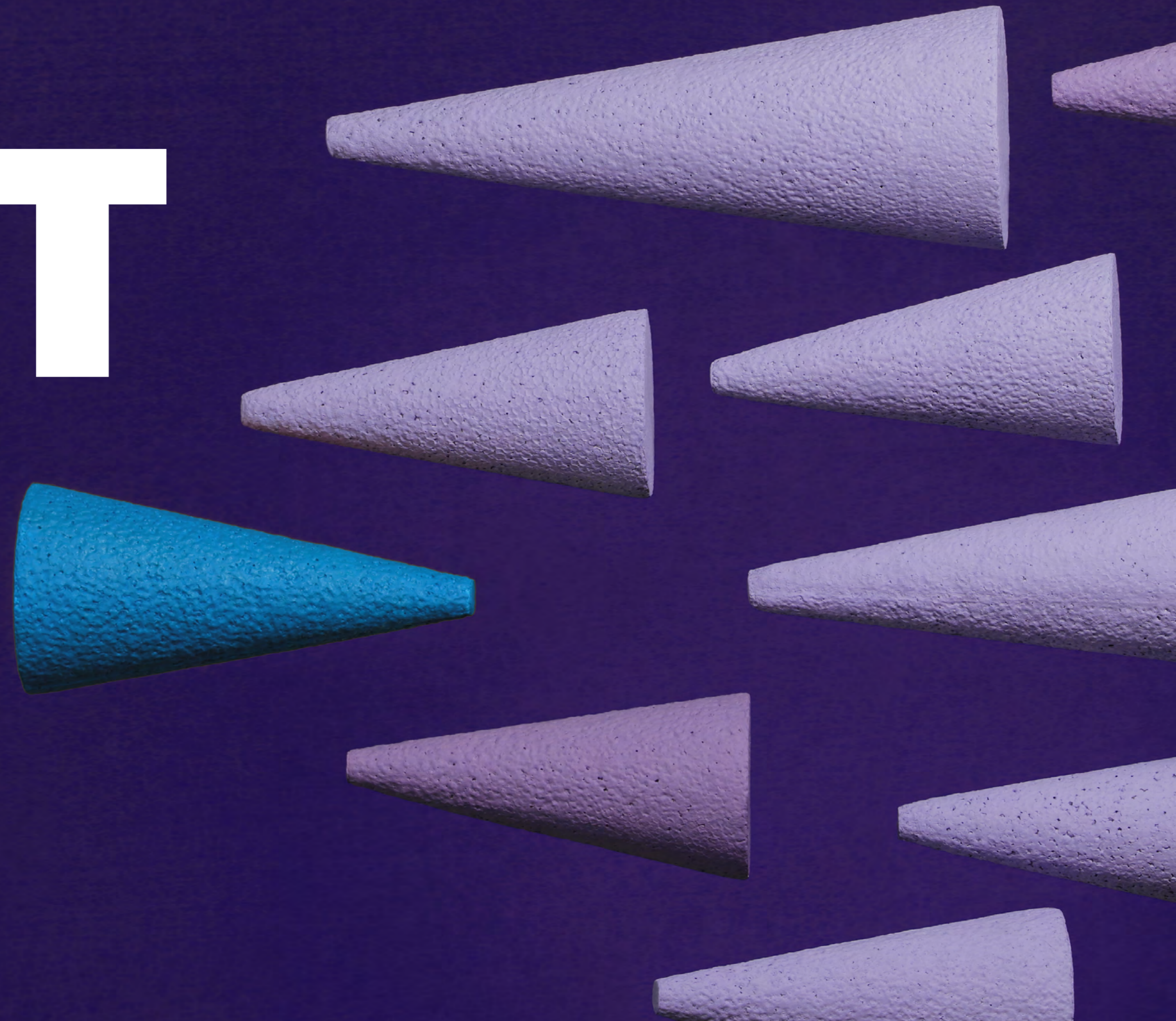




FROM OIL PRODUCERS TO POWER PLAYERS A SMART MOVE?



