

# Longreach Energy Investments LLC

## June 2019 Report

### Market and Portfolio Commentary

#### 1.1 Macro Industry Commentary

##### General Market Commentary

BP released its annual Global Energy Market Review during the month. The report observed that energy consumption grew 2.9 per cent in 2018, led by China and US, despite modest economic growth and strengthening oil and gas prices. The introduction noted:

*The strength in energy consumption was reflected across all the fuels, many of which grew more strongly than their recent historical averages. This acceleration was particularly pronounced for natural gas, which grew at one of its fastest rates for over 30 years, accounting for over 40% of the growth in primary energy. On the supply side, the data for 2018 reinforced the central importance of the US shale revolution. Remarkably, the US recorded the largest ever annual increases by any country in both oil and natural gas production last year, with the vast majority of both increases coming from onshore shale plays.*

A summary of key observations:

##### *Energy developments*

- Primary energy grew at 2.9% in 2018, almost double the 10-year average of 1.5% per year, and the fastest since 2010.
- China, the US and India together accounted for more than two thirds of global increase in energy demand, with US consumption expanding at its fastest rate for 30 years.

##### *Natural Gas*

- Natural gas consumption rose by 195 billion cubic metres (bcm, 6.89 trillion cubic feet), one of the fastest rates of growth since 1984.
- Growth in gas consumption was driven mainly by the US (78 bcm), supported by China (43 bcm), Russia (23 bcm) and Iran (16 bcm).
- Global natural gas production increased by 190 bcm, or 5.2%. Almost half of this came from the US (86 bcm), which (as with oil production) recorded the largest annual growth seen by any country in history. Russia (34 bcm), Iran (19 bcm) and Australia (17 bcm) were the next largest contributors to growth.
- Global inter-regional natural gas trade was 39 bcm or 4.3%, more than double the 10-year average, driven largely by continuing rapid expansion in liquified natural gas (LNG).
- LNG supply growth came mainly from Australia (15 bcm), the US (11 bcm) and Russia (9 bcm). China accounted for around half of the increase in imports (12 bcm).
- Expansion of gas consumption within the US power sector was boosted by almost 15 gigawatts of coal-fired generation capacity being retired in 2018.

- China gas consumption grew by an astonishing 18% last year. This strength stemmed largely from continuation of environmental policies encouraging coal-to-gas switching in industry and buildings to improve local air quality, together with robust growth in industrial activity during the first half of the year.

#### Oil

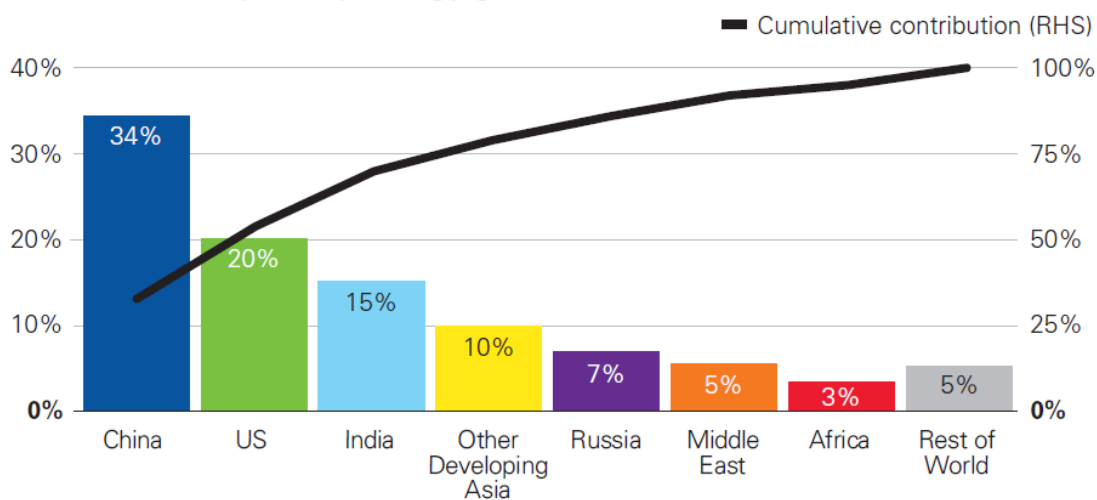
- The annual average oil price (Dated Brent) rose to \$71.31 per barrel, up from \$54.19/barrel in 2017.
- Oil consumption grew by an above-average 1.4 million barrels per day (bbl/d), of 1.5%. China (689,000 bbl/d) and the US (500,000 bbl/d) were the largest contributors to growth.
- Global oil production rose by 2.2 million bbl/d. Almost all of the net increase was accounted for by the US, with their growth in production (2.2 million bbl/d) a record for any country in any year. Elsewhere, production growth in Canada (410,000 bbl/d) and Saudi Arabia (390,000 bbl/d) was outweighed by declines in Venezuela (-580,000 bbl/d) and Iran (-310,000 bbl/d).

