Oil and gas trends 2019

Building growth strategies on shifting sands

Part of PwC's 22nd Annual Global CEO Survey trends series

pwc

ceosurvey.pwc

Building growth strategies on shifting sands

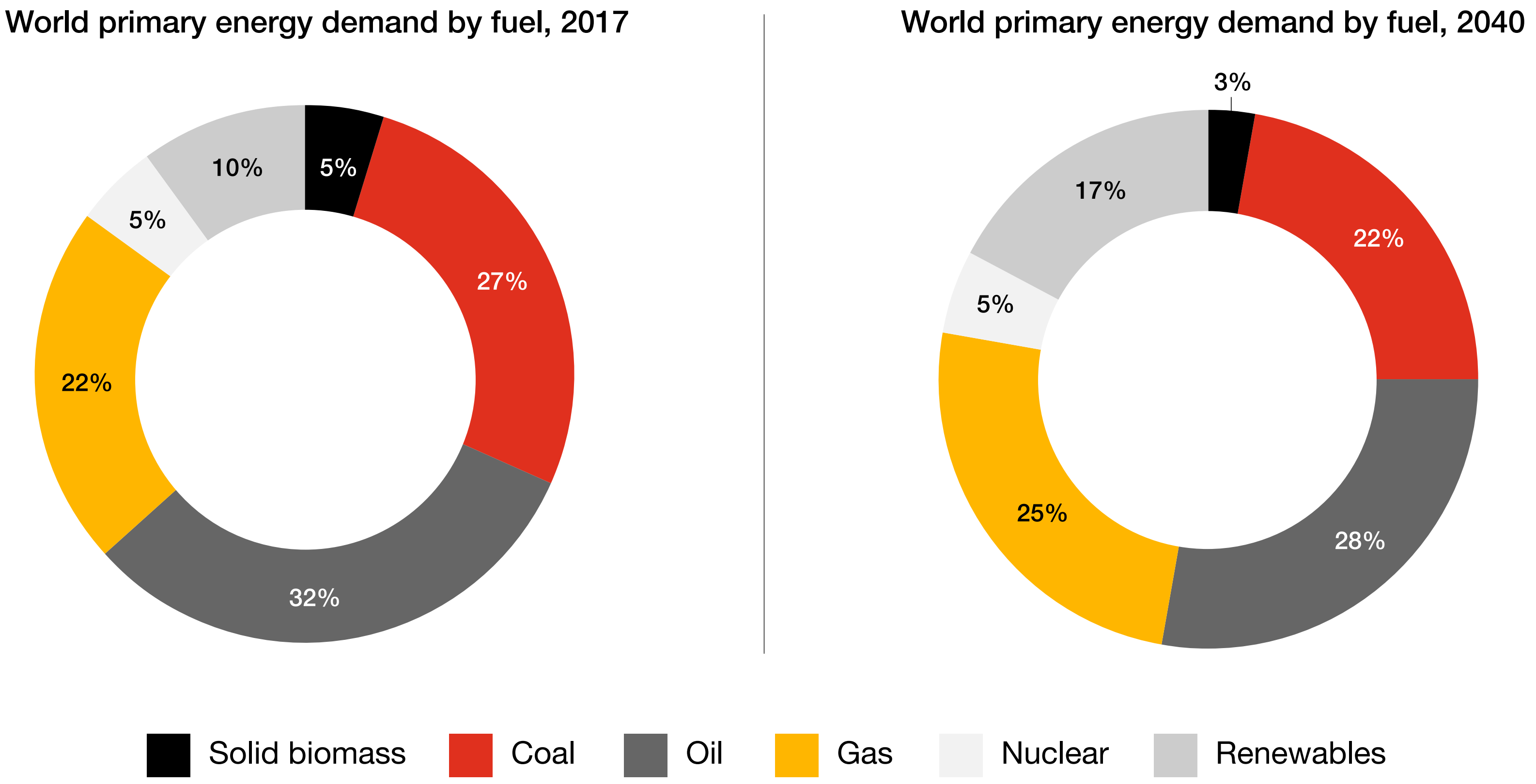
Although the oil and gas industry has always been volatile, there was nonetheless a comfortable predictability to the boom and bust pendulum. Those days, however, appear to be over, at least for now. A combination of erratic and sometimes inscrutable commodity price fluctuations, ambiguity about the future of fossil fuels and increasingly contentious trade negotiations around the world are upending traditional supply and demand fundamentals, bringing a host of new challenges with no clear answers. It could be said that this year, oil and gas executives are essentially trying to set a growth course for their companies on shifting sands.

