping. (i) Later in the memo, we note Sharma’s view that the setup is moving towards a tight scrapping and shipping market in the late 2020s due to a lack of a clear solution on how shipping gets to Net Zero. (ii) LSFO was better option than scrubbers. Scrubbers economics hasn’t worked and concerns on more restrictions. At 12:50 min mark, discussion on IMO 2020. IMO 2020 went smoothly because owners had two options either LSFO or scrubbers. LSFO was the winner, even today the gap is \$90/ton and the rule of thumb was need over \$100 spread LSFO vs HSFO. More importantly, open loop scrubbers major ports are saying can’t discharge. Then Evers noted how HSFO is spiking up with LNG

GMS shipping insights.

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and gas. (iii) Alternate fuels, methanol is the most promising. At 14:30 min mark, re 2030 net zero target for shipping emissions. renewable energy doesn't really work for shipping so need to look at alternate fuels. For awhile, there was strong focus on LNG, but now a real debate on LNG and methanol. Ammonia, hydrogen, but methanol seems to be getting traction. Noted maersk's announcement. (iv) Carbon emissions savings. At 19:20 min mark, Sharma goes into the CO2 savings from his recycling and reuse. Make us wonder if a company gets credit if they sell or give something for recycling? (v) Decommissioning of offshore oil and gas assets. At 22:00 min mark. Been doing this for a decade, but its really taken off – semi subs, jack up rigs, floaters, the drillships have really taken a beating. Just doing a vessel right, a drill ship being built in China right now, the order canceled, and sold it to him for scrap, a half built vessel. He's never scrapped as many modern vessels as offshore vessels. Scrapping 5, 6, 7, 8 year vessels, built for \$200 mm and now being sold for residual \$10 mm. (vi) Biggest challenge in offshore assets recycle is logistics, getting them from wherever to Indian subcontinent. North sea, hard to get to Indian subcontinent, have 3 rigs in North sea, have discussions with Europe yards to see about doing. Turkey is a big beneficiary of the recycle of these offshore assets. (vii) Geopolitical risk is one of biggest risks in shipping ie. sanctions, war, etc. he noted China/Australia, changed dry bulk from Aus to China overnight. Indonesia to China business took off, so Australia to India for coal took off, Brazil to China took over. (viii) At 2:00 min mark. Sharma "the prices of containers has gone up, North America, Asia, a 40 foot container that used to cost \$2,000 is costing \$9,000, its with a 4x".

Oil & Natural Gas – 12 days since Ida, still 1.12 mmb/d oil & 1.35 bcf/d gas still shut-in

Its now been 12 days since the peak of Hurricane Ida shut-in. Our news cut off is 7am MT so the latest shut-in stats are the BSEE data as of 10:30am MT Saturday [LINK](#). Its been a slow return of shut-in production but Friday saw the best day for returning oil and Saturday was the best day for returning of natural gas. Even still, there is still 1.12 mmb/d of oil (61.6% of GoM) and 1.35 bcf/d of natural gas (60.7% of GoM) still shut-in 12 days after the peak shut-in production.

Still big impact from Ida

Figure 36: BSEE Platforms/Rigs Evacuated, Shut-in Oil & Gas Production

Date	Platforms Evacuated		Rigs Evacuated		Oil - Shut-In (b/d)		Gas - Shut-In (mmcf/d)	
	Total	% of GOM	Total	% of GOM	Total	% of GOM	Total	% of GOM
2021-08-27	89	15.89%	1	9.09%	1,064,849	58.51%	1,088.0	48.79%
2021-08-28	279	49.82%	11	100.00%	1,653,335	90.84%	1,892.7	84.87%
2021-08-29	288	51.43%	11	100.00%	1,740,850	95.65%	2,090.7	93.75%
2021-08-30	288	51.43%	11	100.00%	1,721,809	94.60%	2,087.0	93.57%
2021-08-31	278	49.64%	9	81.82%	1,705,095	93.69%	2,107.0	94.47%
2021-09-01	278	49.64%	9	81.80%	1,705,095	93.69%	2,107.0	94.47%
2021-09-02	177	31.61%	6	54.55%	1,702,566	93.55%	2,035.0	91.29%
2021-09-03	133	23.75%	6	54.55%	1,698,557	93.33%	1,990.2	89.25%
2021-09-04	119	21.25%	6	54.55%	1,683,604	92.51%	1,915.4	85.89%
2021-09-05	104	18.57%	5	45.45%	1,607,340	88.32%	1,844.7	82.72%
2021-09-06	99	17.68%	5	45.45%	1,526,409	83.87%	1,801.4	80.78%
2021-09-07	79	14.11%	4	36.36%	1,443,800	79.33%	1,736.8	77.89%
2021-09-08	73	13.04%	4	36.36%	1,399,186	76.88%	1,722.7	77.25%
2021-09-09	71	12.68%	4	36.36%	1,391,865	76.48%	1,722.7	77.25%
2021-09-10	65	11.61%	3	27.27%	1,207,783	66.36%	1,684.7	75.55%
2021-09-11	62	11.07%	2	18.18%	1,121,169	61.60%	1,353.0	60.67%

Note: 09-01 was corrected, originally reported 249 platforms, 1,455,279 b/d, 1,8772 bcf/d shut in

Source: BSEE

Oil & Natural Gas – 90% prob for storm in GoM Deepwater & Gulf Coast refinery/LNG

