



# Longreach Energy Holdings LLC

## FIRM INFORMATION

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### Sub-Advisor

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## KEY INVESTMENT PERSONNEL

### Andrew Sinclair

Principal – Commercial Director

### Thomas Wagenhofer

Principal – Technical Director

## 1.0 Market and Portfolio Commentary

### 1.1 Macro Industry Commentary

US Henry Hub gas prices continued their fall through January with warm weather driving lower gas demand. The prompt contract fell from \$4.48/mmbtu at close of business on 30 December to \$2.68/mmbtu at close on 31 January. Calendar 2023 fell from \$4.215/mmbtu to \$3.281/mmbtu over the same period.

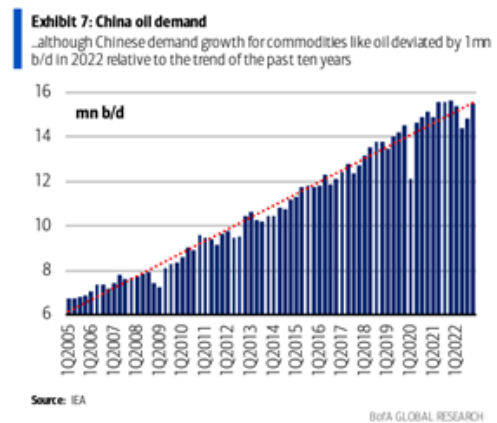
Oil prices fell modestly. The prompt opened January at \$80.26/bbl and closed the month at \$78.87/bbl. Calendar 2023 started the month at \$79.11/bbl and closed at \$78.36/bbl.

Energy markets kicked off 2023 with a sharp selloff on the back of unseasonal warmth that reduced heating demand, reducing the risk of severe gas shortages around the world.

China's abandonment of zero Covid is likely to increase demand for all commodities over the medium to long-term though markets have not materially moved higher to reflect the potential bounce up in Chinese demand. The reason is that Chinese inventories of key commodities such as oil and coal have increased in recent months due to a wave of Covid-19 cases reducing demand and a surge in domestic mine supply. Additionally, warm weather has reduced heating demand and Russian energy sanctions have been relatively lax.

The path of commodity markets through 2023 will be heavily dependent on demand produced by the reopening of the Chinese economy. It is probable that economic activity, travel and consequently energy demand will pick up in China, matching recoveries elsewhere (Figure 1).

Figure 1: Chinese Commodities Demand (Source: BofA)



## CONTACT US

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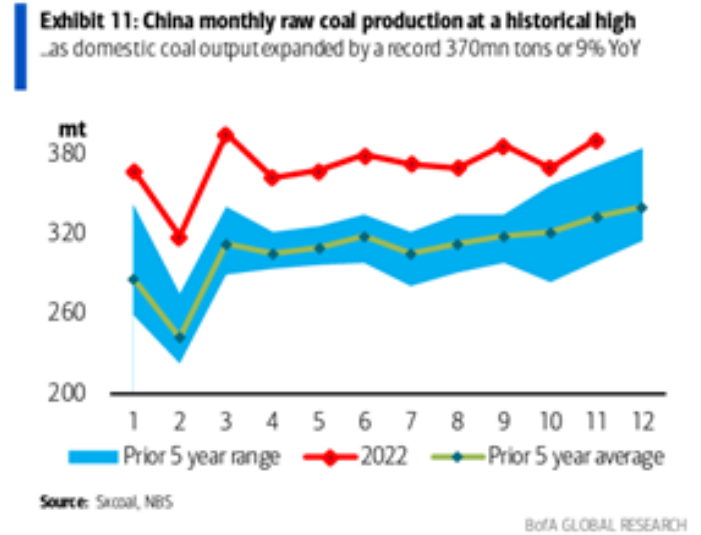
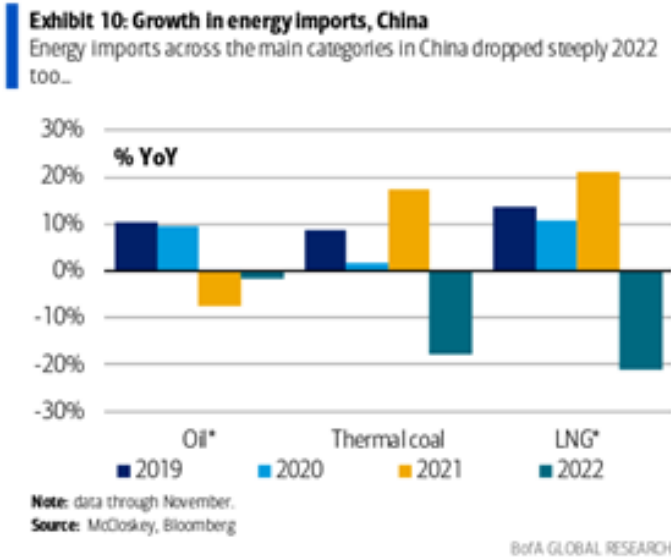
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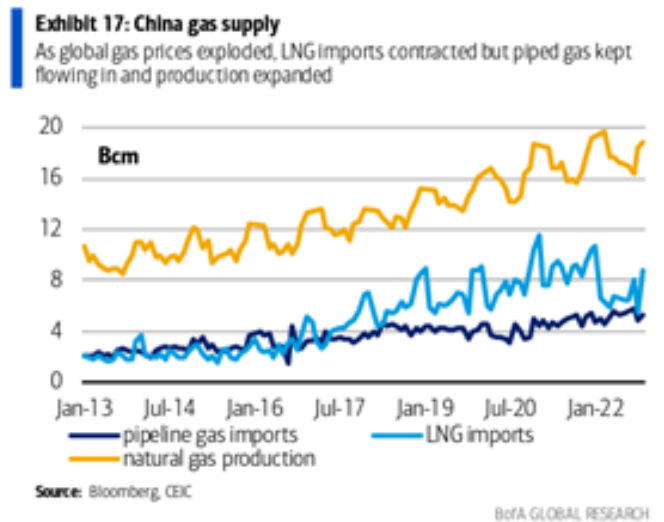
Energy imports across the main categories in China dropped steeply in 2022 (LHS Figure 2). Oil imports dipped 1%, thermal coal imports fell by 18% and LNG imports tumbled 21% year-on-year. As global thermal fuel prices skyrocketed to record levels during 2022 after the Russian invasion of Ukraine, China's domestic coal output expanded by a record 370mn tons or 9% YoY (RHS Figure 2).