Just look at the price turmoil in the second half of 2018 — most companies were settling in for a steady run-up in prices (rising to more than $US80/bbl) with talk of 'lower for longer' crude evaporating. Then the sector was hit with an unexpected crash (with Brent sliding down to the high $US60s). Or consider fossil fuels, which even amid a transition to a low-carbon future will still make up about 75% of global primary energy demand in 2040, according to the International Energy Agency (see Exhibit 1). The current abundance of supply is expected to last a few more years before we perhaps face a supply crunch, which we gamed out in a previous industry trends article.

And then there is the 800-pound gorilla: growing urgency about climate change. The 2016 Paris Agreement set out standards for countries to follow to cut carbon emissions and monitor climate policies. In their recent follow-up meeting in Katowice, Poland, 200 nations agreed to a pathway for setting tougher emissions targets, which probably will add to energy transition momentum. No matter how the public debate proceeds, this urgency seems unlikely to diminish, and it will have an effect on government policies and on consumer attitudes.

EXHIBIT 1

Projected change in energy demand by fuel type, 2017 to 2040, according to the International Energy Agency



Note: 2040 data is New Policies scenario (https://www.iea.org/weo2018/scenarios/)
Source: IEA World Energy Outlook 2018; Strategy& research

Three choices for oil and gas companies

1. Push full speed ahead on fossil fuels
2. Diversify your portfolio
3. Go all in on renewables

Three choices

The combination of these challenges portends an industry moving away from a fast-paced cyclical growth model towards seeking more incremental value from ongoing and new operations. This change will affect investor expectations for returns. As a result, oil and gas companies will likely face a capital-constrained future, one in which self-funded growth will be more commonplace. In turn, tighter capital will only add to the urgency with which oil and gas companies must respond to the complex, intrinsic and even existential market disruptions they face. In short order, they must make strategic decisions about their role and identity in the evolving energy landscape. There are three options to choose from:

1. Push full speed ahead on fossil fuels.

This approach is exemplified by many midsized companies, such as Occidental, whose product strategy remains focussed on expanding oil assets, particularly with increasing investments in the US Permian Basin. At the same time, though, Occidental's venture arm is dabbling in the non-oil arena with small investments in, for example, carbon sequestration technology. In the shale world, consider EOG Resources, a Houston company, which doubled down on its commitment to the resource by procuring its own sand, water and chemicals for fracking, rather than sharing the project risk with oil field services companies. That helped to defray costs and, even in a relatively low-price environment, EOG reported a 92% increase in shale sales in the third quarter of 2018.

Significant investment from some O&G players in energy efficiency, low-emission fuel products and carbon capture underscores how important some companies think innovations in these areas are, especially in a carbon-constrained world. Saudi Aramco, for example, opened an R&D centre in Detroit, with a focus on tailpipe carbon and emissions capture technology. Others such as Equinor, Total and Royal Dutch Shell also plan to build carbon storage equipment and facilities to limit carbon dioxide emissions.

2. Diversify your portfolio.

At this stage, diversification primarily encompasses some large acquisitions by major oil companies of firms best known for natural gas projects — for instance, Shell's

It could be said that this year, oil and gas executives are essentially trying to set a growth course for their companies on shifting sands.

$US53bn purchase of BG Group. Going forward, though, this strategy will involve more unorthodox strategic moves, such as acquiring or expanding renewable energy capabilities and offerings, as exemplified by Total's partnership with EREN Renewable Energy. Or a company might choose to focus more on traditional secondary markets, such as petrochemicals, where demand growth will largely come from the Middle East and China. This could be an especially lucrative track, particularly since the International Energy Agency estimates that more than one-third of the gains in oil demand by 2030, and nearly half by 2050, will come from petrochemicals.