EXECUTIVE SUMMARY

The compressive disruption affecting the oil and gas industry is accelerating.

An oversupply of resources, combined with reduced energy intensity and changing consumer behaviors, has created a new normal that requires a fundamental rethink of value-creation opportunities in the industry.

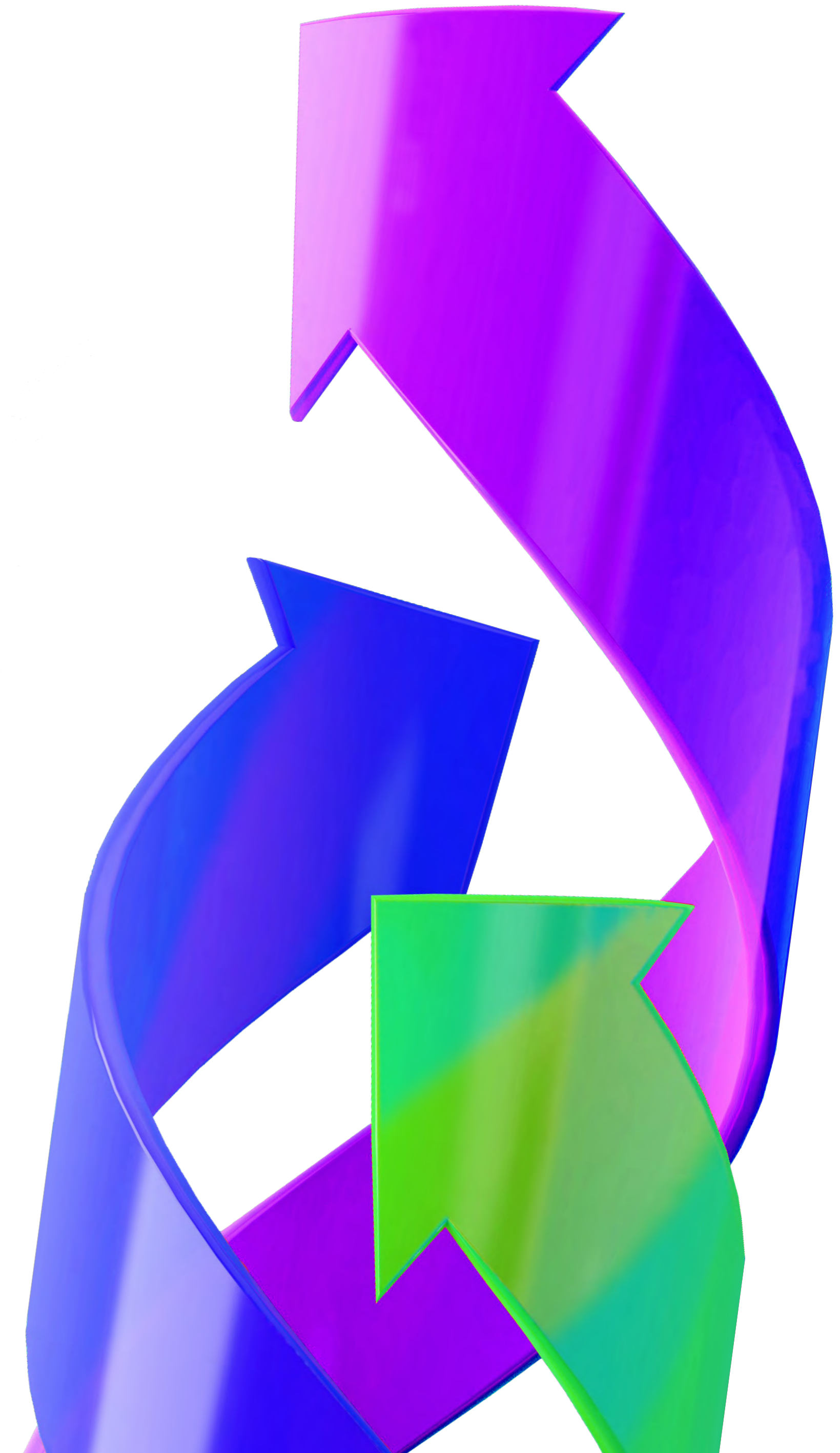
Investors are demanding change and for good reason. While the erosion in oil and gas revenue and EBITDA will continue over many years, share prices are being impacted today. Even as demand grows, enterprise value will likely take a further hit.