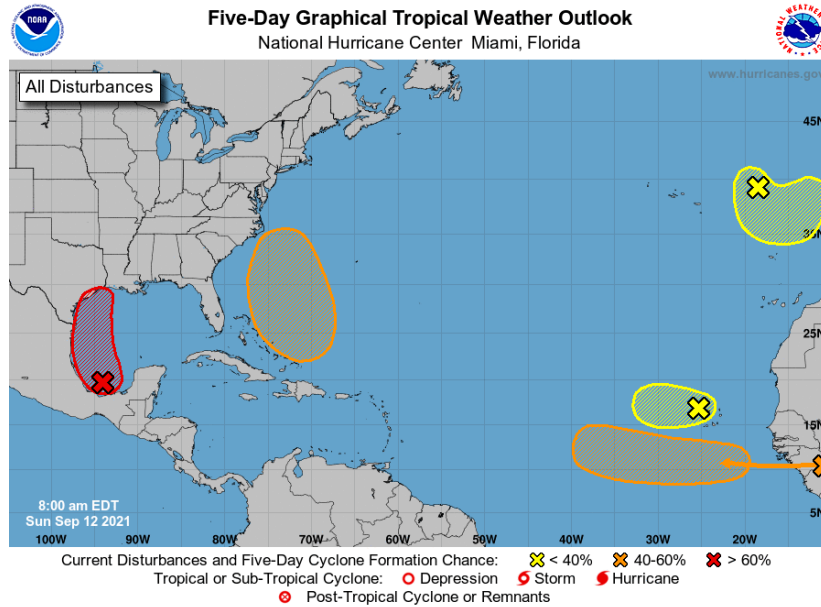
Its looking like it may be tough week for the oil and gas sector with another potential Tropical Storm or hurricane in the Gulf of Mexico. As of our 7am MT news cut off, the latest National Hurricane Center update is as of 6am MT [LINK](#) and is still calling for a 90% probability of this disturbance to get to cyclone strength in the next 48 hours as it is now emerging from the

Disturbance to watch in GoM

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Yucatan Peninsula to enter the Gulf of Mexico. The current NHC path projection takes it right thru the deepwater GoM oil and natural gas production, and then into the heart of Gulf Coast refineries and LNG export projects. Also note off the coast of Africa, in particular the south disturbance in orange, we always worry about the potential storms that far south for risk they ultimately come to hit Caribbean and then GoM.

Figure 37: NHC 90% probability to reach cyclone strength



Source: National Hurricane Center

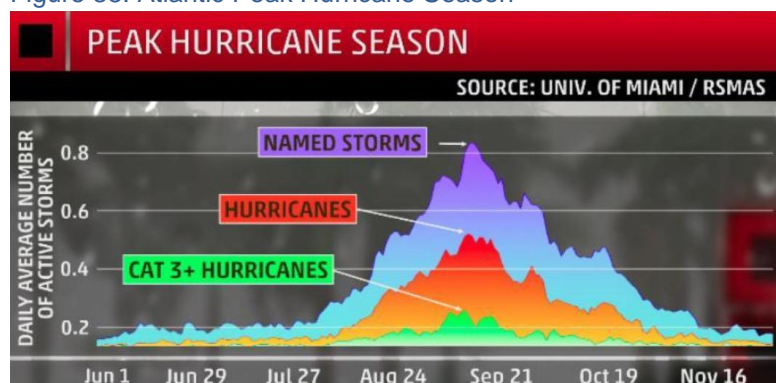
Oil & Natural Gas – Reminder, peak Atlantic hurricane season is Aug 20 thru Oct 10

As a reminder, this is right around the peak of Atlantic hurricane season, which is normally Aug/Sept/Oct. We have used the below graphic numerous times, which is from an Aug 28, 2018 Weather Channel report that had the graphic and wrote [LINK](#) "Historically speaking, September has recorded the most Atlantic hurricane formations since 1851 with 404. That's an average of two or three forming in the month every year, according to NOAA. August ranks second with 245 hurricanes, and October ranks third with 205. The period between Aug. 20 and Oct. 10 accounts for 60 percent of all Atlantic Basin hurricanes and 75 percent of all major hurricanes (Category 3 or stronger) in that basin, according to Dr. Phil Klotzbach, a tropical scientist at Colorado State University." We double checked the Weather Channel link this weekend and it still works.

Peak Atlantic hurricane season still to come

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Figure 38: Atlantic Peak Hurricane Season



Source: Weather Channel

Oil & Natural Gas – Old abandoned oil pipeline spill in GoM post Hurricane Ida

Last Sunday night, AP tweeted [\[LINK\]](#) “BREAKING: Divers identified a sheared-off 1-foot diameter pipeline as the source of a sizable oil spill that appeared after #HurricaneIda. @AP first reported Wed that aerial photos showed a miles-long brown and black oil slick spreading in the Gulf.” Upon seeing the tweet, we retweeted [\[LINK\]](#) “Bigger picture at play here, regardless who owns the pipeline, will bring underwater pipelines under scrutiny. Re this spill, linked fields to this pipeline will inevitably be shut in for longer. Thx @mbieseck for this & other great reporting today on the #Oil spill. #OOTT.” There is a massive collection of no longer used pipelines on the sea floor bed and we expect that this pipeline spill will be bringing a new focus on abandonment of those pipelines and the question of liability. More on the liability issue in future Energy Tidbits memos.

Abandoned oil pipeline spill in GoM

Oil & Natural Gas – Number of BC wildfires down by 29% since Aug 18

Good news is that the number of wildfires in BC continues to decline, albeit at a slow pace. On Friday, BC reported [\[LINK\]](#) on its wildfire statistics as of 7pm PT on Thurs Sept 9. The latest BC update was that the number of BC wildfires was down to 208, which is down from 215 as of Sept 2, and down 29% from the recent Aug 18 peak of 291 wildfires. The BC release also said “Note: Due to the decrease in wildfire activity this will be the last B.C. wildfire quick statistics update for this fire season.”

