LONGREACH ENERGY

Monthly Report

Longreach Energy Holdings LLC

July 2022

FIRM INFORMATION

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1. Market and Macro Industry Commentary

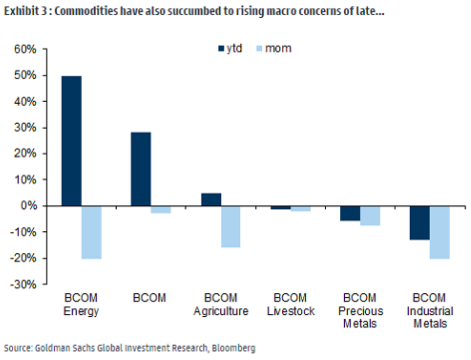
General Market Commentary

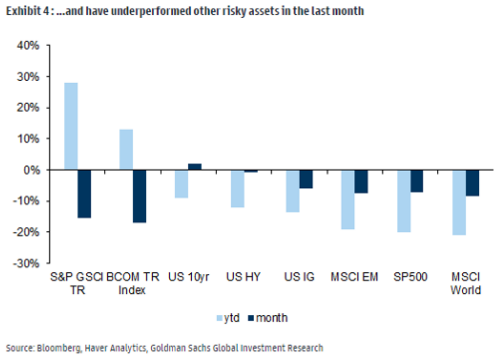
US Henry Hub gas prices rose significantly in July, recovering all of the decline during June. The prompt contract increased from $5.42/mmbtu at close of business on 30 June to $8.23/mmbtu at close on 29 July. Calendar 2022 rose from $5.66/mmbtu to $8.35/mmbtu over the same period. With US demand and supply tight and global attention on gas prices heightened, following Russia's invasion of the Ukraine, we expect near term price volatility to remain high.

Recession fears slightly outweighed tight supply and demand balance to deliver a slight decline in oil prices with the prompt opening July at $105.76/bbl and closing at $98.62/bbl. Calendar 2022 fell from $99.76/bbl to $95.35/bbl.

Concerns over the deteriorating economic growth outlook in the US and Europe have dominated all markets lately, with commodities no exception. The total return indices of the Bloomberg Commodities Index (BCOM) and S&P Goldman Sachs Commodity Index (GSCI) respectively shed -18% and -16.5% relative to their year-to-date peaks by 7 July (Figure 1).

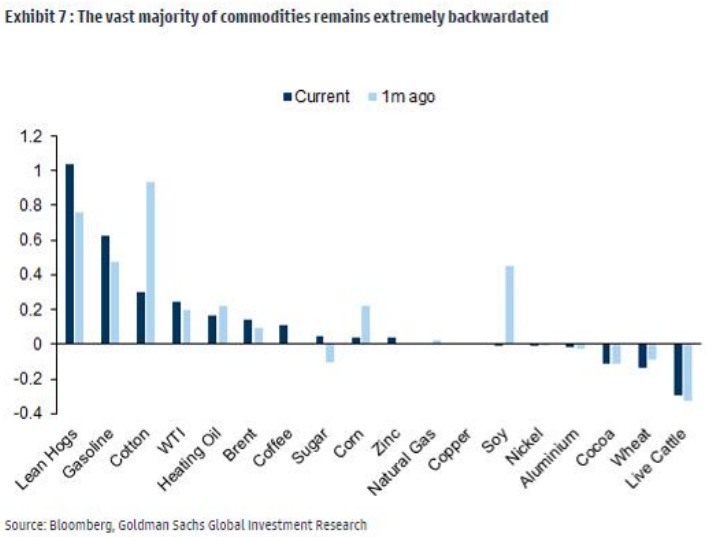
Figure 1: Commodities Performance as of 7 July (Source: GS)

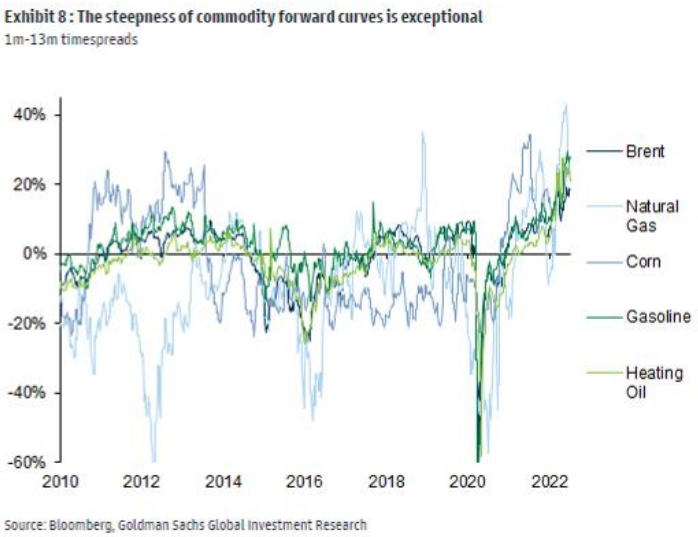




Commodity fundamentals, particularly for energy, remain strong. Inventories of energy continue to fall from already uncomfortably low levels as demand remains above supply. Forward dated prices trade at unprecedented levels of backwardation (near term prices higher than longer dates), these time-spreads are the single most accurate measure of underlying fundamentals (Figure 2).

Figure 2: Commodities Forward Curves as of 7 July (Source: GS)