To its credit, the industry recognizes that its current business models need to change. A number of oil and gas companies are starting to look for ways to expand

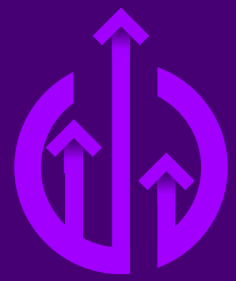
their competencies beyond the realm of resource extraction to being a viable player in the new energy system. In our age of electrification, power is a logical place for them to go. Or is it?

Electricity consumption is growing fast and by 2040 is expected to account for approximately two-thirds of primary energy demand growth. It's no wonder that the power sector, on average, is performing better than oil and gas in terms of market capitalization. But the power sector has its own set of challenges. Regulatory hurdles. Flattening power supply curves. Market fragmentation. The list goes on.

Oil and gas companies considering a move to power must, therefore, proceed with caution. They need to understand those areas of the power value chain where they might have the greatest success—and where they are more likely to fail. They need an ambitious vision—tethered to a realistic plan.



Five “Power Plays” worth considering.



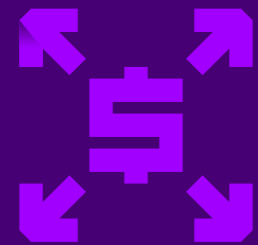
Scale Generation

through investments in clean power, at scale.



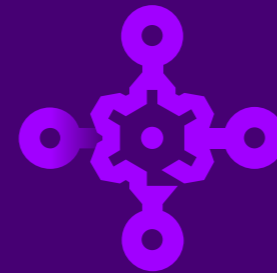
Growth Hunting

in developing countries, where power demand growth is likely to translate into significant economic value.



Resource Monetization

via gas-fired generation, the capture of stranded assets.



Market Facilitation

or bridging supply and demand through integrated resource-to-power trading capabilities.



Consumer Disruption

in B2C and B2B markets through new products and services.

Each of these opportunities, described more fully in the following pages, comes with its own degree of uncertainty, complexity and capital requirements—but also with a unique value potential. Each has room for just a handful of disruptors to stake their claim. Success will depend on the strategic choices they make, the paths they choose, and the speed with which they get going.