BC wildfires update

Energy Transition – Not ready for prime time, UK fires up coal to help with power price

We call it Not Ready for Prime Time, but we just don’t understand why governments won’t just acknowledge the reality of the energy transition isn’t ready to meet the aspirations. Our concern is that they have set up for power price spikes and shortages whenever supply/demand is tight. On Monday, the BBC [\[LINK\]](#) reported, and others similarly, how the National Grid ESO asked EDF to fire up a coal generation plant (West Burton A) to provide coal power to help reduce power costs. BBC reported that coal was now providing 3% of the UK power vs 1.6% in 2020. The big push from the UK was to reduce coal power generation from 25% five years ago to zero. But this week, the National Grid ESO wanted the return of some coal generation to help lower electricity costs. We expect to see coal generation continue or possible increase this winter given the current outlook for power prices.

UK fires up coal to lower power prices

Energy Transition – Not ready for prime time, DOE signs off on CA natural gas power

On Friday, Bloomberg reported “The U.S. Energy Department approved an emergency order that will allow the California grid operator to quickly connect additional natural-gas fired generators by relaxing air-pollution requirements in an effort to avoid blackouts as the state

California needs more natural gas

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faces extreme weather. The California Independent System Operator will be able to test and operate six new and existing units that can generate 200 megawatts at maximum capacity “notwithstanding air quality and other permit limitations,” according to the Energy Department order granted on Friday. The order is in effect until Nov. 9 and comes in response to Governor Gavin Newsom’s move to procure more power supply as scorching heat, drought conditions and wildfires threaten reliable grid operations.” This is in response to Gov Newsom’s Aug actions on the need for natural gas power generation. Our Aug 22, 2021 Energy Tidbits wrote “We recognize that this is a terrible year for California with the massive wildfires and drought along the west coast, which has really put California’s power security at risk. No question it is a brutal year. But we also think its important to look at their recent 2-step natural gas actions and recognize its more than just dealing with 2021, rather its an acknowledgement that they need natural gas for longer. (i) Step 1 was to increase natural gas generation thru Oct 31. The purposed for this was to get California thru the 2021 wildfire season risk. On Aug 2, we tweeted [\[LINK\]](#) “#NatGas power generation to increase thru Oct 31 as CA to pay large energy users to move to backup generation ie #NatGas. #EnergyTransition greenwashing? @GavinNewsom critical times causes forgot to say wildfires don’t just hurt transmission, also cut #Solar generation efficiency.” On July 30, California proclaimed a state of emergency that will see them pay large energy users to go to their backup generation, so positive for natural gas as these large energy users get paid to go to their natural gas power. Interestingly, Gov Newsom’s release went on about their moving to clean energy and its almost an after thought that they are allowing these emergency measures. And clearly no mention of natural gas being the backup power. (ii) Step 2 was this week’s approval for 5 natural gas power generators for up to 5 years. The expectation is that these 5 new natural gas generators will be in place before the end of Sept to help provide more support for this 2021 wildfire season, but the part that seemed to be overlooked is that these are approved for 5 years. So while this is being messaged as needed to provide power support for 2021, the reality is that this is being put in place for the next 5 years. “

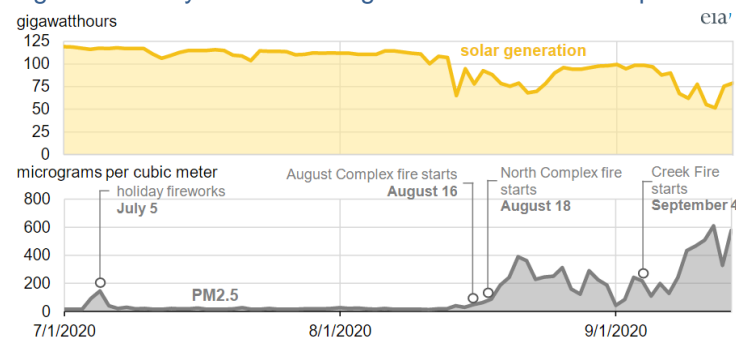
Why don’t California or DOE mention wildfires reduce solar generation

We recognize its not greenwashing but we have trouble seeing why governments won’t acknowledge any shortfalls of clean energy and refuse to put any blame on clean energy for creating power shortages. Its why we see governments setting up for a big energy crash to happen in the 2020s. This California situation is a class example. In its Sept 10 announcement [\[LINK\]](#), the DOE wrote “On September 10, 2021, the Department of Energy issued a 202(c) emergency order pursuant to the Federal Power Act to the California Independent System Operator Corporation (CAISO) authorizing specific electric generating units located within its service territory to operate at their maximum generation output levels in order to preserve the reliability of the bulk electric power system due to ongoing wildfires, extreme heat, and droughts causing a diminished ability to generate hydropower resulting in higher than usual electricity demand. The order is in effect until November 9, 2021”. There is no acknowledgement that solar generation is materially reduced during wildfires. But the DOE is not different than when Newsom announced this need in August. Our Aug 2 tweet on California raised the Energy Transition greenwashing by Gov Newsom. In Newsom’s press release on the emergency, Newsom says “during critical times when extreme heat events or the interruption of transmission lines from wildfires or other causes threaten energy supply this summer”. The obvious question is why doesn’t Newsom say wildfires smoke reduces solar generation? On July 18, we tweeted [\[LINK\]](#) “Reminder, #NatGas power generation is needed right now more than normal to fill #Solar shortfalls. Wildfires = less solar generation. Rule of thumb,