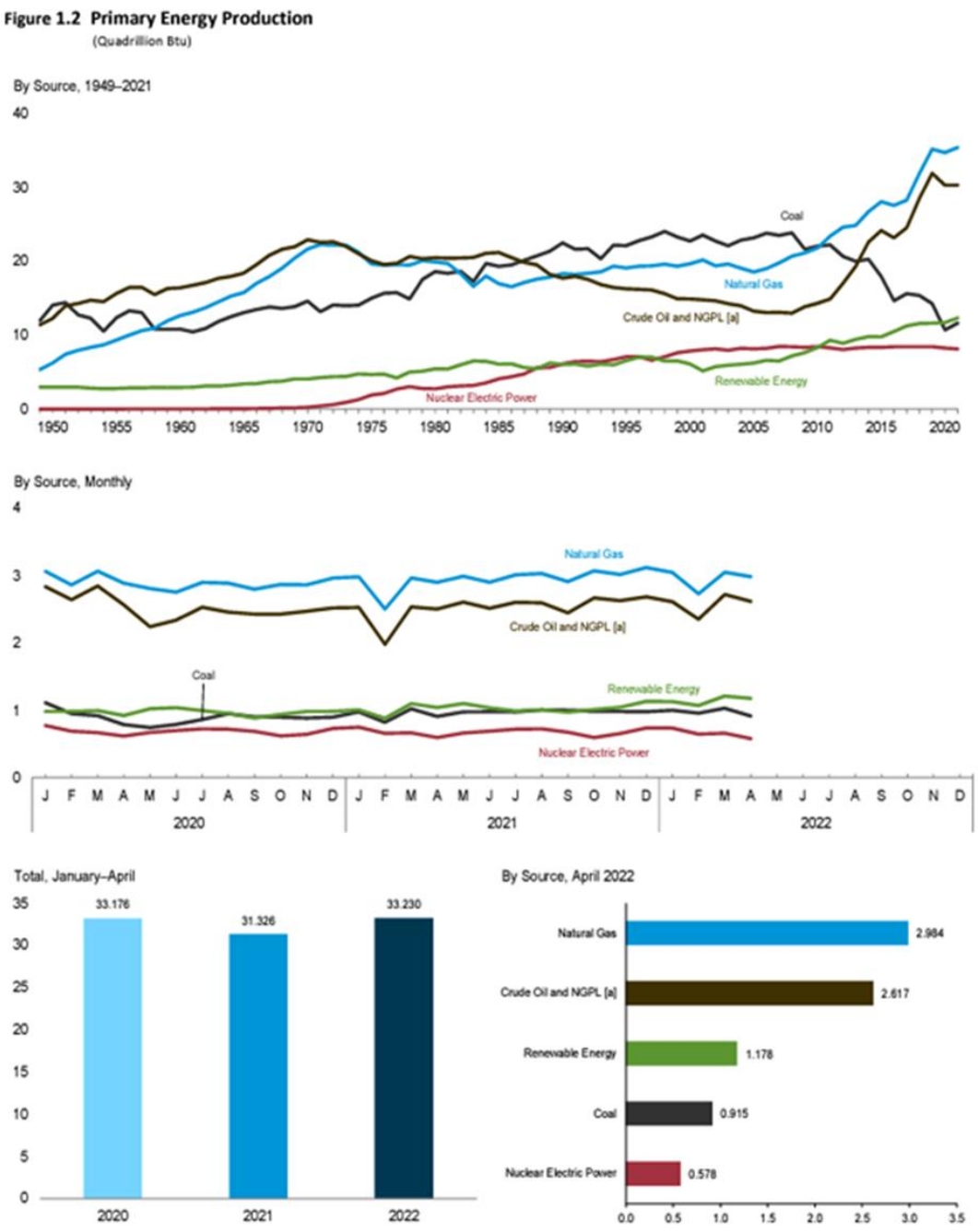


Absent a large synchronous negative global demand shock that destroys a high proportion of demand, we believe that demand rationing will remain the dominant theme for energy, while an accelerating stimulus programme in China should help offset likely recessionary falls elsewhere.

The July Monthly Energy Review from the Energy Information Agency (EIA) provides updated data on US primary energy production, consumption, and energy expenditure indicators.

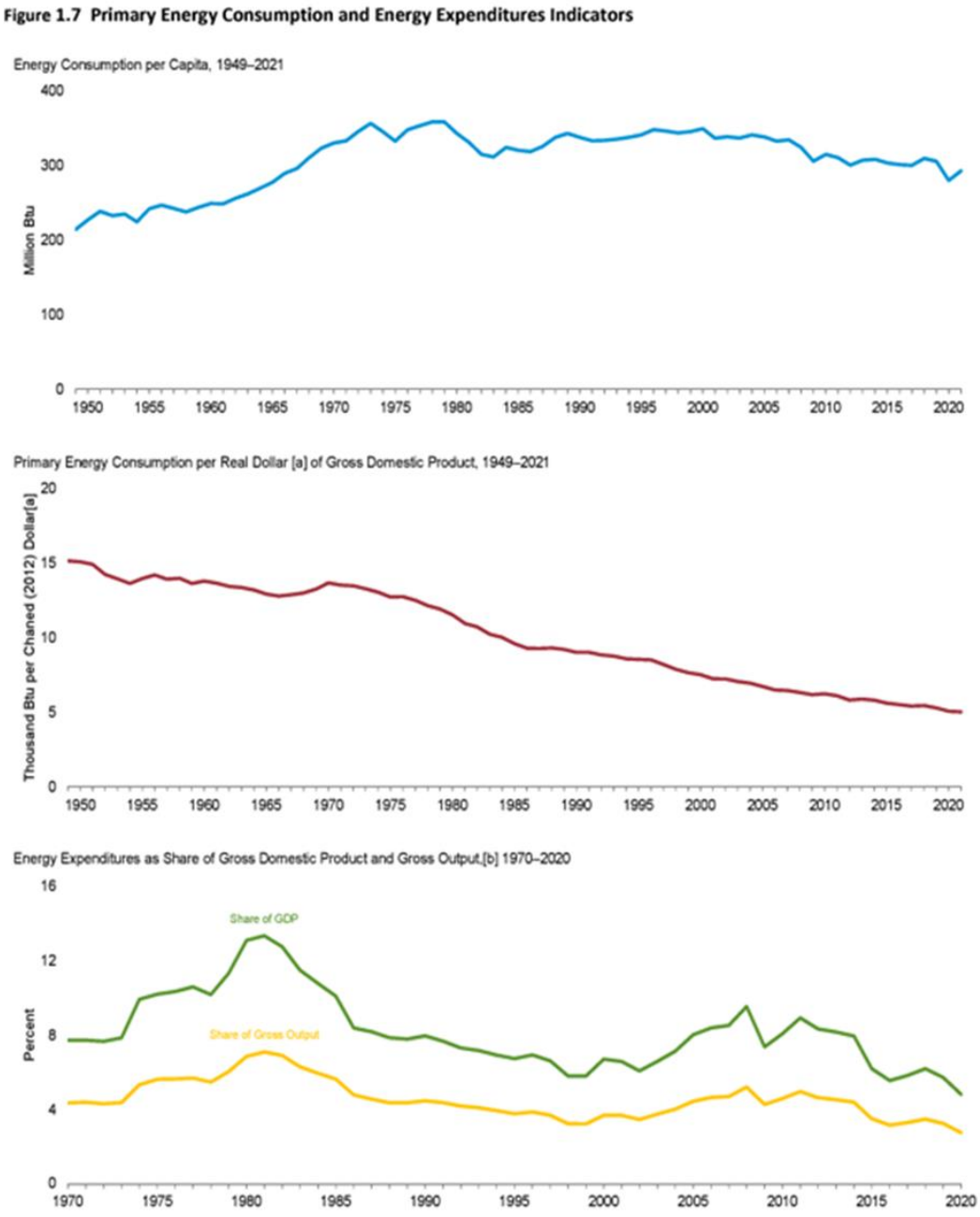
Primary Energy Production (Figure 3) shows the continued rise of natural gas as the largest source of energy in the US through to the end of 2021.

