



EYE ON ENERGY

## G. Allen Brooks

Allen Brooks is Managing Director of energy services investment firm PPHB in Houston. His fortnightly "Musings From the Oil Patch" is among the most widely read newsletters in the industry.



# MIXED EXPECTATIONS

**WILL THE NEXT TEN YEARS BRING SOME RELIEF TO THE BATTERED OIL AND GAS INDUSTRY OR JUST MORE OF THE SAME?**

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elcome to a new decade! The 2020s promise significant changes for both the global energy business and marine transportation. Just how momentous these changes will be is anyone's guess.

Will the next ten years bring more of the same for energy – price volatility, environmental challenges, cyclical business conditions, but steady demand growth? Or will they see a peak, and subsequent decline, in the use of oil and natural gas?

The inability to provide a clear answer reflects the absence of many long-term energy forecasts. There are forecasts from so-called "experts," of course, but with agendas either for or against fossil fuel use. There are, however, certain fundamental trends that will shape the global economy and society for the next decade and, in turn, impact energy consumption.

The world will add 1.2 billion more humans, reaching 8.5 billion by 2030. India will overtake China as the world's most populous country around 2027. By 2050, there will be 9.7 billion people in the world, according to

the U.N., with more than half the population growth coming from nine countries: India, Nigeria, Pakistan, the Democratic Republic of the Congo, Ethiopia, Tanzania, Indonesia, Egypt and the U.S. (yes, the U.S.!), meaning more mouths to feed and more energy to burn.

Contrarily, we also have aging populations who consume less energy. So which is it? Such conflicting trends challenge forecasts, which will likely be wrong. We just don't know how wrong, or in which direction.

### **VOLATILITY**

On New Year's Eve a crystal ball descends in New York City's Times Square, setting off a wild celebration. People are happy to put the past year in the rearview mirror. Whether their memories of it are good or bad is immaterial. Putting them behind is the key. Expectations for the new year are

uniformly optimistic. Nobody would be celebrating a bad future. Except maybe energy experts.

For the energy industry, every year brings highs and lows. How companies perform depends on how prepared they are for volatility. Over the past ten years the spread between low and high oil prices ranged from 10 to 30 percent in half of them. In two of the years the spread was between 40 and 50 percent. But for three consecutive years, 2014-2016, the annual price spread was between 70 and 80 percent!

Not surprisingly, few companies were ready for, or could adjust fast enough to, that kind of volatility. More importantly, volatility in the past two years was in the 40 percent range, extending the turmoil of those earlier years. With five of the past six years experiencing extreme oil price volatility, the industry's fortunes have been decimated by the resulting impact on company cash

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flows – the lifeblood of the business.

## CRUDE SURPRISES

If we step back and consider the past decade, it's amazing how the energy business changed. In fact, we cannot find any forecast that foresaw such changes.

At the end of 2009, WTI was \$74.30 per barrel. Ten years later, it was only \$61.14. The 2009 price reflected a rebound from the effects of the 2008 financial crisis. Oil prices returned to \$100-plus territory. When a growing glut forced Saudi Arabia to act to recapture its lost market share, it meant abandoning support for OPEC's pricing strategy, leading to sharply lower oil prices.

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In the U.S., between 2009 and 2019, crude oil production grew from 5.5 to 13 million barrels per day, more than doubling. The supply surge prompted the industry to push legislators to revoke the law against U.S. oil exports. With oil output growing, exports rose from virtually nothing to 3.5 million barrels per day by the end of 2019.

What happened in the U.S. was mirrored globally as world oil output grew by 40 percent between 2009 and 2019, increasing from 72 to 100 million barrels per day. Meanwhile, global oil demand during the decade slowed in response to high prices.

