November 2023

FIRM INFORMATION

Investment Manager

Longreach Alternatives Ltd ABN 25 082 852 364 AFSL 246747

Sub-Advisor

Longreach Energy Holdings LLC Delaware registered #565928

KEY INVESTMENT PERSONNEL

Andrew Sinclair

Principal - Commercial Director

Thomas Wagenhofer

Principal - Technical Director

1.0 Market and Portfolio Commentary

1.1 Macro Industry Commentary

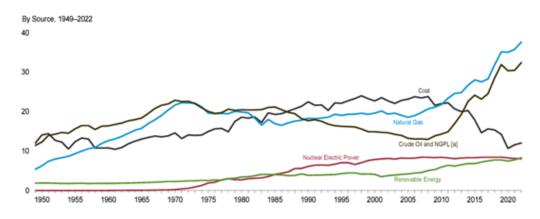
US Henry Hub prompt gas prices fell in November as temperatures remained relatively warm. The prompt was \$3.58/mmbtu at close on 31 October and finished at \$2.80/mmbtu at close on 30 November. Calendar 2024 also fell, beginning November at \$3.60/mmbtu and closing at \$2.97/mmbtu.

Oil prices fell. The prompt began November at \$81.02/bbl and closed the month at \$75.96/bbl. Calendar 2024 started the month at \$77.27/bbl and closed at \$74.86/bbl.

The EIA's November monthly energy review shows the steady climb of US natural gas and oil production and decline of coal (Figure 1). While percentage growth is strong, at this absolute scale renewables production remains relatively low.

Figure 1: US Primary Energy Production by Source 1949 - 2022 (Source: EIA)

Figure 1.2 Primary Energy Production
(Quadrillion Btu)



CONTACT US

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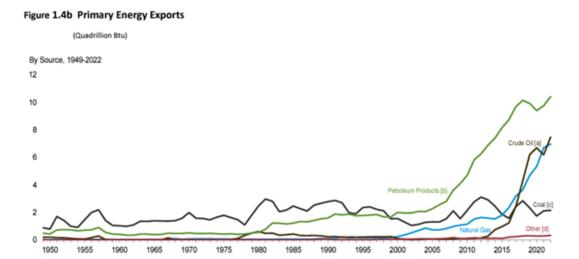
1 Margaret Street Sydney NSW 2000 **T**+61 2 9135 0428

client.services@longreachalternatives.com



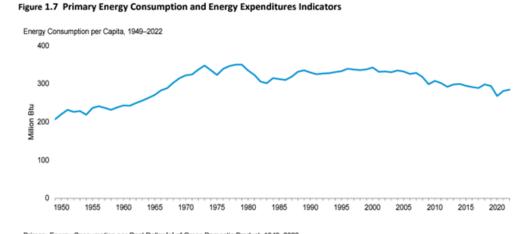
The rapid recent increase in US primary energy exports, notably petroleum products, natural gas and crude oil, is highlighted in Figure 2.

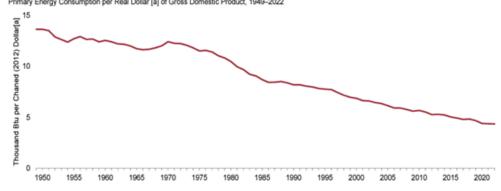
Figure 2: US Primary Energy Exports by Source 1949 - 2022 (Source: EIA)



US energy consumption per capita has steadily declined since the 1990's (Top, Figure 3). Strong domestic energy supply at low cost has allowed a marked decrease in primary energy consumption per real dollar of gross domestic product (Bottom, Figure 3). This energy supply provides a powerful advantage to the US as a base for industrial activity.

Figure 3: Primary Energy Consumption and Energy Expenditures Indicators (Source: EIA)