Figure 3: US Primary Energy Production (Source: EIA)



Primary Energy Consumption per capita (Top, Figure 4) shows a steady, multi-decade decline as energy use has become more efficient. Note that this decline is off a very high base and the US remains one of the highest per capita energy users in the world. An even greater decline, at a rate now sustained over 70 years, can be seen in primary energy consumption per real dollar of GDP (Middle, Figure 4). The availability of energy, and the US economy's ability to use that energy efficiently, has provided sustained competitive advantage to US business.

Figure 4: US Primary Energy Consumption and Energy Expenditure Indicators (Source: EIA)



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The latest Baker Hughes rig count data follows. In July US total rigs increased by 15 from 752 to 767. Oil rigs increased by 8 from 597 to 605 while gas rigs increased by 4 from 153 to 157.

Baker Hughes rig count

Baker Hughes

Rotary Rig Count

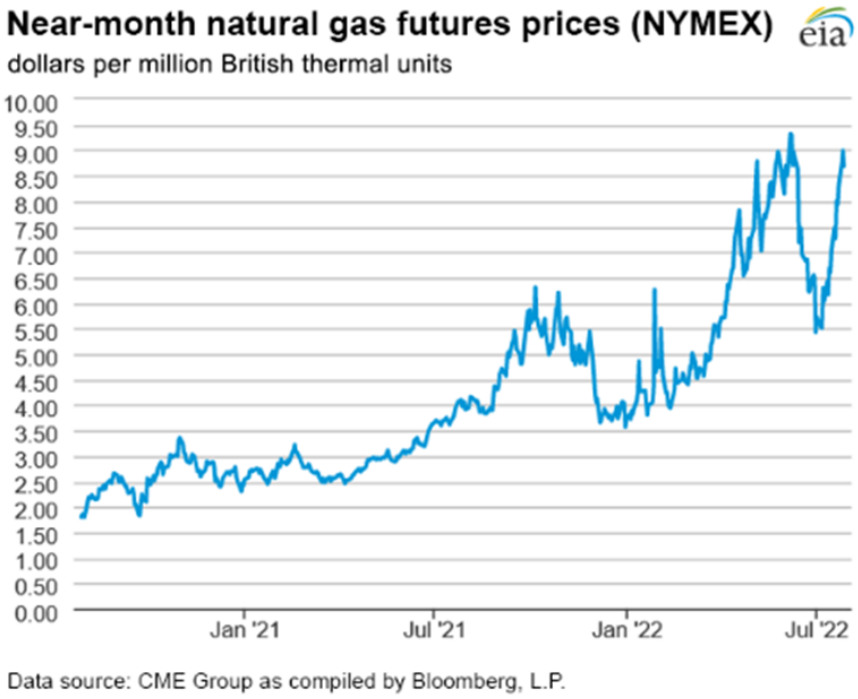
7/29/22

Location	Week	+/-	Week Ago	+/-	Year Ago
Land	746	8	738	273	473
Inland Waters	4	0	4	3	1
Offshore	17	1	16	3	14
United States Total	767	9	758	279	488
Gulf Of Mexico	15	1	14	1	14
Canada	204	9	195	51	153
North America	971	18	953	330	641
U.S. Breakout Information	**This Week**	**+/-**	**Last Week**	**+/-**	**Year Ago**
Oil	605	6	599	220	385
Gas	157	2	155	54	103
Miscellaneous	5	1	4	5	0
Directional	38	-2	40	9	29
Horizontal	697	10	687	255	442
Vertical	32	1	31	15	17

Gas Market

Prompt Henry Hub gas futures recovered all their June losses in July (Figure 5) as US supply/demand fundamentals remain tight with near record-high power burn demand, driven by hot summer weather, offsetting the loss until October of Freeport LNG export capacity. Supply is flat, the EIA estimates that 95.0bcf/d of dry natural gas was produced during 1H2022, down just slightly from 1H2021 notwithstanding the nearly doubling of prices over that period. Further reductions in Russian supply of gas to Europe through the Nord Stream I pipeline have added to global bullish sentiment. Gas at the Title Transfer Facility (TTF) in Netherlands is currently trading around $53/mmbtu while the Japan Korea Market (JKM) Asian LNG spot price is around $35/mmbtu.

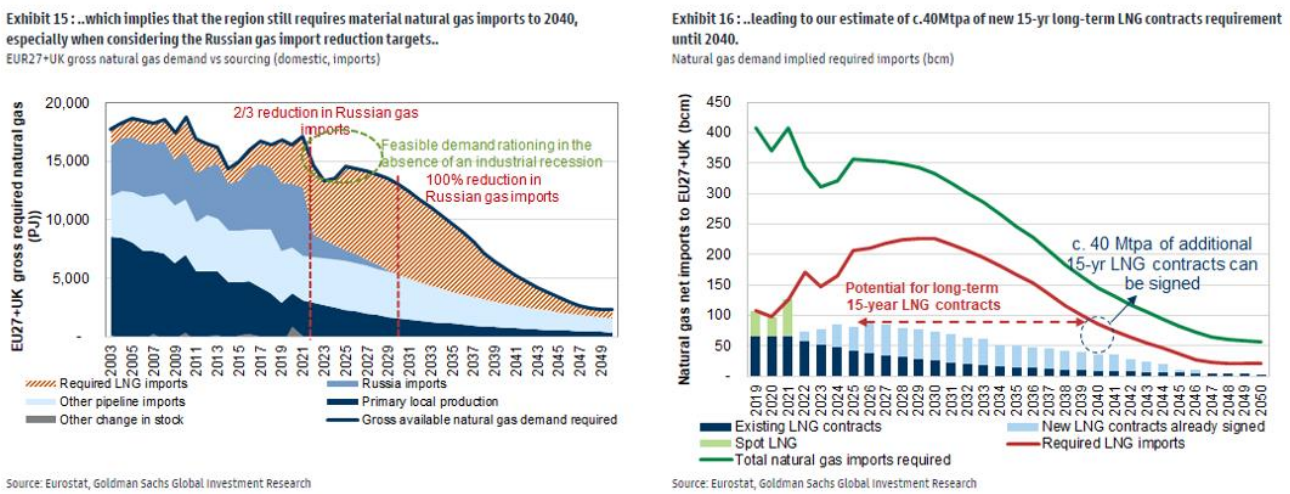
Figure 5: Near Month Henry Hub Futures (Source: EIA)