3. Go all in on renewables.

The poster child for this strategy is Danish giant Dong Energy, which has changed its name (an acronym for Danish Oil and Natural Gas) to Ørsted as it completes a makeover that shelves its upstream oil, gas and coal business in favour of renewable energy sources. Carbon emissions from Ørsted's products have been trimmed by some 50% since 2006, and by 2023, this figure will increase to 96%, the company says. Likewise, gas giant GDF Suez recently reinvented itself as Engie, a 'sustainable energy for all' company.

Big or small? There is a difference

In choosing one of these pathways, oil and gas companies are not on equal footing. The big companies have a distinct advantage because they have lots of cash — and huge prospects for cash flow — and should be able to pivot quickly as industry conditions morph. They can, for instance, acquire a shale player, a utility, a green energy provider or even an electric car charging facility at a moment's notice, without having to build these product lines organically. Alternatively, they could invest in a nontraditional market, while facing only limited impact to their bottom line. That's the approach taken by Norway's Equinor (formerly Statoil), which recently launched the world's first floating offshore wind farm. Equinor said it plans to dedicate up to 20% of its capital expenditures (or roughly US$12bn) by 2030 to renewables. This is a sizeable investment but, on a yearly basis, little more than 5% of the company's operating income.

Having financial flexibility also allows large players to be more aggressive about extracting value from their hydrocarbon portfolios even before having a firm plan to replace their fossil fuel offerings. Abu Dhabi National Oil Company (ADNOC) surprised some observers with its recent decision to set ambitious production capacity targets (increasing from its current 3m bbl/d to 4m by 2020 and 5m by 2030). But this move can be interpreted in several ways. For one, it's a response to market demand. However, it also shows that concern over the impact of the energy transition is driving some NOCs (national oil companies) to monetise their reserves more quickly than in the past.

Smaller, independent oil and gas companies have less room for error in determining the best pathway for long-term success. In the immediate period, it is probably best for these companies to focus on their traditional strengths, while emphasising more prudent and disciplined management of their cost curve to free up cash for diversification. That idea is behind the decision by US-based independent Anadarko to reduce its international footprint (exiting Côte d'Ivoire, Liberia and Sierra Leone, albeit retaining positions in offshore Ghana and Mozambique LNG) and concentrate on onshore US unconventional projects.

More risk-averse small companies should also consider strategic alliances to share the costs (and profits) with a larger oil company and save cash for more unconventional investments. Typical of these deals is the agreement between Dallas-based Kosmos and Shell, under which they will cooperate in offshore exploration and drilling projects in Namibia initially, and then São Tomé and Príncipe.

Unlike the majors, the independents have neither the financial scale nor the business model to make alternative investments. Imagine if an independent exploration company with a recognised track record of upstream success announced it was investing a lot of money into wind farms as part of its diversification strategy. The results would probably be disastrous for its management team and market valuation. At least for the present, the smaller oil and gas companies need to focus on what they do really well and optimise that capability even further.

What should your priorities be?