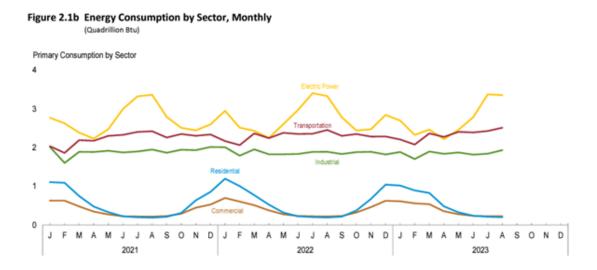






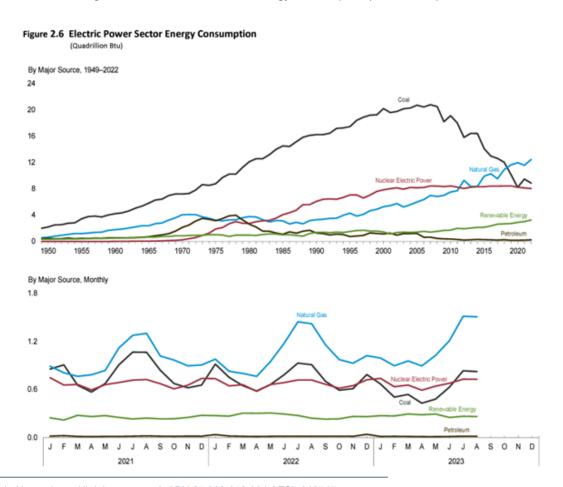
Energy consumption by sector is provided in Figure 4. Note the winter peaks for heating induced Residential and Commercial demand and summer peaks for cooling induced Electric Power.

Figure 4: Energy Consumption by Sector, Monthly (Source: EIA)



The essential role for natural gas, as coal declines as a source of electric power supply, is clear from Figure 5.

Figure 5: Electric Power Sector Energy Consumption (Source: EIA)





The latest Baker Hughes rig count data follows. In November US total land rigs rose, increasing by 9 from 594 to 603. Total oil rigs rose by 9 from 496 to 505 while gas rigs fell from 118 to 116.

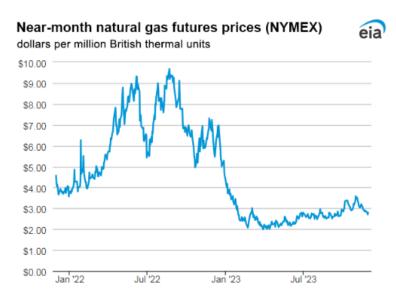
Rotary Rig Count 12/1/2023					Baker Hughes 🍃	
Location	Week	+/-	Week	+/-	Year	
				400	700	
Land	603	3	600	-160	763	
Inland Waters	1	0	1	-2	3	
Offshore	21	0_	21	3_	18	
United States Total	625	3	622	-159	784	
Gulf Of Mexico	19	0	19	2	17	
Canada	192	-5	197	-3	195	
North America	817	-2	819	-162	979	
U.S. Breakout Information	This Week	+/-	Last Week	+/-	Year Ago	
		_				
Oil	505	5	500	-122	627	
Gas	116	-1	117	-39	155	
Miscellaneous	4	-1	5	2	2	
Directional	54	-1	55	6	48	
Horizontal	559	5	554	-152	711	
Vertical	12	-1	13	-13	25	



Gas Market

In November prompt Henry Hub gas futures retreated below \$3.00/mmbtu (Figure 6).

Figure 6: Near Month Henry Hub Futures (Source: EIA)



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



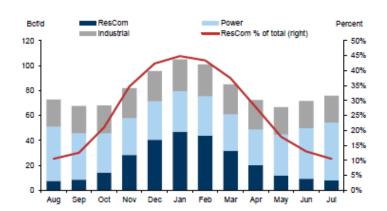
US natural gas balances have grappled with oversupply this year as a warm 1Q23 led to the accumulation of a large storage surplus. Gas prices declined, incentivising coal-to-gas switching in power generation and declines in producer drilling and completion activity narrowed the storage surplus.

Looking forward, temperatures in the coming winter will be the single most important factor determining the supply and demand balance for natural gas until the increase in LNG supply begins in 3Q24. Weather-sensitive heating demand makes up more than 40% of winter consumer demand (LHS Figure 7) and the range of possible weather outcomes for winter 23/24 is wide and uncertain, notwithstanding a relatively warm November (RHS Figure 7).

Figure 7: Winter Heating Demand (Source: various, via GS)

Exhibit 1: Weather-sensitive heating demand makes up more than 40% of winter consumer demand

Consumer demand (Bcf/d, left), and residential and commercial share (%, right)



Note: Values shown are temperature normalized realized demand from Aug-22 to Jul-2023.

Source: EIA, Earthsat, Goldman Sachs Global Investment Research

Exhibit 2: The range of possible weather outcomes is wide and uncertain

Cumulative HDD deviations from the 10-year average for winter seasons since 2012, # of HDDs



Source: Earthsat, Goldman Sachs Global Investment Research

After strong growth in 2023 US natural gas production is not expected to increase in 2024 (LHS Figure 8). A slowdown of drilling and completion activity in the Haynesville basin will be important in slowing supply growth (RHS Figure 8).