DISRUPTION BY ANOTHER NAME



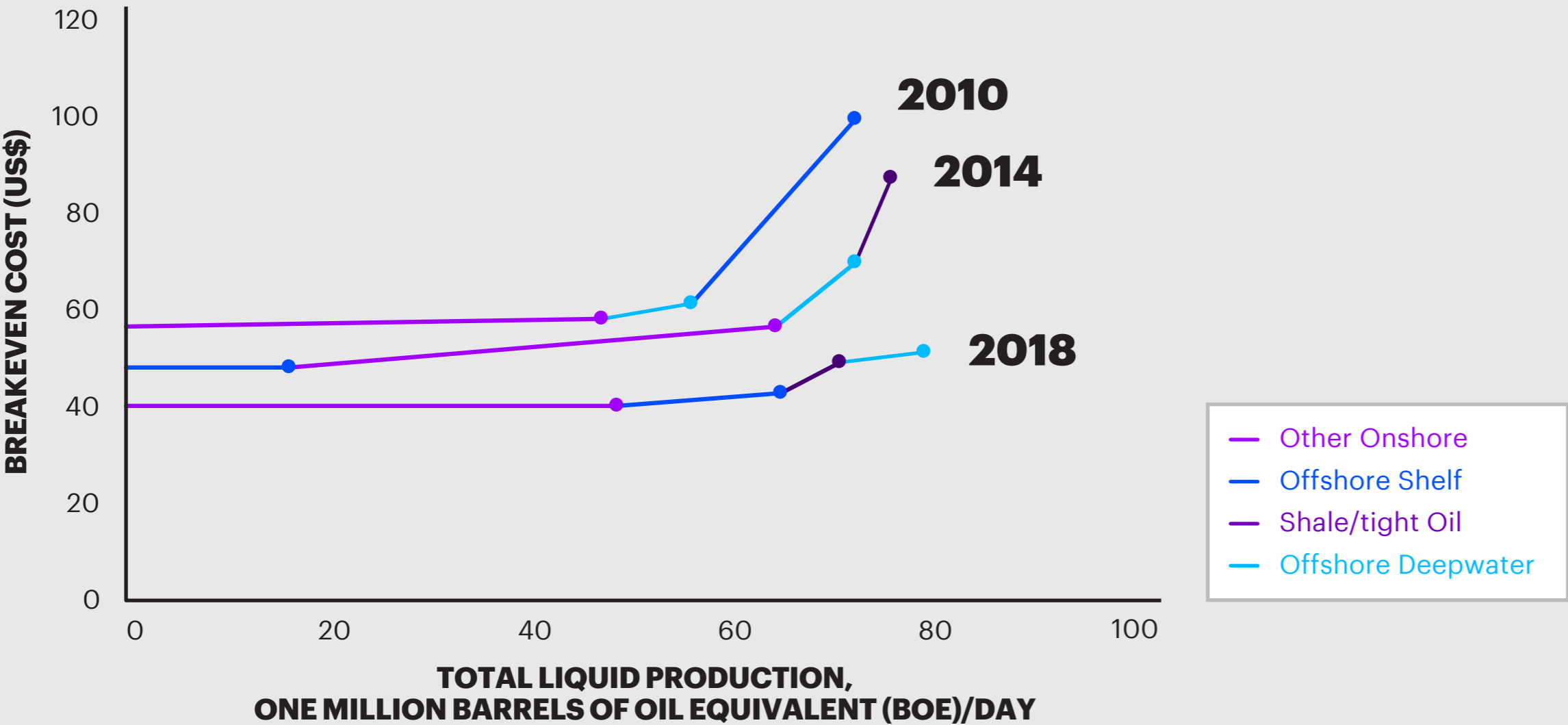
For years, oil and gas companies have faced “compressive disruption,” brought about by the looming energy transition and characterized by low growth and even lower margins.

Though it can be punctuated by episodes of big bang disruption (such as the shift from resource scarcity to abundance due to shale and deep water), compressive disruption generally sneaks up on asset-intensive companies over time. It slowly chips away at operating profits and revenues (see Figure 1). Many think they have time to re-evaluate how they might achieve profitable growth in the future. Unfortunately, their time is up.