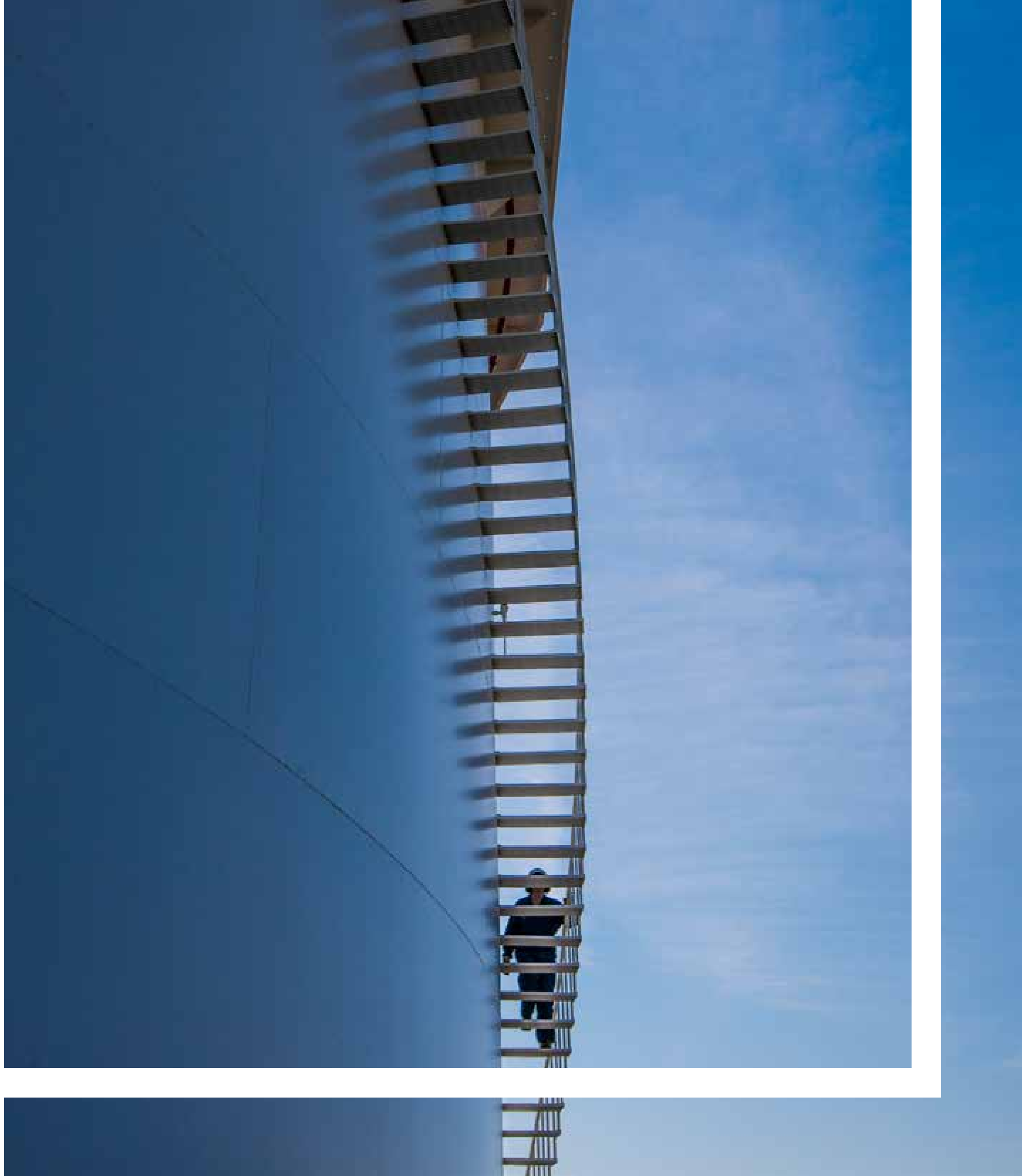
Whichever path you choose, and regardless the size of your company, your role as an oil and gas executive in this period of transformation requires close attention to four essential strategic and tactical facets of your business.

1. Create a strategic identity based on your inherent capabilities and a vision for how those capabilities can best be employed in the energy sector in the coming decades.

In some ways, this is an obvious step to take, but not an easy one. For many executives, reliving the past is far easier than imagining your company's future. One way to handle creating a blueprint for what is yet to come is to treat your legacy as an asset, but a disposable one. That is, save the useful pieces of your company's traditional business lines, divest the rest for advantage and use the income to fund the future.

2. Realign portfolios to focus on strengths and new growth areas.

When considering how to adjust your portfolios in this unstable environment,



there are several broad approaches to consider (see Exhibit 2). Most companies land somewhere between new asset plays and portfolio rationalisation. For instance, Shell is divesting mature oil assets to focus on its strong gas position. And smaller companies, including US independents such as Marathon, Apache and Devon, are reducing their international positions to double down on domestic unconventional plays.