Figure 2: China Energy Imports Change and Monthly Coal Production (Source: various, via BofA)



Covid lockdowns caused material reduction in Chinese mobility through 2022 (LHS Figure 3). Growth in piped gas from Russia and increased production compensated for the large drop in LNG imports (RHS Figure 3).

Figure 3: China Major City Daily Subway Rides and Natural Gas Supply (Source: various, via BofA)



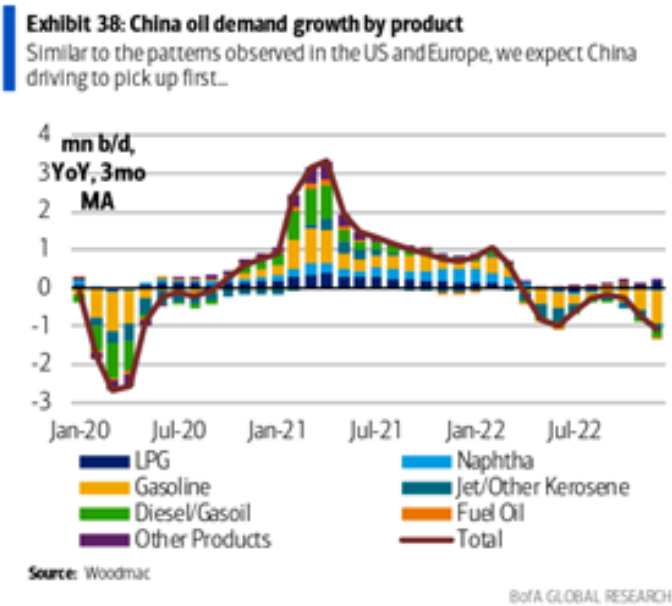
It is still very early in the process for China to recover mobility and demand. Domestic travel around the 18 Jan Lunar New Year, while up on 2020 and 2021, was still only 55% of pre-Covid 2019 (LHS Figure 4). Traffic across Chinese highways even today remains very depressed relative to pre-Covid levels (RHS Figure 4).

Figure 4: Chinese Lunar New Year Passenger Traffic and General Passenger Traffic (Source: various, via BofA)



Similar to the patterns observed in the US and Europe, it is likely that China driving will be the first transport form to recover (LHS Figure 5) followed by a rapid catch-up in international travel across Asia (RHS Figure 5).

Figure 5: China Oil Demand Growth by Product and International Passenger Traffic (Source: various, via BofA)



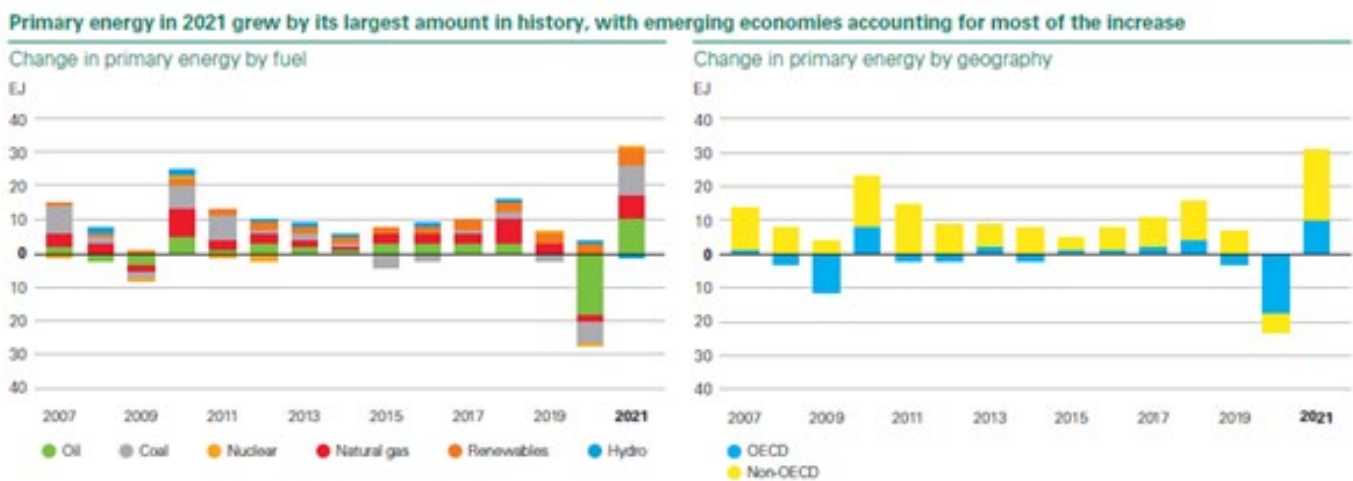
BP has released the 2022 edition of its annual Statistical Review of World Energy. In 2021 primary energy consumption grew by 31 EJ, the largest increase in history and more than reversing the sharp decline seen in 2020 (Figure 6). Primary energy in 2021 was 8 EJ above 2019 levels.

1 Exajoule (EJ) equals the amount of energy contained in approximately 947 trillion cubic feet of gas (tcf).

31 EJ therefore equals roughly 29,357 tcf.

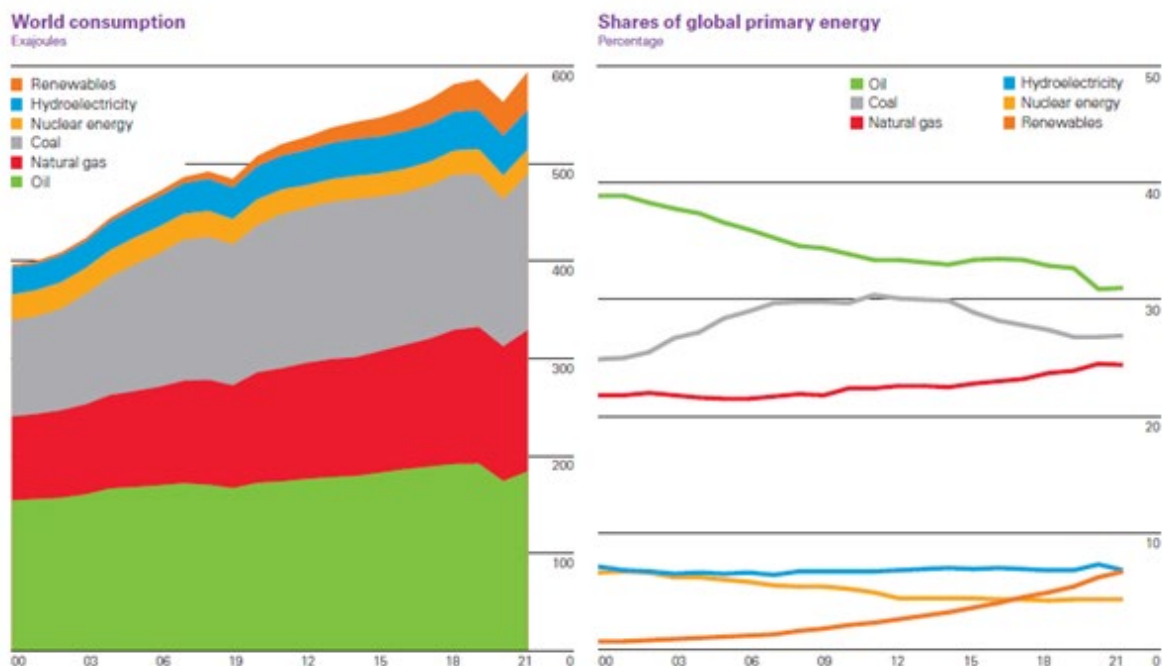
The increase in primary energy consumption in 2021 was driven by emerging economies which increased by 13 EJ, of which 10EJ from China. Since 2019 primary energy consumption in emerging economies increased by 15 EJ (13 EJ from China). In contrast, energy demand in developed economies in 2021 was 8 EJ below 2019 levels.