Figure 1 shows contributions to primary energy demand growth in 2018.

Figure 1: Primary Energy 2018 (source BP)

### Primary energy

#### Contribution to primary energy growth in 2018



Contributions shown do not sum to 100% due to rounding

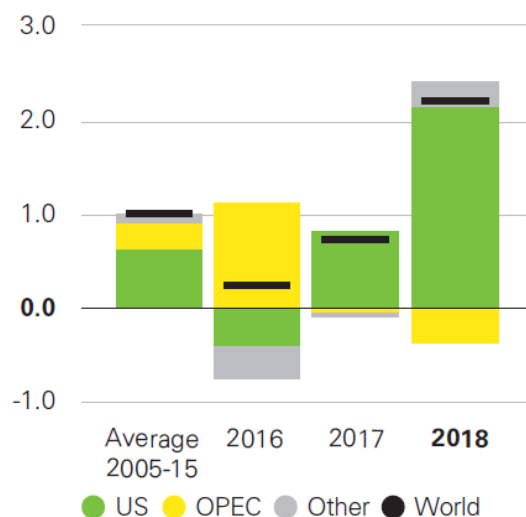
Figure 2 shows oil production data.

Figure 2: Oil Production 2018 (source BP)

## Oil production

### Global oil production

Annual change, Mb/d



### Largest annual increases in oil production

Mb/d

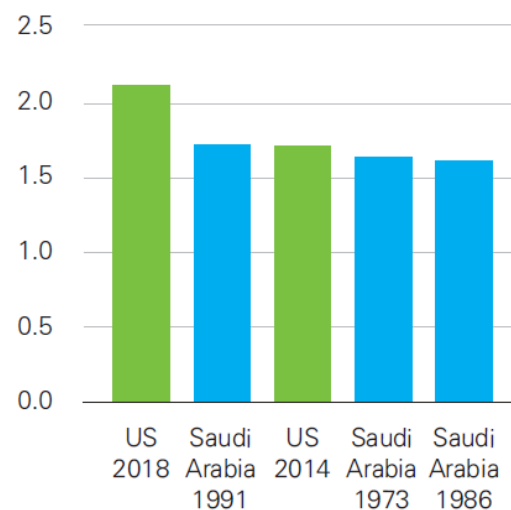


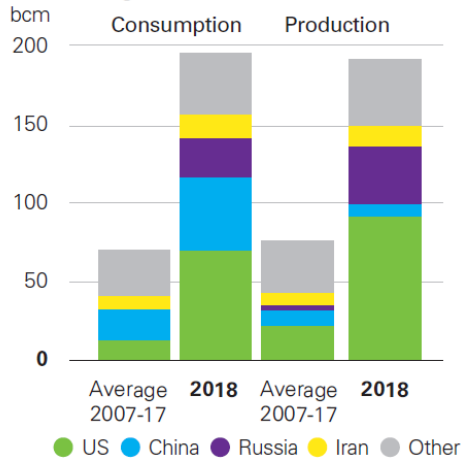
Figure 3 shows natural gas production data and Figure 4 shows contributions to growth in power generation.

Figure 3: Natural Gas Production 2018 (source BP)

## Natural gas

### Consumption and production growth

Annual change, bcm



### Largest annual increases in gas production

bcm

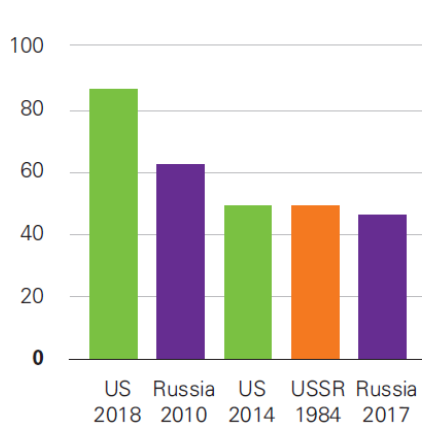
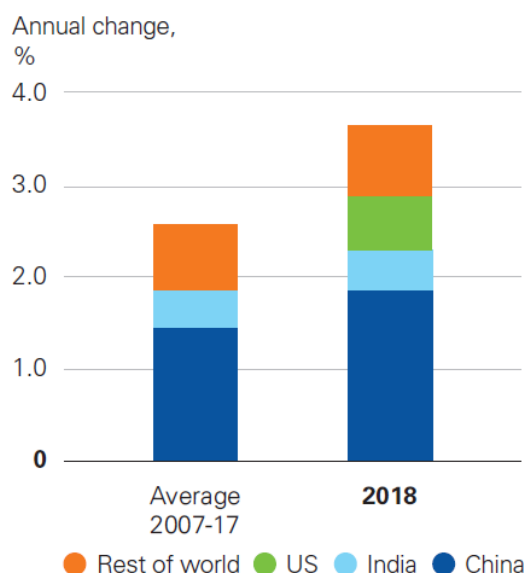