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Sept 2020, @EIAgov estimated #solar generation was down 30% from CA wildfires. #EnergyTransition.” Wildfires remain the big story in the western US and Canada and we reminded that wildfire smoke reduces solar panel efficiency. Our tweet included a link to an EIA analysis Sept 30, 2020 on how wildfires reduced California solar generation [\[LINK\]](#). The EIA estimated wildfire smoke reduced the amount of sunlight that reached solar panels and as a result solar-power electricity generation in the California Independent System Operator declined nearly 30%. While this report from the EIA is from September 2020, it will certainly still apply to this wildfire season. In the chart below, you can clearly see the effect that smoke pollution (PM2.5 air particulate matter) has on daily CAISO solar generation; as the largest fires, such as the North Complex fire and the Creek fire, start, solar generation drops. Last year, the peak smoke pollution was 659 $\mu\text{g}/\text{m}^3$ on September 15, and solar power generation during that time dropped to as low as 50 GWh. To put that in perspective, average solar power generation in July averaged 113 GWh, when average state-wide smoke pollution levels were below 10 $\mu\text{g}/\text{m}^3$. Currently in California, PM2.5 level remain below 10 $\mu\text{g}/\text{m}^3$, but wildfire season has just begun.

Figure 39: Daily CAISO solar generation & California peak air particulate matter level



Source: EIA

Energy Transition – Need to consider environmental/human impact of no oil & gas

We recognize that its not greenwashing, but we are unchanged in our big concern that the pro-Energy Transition people just won't acknowledge the reality and critical role of oil and gas. Its like if they acknowledge any positive or needed role, they feel it contaminates their view. And the problem with that is that the world is being set up for a big energy crisis. The energy transition is going to happen, its just will take longer, won't be smooth and will cost a lot more. Yesterday morning, we tweeted [\[LINK\]](#) on what we thought was the best oil and gas ESG report we have seen to date – the Liberty Oilfield Services “*Bettering Human Lives: 2020 ESG Report*”. We hadn't seen it until Josh Young (Bison Interests CIO) tweeted [\[LINK\]](#) the below Energy Poverty graphic. And then was sent the 82-pg ESG report from Liberty's Anjali Voria”. This is a very different ESG report. Its the same as most ESG report in that Liberty discusses what they are doing on the ESG front but, what makes it's the best read is the how Liberty discusses the contribution of energy to the world. There are dozens of simple reminder statements throughout the report (as well as many informative graphics), but a couple that stood out were “*it is simply not possible to discuss the environmental and social impacts of our industry without considering the environmental and human impacts of the absence of our industry*”, and “*The most urgent challenge with energy today is that fully one-third of humanity still lacks access to basic modern energy, including over 80% of Africans and half of Indians. Over two billion people still cook their daily meals and heat their homes with traditional fuels, typically wood, dung, agricultural waste, or charcoal. Simply for lack of*

Liberty Oilfield's
ESG report

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access to a basic stove and an LPG canister, two to three million people die every year from the resulting indoor air pollution. This staggering loss of human potential can and must be eradicated.” This is a must read for the reality check of the critical role of energy in the world. We recommend adding the report [\[LINK\]](#) to reference libraries. Our Supplemental Documents package was only able to include a few of the key pages.

Figure 40: Energy Poverty



Source: Weather Channel

Reminds of Putin’s abandoning natural gas may put humans back in caves

In seeing Liberty’s reminder on how important energy is to lift people around the world out of poverty, we couldn’t help remember a Putin comment from Nov 2019. In our Nov 24, 2019 Energy Tidbits, we wrote “On Wed, we tweeted [\[LINK\]](#) “How could I not note Putin’s comments “discarding the purest hydrocarbon like gas seems utterly bizarre”, re the complete abandonment of hydrocarbons “it seems to me that the human race may find itself again in caves”. Hope not!” Putin had a lengthy Q&A at the Russian Investment Forum on Wed. And he jumped in on the potential abandonment of natural gas. Putin said “In this sense, neglecting a pure hydrocarbon such as natural gas is, in my opinion, uncalled for, because it is the purest hydrocarbon out there. When ideas like this are promoted, it sounds like humanity will once again end up in caves, but this time because it will consume nothing, if all energy is reduced to zero, or if we rely solely on solar energy or wind energy or tidal energy. Today’s technology is such that without hydrocarbons, nuclear energy or hydropower, humanity will not be able to survive or preserve its civilisation. This must be taken seriously or, as people say, in an adult-like manner

Energy Transition – Not ready for prime time, no clear answer for Net Zero shipping

One of our biggest fears with the energy transition is that there aren’t clear solutions on how to get to Net Zero in the required timeline being set by governments. Its not just that the politicians have acknowledged a lot depends on technology to still be developed. Its also that there aren’t clear choices among current solutions now. Some may think that its only 2021 so we have a lot of time, but that isn’t the case for large lead time capex that needs to be committed to now for assets that have long lives. We saw an excellent example this week in shipping and why we put shipping in the Not Ready for Prime Time category for the energy transition. Earlier, we noted shipping insights from the Gulf Intelligence Half-Time Talk