Figure 6: World Primary Energy Consumption (Source: BP)



The increase in primary energy between 2019 and 2021 was entirely driven by renewable energy sources. The level of fossil fuel energy consumption was unchanged between 2019 and 2021 with lower oil demand (-8EJ) offset by higher natural gas (5EJ) and coal (3EJ) consumption (Figure 7).

Figure 7: China Coal Production (source: GS)





The latest Baker Hughes rig count data follows. In January US total rigs fell by 13 from 772 to 759. Oil rigs fell by 19 from 618 to 599 while gas rigs rose by 6 from 152 to 158.

**Baker Hughes rig count**



**Rotary Rig Count**

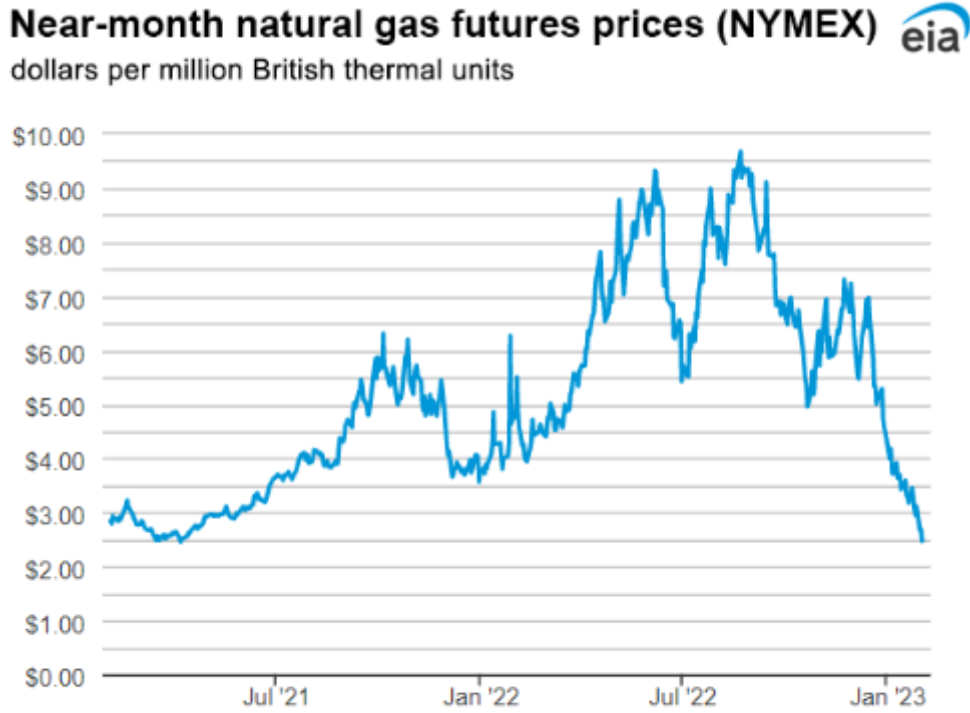
2/3/23

| Location                         | Week             | +/-        | Week Ago         | +/-        | Year Ago        |
|----------------------------------|------------------|------------|------------------|------------|-----------------|
| Land                             | 745              | -11        | 756              | 150        | 595             |
| Inland Waters                    | 2                | 0          | 2                | 0          | 2               |
| Offshore                         | 12               | -1         | 13               | -4         | 16              |
| <b>United States Total</b>       | <b>759</b>       | <b>-12</b> | <b>771</b>       | <b>146</b> | <b>613</b>      |
| Gulf Of Mexico                   | 12               | -1         | 13               | -4         | 16              |
| Canada                           | 249              | 2          | 247              | 31         | 218             |
| <b>North America</b>             | <b>1008</b>      | <b>-10</b> | <b>1018</b>      | <b>177</b> | <b>831</b>      |
| <b>U.S. Breakout Information</b> | <b>This Week</b> | <b>+/-</b> | <b>Last Week</b> | <b>+/-</b> | <b>Year Ago</b> |
| Oil                              | 599              | -10        | 609              | 102        | 497             |
| Gas                              | 158              | -2         | 160              | 42         | 116             |
| Miscellaneous                    | 2                | 0          | 2                | 2          | 0               |
| Directional                      | 38               | -7         | 45               | 4          | 34              |
| Horizontal                       | 700              | -5         | 705              | 145        | 555             |
| Vertical                         | 21               | 0          | 21               | -3         | 24              |

## Gas Market

Prompt Henry Hub gas futures fell hard over the course of January (Figure 8).

Figure 8: Near Month Henry Hub Futures (Source: EIA)



Data source: CME Group as compiled by Bloomberg, L.P.