Figure 8: US Natural Gas Production and Haynesville Rig Count (Source: various via GS)

Exhibit 5: We expect US gas production virtually flat yoy in 2024, after strong growth in 2023...

US natural gas production (GSe from Nov23), Bcf/d



Source: Wood Mackenzie, Goldman Sachs Global Investment Research

Exhibit 6: ...helped by lower producer activity at the Haynesville basin

Haynesville rig count (# of rigs, left) and NYMEX gas 1-year futures strip price (\$/mmBtu, right)



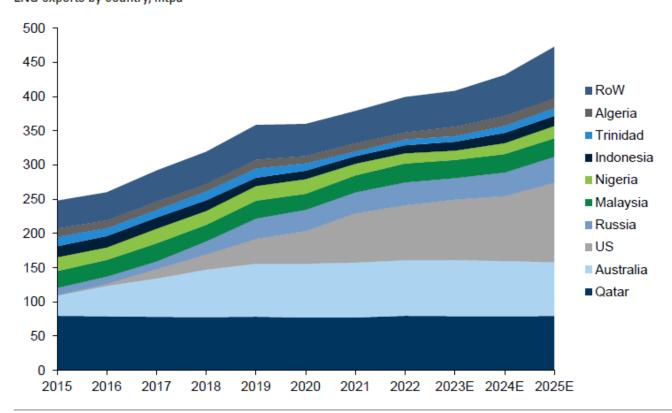
Source: Baker Hughes, CME, Goldman Sachs Global Investment Research



The US has been responsible for substantially all global LNG supply growth since 2018 (Figure 9).

Figure 9: LNG Exports by Country, mtpa (Source: Kpler, via GS)

Exhibit 3: The US has become the largest LNG exporter in the world LNG exports by country, mtpa

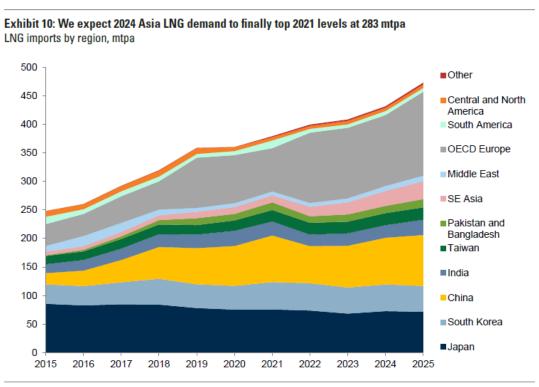


Source: Kpler, Goldman Sachs Global Investment Research



LNG demand growth has been led by OECD Europe with Asian demand expected to exceed pre-Covid levels in 2024 (Figure 10).

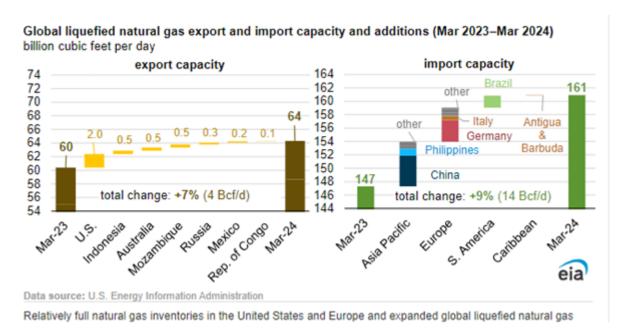
Figure 10: LNG Imports by Regio (Source: Kpler, via GS)



Source: Kpler, Goldman Sachs Global Investment Research

Global LNG export and import capacity changes in the 12-months to March 2024 are provided in Figure 11. Import capacity continues to grow faster than does export.

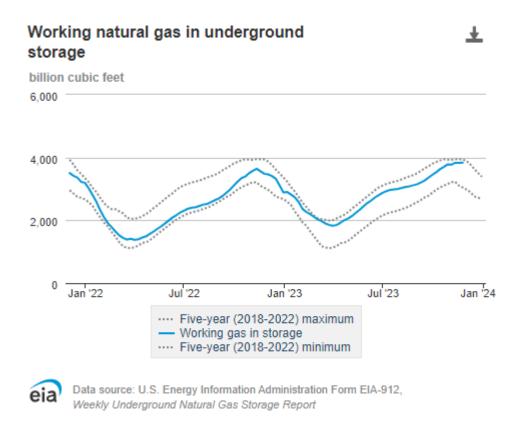
Figure 11: Global LNG Export and Import Capacity Additions Mar 23 to Mar 24 (Source: EIA)





Net injections into storage totalled 10bcf for the week ending 24 November, compared to the five-year (2018-2022) average net withdrawals of 44bcf and last year's net withdrawals of 80bcf during the same week. Working natural gas stocks now total 3,836bcf, which is 303bcf (9%) more than the five-year average and 341bcf (10%) more than last year at this time (Figure 12).