No clear solution for shipping Net Zero

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“Offshore Oil & Gas Vessels are Taking a Sharp Beating!” [LINK](#) on Wednesday. Host Sean Evers (Founder & Managing Partner Gulf Intelligence) interviewed Dr. Anil Sharma (President & CEO, GMS), GMS is the world’s largest buyer of ships, rigs, and offshore assets for scrapping. (i) Scrapping and tight shipping market in late 2020s. This was interesting on how the lack of a clear solution for Net Zero is going to cause a tight shipping market in the late 2020s in the run up to Net Zero 2030 targets. Around 16:30 min mark. Sharma sees a real challenge for owners who want to put in new orders for ships. Steel costs thru the roof, building costs high, at the same time and importantly, there is not the breakthrough technology, so do you want to invest in a new ship with higher costs and with low (existing) technology that might be obsolete in 5 years as Net Zero 2030 targets come due. It means that owners are delaying new ship orders, but will soon have to rush in and put in orders and then if he has an upcycle in all these ships to be scrapped, there could be another upcycle in freight rates. He notes that freight rates are a small component of the ultimate price of a good, but the point is that there will be shipping squeeze. Note a key lead in from a prior comment when Evers said people were surprised that IMO 2020 was a hard date and wasn’t pushed back despite industry complaints. Ie the inference that the 2030 was likely to surprise also as being a hard date. (ii) Note this concept above is our concern on the energy transition and it really fits to the view that John Kerry said about 50% of the gains to meet Net Zero will come from technologies that aren’t yet there. Yet there are the restrictions that have to be in place for 2030. Sharma raises the issue that companies are delaying on major capital investments for items that are needed to fuel the world economy until the energy transition is proven to work knowing they will be obsolete under the energy transition? This is why the energy transition won’t be smooth, won’t be timely and will cost a lot more than aspirations.

Energy Transition – Biden wants solar to increase from 4% to 45% of power

It should be very clear to everyone that capital spending on solar energy will be one of the biggest capital allocation themes for the 2030 and an area driving huge need for equity and debt capital. The New York Times reported [LINK](#) “From 4% to 45%: Energy Department Lays Out Ambitious Blueprint for Solar Power” and “The Biden administration on Wednesday released a blueprint showing how the nation could move toward producing almost half of its electricity from the sun by 2050 — a potentially big step toward fighting climate change but one that would require vast upgrades to the electric grid.” We tweeted [LINK](#) “#Biden wants 1/2 #electricity from #solar, will need no NIMBY stopping big expansion in transmission from solar areas to demand, long duration send out storage for intermittent solar & demand reduction. #NatGas will be needed for longer like being seen in EU now. Thx @EPRINC_DC”. One of the big challenges for solar is that it will require a massive expansion in high voltage transmission from solar generation areas to high demand areas and that means there can’t be NIMBY issues stopping that essential need. Our tweet included the below EPRINC solar map. The New York Times report follows the US Dept of Energy releasing its massive 300+ page “Solar Futures Study”. We only got thru the first 50 or so pages. It is a very detailed read and we were looking for what are the key assumptions on the solar forecast. We doubt that most will try to plod thru the report (it is a plod through) so it will likely be overlooked that the Biden plan to increase solar under its decarbonization plan involves great uncertainty and makes broad assumptions about advancements. One example is **“Continued technological progress in solar—as well as wind, energy storage, and other technologies—is critical to achieving cost-effective grid decarbonization and greater economy-wide decarbonization. Research and development (R&D) can play an important role in keeping these technologies on current or accelerated cost-reduction trajectories. For example, a 60% reduction in PV energy costs by 2030 could be achieved via improvements in photovoltaic efficiency, lifetime energy yield, and cost.**

Biden’s massive solar growth plan

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Higher-temperature, higher-efficiency concentrating solar power technologies also promise cost and performance improvements. Further advances are also needed in areas including energy storage, load flexibility, generation flexibility, and inverter-based resource capabilities for grid services. With the requisite improvements, solar technologies may proliferate in novel configurations associated with agriculture, waterbodies, buildings, and other parts of the built environment.” Our Supplemental Documents package includes the New York Times report.

Energy Transition – UK record power prices, no surprise when wind is low

UK record power prices

The big Europe energy story continues to be record power prices after the peak summer electricity demand period has passed. And because we look daily at UK media, it's been a huge recurring story in the UK. Its why after seeing the UK reports on Monday morning, we tweeted [\[LINK\]](#) on our reminder “*Hmm! Record UK power prices & @nationalgriduk “. . . https://grid.iamkate.com shows extremely low #Wind generation. Common factor on 5 winter 20/21 bad power days was low wind. replacing 24/7 baseload coal/nuclear with intermittent wind/solar is expensive. #NatGas #LNG will be needed.*” Unfortunately, this will be a sign of the times for the 2020s whenever there is a tight supply/demand situation. Energy costs will spike or there will be shortages that hurt the economy. But it's a little different in the UK countries vs the Asian countries where some can still switch to coal when natural gas prices get high. In the UK, there is no or very limited fall back to coal. UK's push to reduce emissions with a key component, like all G7 countries, by reducing coal power generation means there isn't the coal capacity to call upon when power supply/demand is tight. And the problem for renewables (wind and solar) is that they can't increase their generation on demand. Our tweet included an attachment that on how the UK National Grid highlighted the common denominator for power problem days in winter 2020/21 was low wind.