Weather in the US swung from extreme cold to unseasonably warm between late December and early January. An exceptionally warm January has helped remove the winter risk-premium from natural gas markets with the front-month Henry Hub prices collapsing from near \$7.00/mmbtu in mid-December to under \$2.50/mmbtu at ~ 8 Feb 2023 (LHS Figure 9). Market recognition of the coming demand from new LNG export facilities in late 2024 has brought the forward curve into contango (RHS Figure 9)

Figure 9: January Weather and Henry Hub Forward curve (Source: various, via GS)

**Exhibit 1: Warmer weather and forecasts have removed the winter-risk premium...**  
 January heating degree day (HDD) forecast evolution (left, # of HDDs); NYMEX natural gas (right, \$/mmBtu)



Source: Radiant Solutions, CME, Goldman Sachs Global Investment Research

**Exhibit 2: ...bringing the curve back into contango**  
 Henry Hub forward curve, \$/mmBtu

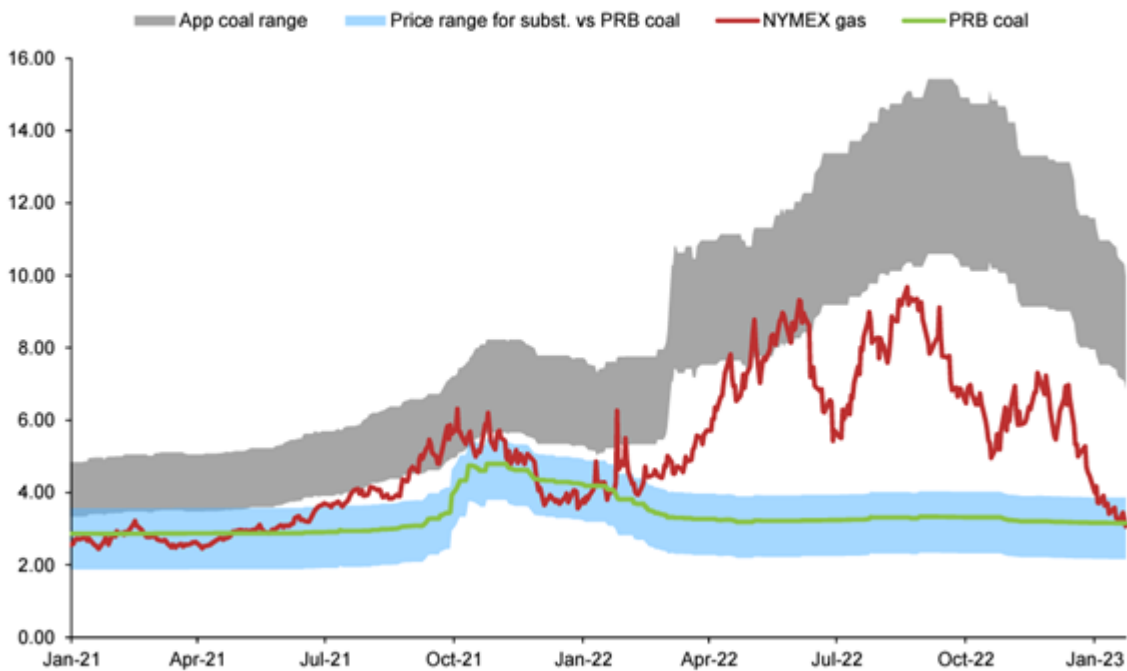


Source: CME, Goldman Sachs Global Investment Research

With this winter's weather risks largely behind us, the market's focus has turned to how low US natural gas prices need to go to ensure that gas in storage does not exceed current capacity of ~4.3tcf before the next withdrawal season starts in late-Autumn 2023. Consensus expectations have been set on US gas storage facing containment issues unless prices move sustainably well below \$4/mmbtu, thereby incentivising both coal-to-gas (C2G) substitution (Figure 10) and a slowdown in production growth.

Figure 10: Coal-to-Gas Substitution Prices (Source: CME, Platts, via GS)

**Exhibit 3: Following a very warm January, we expect the market will need to look for substitution away from PRB coal to balance storage**  
 US gas prices and GS-estimated gas price ranges that trigger substitution vs coal; \$/mmBtu



Source: CME, Platts, Goldman Sachs Global Investment Research

The view of both Goldman Sachs and Bank of America is that current prices for Summer 2023 (\$2.89/mmbtu on 6 Feb) are not sustainable and will lead to a sharp drop in end-Oct23 storage levels by further increasing C2G substitution and reducing production growth. Goldman's model of gas power demand suggests that for every 0.10/mmbtu move in the gas price relative to coal, gas demand responds by about 340mmcf/d. In January realised power burn data suggest gas demand is responding positively as expected (LHS Figure 11). The forward curve is currently well under the Goldman price forecast, Goldman estimate that current prices will reduce projected production by 0.5bcf/d and increase demand by 1.1bcf/d, resulting in net decrease of gas available for storage by 1.6bcf/d between now and end October.

Figure 11: Gas Power Demand and Daily Supply and Demand Variations (Source: various, via GS)

**Exhibit 9: High-frequency data suggests power demand is responding to low prices, as expected**

Realized and modelled power demand for gas, Bcf/d

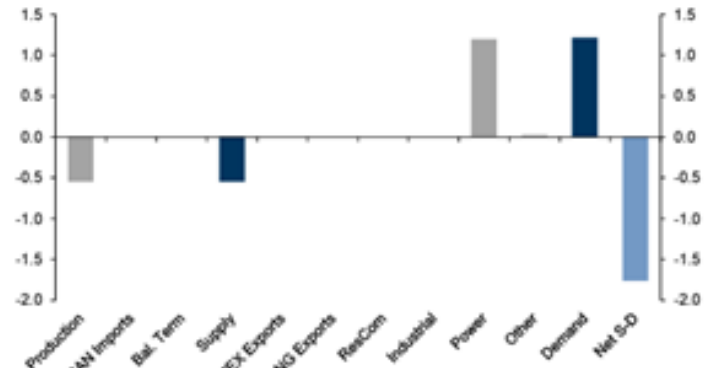


Note: model represents fitted values of a regression on weather variables, generation and capacity for alternative fuels, and coal-to-gas price differentials.

Source: Platts, Goldman Sachs Global Investment Research

**Exhibit 10: Under current forwards vs. our forecast, we would see lower production and higher power demand bringing storage to very low levels by end-Oct-23**

Sum23 balance under forwards difference to balance under GS price forecast, Bcf/d



Source: Wood Mackenzie, EIA, Platts, Bloomberg, Goldman Sachs Global Investment Research

The structural power demand for natural gas in the US has been rising since 2010 driven by reductions in coal generation capacity (Figure 12).