## GROWTH IN NATURAL GAS

In the U.S., crude oil's growth was duplicated by natural gas. Gas production increased from 71 billion cubic feet per day to nearly 103 billion at the end of 2019. As with oil, federal policy shifted, allowing gas exports worldwide. Equally important, the explosion in natural gas output cut gas prices in half – from \$4.66 per thousand cubic feet at the end of 2009 to \$2.22 this past year-end.

The emergence of the shale gas revolution in the 2000s and the technology's refocus on crude oil created the surge in hydrocarbon output. What industry executives in 2010 failed to appreciate was how dramatically shale drilling tech-

nology would boost hydrocarbon production.

Fundamentally, the U.S. energy picture went from one envisioning ever-growing crude oil and natural gas imports to one in which the nation satisfied almost all its hydrocarbon needs while also becoming a significant exporter. That dynamic extended America's dominance into global oil and gas markets, in some cases upending them. Global natural gas prices today are sharply lower while more U.S. light oil output is helping the refining industry meet the global shipping industry's need for IMO 2020 low-sulfur fuel.

No one foresaw these possibilities when they contemplated energy's outlook for the 2010s.

## THE DECADE AHEAD

Given the experience of a transformative decade, what should we expect in the next ten years?

Key issues affecting energy's outlook include (1) peak oil demand and (2) investor pressure on oil and gas producers to live within their cash flows while sustaining production and returning surplus cash to shareholders.

Until producers embrace capital discipline and demonstrate that it's their new DNA, Wall Street and investors will shun energy stocks. While a few companies with favorable capital discipline records will be considered "investable," most will be ignored.

As a result, falling stock prices are reducing energy companies' market capitalizations, further lessening their attractiveness for investment due to a lack of liquidity. Today, the energy sector's weighting in the Standard & Poor's 500 Stock Index sits at 4.3 percent – the lowest in over 40 years. It fell below 10 percent during the second half of 2014 when oil prices broke below \$100 a barrel. Since then, it's sunk even lower as greater supply dwarfed demand and drove down prices, destroying profitability.

Potentially greater challenges await as climate change undercuts fossil fuel demand and political pressures restrict its use. Many forecasts call for oil's consumption to peak during the coming decade, raising questions about the negative impact of stranded assets – current reserves that will never be produced – on the value of oil and gas producers. As the push for a reduced carbon economy continues, debates over value will increase. If a producer cannot sus-

tain output while living within its cash flow, it's essentially liquidating and has little value.

## CONFLICTING SCENARIOS

The current struggle to define energy's future oscillates between a world populated exclusively by electric vehicles and wind- and solar-generated power versus one where the transition to a low-carbon economy occurs at a slower than expected pace. These conflicting outlooks mean energy companies will operate cautiously.

On the one hand, traditional oil and gas companies will become obsolete unless they can remake themselves into "green" producers. On the other, low energy prices will delay the shift to a more expensive, non-dispatchable, green-energy sourced economy, extending the oil and gas era. Politics will play a key role in where we land on the spectrum of energy scenarios.

Whichever forecast you embrace, history cautions becoming wedded to one view. The last decade taught us that. Projecting the future based on current trends will almost assuredly result in a wrong outlook.

A century ago, the automobile, along with mass communications – radios and telephones – altered the 1920s economy and energy consumption. As a result, the Roaring Twenties were replete with warnings of the U.S. running out of oil. But new discoveries and producing basins marked the history of that decade, ensuring the success of the modern age.

## CLIMATE CHANGE

Will 2030 find Americans flying their cars or merely riding in automobiles that drive themselves? Or maybe travel will become much more expensive given its climate harm.

The IEA projects oil and coal demand to remain flat through 2040 while natural gas grows by 40 percent even if all countries adhere to the 2015 non-binding Paris climate accord. If investors decide to shun energy companies forever, where will supply come from?

Climate change – its fervor or irrelevance – will likely define the 2020s energy world. Believe forecasts at your risk. What we believe today about energy's future in the 2020s might look dumb on New Year's Eve 2029, but the journey will certainly be challenging.