Goldman Sachs has released a study of Europe's energy system (Re-Imagining Europe's Energy System, 20 July), that, inter alia, concludes:
Natural gas remains key to Europe's energy supply for the next two decades and we believe that it is in Europe's interest to sign up to an additional 40 mtpa (80 tcf/yr) of 15-yr LNG contracts, and potentially up to another 50 mtpa (100 tcf/yr) of 10-yr LNG contracts to improve security of supply and drive a new cycle of LNG construction.

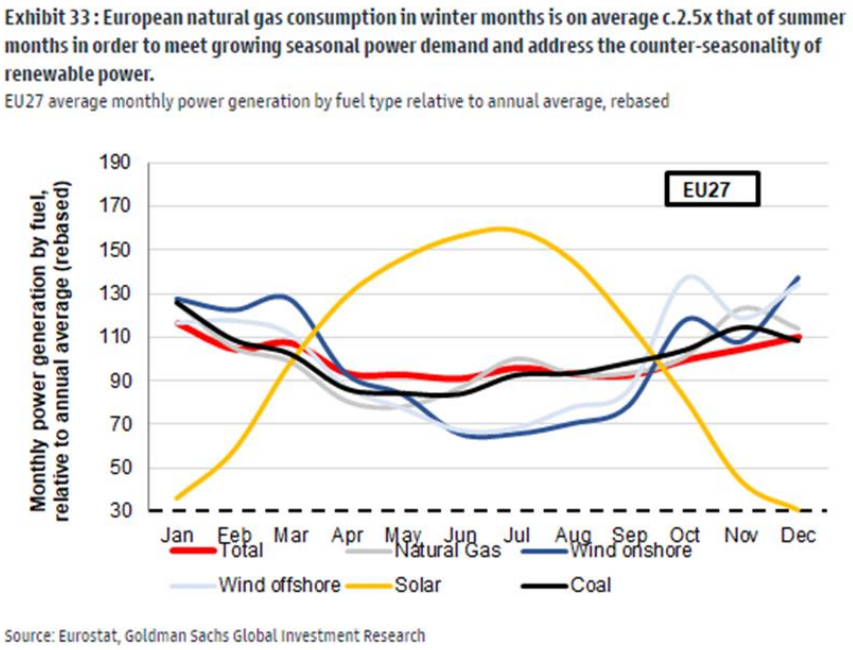
Figure 6 illustrates the calculations underlying these projections.

Figure 6: European Gas Demand and LNG Import Needs (Source: GS)



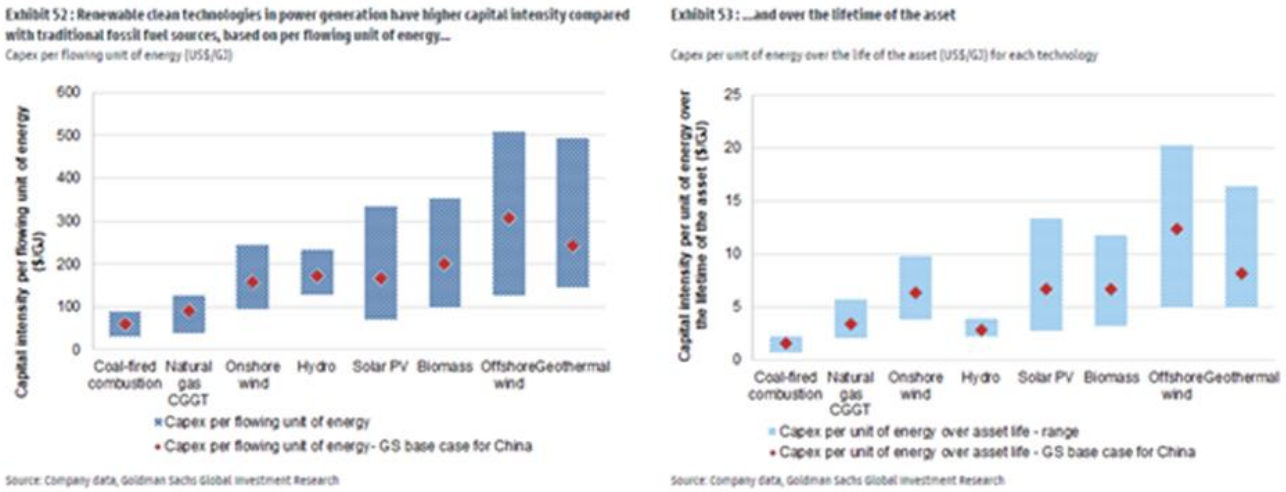
Winter gas demand is not just driven by heating needs but also to counter the seasonality of renewable energy, particularly low winter solar generation. In winter European natural gas consumption is on average ~2.5 times that of summer (Figure 7).

