

PROSPECTS

Turbulent outlook for energy



Heightened geopolitical tensions, increasingly divergent national policy positions, technological advances and shifting consumer preferences all suggest more turbulence ahead for global energy markets, write *Richard Forrest, Partner at A T Kearney, Romain Debarre, Managing Director of the Energy Transition Institute and Erik Peterson, Managing Director of the Global Business Policy Council.*

The world needs more energy and whilst fossil fuels will continue to play a major role, the pace of change required to decarbonise continues to increase. At the same time, a more engaged consumer is creating new momentum, and the pressure on policy makers to act has never been greater. This ‘dual challenge’ of needing more energy with less carbon will continue to be the issue oil and gas companies need to address in short- and long-term choices, and 2020 will be a pivotal year.

Annual reviews are becoming more challenging to predict, with seismic shifts occurring across the energy sector as well as a blurring across traditionally distinct industries. However, we can be sure of the sector’s direction, and can now focus on predicting the pace of change and the sector’s agility. Here, we highlight a few trends and pivotal moments that should be given some thought to in 2020. As we embark on another year framed by a macro-economic and geopolitical backdrop that

one could only describe as more volatile and uncertain than previously seen, this creates a great opportunity for those with good foresight, agility and the ability to respond in 2020 and beyond.

Volatility and a new geopolitical order

There can be little doubt that the next 12 months will be characterised by higher levels of volatility and a range of greater complexities in the geopolitical, international and economic spheres.

In the geopolitical sphere, the resurgence of Russia as a global military power and China’s own rapid military build-up adds an entirely new level of complexity to the already unpredictable global geopolitical calculus. Furthermore, the shifting political and military balances in several regions, such as the Middle East, Korean Peninsula and South China Sea, all suggest the potential for additional instability. These trends are already impacting oil and gas, as shown by unrest in oil-

producing regions and US sanctions on Russian natural gas pipelines to Europe like Nord Stream 2 and TurkStream. The sanctions come as Russia looks to explore more pipeline opportunities in China after the launch of Power of Siberia. More recently, escalating tensions between the US and Iran hit a new high at the start of 2020, and this will be an area to monitor closely in forthcoming months.

Weakening influences, economic slowdown and islandisation

In the coming year, we are likely to see even more rapid decay in the international institutions and practices that have governed the global order since the end of the Second World War. The rise of nationalism and populism, fuelled by heightened levels of public distrust with established social structures, has already translated into the rapid decay of organisations ranging from security frameworks to economic organisations. Institutions like the European Union and the United Nations are under attack from this rising tide and a standstill at the World Trade Organization’s appellate body further exemplifies this trend.

Economic uncertainties will be no less significant – both in the short and medium term. Global growth in 2019 was 3%, according to the International Monetary Fund’s (IMF) latest projections, its lowest level since 2008–2009. While prospects are for a modest 3.4% global recovery this year, the economic environment is clouded by ‘uncertainty about prospects [in a small group of emerging] countries, a projected slowdown in China and the US, and [other] prominent downside risks’, notes the IMF. In the medium term, ‘moderate’ growth is expected through 2024 in economies that together make up roughly one-half of current global output – the US, the Euro area, China and Japan. Ageing populations, a growing debt overhang, slowing globalisation and the ‘islandisation’ of economies, characterised by rising nationalism and declining global trade flows, are all contributing to potential headwinds in the longer term.

Regulation and the energy transition

Against this volatile backdrop, countries are split as to how to address the energy dual challenge. While some countries update their

The energy sector faces turbulent times ahead, exposed to many uncertainties from geopolitical headwinds, to more restrictive regulation, to climate-conscious consumers, to ever-evolving technology

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energy policies to facilitate the transition toward a low carbon future, others prioritise low-cost generation. We already see how divergent national energy policies are contributing to global inaction on climate change. Carbon dioxide (CO₂) concentration in the atmosphere has reached a record over at least the last 400,000 years, with CO₂ emissions on the rise in 2019 despite the acceleration of wind and solar PV deployment. Regardless, the UN COP25 meeting in late 2019 failed to set up a common playing field for global decarbonisation. This year's COP26 should act as the next ambition in accordance with the Paris Agreement negotiated five years ago at COP21. The 196 parties will indeed have to present their new commitments to limit global warming to below a 2°C increase. This means further reducing their greenhouse gas (GHG) emissions targets.

China, the US and the European Union (EU) are weighing substantial policy changes in 2020 that could mark key milestones in the energy transition given their size and importance in oil and gas markets.