In 2019, ongoing oil price volatility is likely to make oil and gas company valuations more challenging, especially when the resource floor price is so unclear. In this landscape, it is difficult to anticipate a wave of M&A, particularly large transformational plays such as Shell's 2015 acquisition of BG. Such deals are costly, risky to execute and difficult to demonstrate value creation aside from cost synergies. More likely is a handful of smaller tactical acquisitions that reinforce existing capabilities or build new ones, such as in low-carbon energy. Instead of M&A, partnerships and alliances could be an attractive option to acquire new skills and technologies or enter new markets without incurring substantial costs.

3. Invest in agility through digital innovation.

With up to $US1tn in estimated savings in capital and operating expenditures up for grabs over the

EXHIBIT 2

Strategic responses to volatile oil prices, selected examples

Activity	Rationale and comments	Degree of activity for 2019
Transformational M&A	• Offshore major plays to build specific capabilities • Limited corporate plays to date across upstream (except Shell BG) • Upstream wary of costs, debt and execution risk	
Bolt-on acquisitions/ asset plays	• Tactical acquisitions • Increasing focus on asset plays in recent months • Strategic investments to boost reserves	
Portfolio rationalisation	• Opportunity to review portfolio and divest non-core assets • Cash generative to support dividends • PE will be a driver of deal generation	
Alliances	• Strategic alliances are a common method of achieving mutual benefits; more anticipated in 2019 as companies complement capabilities • OFS focus to use this to improve efficiency and reduce interfaces; typically precursor to M&A	

Low Medium High

Source: Strategy& research

next seven years — particularly from using new technology to increase efficiency in project management, operations and the supply chain — oil and gas companies that get a head start on their competition with digital innovation will have a distinct advantage. Digital strategies include the use of drones, robotics, artificial intelligence (AI) and virtual reality to make drilling and exploration projects more efficient, speed up resource recovery and lower labour costs. Although each company's digitisation template will vary depending on its market and market position, companies should appreciate the value of making bold technology decisions, in part because that can lead to additional innovation. As one senior O&G executive told Strategy&, PwC's strategy consulting business, "It creates pressure for action, and without such pressure, things develop too slowly."

The good news is that the oil and gas industry has made strides recently in prioritising digitisation, although it is not clear yet whether digitisation is used frequently enough as the centrepiece of a growth strategy for the future. In PwC's 22nd Annual Global CEO Survey, nearly 80% of oil and gas executives said they 'agree or strongly agree' that AI will significantly change the way their companies do business in the next five years. And more than 50% plan to implement or have already implemented some aspects of AI in their operations.

4. Cultivate and hire the right talent.

As the CEO survey highlighted, the lack of availability of key skills was the second-biggest potential business threat that oil and gas executives worry about, second only to commodity price volatility. In our discussions with managers, this complaint about a talent shortfall tends to be a proxy for their frustration at not being able to find enough quality people with digital skills — from data scientists to software engineers — who could help implement a creative digitisation strategy. Indeed, in the survey, the lack of analytical talent was cited as the primary reason that the data they receive about business risk, financial forecasts and customer preferences is not adequate for their purposes.

In order to implement a distinctive talent recruitment and development approach, oil and gas companies should create a competitive advantage through a more engaging people experience; provide a flexible workplace that encourages creativity and innovation; wand use workforce analytics and talent management systems to provide a compensation structure that rewards inventiveness and places a monetary premium on gains from digital advances.

Clearly, oil and gas companies are confronting a turning point, one that requires strong decisions about their strategies for surviving and thriving in uncertain times. The faster and more proactive they are in setting a course for the future, the better. Most important, these companies need to determine their role in the new environment: diversifying or doubling down on fossil fuels or renewables. Foresight may be the most important capability they need.

Strategy made real

In light of the growing impact of the energy transition, is it inevitable that major oil companies will own utilities or other nontraditional businesses such as electric vehicle charging stations — and if so, are they well placed to succeed?

Inevitable? Maybe not. Worth considering? Certainly. As the energy transition gathers pace, the larger integrated oil and gas companies will need to consider the shape of their portfolios, and whether they include more grey and green molecules, to ensure longer-term sustainability.