Figure 7: Average Monthly European Power Generation by Fuel (Source: GS)



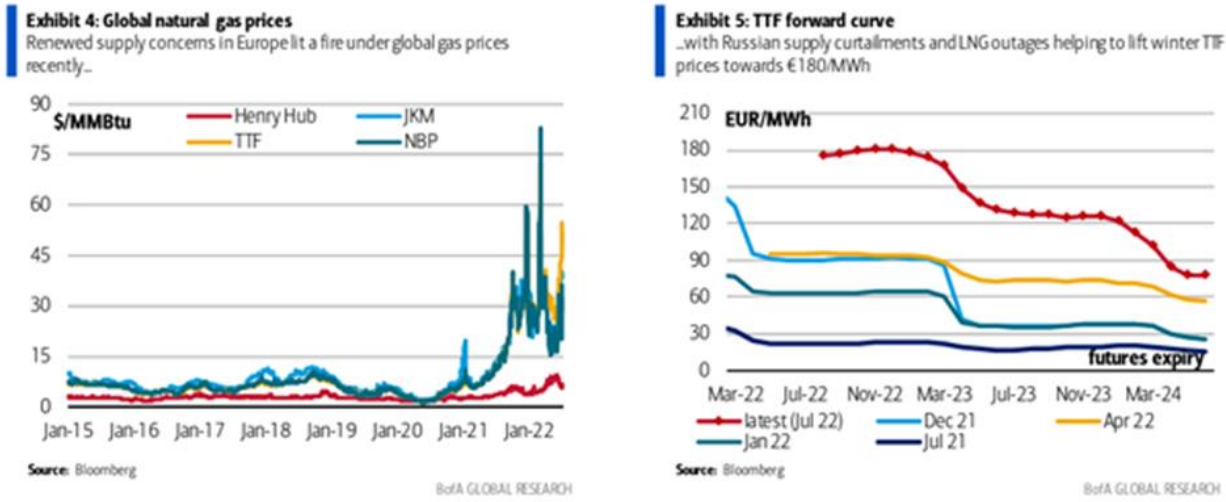
The enduring cost advantages of coal and natural gas fueled power generation will put pressure on speed of energy transition, particularly as general commentary implies that clean technologies are cheaper than traditional fossil fuel sources.

Figure 8: Capex per Flowing Unit of Energy (Source: GS)



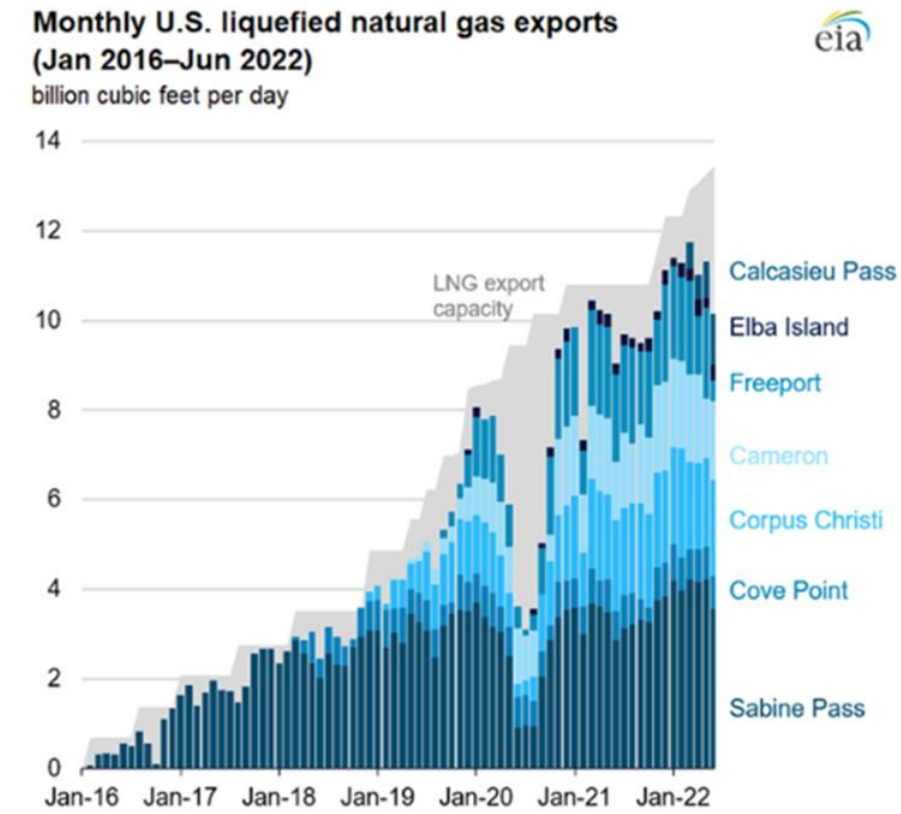
Global gas prices have exploded with European supply concerns (LHS Figure 9), while European (TTF) forward prices indicate the supply issues will continue for some time (RHS Figure 9).

Figure 9: Global Natural Gas Prices and TTF Forward Curve (source: Bloomberg via BofA)



The United States became the world's largest LNG exporter during the first half of 2022 according to data from EIA. Compared with the second half of 2021, US LNG exports increased by 12% in the first half of 2022, averaging 11.2bcf/d (Figure 10).

Figure 10: Monthly US LNG Exports (source: EIA)



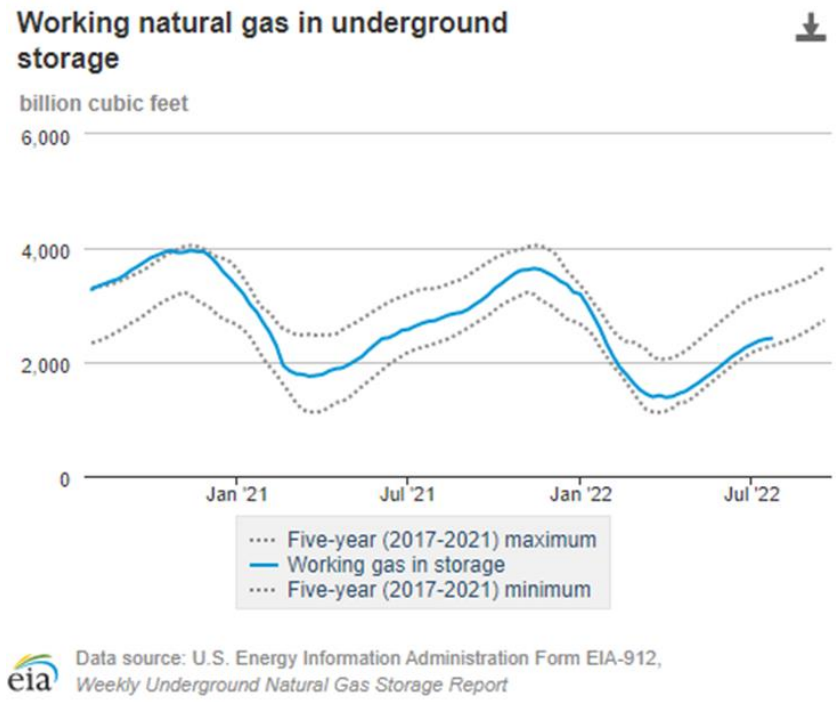
Data source: U.S. Department of Energy *LNG Reports* and U.S. Energy Information Administration *Liquefaction Capacity Table*

Note: June 2022 LNG exports are EIA estimates based on tanker shipping data. LNG export capacity is an estimated peak LNG production capacity of all operational U.S. LNG facilities.