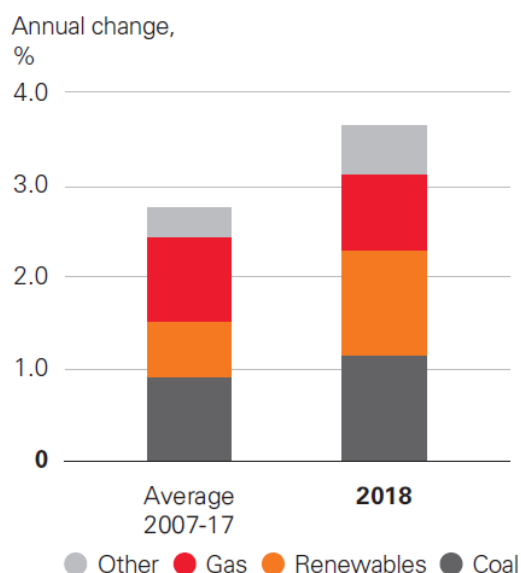
Figure 4: Growth in Power Generation 2018 (source BP)

### Growth in power generation

#### Contributions by region

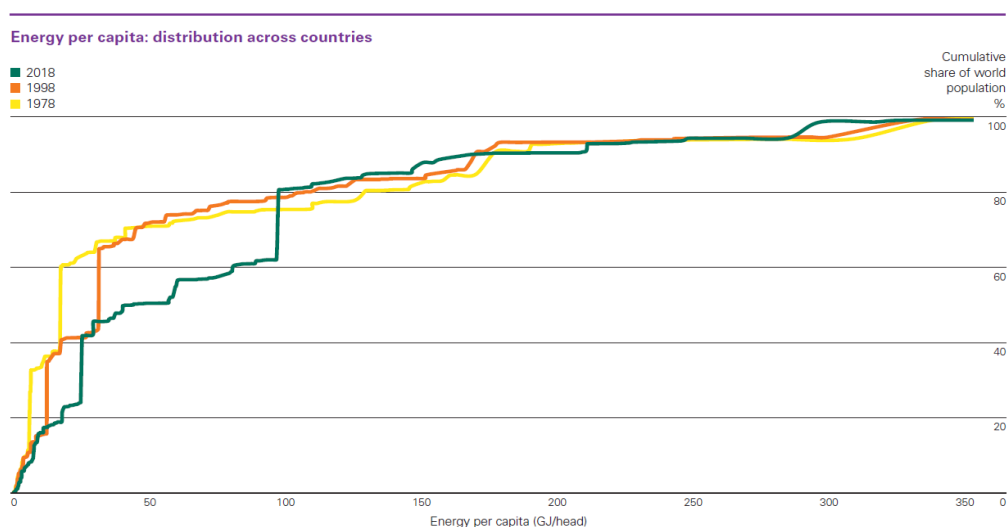


#### Contributions by fuel



We have previously commented on the distribution of energy availability per capita. Over 80% of the world's population live in societies that are unable to supply the 100 gigajoules of energy per capita that is, according to World Bank studies, a threshold for significant improvement in human quality of life. Figure 5 has comparative data for 2018, 1998 and 1978. In 2018 81% of the global population lived in countries where average energy demand per capita was under 100 GJ/head.