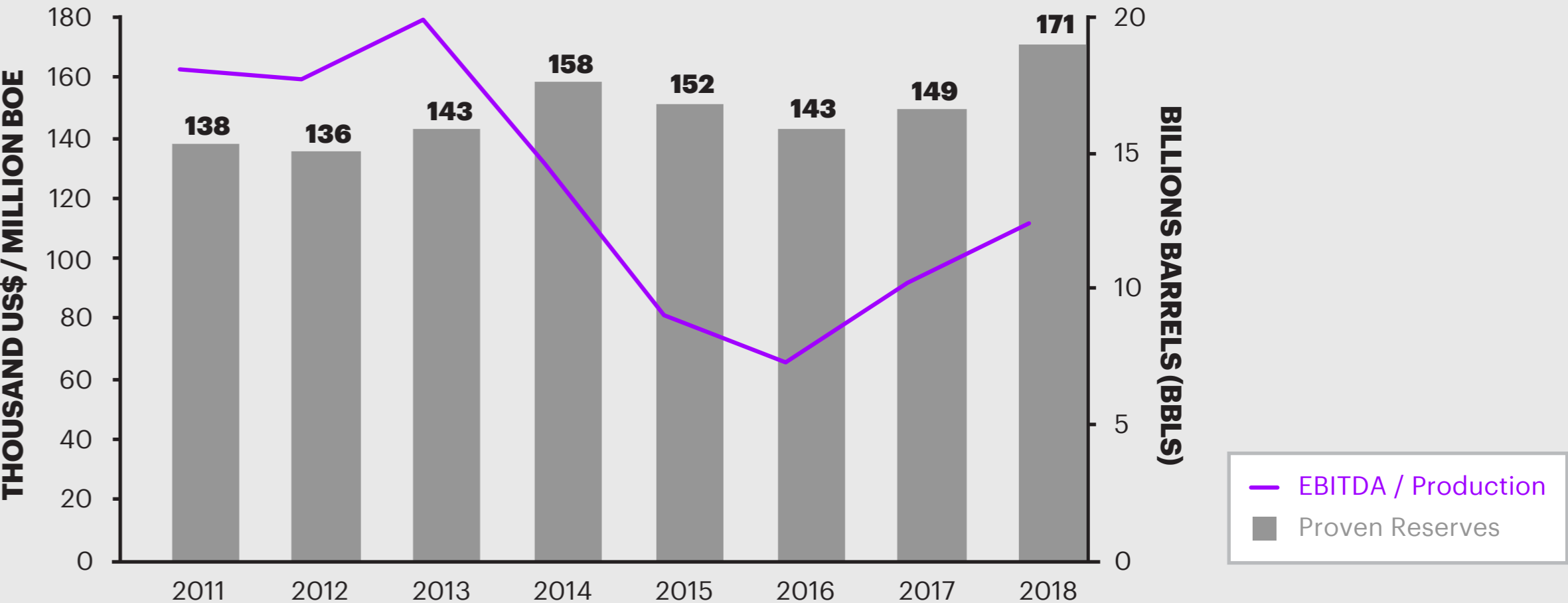
Flattening of oil and gas supply cost curve has led to overall margin erosions

Figure 1: Historical liquid supply cost and oil and gas profitability.