UK National Grid ESO's winter recap highlighted low wind/power problems

Our Aug 1, 2021 Energy Tidbits noted how the UK National Grid highlighted the common denominator in all the major winter 2020/21 power problem days was low wind. At that time we wrote ‘In this case, it s the UK National Grid ESO, who posted their early outlook for winter margins in 2021/22. The “*Systems margins/Early view of winter 2021/22*” had its #1 point noted was “*1. De-rated margin. Our base case view of de-rated margin for winter 2021/22 is currently 4.3 GW or 7.3%. This is slightly lower than last year, but the associated loss of load expectation (LOLE) of around 0.1 hours/year is well within the Reliability Standard of 3 hours set by Government*”. The summary page did not highlight any wind risk for winter 2020/21. Its why we tweeted [\[LINK\]](#) “*Hmmm! Why doesn't UK #NationalGridESO want to call out #Wind as key wildcard for reliable power? Fcast lower reserve for winter 21/22. "reflecting on last winter" say main issue #Coal #CCGT #NatGas plants. Yet common denominator for their 5 winter 20/21 bad power days is wind?*” We were referencing their June recap of winter 2020/21 that included five case study periods in the winter that had power risks and how the one common denominator of all five case studies was lower wind power generation. But somehow the common denominator for power risks last winter aren't specifically highlighted as the key risk to winter 2021/22 UK power generation reliability. Our Supplemental Documents package includes excerpts from the winter 2021/22 outlook and the recap of winter 2020/21.”

Energy Transition – BHP contributed \$34.1b in economic value to Australian economy

BHP \$34.1b in economic value to AUS

We recognize that the working assumption from the Energy Transition side is that it is a net positive contribution to economies ie. the economic contribution of resources today will be more than compensated by the economic contribution of new energy. Unfortunately for analysts, this depends on broad assumptions such as on technology developments to come.

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However, this week, BHP released its Australian economic contribution figures [\[LINK\]](#), which said “BHP today released its economic contribution figures for the 2021 financial year, with the company contributing \$34.1 billion in economic value to the Australian economy. The figures form part of BHP’s global Economic Contribution Report, to be released in mid-September alongside the company’s annual and sustainability reports. The total contribution to Australia comprises \$12.4 billion in tax, royalty and other payments to governments, \$11.1 billion of spending with suppliers, \$6 billion in dividends and interest, \$4.5 billion in employee wages, and \$100 million in community investment projects.” Our Supplemental Documents package includes the BHP release.

Energy Transition – Excellent Toyota Battery Development and Supply outlook

We recommend adding Toyota’s “*Toward Carbon Neutrality — Toyota’s Battery Development and Supply*” transcript and slide deck to reference libraries. On Tuesday, we tweeted [\[LINK\]](#) “*Excellent read on #EV battery potential for 2020s. Read script & #Toyota slides for its \$13.5b plan to develop own battery supply chain. notes challenges/opportunities for both #HEV & #BEV and also tradeoffs ie. charging too fast impacts safety #OOTT.*” There are many great insights and not just on Toyota’s game plan but also on EVs in general. For example they remind of the tradeoff being able to quick charge vs safety. It looked like the the unsaid reference was that they don’t have a Chevy Bolt problem. Toyota said “*From here, I would like to explain something that Toyota values in its development of batteries. What Toyota values the most is to develop batteries that its customers can use with peace of mind. Especially, we are focusing on safety, long service life, and high-level quality to produce good, low-cost, and high-performance batteries. For example, longer service life also affects a vehicle’s residual value. In terms of cruising range, high energy density and high-level performance are also necessary. We want to make the charging speed faster, but too fast will affect safety. Therefore, we think it is important to strike a balance between each of these factors to ensure safe use.*” Toyota has been the leader in HEVs and the presentation notes how they are taking their learnings to BEVs. It was interesting to see their different perspective of what they want to accomplish in HEVs vs BEVs, which loops back to the challenges/shortfalls of batteries. Toyota said “*For HEVs, our focus is on power output, or in other words, instantaneous power, while, when it comes to PHEVs and BEVs, our focus is on capacity or what can be called "endurance". As batteries for HEVs, we have been continuously evolving nickel-metal hydride batteries and lithium-ion batteries by taking advantage of their respective characteristics. Our bipolar nickel-metal hydride battery, which was announced this year and is focused on providing instantaneous power, will be used in an increasing number of vehicles. For lithium-ion batteries for PHEVs and BEVs, we have been striving to improve both cost and endurance, and we will continue to improve them as we move forward. We are developing a further advanced new type of lithium-ion battery for introduction in the second half of the 2020s.*” There is much more in the transcript and slide deck. Our Supplemental Documents package includes the transcript [\[LINK\]](#) and some of the slides [\[LINK\]](#).

Toyota’s battery development & supply outlook

Capital Markets – Canada’s net foreign assets rose for fifth consecutive quarter

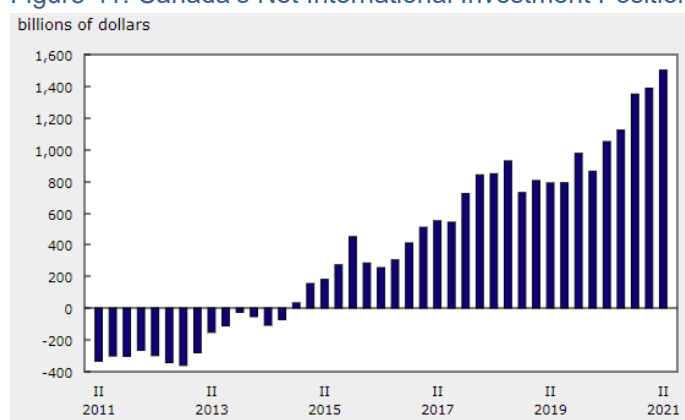
Statistics Canada released Canada’s Q2 international investment position on Thursday [\[LINK\]](#). Canada’s net foreign asset position increased \$113.2bn Q/Q to \$1,501.9bn, which is up \$523.1bn from the end of 2019, prior to the pandemic. This was the fifth consecutive quarter of increases, led by significant changes in market prices; mainly driven by the strength of US equity prices, in which 41% of Canada’s international assets consisted of US equity instruments at the end of Q2. Stats Canada reported “*Stock market conditions impact Canada’s international assets more than its liabilities, as a higher proportion of international assets (73.6%) are held in the form of equities than liabilities (44.6%). Canada’s international*