Figure 12: US Lower 48 Weekly Working Gas in Underground Storage (Source: EIA)





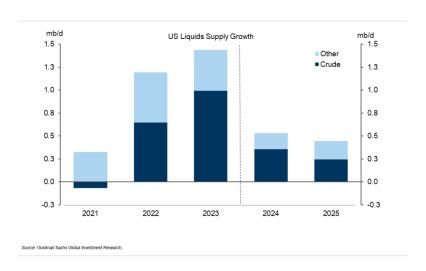
Oil Market

While renewed fears of lower global economic growth have contributed to the sell-off in oil prices over the last month, oil demand has been strong in 2023 and is likely to remain solid in 2024 on robust services activity.

As discussed in the October Report, the US has provided all the growth in global oil supply over the previous decade. This supply growth is now slowing (Figure 13).

Figure 13: US Liquids Supply Growth (Source: GS)

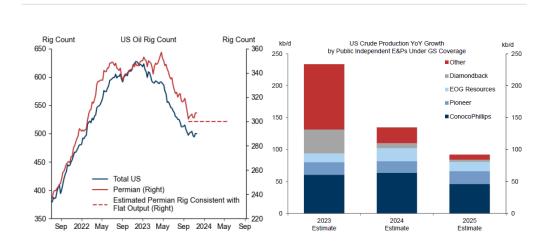




The lower growth is driven by falling rig-count, capital discipline and some reduction in new well performance (Figure 14).

Figure 14: US Oil Rig Count and YoY Oil Production Growth (Source: various, via GS)

Goldman Sachs ... on Falling Rigs, Company Guidance, Capital Discipline



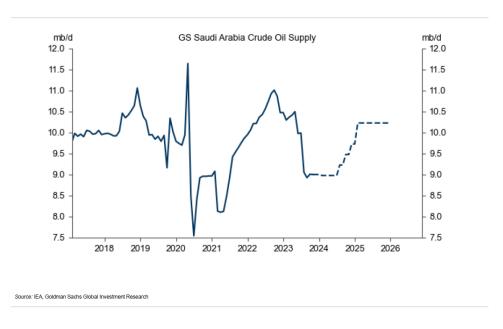
Source: Goldman Sachs Global Investment Research, EIA, Genscape, Baker Hughes, Haver Analytics



OPEC, led by Saudi Arabia, is likely to keep its supply of oil lower for longer (Figure 15).

Figure 15: GS Saudi Arabia Crude Oil Supply (Source: GS)

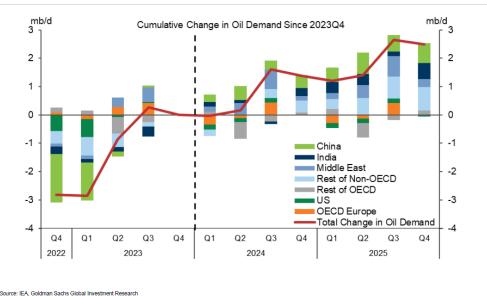
OPEC Supply: Lower For Longer



Solid global oil demand growth has been driven by growth in global GDP and structural demand growth in emerging markets, led by the services sector (Figure 16).

Figure 16: Cumulative Change in Oil Demand Since 4Q2023 (Source: IEA, via GS)

Solid Demand Growth: Solid GDP Growth, Structural EM Increases...

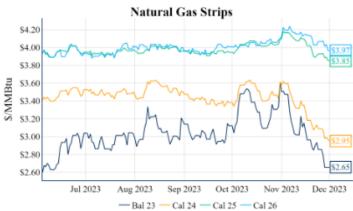


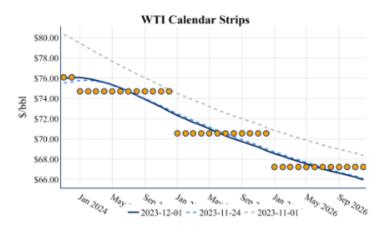
Source: IEA, Goldman Sachs Global Investment Research