2010–2018 GLOBAL LIQUID SUPPLY COST CURVES



CHANGING ECONOMICS OF PRODUCTION: EBITDA PER OIL AND GAS PRODUCTION AND PROVEN RESERVES



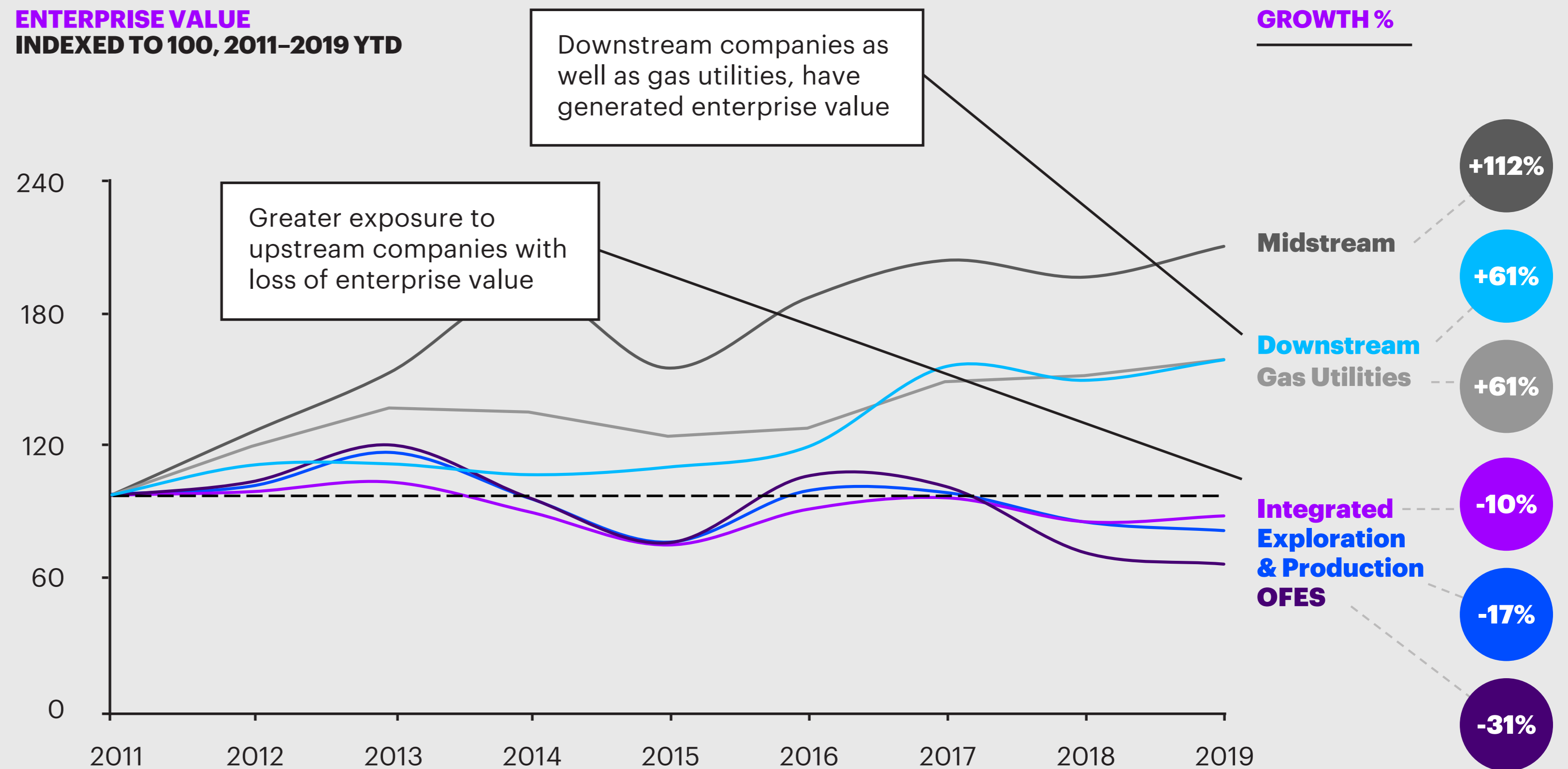
Source: Accenture Strategy, Energy: analysis of 75 public company reports, 2020; Rystad Energy Ucube.

Projections for the industry are challenging. Hydrocarbons' share of the energy mix can drop from 80% to as low as 50% by 2060.¹ Making matters worse, other factors are accelerating the downfall. Customer preferences in energy consumption have changed faster than many imagined. That's due, in part, to increasingly cost-effective non-hydrocarbon energy sources like solar and wind and a growing electric vehicle market. While energy companies are investing in their digital and innovation capabilities, the pace of change will make the journey a challenging one.

As this new environment emerges, oil and gas companies have no choice but to reimagine where and how they compete. Many have recognized the need to expand their focus from extracting oil and gas to generating growth in returns and cash flow. That growth now resides away from the wellhead. Value resides closer to the customer (see Figure 2). Moving forward, asset-based strategies will hold less sway than customer-centric energy models.

Value has shifted downstream of the wellhead in the oil and gas value chain

Figure 2: Enterprise value over time.