Cdn net foreign assets up \$113.2bn Q/Q

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assets were up by \$326.6 billion to a record \$7,050.9 billion at the end of the second quarter. The revaluation due to market price changes (+\$315.9 billion) contributed the most to the increase. Significant acquisitions of foreign securities, in the form of shares (+\$37.2 billion) and bonds (+\$19.5 billion), as well as direct investment abroad (+\$22.2 billion) also contributed to the rise. This growth was nonetheless mitigated by the downward revaluation from exchange rate fluctuations (-\$71.5 billion). On the other side of the ledger, Canada's international liabilities amounted to \$5,548.9 billion at the end of the second quarter, an increase of \$213.5 billion. The rise, mostly caused by the revaluation of assets in Canada held by non-residents due to market price increases (+\$150.8 billion), was slightly moderated by the impact of the exchange rate movements on the value of these assets (-\$24.8 billion). While inflows from direct investment in Canada were modest, foreign investors added \$50.0 billion of Canadian debt securities to their holdings in the second quarter." Below is a graph depicting Canada's net international investment position since 2011.

Figure 41: Canada's Net International Investment Position



Source: Statistics Canada

Capital Markets – The top 1% in the US have \$163b in unpaid tax

There shouldn't be much doubt where the Democrats want to go to look for more tax revenue – the wealthy and high income earners where the top 1% of Americans have \$163b in unpaid taxes. On Tuesday, the US Treasury Dept posted "*The Case for a Robust Attack on the Tax Gap*" [\[LINK\]](#). The U.S. tax gap, the difference between taxes that are owed and collected, totals \$600 billion annually which means ~\$7 trillion of lost tax revenue over the next decade, according to the U.S. Department of Treasury. The Department of Treasury stated that the degree of lost revenue is staggering, "it is 3% of GDP, or all the income taxes paid by the lowest earning 90 percent of taxpayers." The U.S. collects less tax revenue as % of GDP than most point in history, partly because an under-staffed IRS, with outdated technology, is unable to collect 15 percent of taxes that are owed, and a lack of resources means that audit rates have fallen across the board." The lost tax revenue has significant implications for fiscal policies, as it forces policymakers to choose between "rising deficits, lower spending on important priorities, or further tax increase to compensate for lost revenue—which will only be borne by compliant taxpayers." The articles notes that the tax gap is more concentrated toward the top of the income distribution, as these individuals can access accountants who help shield them from their actual tax liability. However, the underreporting tax gap is also a function of the current information reporting regime. "There is a direct relationship between the information the IRS has at its disposal to verify that a taxpayer has properly paid her tax liabilities, and her voluntary compliance rate. For ordinary wage and salary income,

**Top 1% have
\$163b in unpaid
tax**

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compliance with income tax liabilities is nearly perfect (1 percent noncompliance rate). In stark contrast, for opaque income sources that accrue disproportionately to higher earners—like partnership income, proprietorship income, and rental income—noncompliance can reach 55 percent.” In fact, roughly half of the individual income tax gap accrues to income streams from proprietorships, partnerships, and S-corporations, where IRS has limited information available to verify the tax filings. As a result of the tax gap, “*the Administration’s proposals call for significantly increasing the IRS budget, specifically \$80 billion of investment over the coming ten years in enforcement, IT, and taxpayer services generating an estimated \$320 billion in additional tax collections over the next ten years.*” We note this investment proposal is about *targeting enforcement actions where they belong: on higher earners who do not fully report their tax liabilities,*” not increasing enforcement security on lower income taxpayers. Only time will tell if these reforms actually end the current two-tiered tax system, in which ordinary Americans comply with their tax obligations, but many high-end taxpayers do not. Even with a new system, we have to believe that individuals will still find ways to reduce their tax obligations. Our Supplemental Documents package includes the full report.

Twitter – Look for our first comments on energy items on Twitter every day

For new followers to our Twitter, we are trying to tweet on breaking news or early views on energy items, most of which are followed up in detail in the Energy Tidbits memo or in separate blogs. Our Twitter handle is @Energy_Tidbits and can be followed at [LINK](#). We wanted to use Energy Tidbits in our name since I have been writing Energy Tidbits memos for over 20 consecutive years. Please take a look thru our tweets and you can see we aren’t just retweeting other tweets. Rather we are trying to use Twitter for early views on energy items. Our Supplemental Documents package includes our tweets this week.

**@Energy_Tidbits
on Twitter**

LinkedIn – Look for quick energy items from me on LinkedIn

I can also be reached on LinkedIn and plan to use it as another forum to pass on energy items in addition to our weekly Energy Tidbits memo and our blogs that are posted on the SAF Energy website [LINK](#).

**Look for energy
items on LinkedIn**

Misc Facts and Figures.

During our weekly review of items for Energy Tidbits, we come across a number of miscellaneous facts and figures that are more general in nature and often comment on sports.