The EIA estimates that installed US LNG export capacity has expanded by 2bcf/d since November 2021. As of July 2022, the EIA estimates that US LNG liquefaction capacity averages 11.4bcf/d (13.6 bcf/d peak). This will shortly increase to 13.9bcf/d peak once all the trains at the new Calcasieu Pass LNG reach full production.

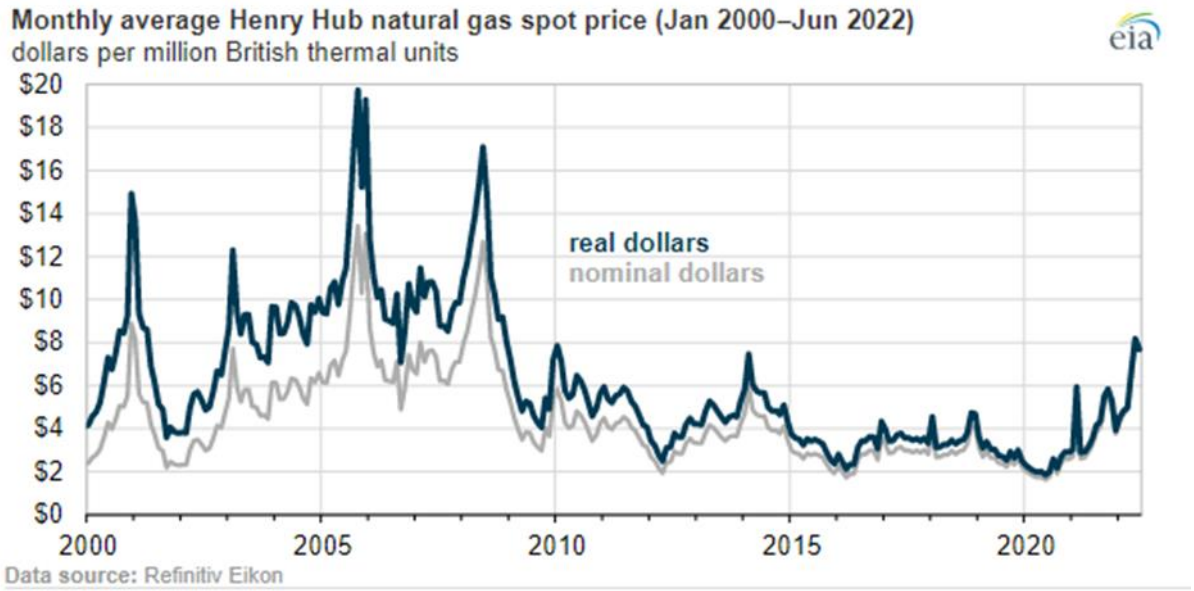
US working gas in storage remains at the bottom of the 5-year range (Figure 11). For the week ended 22 July, working gas stocks were 12% lower than the 5-year average and 11% lower than this time last year.

Figure 11: US Working Gas in Storage (Source: EIA)



The EIA has published real and nominal average monthly Henry Hub spot prices from January 2000 to June 2022 (Figure 12). Ove the last 12-months the average Henry Hub spot price has nearly doubled, rising from $3.84/mmbtu in July 2021 to $7.70/mmbtu in June 2022. The average inflation-adjusted (real) monthly Henry Hub spot price reached a 12-month high of $8.17/mmbtu in May 2022, the highest price since November 2008.

Figure 12: Monthly Average Henry Hub Spot Prices Jan-2000 to Jun 2022 (Source: EIA)

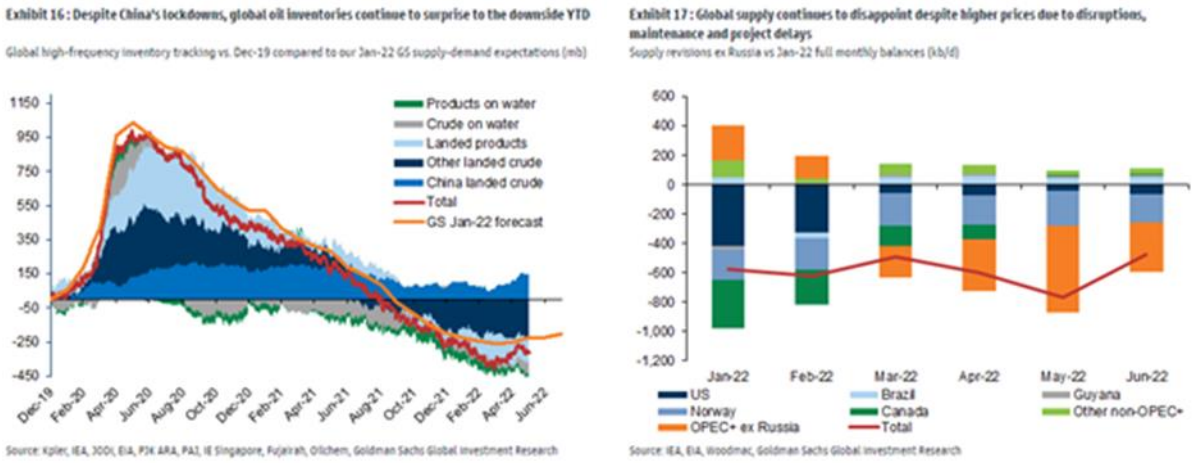


Oil Market

Oil prices continued to drift lower in July as concerns persist that large interest rate rises will slow global economic growth and subsequently demand for crude.