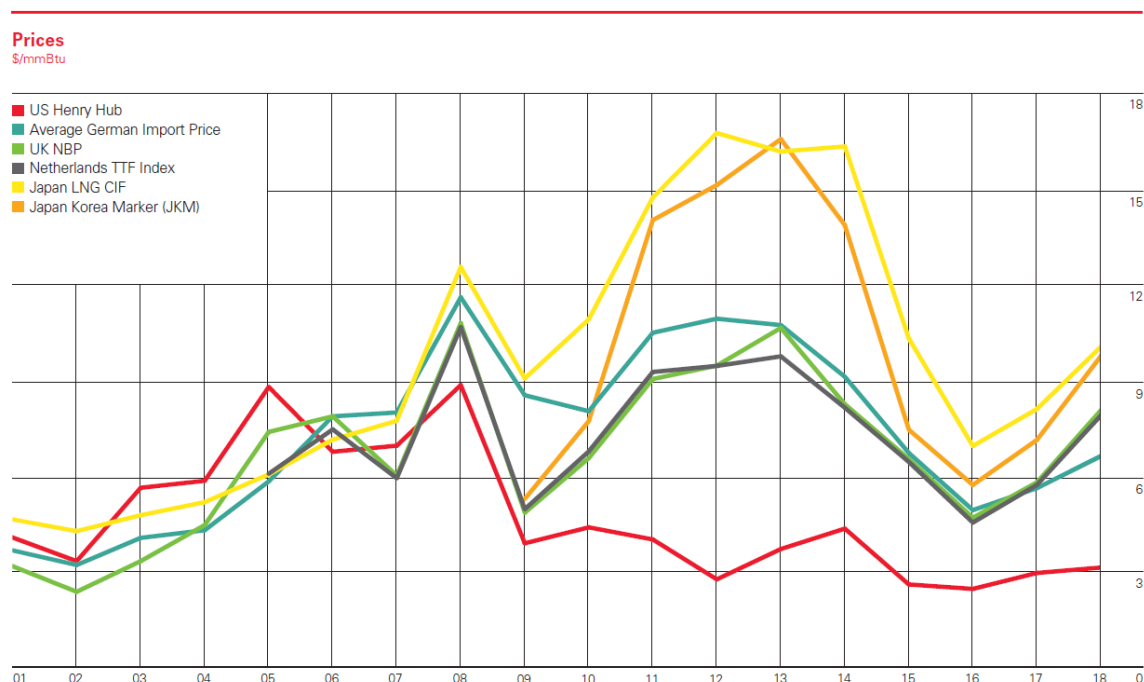
Figure 5: Energy Per Capita (source BP)



In 2018, 81% of the global population lived in countries where average energy demand per capita was less than 100 GJ/head, two percentage points more than 20 years ago. However, the share of the global population consuming less than 75 GJ/head declined from 76% in 1998 to 57% last year. Average energy demand per capita in China increased from 17 GJ/head in 1978 to 97 GJ/head in 2018.

BP has also updated global gas prices, these are shown in Figure 6. Gas prices at Henry Hub remain lower than those everywhere else in the world. This continues to support LEI's convergence strategy as US LNG exports increase.

Figure 5: Energy Per Capita (source BP)



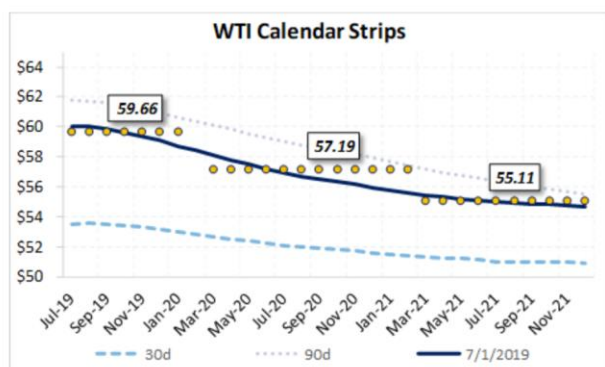
## Gas Market

Gas prices remain depressed with mild weather forecast for July having reduced expected gas demand for air conditioning, particularly across the south.

## Oil Market

Fears of potential conflict between the US and Iran, after a suspected attack on two oil tankers in the Strait of Hormuz and in the Gulf of Oman near Iran followed by the shooting down by Iran of a US drone, drove the increase in oil prices over the month. More than 20% of the world's oil output comes from the Middle East and any conflict between Iran and the US / Saudi Arabia would likely see, at least in the near term, a significant increase in oil prices.