Figure 12: Gas's Share of Thermal Generation (Source: EIA, via BofA)

**Exhibit 22: Gas' share of thermal generation**

Gas' share of thermal generation has been rising

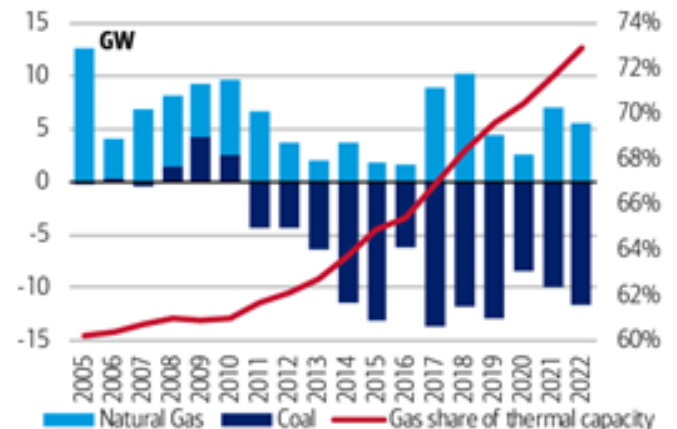


Source: EIA

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**Exhibit 23: US natural gas and coal capacity changes and gas % of thermal capacity**

Coal generation capacity losses help increase gas share of thermal capacity



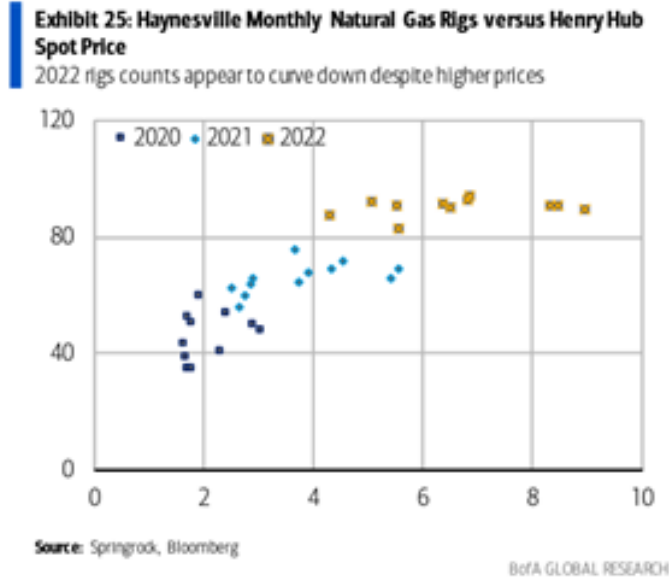
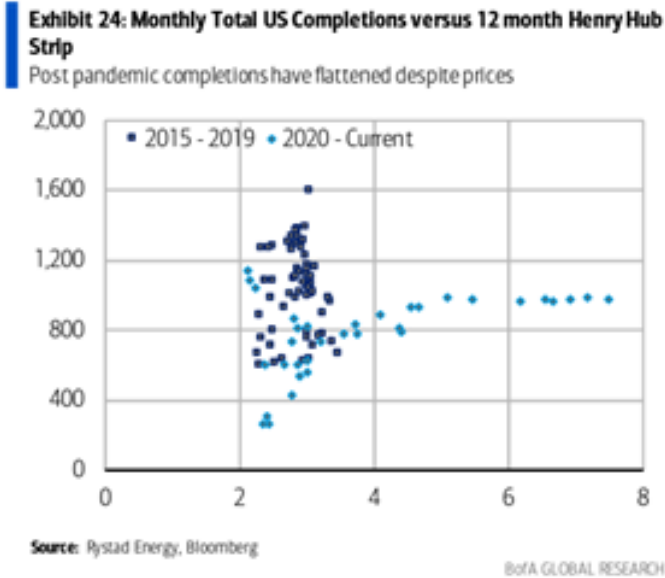
Source: EIA, BofA Global Research

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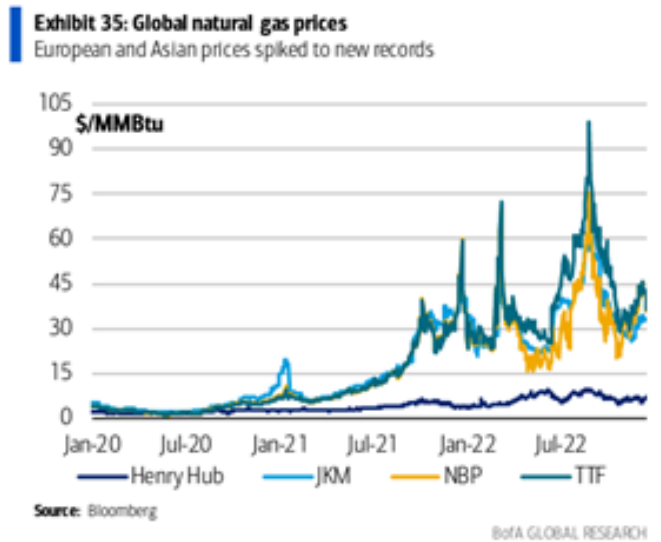
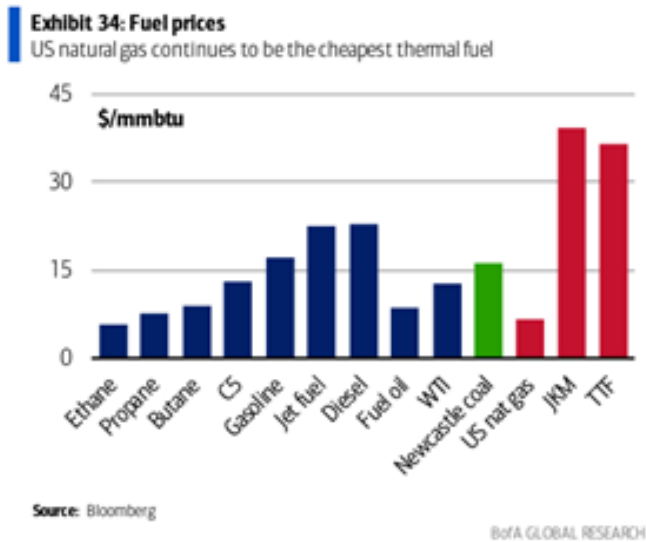
On the supply side, US natural gas production did not respond well to rising prices. This is visible across a range of metrics though in its simplest format LHS Figure 13 charts total US monthly well completions against the 12-month Henry Hub strip. The very different trajectories pre and post pandemic are evident. Looking at a specific basin, RHS Figure 13 shows a similar story, with the Haynesville rig count losing sensitivity to natural gas prices in the recent period compared to previous years.