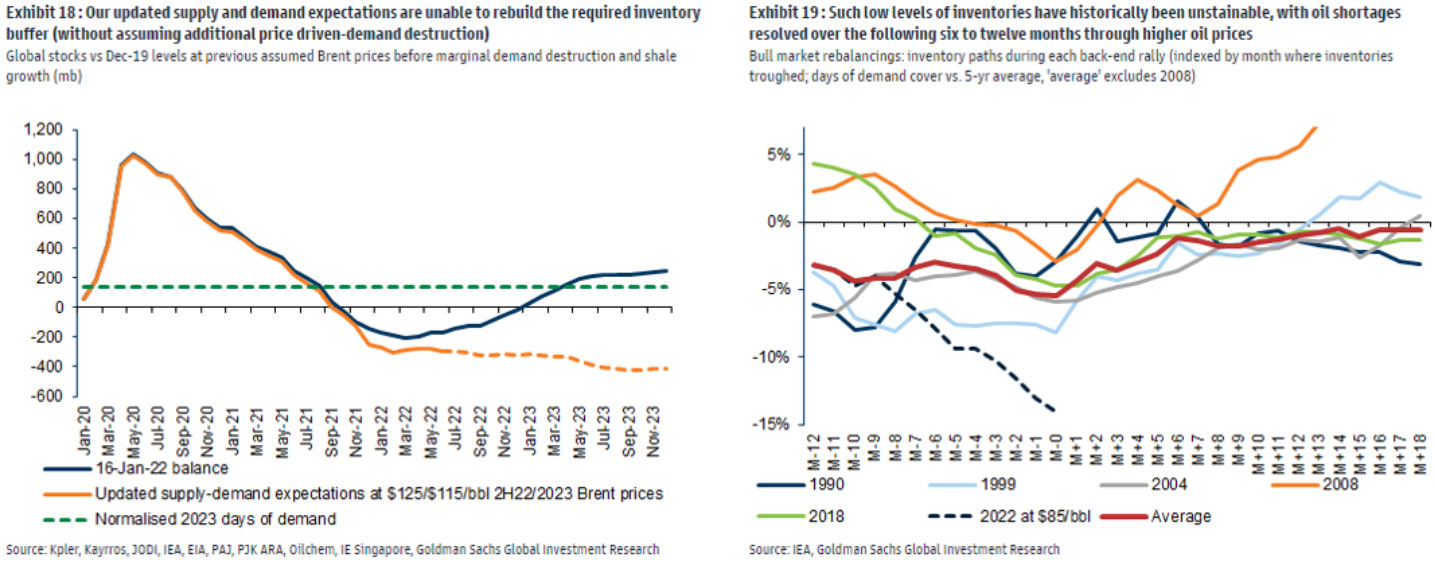
While the oil market has fallen on the prospects of higher supply and weaker demand, fundamentals remain strong. Global inventories continue to surprise on the downside (LHS Figure 13) with low supply the main cause despite higher prices due to disruptions, maintenance, and project delays (RHS Figure 13). The tightness in physical markets is highlighted by fact that physical crude prices are trading at a historically large premium to Brent futures.

Figure 13: Global Inventory Tracking and Supply Revisions ex Russia (Source: various, via GS)



Goldman Sachs' updated global supply and demand forecasts indicate that prices must increase from current levels in order to reduce demand and rebuild the inventory buffer that has historically been required for price stability. In the past inventories at current levels have been unsustainable, with supply shortage resolved over the following six to twelve months through higher prices that induce demand destruction (Figure 14).

Figure 14: Supply and Demand Expectations and Global Inventories (Source: various, via GS)



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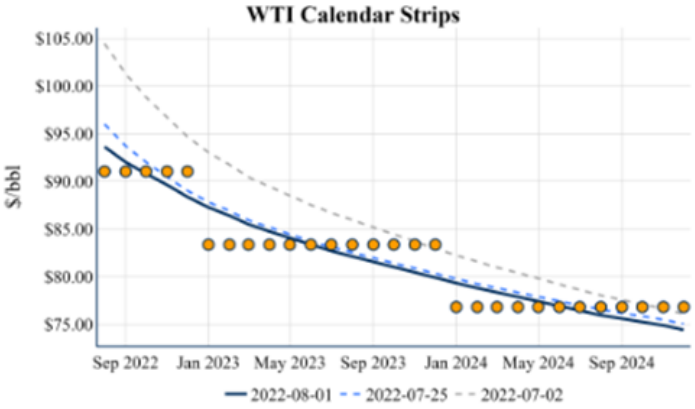
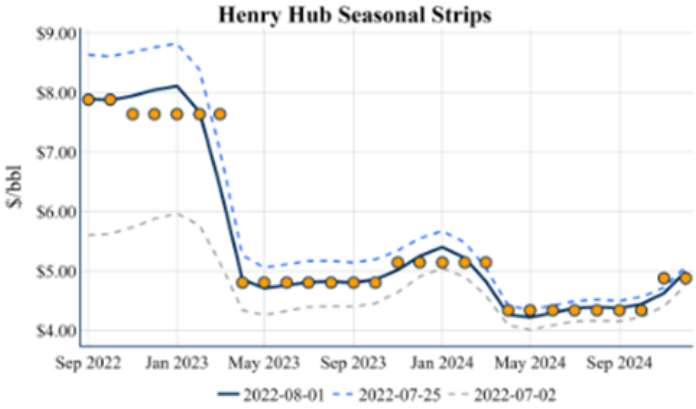
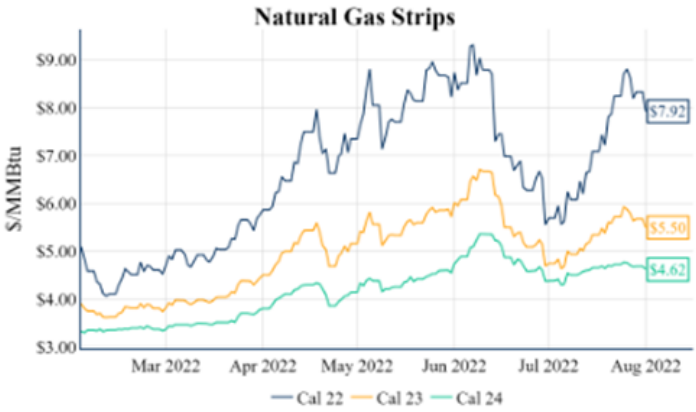
Gas and Oil Prices 1 August 2022