Leylah Fernandez just couldn’t pull out the final win at the US Open

It was a tough match for Canada’s Leylah Fernandez to lose the US Open final yesterday afternoon. When she came back to tie the first set 3-3, I thought she would ride that momentum. She was so good, but UK’s Emma Raducanu was just too much. Leylah’s run at the US Open was hugely impressive and I was surprised that she had the energy she did after beating a number of the top seeds in 3-set matches. Huge kudos to an amazing run and you have to believe she will leave the US Open with huge confidence to keep moving up. She came into the tournament ranked #73 in the world and beat a number of top seeds (and Grand Slam winners) enroute to the final including #3 seed Naoma Osaka in the 3rd round, #16 seed Angelique Kerber in the 4th round, #5 seed Elina Svitolina in the quarter finals, #2 seed Aryna Sabalenka in the semi finals before losing yesterday’s final. The semi final match was amazing as she was down 0-3 to start only to rally to win the 1st set 7-6 in a tie breaker. And with the Americans not advancing very far, the New York fans took to Hernandez. She also got a lot of fan support for her Statute of Liberty pose.

Figure 42: Leylah Fernandez pose



Source: AP

CNN tells the story of two strangers stranded in Gander on 9/11

Last week's (Sept 5, 2021) Energy Tidbits noted one of the amazing stories of 9/11 – the story of how Gander, Newfoundland took in several thousand stranded air travellers when US and Canadian airspace was shut down. I put on my bucket list to get to Gander for their 9/11 memorial service just to be able to see some of the amazing Gander citizens who stepped up during 9/11. And I highly recommended the documentary movie “*You Are Here Trailer - A Come From Away Story*” about Gander on 9/11 and for the week after. Its available on Crave in Canada, and the trailer is at [\[LINK\]](#). On Wednesday, CNN posted as story about two Americans who were stranded in Gander on 9/11 and were prominently featured in the documentary. CNN report [\[LINK\]](#) “*The strangers who fell in love when 9/11 diverted their flight*” is of two strangers on Continental Airlines flight 5 from Gatwick to Houston that was one of the stranded planes to land in Gander. Nick Marson in his 50's and Diane Kirschke had just turned 60 were strangers, ended up in being in cots in the same gymnasium, and striking up a friendship that, after leaving Gander, developed into a relationship and got married. It was a great story in the documentary and also in CNN report. As an aside, the documentary played again last night on Crave and I had to watch it again. It is a truly inspiring story. Our Supplemental Documents package includes the CNN report.

Make a play, then another play, then another and then you win the game

NFL season finally kicked off. One of my weekly non energy must reads is Peter King's Football Morning in America [\[LINK\]](#) that he posts on Monday mornings. There was a good football commentary that reminded me of the investment dealer business. King notes how Nick Saban says to focus on the process, one play at a time. Reminded me of my former partner, Mike Wekerle who is probably today better known for Dragons Den and not for his being the best equities trader. He was great for reminding (not so subtly) to pick up the phone and call the client to help them make or avoid losing money in particular on bad market days. It was always make a call, then another call and another and before you knew it, it was a good day. In his section “*10 Things I Think I Think*”, Peter King wrote “*2. I think I learned something about Nick Saban in his enlightening interview with Alan Blinder of the New York Times. Saban's a lot more malleable as a coach than I thought. Listen to him about*

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how his approach to coaching has changed: “The biggest thing that has changed for me — and you might be shocked when I say this — is that I’ve actually become, through the years and through the experiences, a lot less outcome-oriented and a lot more process-oriented. I think that approach carries over to the players because then they become less outcome-oriented, and they’re more focused on process, they’re more focused on one play at a time, exactly what do I have to do and how do I have to do it, what’s going to help me be successful here, and they’re not looking at the scoreboard like we’ve got to win the game. They’re focusing on one play at a time.”

3. I think that reminds me so much of what Drew Brees told me a couple of years ago, when I asked him what advice he’d have for your quarterbacks. In effect, Brees said, Ignore the scoreboard. Think about making every play the best it can be. Worrying about the scoreboard distracts from the only thing you can control—the next play. Great advice for football, and for life.” In case you ever wondered the timing for the Energy Tidbits memo, one of the reasons why I have always worked to get the Energy Tidbits memo emailed in the old days or posted now by 11am MT is so I can turn on some NFL football at 11am MT on Sundays.

Tampa Bay/Dallas game was TV’s most watched show since Super Bowl LV

The problem with sports events is that they are best watched live. For some reason, the suspense doesn’t seem as great when you record and watch later. So Thursday night started off as a channel flipping night between the US Open watching Leylah Fernandez and the NFL opener with Tampa Bay vs Dallas. Although, the flipping stopped once Fernandez went to the 3rd set. But it looks like Americans tuned in big time to opener between the Super Bowl LV champs and America’s Team. NBC reported [\[LINK\]](#) the “game ranked as the most-watched NFL Kickoff Game since 2015, which was also the most-watched season in Sunday Night Football history. Thursday night’s opener registered a Total Audience Delivery (TAD) average of approximately 26 million viewers across NBC TV, Peacock, NBC Sports Digital and NFL Digital platforms, based on preliminary data. The Steelers-Patriots opener in 2015, with 27.4 million viewers, was the last NFL Kickoff Game to top this year’s Kickoff Game. The 2020 Kickoff Game between the Texans and Chiefs was 20 percent lower with a 21.6 million TAD. With an average of approximately 24.4 million viewers on NBC, the 2021 NFL Kickoff Game is television’s most-watched show since Super Bowl LV in February.” No question the combination of America’s team and Tom Brady was key but it also reflects the reality that TV is no longer the dominant medium for non sports and non news events.