## Gas and Oil Prices 1 July 2019

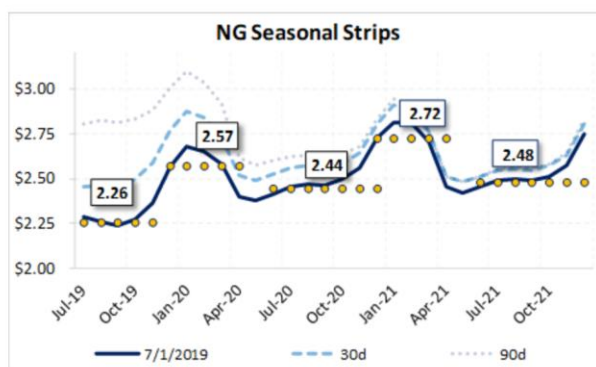


## Swap Pricing

		Bal 19	Cal 20	Cal 21	Cal 22
NYMEX WTI Crude	\$	59.66	\$ 57.19	\$ 55.11	\$ 54.43
ICE Brent Crude	\$	65.53	\$ 63.47	\$ 61.70	\$ 61.04
Louisiana Light Sweet	\$	63.60	\$ 60.80	\$ 57.79	\$ 57.13
TM Midland Differential	\$	0.24	\$ 0.70	\$ 0.95	
NYMEX Natural Gas	\$	2.34	\$ 2.52	\$ 2.58	\$ 2.60

Source: Bloomberg LP

Note: Midland diff changed to TM computation Oct 1. All prices indicative only.

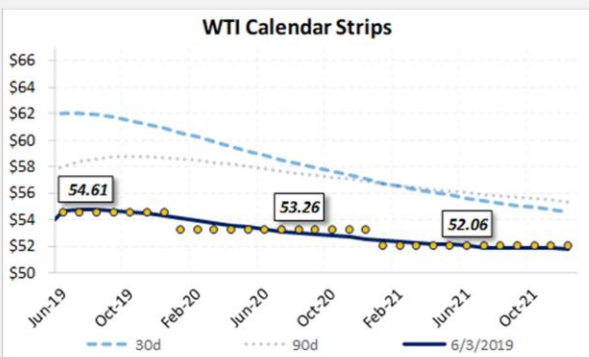


## Natural Gas Basis

Location	Spot	Summer '19	Winter '19/'20	Summer '20
Henry Hub Fixed	\$ 2.42	\$ 2.30	\$ 2.60	\$ 2.45
MichCon	\$ (0.29)	\$ (0.25)	\$ (0.16)	\$ (0.20)
TETCO M3	\$ (0.36)	\$ (0.36)	\$ 1.13	\$ (0.35)
Dominion S	\$ (0.41)	\$ (0.47)	\$ (0.34)	\$ (0.47)
TETCO M2	\$ (0.44)	\$ (0.49)	\$ (0.34)	\$ (0.51)
NGPL-Midcon	\$ (0.61)	\$ (0.61)	\$ (0.34)	\$ (0.42)
CIG	\$ (0.65)	\$ (0.61)	\$ (0.46)	\$ (0.67)
Waha	\$ (2.54)	\$ (1.21)	\$ (0.77)	\$ (1.40)

All prices as of close yesterday

## Gas and Oil Prices 3 June 2019



## Swap Pricing

		Bal 19	Cal 20	Cal 21	Cal 22
NYMEX WTI Crude	\$	54.61	\$ 53.26	\$ 52.06	\$ 51.69
ICE Brent Crude	\$	61.46	\$ 59.93	\$ 58.95	\$ 58.72
Louisiana Light Sweet	\$	59.99	\$ 57.12	\$ 54.94	\$ 54.57
TM Midland Differential	\$	0.20	\$ 0.60	\$ 0.83	
NYMEX Natural Gas	\$	2.52	\$ 2.63	\$ 2.64	\$ 2.65

Source: Bloomberg LP

Note: Midland diff changed to TM computation Oct 1. All prices indicative only.



## Natural Gas Basis

Location	Spot	Summer '19	Winter '19/'20	Summer '20
Henry Hub Fixed	\$ 2.54	\$ 2.47	\$ 2.76	\$ 2.54
MichCon	\$ (0.28)	\$ (0.26)	\$ (0.17)	\$ (0.21)
TETCO M3	\$ (0.42)	\$ (0.39)	\$ 1.21	\$ (0.38)
Dominion S	\$ (0.44)	\$ (0.49)	\$ (0.36)	\$ (0.49)
TETCO M2	\$ (0.51)	\$ (0.53)	\$ (0.37)	\$ (0.53)
NGPL-Midcon	\$ (1.35)	\$ (0.63)	\$ (0.37)	\$ (0.44)
CIG	\$ (1.49)	\$ (0.58)	\$ (0.47)	\$ (0.69)
Waha	\$ (2.91)	\$ (1.45)	\$ (0.81)	\$ (1.46)

All prices as of close yesterday

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