Swap Pricing	Bal 22	Cal 23	Cal 24	Cal 25
NYMEX WTI	$91.04	$83.35	$76.82	$72.10
ICE Brent	$96.40	$88.70	$82.51	$78.23
LLS	$95.78	$87.34	$80.42	$75.77
Mars	$89.22	$81.64	$75.29	$70.71
Western Canadian Crude (WCC)	$70.68	$65.85	$59.02	$57.01
West TX Sour (WTS)	$91.43	$83.46	$76.95	$72.29

Swap Pricing	Month 1	Summer 22	Winter 22/23	Summer 23	Winter 23/24
Henry Hub Fixed	$7.896	$7.884	$7.639	$4.806	$5.142
Eastern Gas South	-$1.166	-$1.274	-$0.753	-$1.282	-$0.796
Waha	-$0.918	-$1.037	-$0.968	-$1.805	-$0.774
TETCO M3	-$1.005	-$1.146	$4.529	-$0.980	$2.620
Houston Ship Channel	-$0.395	-$0.398	-$0.026	-$0.188	$0.034
Columbia Gulf Mainline	-$0.726	-$0.771	-$0.339	-$0.378	-$0.247
Panhandle East	-$0.577	-$0.569	$0.193	-$0.530	$0.080
NGPL MidCon	-$0.505	-$0.496	$0.117	-$0.453	$0.014
SoCal	$0.274	-$0.067	$0.891	$0.059	$0.765
AECO	-$3.450	-$3.390	-$2.645	-$1.365	-$1.179
Chicago City-Gates	-$0.291	-$0.280	$0.554	-$0.194	$0.382

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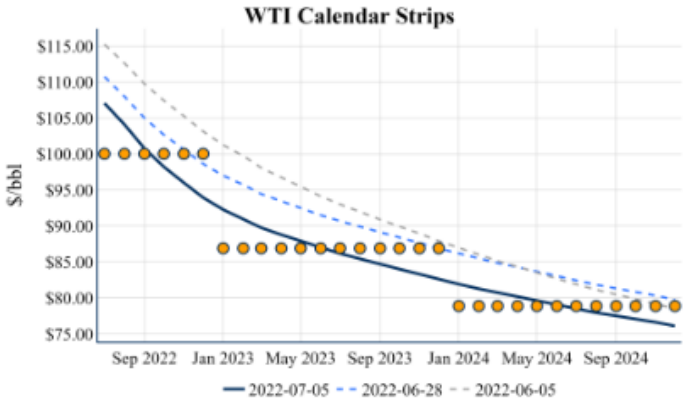
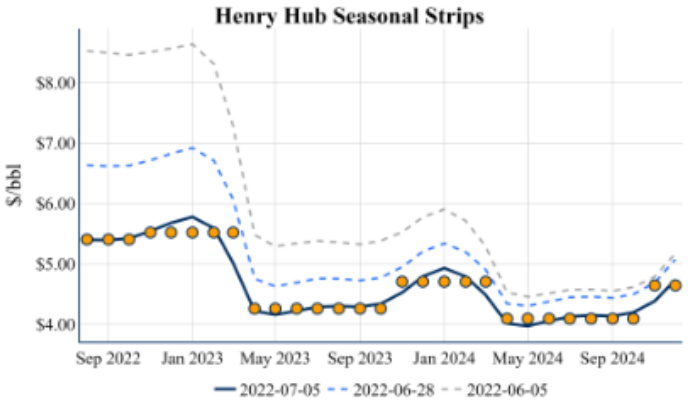
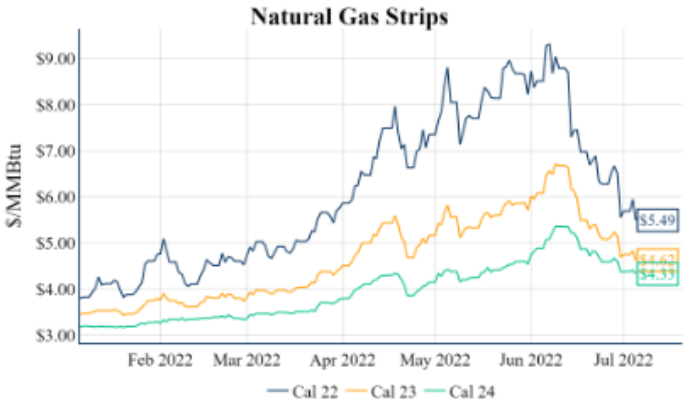
Gas and Oil Prices 5 July 2022







Swap Pricing	Bal 22	Cal 23	Cal 24	Cal 25
NYMEX WTI	$100.02	$86.90	$78.88	$73.33
ICE Brent	$103.67	$91.59	$84.12	$78.90
LLS	$102.20	$89.00	$80.71	$74.27
Mars	$96.75	$85.19	$77.58	$72.05
Western Canadian Crude (WCC)	$81.59	$70.75	$63.10	$58.25
West TX Sour (WTS)	$100.65	$86.95	$78.57	$73.04

Swap Pricing	Month 1	Summer 22	Winter 22/23	Summer 23	Winter 23/24
Henry Hub Fixed	$5.397	$5.403	$5.518	$4.261	$4.701
Eastern Gas South	-$0.656	-$1.115	-$0.830	-$1.387	-$0.862
Waha	-$0.674	-$0.967	-$1.215	-$2.082	-$1.333
TETCO M3	-$0.502	-$1.021	$4.379	-$1.087	$2.659
Houston Ship Channel	-$0.199	-$0.249	$0.007	-$0.174	$0.063
Columbia Gulf Mainline	-$0.497	-$0.638	-$0.337	-$0.391	-$0.241
Panhandle East	-$0.468	-$0.557	$0.148	-$0.623	$0.006
NGPL MidCon	-$0.401	-$0.497	$0.062	-$0.541	-$0.060
SoCal	$0.897	$0.360	$0.944	$0.061	$0.818
AECO	-$2.068	-$1.886	-$1.450	-$1.031	-$1.079
Chicago City-Gates	-$0.195	-$0.244	$0.506	-$0.196	$0.297