Figure 13: Well Completions vs Henry Hub (Source: various, via BofA)



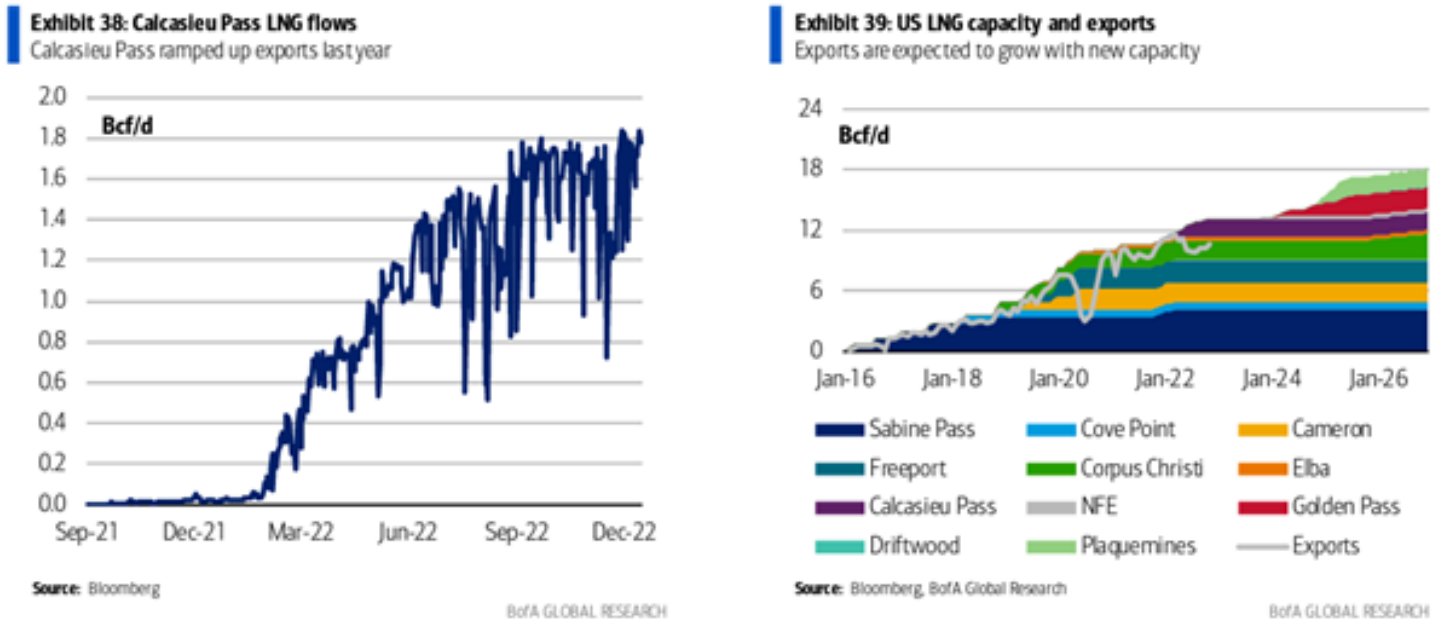
While natural gas is still relatively difficult to move out of North America, US natural gas is by far the cheapest thermal unit available across the freely traded thermal fuel spectrum (LHS Figure 14). With European and Asian prices spiking to record levels this year (RHS Figure 14), industrial consumers in the US and abroad will keep looking at Henry Hub.

Figure 14: Fuel and Global Gas Prices (Source: Bloomberg, via BofA)



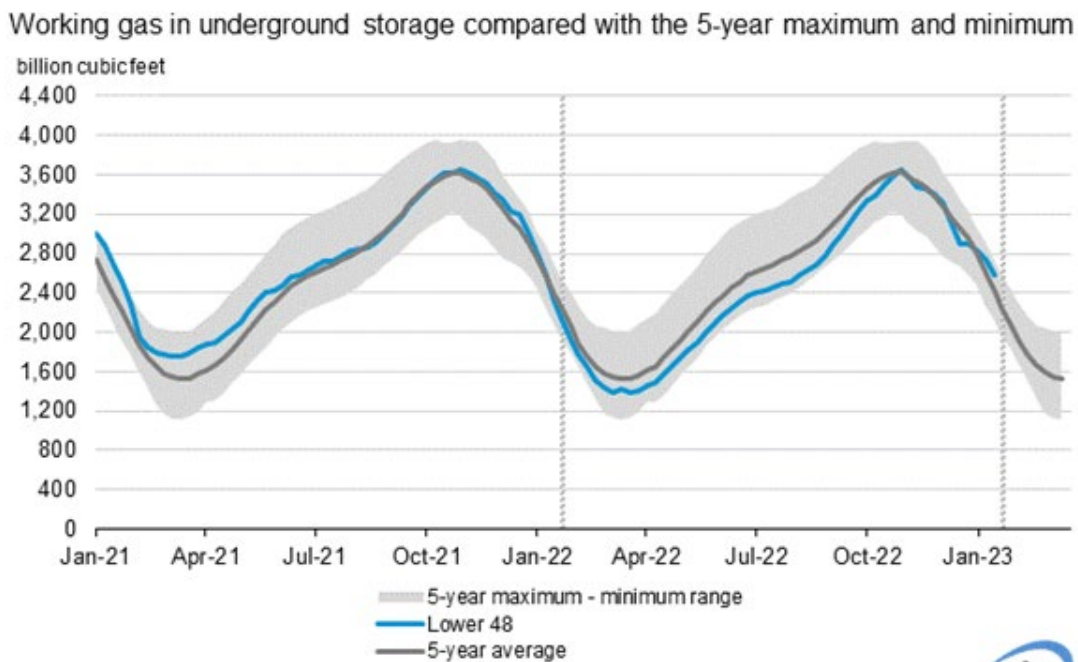
While the 2bcf/d Freeport LNG export facility has just received the first permissions to commence a restart of operations, a process that is likely to take some months to return to full capacity, the Calcasieu LNG facility ramped up to 1.8bcf/d from zero at the start of the year (LHS Figure 15). Should the rest of the LNG export capacity come on as planned, exports would increase to 17.5bcf/d by the end of 2025, or 6.8bcf/d over 2022's exports. In the absence of a significant decline in domestic demand, this means that higher prices will have to signal to producers that it is time to increase supplies.

Figure :15 Calcasieu and US Total LNG Exports (Source: various, via BofA)



Working gas in storage as of 27 January totalled 2,583 bcf, a decrease of 151 bcf from the previous week. Stocks were 222 bcf higher than last year at this time and 163 bcf above the 5-year average of 2,420 bcf. (Figure 16).

Figure 16: Change in Working Gas in Storage (Source: EIA)



Data source: U.S. Energy Information Administration  
 Note: The shaded area indicates the range between the historical minimum and maximum values for the weekly series from 2018 through 2022. The dashed vertical lines indicate current and year-ago weekly periods.