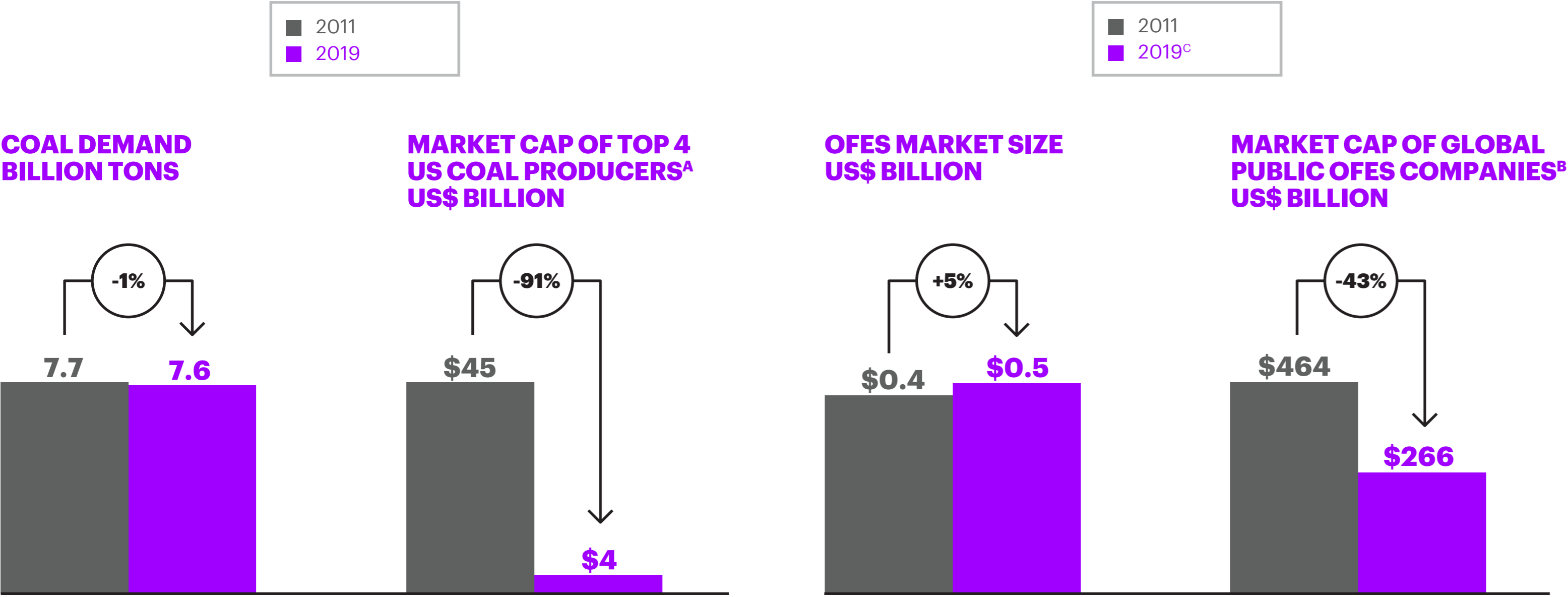


Source: Accenture Strategy, Energy – analysis of 270 public energy companies with over US\$1 billion in revenues and 264 public utilities companies with over US\$1 billion in revenues, 2020.

Companies that fail to make the transition from production to value may find themselves in dire straits. Even if demand growth rises or stays steady, enterprise value will likely take a hit. One only needs to look at coal producers and oil field and energy services (OFES) companies to see the scale of the potential threat (see Figure 3).

Oil and gas companies that fail to make the transition away from fossil fuels may see large declines in enterprise value

Figure 3: Relationship between demand growth and enterprise value for other industries.



^A Analysis considered top 4 US producers: Peabody Energy, Alpha Natural Resources, Walter Energy and ArchCoal. For Peabody & ArchCoal, analysis considered market cap after restructuring from bankruptcy filed in 2016.

^B OFES: Oilfield and Service Suppliers, July 2019.

^C 2019 Forecast Estimate.

Source: Accenture Strategy, Energy: analysis, 2020; IEA; Rystad Energy, public company reports (Cap IQ).