In China, some policy changes have a broader implication. The end of solar PV (photovoltaic) subsidies and the delayed confirmation of several policies have caused a serious slowdown in project development. Recent statistics show that as of 3Q2019 project development was down 50% compared to 2018; dropping from 47% to approximately 30% of global installed new capacity addition. These policies also provoked the massive export of cheap solar PV panels abroad. Disinterest in solar PV capacity development in China could be exacerbated in 2020 as the government mulls lowering coal-fired power prices, which would further accelerate the number of solar PV project developments abroad. The decision would not only have implications for China's energy transition, but also reshape the outlook for fossil fuels in the country.

Meanwhile, the upcoming presidential election in the US may have significant consequences for the oil and gas industry. Some candidates have proposed banning fracking, which would disrupt operations in the upstream and service sectors of the world's largest oil producer. Should one of these candidates win the general election, the fear of a ban would shake oil and gas markets, potentially causing a slowdown in exploratory and production

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efforts, even though the earliest the measure could be imposed would be 2021. While OPEC countries have the flexibility to balance a potential US production gap, there will likely be a redistribution of exploration and production (E&P) activities across geographies. Given the role US fracking has played in redefining oil price mechanisms since 2014, a major change of US policy could be dramatic.

As China and the US ponder new policies, the EU took clearer action to decarbonise in 2019 that it may build on in 2020. Last year, the EU unveiled plans to become the first climate-neutral continent by 2050, recently announcing a European Green Deal roadmap of actions necessary to reach this goal. It should be the cornerstone of economic growth in Europe, according to the new President of the European Commission. However, the roadmap needs to be set into legislation. The future of this Green Deal therefore relies on the success of the European Commission to elaborate the first 'European Climate Law' within the next 100 days. This could mark a step-change for the energy transition in Europe, or it could result in few concrete changes.

Dual challenge response

Since the 2014 global economic crisis, the oil and gas industry has been on a concerted efficiency drive which will continue at pace in 2020 to ensure core assets continue to be competitive in all oil price scenarios. Application of digital technologies has been a key part of breaking new ground on old cost structures. Collaboration across the sector to remove inefficiencies between operators and suppliers and high grading portfolios are all being deployed today, albeit not everywhere. This will continue to be a major theme in 2020.

Based on climate considerations alone, the risk of stranded fossil fuel assets is a consideration for portfolio choices today. Global fossil fuel reserves are an equivalent of 2,900 GtCO₂eq, far above the Intergovernmental Panel on Climate Change's (IPCC) estimates for a remaining carbon budget of ~420 GtCO₂eq before reaching a 1.5°C rise in temperatures. Whether reserves will be abandoned, or negative or neutral technology solutions like carbon, capture and storage (CCS) will be more widely deployed is still unknown. Regardless, the reshaping of oil and gas assets will have this consideration in combination with the lower oil prices used since 2014 to evaluate assets. Further portfolio

optimisation can be expected in 2020.

We have recently seen oil majors disengaging from E&P investments in Alaska, driven by relatively high costs and more attractive alternative opportunities. But it's not a 'one size fits all' in any oil region. Some other companies remain actively involved in Alaska, and the US Bureau of Land Management may open new acreage for leasing in 2021.

Meanwhile, gas has a major role to play in decarbonising the energy sector. It is a mature, abundant, competitive and flexible energy source that emits ~50% the CO₂ of coal per unit of energy generated and ~25% less CO₂ than oil. Although the gas sector has experienced a sharp increase in demand, it is unclear if policies supportive of natural gas will be introduced in 2020. For instance, China's gas consumption rose by 33% from 2017 to 2018. India is following the same trend, and Europe will require more natural gas to compensate for coal abandonment and provide flexibility sources to the power networks that are increasingly impacted by intermittent wind and solar sources. With over 4.6% global demand growth in 2018, natural gas represents a far more attractive growth driver than oil, which had roughly 1% growth. LNG development would certainly support most of the gas market growth, providing incomparable trading flexibility by addressing multiple regions and clients, in comparison to gas pipeline networks.

Mergers and acquisitions (M&A) and partnering is always an important activity to drive value and strategic outcomes; 2020 will be no different. We expect portfolio optimisation of international oil companies (IOCs) to continue, driven by growth needs, oil price expectation, the shift to gas, risk associated with the energy transition and geographic focus. The likelihood for mega-deals between majors remains weak. The IPO of Saudi Aramco also gave an insight on financial market sensitivity – due to geopolitical tensions in the Middle East, its stock price did not benefit from the recent oil price inflation. A trend that could be expected to increase is the nature of collaboration between operators and suppliers to drive greater efficiency and better outcomes. For example, we are increasingly seeing a greater commitment to joint innovation as well as alliance models with pooled performance incentives in the North Sea.