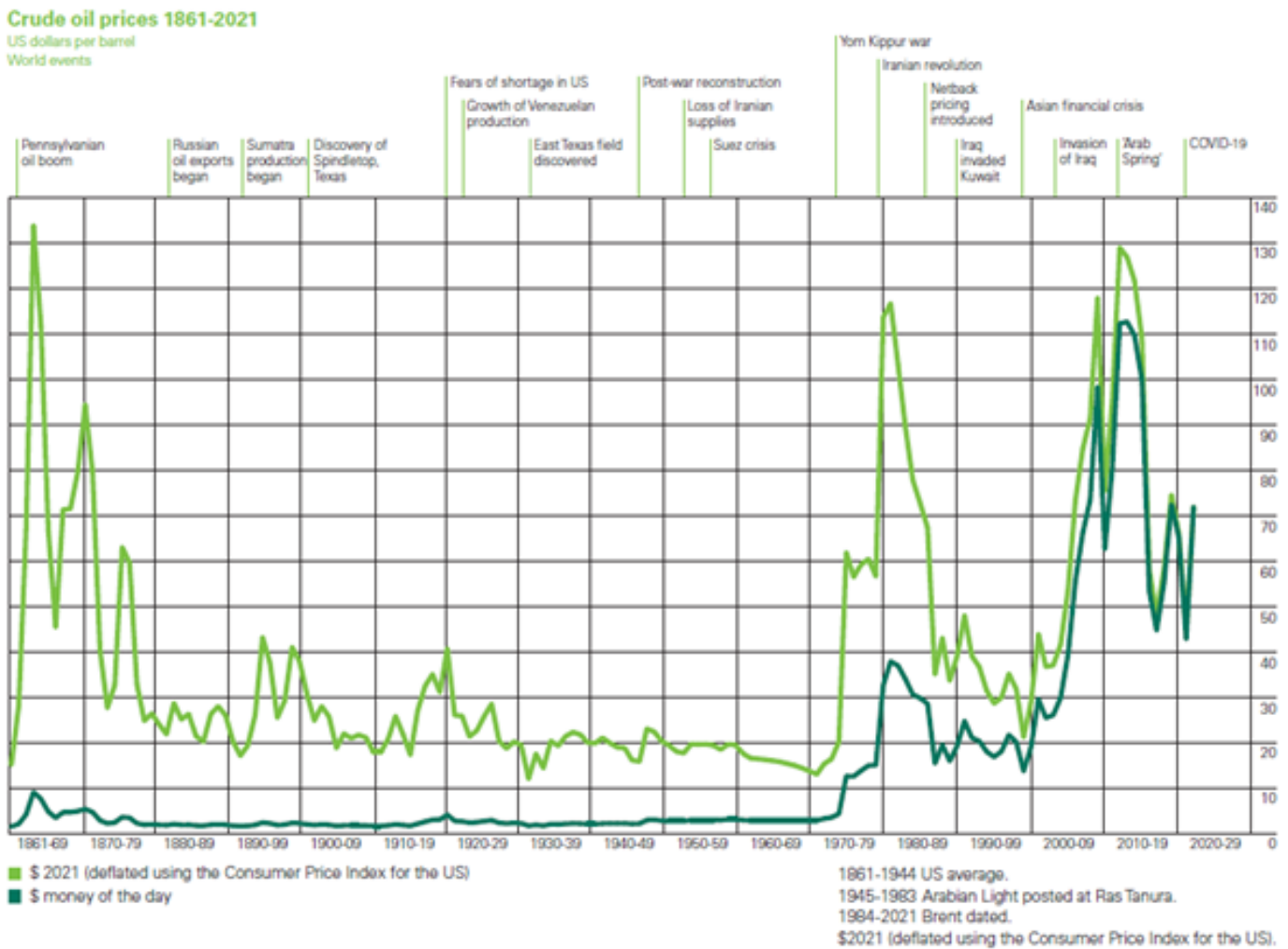


## Oil Market

Macro factors discussed at the start of this report are driving the oil market, with supply and demand tightly balanced. Downside risk comes from a serious recession while an economic soft landing, production dislocation from large producers including Russia, Iran and Nigeria and sharp recovery in Chinese oil demand could all, independently or collectively, drive prices higher.

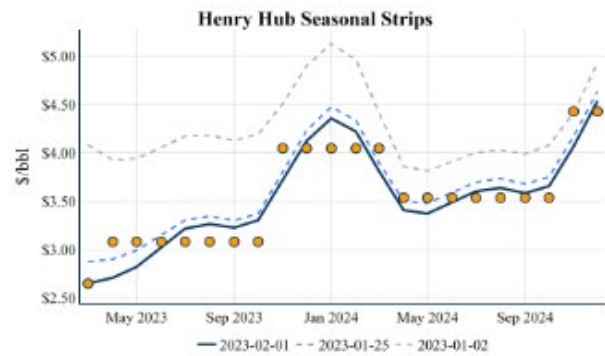
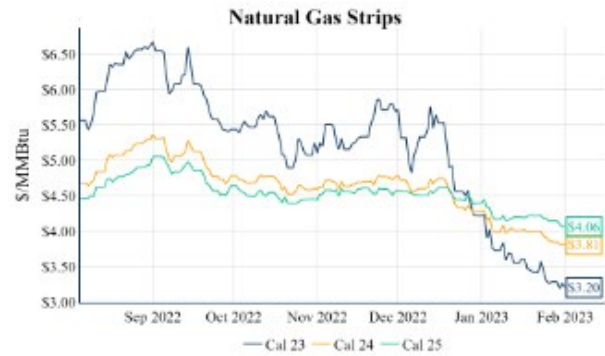
The history of the oil price, in money of the day and 2021 USD (Figure 16), highlights how volatile oil prices have become since the oil shock of the 1970's.