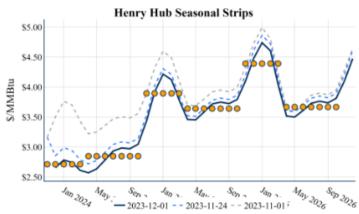


Gas and Oil Prices 1 December 2023









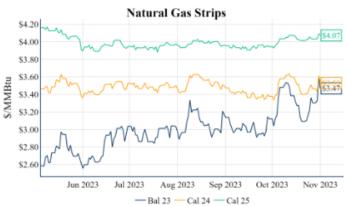
Swap Pricing	Bal 23	Cal 24	Cal 25	Cal 26
NYMEX WTI	\$76.09	\$74.70	\$70.56	\$67.23
ICE Brent	\$80.81	\$78.85	\$75.17	\$72.35
LLS	\$79.03	\$77.17	\$72.60	\$69.93
Mars	\$76.59	\$74.37	\$69.88	\$65.48
West TX Sour (WTS)	\$76.44	\$74.52	\$70.13	\$66.73
Dubai	\$80.99	\$78.29	S74.37	\$71.76
Dated Brent	\$0.00	\$78.97	\$75.29	\$72.42
WCS-WTI	-\$22.93	-\$15.67	-\$15.39	\$0.00

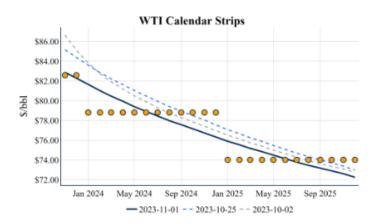
Swap Pricing	Month 1	Winter 23/24	Summer 24	Winter 24/25	Summer 25
Henry Hub Fixed	\$2.799	\$3.653	\$2.719	\$2.857	\$3.892
Eastern Gas South	-\$0.680	-\$1.211	-\$0.631	-\$1.073	-\$0.834
Waha	-\$0.040	-\$0.890	-\$0.387	-S0.994	-\$0.491
TETCO M3	\$2.608	-\$1.055	\$1.425	-S0.923	\$0.865
Houston Ship Channel	\$0.285	-\$0.295	\$0.107	-\$0.328	-\$0.094
Columbia Gulf Mainline	-\$0.260	-\$0.272	-\$0.262	-\$0.268	-\$0.255
Panhandle East	\$0.400	-\$0.481	\$0.162	-S0.444	\$0.082
NGPL MidCon	\$0.296	-\$0.461	\$0.112	-\$0.408	-\$0.041
SoCal	\$2.450	\$0.596	\$1.684	\$0.750	\$2.020
AECO	-\$0.870	-\$1.114	-\$0.847	-\$1.170	-\$1.177
Chicago City-Gates	\$0.590	-\$0.287	\$0.380	-S0.230	\$0.289

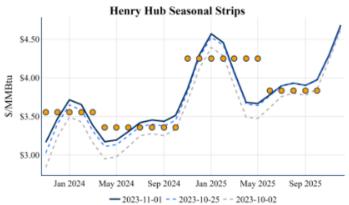


Gas and Oil Prices 1 November 2023









Swap Pricing	Bal 23	Cal 24	Cal 25	Cal 26
NYMEX WTI	\$82.61	\$78.81	\$74.02	\$70.58
ICE Brent	\$86.60	\$83.00	\$78.63	\$75.54
LLS	\$84.79	\$81.10	\$76.62	\$73.33
Mars	\$81.89	\$78.19	\$71.62	\$68.38
West TX Sour (WTS)	\$81.42	\$78.03	\$73.35	\$70.08

Swap Pricing	Month 1	Summer 25	Winter 23/24	Summer 24	Winter 24/25
Henry Hub Fixed	\$3.472	\$3.840	\$3.555	\$3.359	\$4.246
Eastern Gas South	-\$0.921	-\$1.196	-\$0.754	-\$1.091	-\$0.882
Waha	-\$0.504	-\$0.766	-\$0.212	-S0.894	-\$0.336
TETCO M3	\$0.899	-\$1.016	\$1.982	-S0.924	\$0.995
Houston Ship Channel	-\$0.273	-\$0.339	\$0.057	-80.355	-\$0.087
Columbia Gulf Mainline	-\$0.294	-\$0.257	-\$0.240	-S0.288	-\$0.244
Panhandle East	\$0.032	-\$0.464	\$0.307	-\$0.458	\$0.113
NGPL MidCon	-\$0.004	-\$0.382	\$0.238	-\$0.367	\$0.068
SoCal	\$4.820	\$0.679	\$3.578	\$0.951	\$2.513
AECO	-\$1.205	-\$1.120	-\$1.242	-\$1.359	-\$1.281
Chicago City-Gates	\$0.307	-\$0.256	\$0.508	-S0.230	\$0.326



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