Digitalisation will play a key role as the downstream sector looks to redefine operations in the drive to decarbonise

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A big shift in recent years is the appetite to move into new energy sector businesses. Shell, Total and BP have all invested in a mix of power retailers, renewables generation, biomass solutions, electric vehicle (EV) charging, EV batteries and many other initiatives. Although the capital deployed is still not a major portion for most oil and gas companies, it is notable – particularly in sectors that have a significantly lower return on capital, or in areas with business models that are just emerging.

It's a shift we expect to see more of and at greater pace in 2020. However, the pace of change will differ by company. For some firms, it will be left with the shareholder to decide how to diversify their portfolio, while for others it's a full shift. For example, DONG has rebranded as Orsted and has shifted from an oil and gas company to a sole focus on offshore wind in a very short time period.

Another significant trend is the expanded use of strategic partnering in the area of digitalisation and energy transition-related collaboration. Although digitalisation is not an oil and gas specific trend, with the industry's capacity to apply technology it is gaining momentum fast, from Big Data driving better outcomes, to subsurface intelligence, to new consumer experience solutions in retail. Partnering on opportunities driven by the energy transition is also rapidly increasing, whether it is with auto OEMs (original equipment manufacturers) or a FANG (one of the four high-performing technology stocks in the market – Facebook, Amazon, Netflix or Google). In the automotive industry, we have seen some real collaboration between majors, like the VW and Ford joint venture (Argo AI) on

advanced autonomous driving and electrification for a total valuation of about \$7bn, which would not have been expected five years ago. The question remains if we will see such large-scale collaboration in the oil sector this year.

Pace of change in decarbonising energy

As an industry, we have a wealth of experience forecasting how supply demand curves and energy mix will change over time. With the shift associated with decarbonisation, it is fair to say we are still learning and each year tends to see forecasts on solar, wind and EV adoption get faster and larger than expected. There are a couple of drivers that should be watched closely in 2020 and beyond.

Technology advance – Despite a highly volatile regulatory backdrop, energy technology continues to advance more rapidly than forecast. For example, offshore wind has until recently been seen as highly uneconomic, but recent projects are competing without subsidies and the technology economics continue to improve each year. With a technical potential equivalent to 18 times global electricity consumption, offshore wind could play a major role in the future energy mix. China has already started offshore developments, and the US, India, Korea and several other countries have a pipeline of projects.

Still less competitive than onshore wind and solar PV, offshore wind will benefit from higher load factor, huge potential and much less resistance than onshore wind installations. Therefore, offshore wind may provide the scalable solution required to address electrification targets quickly in some countries. This will be an interesting opportunity for the

oil offshore service sector and oil companies looking to engage in power generation.

Consumer preference change

Consumer preference to adopt new technology and change behaviours is probably one of the least understood drivers of the energy transition, yet it will ultimately determine demand profile, influence policy and impact many industries simultaneously.

This may happen much faster than expected. For example, in just 18 months we have seen a global outcry on ocean plastic and governments deploying new regulation fast, while consumer goods companies make bold commitments of plastic recycling that outstrips the current supply capability and consumers adopt new solutions to reduce plastic consumption. The chemical industry now has the case for change and is responding quickly. Hugely popular documentaries such as David Attenborough's 'Blue Planet' and, more recently, 'Seven Worlds, One Planet' have been major catalysts of the case for change. Few expected such an impact when the first of these documentaries were produced.

With a more socially aware, social media fluent and purpose-driven Generation Z, we can expect more climate-driven change to be influenced by consumers as much as by technology. Technology solutions will keep advancing globally and adoption will be driven by consumers locally. The pace is likely to continue to be faster than we expect.

Mounting risks

In 2020, the energy sector will be exposed to many uncertainties from geopolitical headwinds, to more restrictive regulation, to climate-conscious consumers, to ever-evolving technology. For all these reasons, 2020 is very likely to be a significant turning point when it comes to a range of energy-related issues. Widening geopolitical instability and mounting economic uncertainty, coupled with diverging energy policy positions in the world's major economies and persistent technology shifts, suggest that the coming months will be seminal – not only with respect to short-term market shifts, but also the potential redirection of longer-range policy trajectories.

'Volatility' and 'uncertainty' will certainly be the recurrent themes of the months – and years – to come. ●