Figure 17: Crude Oil Prices 1861 to 2021 (Source: BP)





### Gas and Oil Prices 1 February 2023

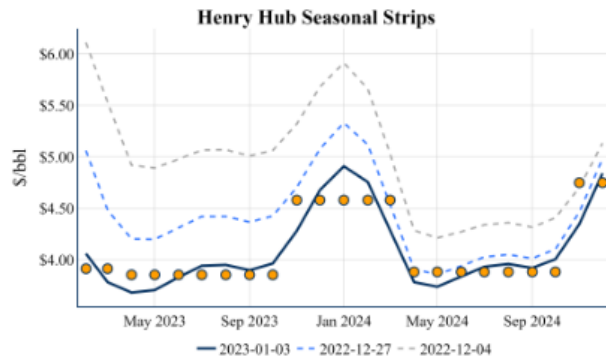
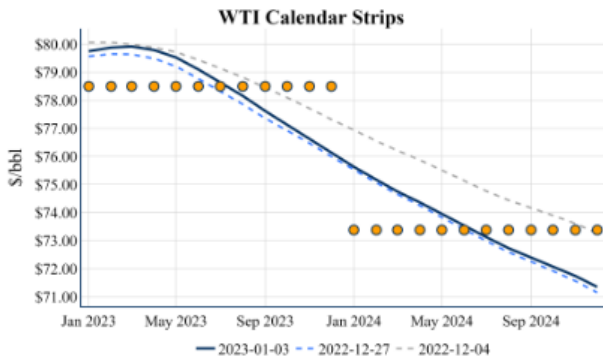
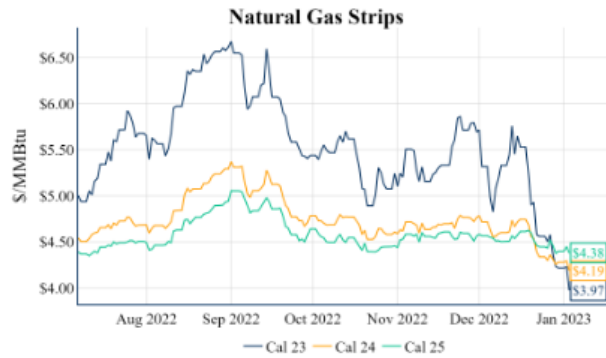
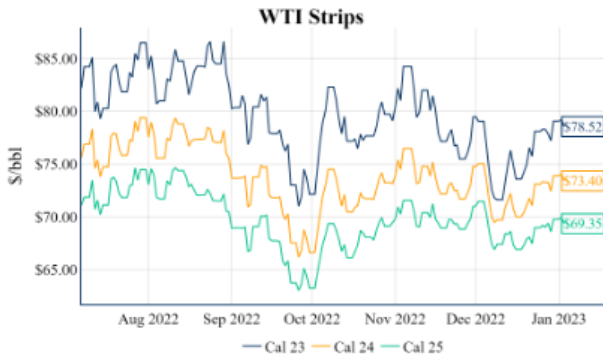


| Swap Pricing       | Cal 23  | Cal 24  | Cal 25  | Cal 26  |
|--------------------|---------|---------|---------|---------|
| NYMEX WTI          | \$78.47 | \$73.54 | \$69.36 | \$65.89 |
| ICE Brent          | \$83.46 | \$78.55 | \$74.72 | \$71.79 |
| L.L.S              | \$81.40 | \$76.29 | \$72.06 | \$68.62 |
| Mars               | \$75.90 | \$70.92 | \$66.92 | \$63.63 |
| West TX Sour (WTS) | \$77.83 | \$72.81 | \$67.95 | \$64.48 |

| Swap Pricing           | Month 1  | Winter 22/23 | Summer 23 | Winter 23/24 | Summer 24 |
|------------------------|----------|--------------|-----------|--------------|-----------|
| Henry Hub Fixed        | \$2.654  | \$2.654      | \$3.086   | \$4.045      | \$3.540   |
| Eastern Gas South      | -\$0.537 | -\$0.537     | -\$0.747  | -\$0.850     | -\$1.031  |
| Waha                   | -\$1.215 | -\$1.215     | -\$1.546  | -\$0.959     | -\$1.258  |
| TETCO M3               | \$0.118  | \$0.118      | -\$0.496  | \$2.300      | -\$1.003  |
| Houston Ship Channel   | -\$0.452 | -\$0.452     | -\$0.282  | -\$0.335     | -\$0.480  |
| Columbia Gulf Mainline | -\$0.256 | -\$0.256     | -\$0.276  | -\$0.380     | -\$0.297  |
| Panhandle East         | -\$0.205 | -\$0.205     | -\$0.265  | -\$0.091     | -\$0.723  |
| NGPL MidCon            | -\$0.195 | -\$0.195     | -\$0.241  | -\$0.162     | -\$0.589  |
| SoCal                  | \$0.621  | \$0.621      | \$1.489   | \$2.452      | \$0.454   |
| AECO                   | -\$0.260 | -\$0.260     | -\$0.919  | -\$1.225     | -\$1.165  |
| Chicago City-Gates     | \$0.038  | \$0.038      | \$0.069   | \$0.233      | -\$0.336  |



### Gas and Oil Prices 3 January 2023



| Swap Pricing       | Cal 23  | Cal 24  | Cal 25  | Cal 26  |
|--------------------|---------|---------|---------|---------|
| NYMEX WTI          | \$78.50 | \$73.38 | \$69.35 | \$66.18 |
| ICE Brent          | \$82.80 | \$77.70 | \$74.05 | \$71.32 |
| LLS                | \$79.83 | \$74.91 | \$71.48 | \$68.35 |
| Mars               | \$74.51 | \$70.86 | \$66.97 | \$63.96 |
| West TX Sour (WTS) | \$77.37 | \$72.51 | \$68.49 | \$65.31 |

| Swap Pricing           | Month 1  | Winter 22/23 | Summer 23 | Winter 23/24 | Summer 24 |
|------------------------|----------|--------------|-----------|--------------|-----------|
| Henry Hub Fixed        | \$4.083  | \$3.930      | \$3.865   | \$4.587      | \$3.894   |
| Eastern Gas South      | -\$0.861 | -\$0.761     | -\$1.107  | -\$0.796     | -\$1.180  |
| Waha                   | -\$0.873 | -\$1.927     | -\$2.963  | -\$1.219     | -\$2.477  |
| TETCO M3               | \$6.035  | \$3.240      | -\$0.881  | \$3.123      | -\$1.288  |
| Houston Ship Channel   | -\$0.252 | -\$0.486     | -\$0.535  | -\$0.454     | -\$0.658  |
| Columbia Gulf Mainline | -\$0.384 | -\$0.454     | -\$0.536  | -\$0.250     | -\$0.307  |
| Panhandle East         | \$0.789  | \$0.167      | -\$0.760  | -\$0.112     | -\$1.011  |
| NGPL MidCon            | \$0.499  | -\$0.024     | -\$0.708  | -\$0.236     | -\$0.772  |
| SoCal                  | \$14.461 | \$8.864      | \$1.221   | \$2.079      | \$0.404   |
| AECO                   | -\$0.860 | -\$0.880     | -\$1.687  | -\$1.435     | -\$1.415  |
| Chicago City-Gates     | \$0.843  | \$0.347      | -\$0.313  | \$0.352      | -\$0.400  |



## Important Disclaimer.

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