This is not to suggest that hydrocarbons don't have a place in the energy mix of the future. Long-term forecasts still suggest that about 75% of global energy demand will be met by hydrocarbons well into the future. So the global economy will still need oil and, to a greater extent, gas. Moreover, the importance of gas will grow given its role as a transition fuel to the low-carbon economy.

However, as the world seeks more low-carbon energy sources and as the electrification of energy is growing, there is a compelling logic to include nontraditional enterprises in a business portfolio. With the added benefit of owning the platform — including the customer interface — a combination of current retail stations, electric vehicle charging and offshore wind power generation could create powerful new business models, which also might include alliances with players outside the traditional market (such as Amazon or Google).

For oil and gas majors, considering acquisitions of power utility companies, for example, or investing in low-carbon plays from wind energy to electric vehicle (EV) charging makes sense.

strategy&

Part of the PwC network

There are signs that more of the majors are hedging their bets. Recent highlights include:

- BP acquiring the EV charging specialist Chargemaster and looking to install fast chargers across its petrol retail network
- Shell buying EV charging company NewMotion and completing its purchase of the UK power retailer First Utility
- Total expanding its presence in the French electricity market with the completion of its takeover of alternative power supplier Direct Energie; it also announced the acquisition of G2mobility, which provides EV charging solutions
- Chevron in late 2018 announcing it had invested in EV charging specialist ChargePoint.

Are large oil and gas companies well placed to succeed in this area? They have several key strengths: strong brands that will be critical in winning the trust of consumers, a global footprint and the financial scale to deliver projects in a cost-effective manner, and an established track record in energy trading.

However, running a successful power retail business is very different from running an upstream operation. Power retail margins are much thinner. The need to own and manage the customer relationship is critical and complicated, as increasingly gas stations offer a wide range of products — fuel, food and even household cleaning supplies — in order to generate profits.

Some of us may remember the early 1990s, when some utility companies from around the world diversified into telephony and financial services, and subsequently moved upstream in energy to acquire gas reserves. In an effort to diversify revenue streams, they made the mistake of straying outside their core competencies. Large integrated oil and gas companies will need to diversify into low-carbon plays to survive for the long term. But these investments need to complement existing capabilities or align with adjacent businesses if they are to succeed.

Authors and contacts

Italy
Giorgio Biscardini
Partner, PwC Italy
+39-0-72-50-92-05
giorgio.biscardini@strategyand.it.pwc.com

Middle East
David Branson
Executive Adviser
Strategy& Middle East
+971-4-390-0260
david.branson@pwc.com

United Kingdom
Adrian Del Maestro
Director, PwC UK
+44-79-0016-3558
adrian.delmaestro@pwc.com

United States
John Corrigan
Principal, PwC US
+1-214-923-6289
john.corrigan@pwc.com

Kenny Hawsey
Global Energy (Oil & Gas) Tax Leader
Partner, PwC US
+1-713-356-5323
kenny.hawsey@pwc.com

Niloufar Molavi
Global Energy (Oil & Gas) Leader
Partner, PwC US
+1-713-356-6002
niloufar.molavi@pwc.com

Reid Morrison
Global Energy (Oil & Gas) Advisory Leader
Principal, PwC US
+1-713-356-4132
reid.morrison@pwc.com

About PwC's 22nd Annual Global CEO Survey

PwC conducted 3,200 interviews with CEOs in more than 90 territories. There were 99 respondents from the oil and gas sector, and 34% of oil and gas CEOs reported an annual revenue greater than US$1bn.

Notes:

- Not all figures add up to 100%, as a result of rounding percentages and exclusion of 'neither/nor' and 'don't know' responses.
- We also conducted face-to-face, in-depth interviews with CEOs and thought leaders from five continents over the second half of 2018. The interviews can be found at ceosurvey.pwc.
- Our global report (which includes responses from 1,378 CEOs) is weighted by national GDP to ensure that CEOs' views are fairly represented across all major regions.
- The research was undertaken by PwC Research, our global centre of excellence for primary research and evidence-based consulting services: www.pwc.co.uk/pwcresearch.

You can find other CEO Survey reports here:

ceosurvey.pwc

pwc