A BURST OF ENERGY

While it's likely that global demand growth for oil will begin to slow (and eventually fall) in the 2020s,² the same can't be said of energy. Growing population, prosperity and urbanization—especially in the developing world—will drive the need for more energy for the foreseeable future.



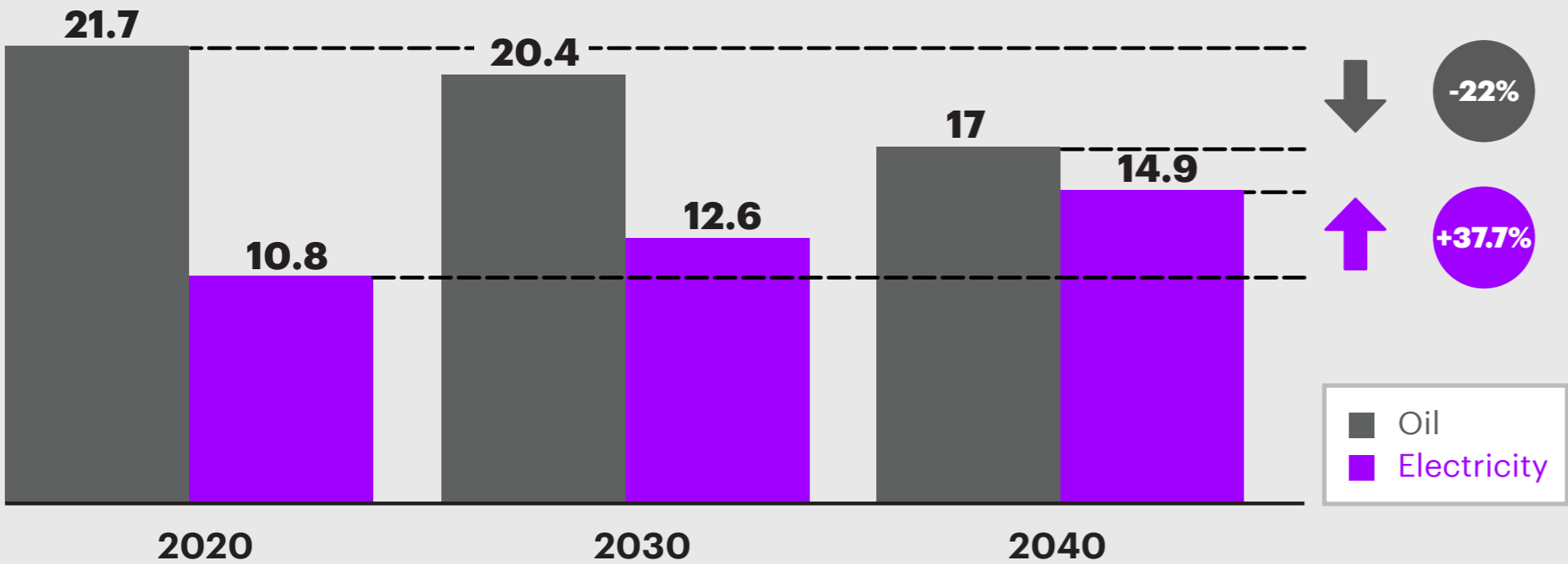
Between 2020 and 2040, all key sectors of energy demand (transportation, industries, residential and commercial buildings) will continue migrating to electrons. This shift is expected to increase per capita consumption of electricity by more than 30% and the total demand for electricity by nearly 50%. A lion's share (>80%) of this growth will come from the developing markets due to increasing electrification, prosperity and population; developed markets will see slower growth, but will continue to see a rapid shift toward cleaner power and more consumer centric business models. Global electric power consumption will represent approximately two-thirds of primary energy demand growth, with electricity representing more than 25%, and under certain scenarios greater than 30%, of total energy consumption by 2040.³ In contrast, per capita oil consumption is expected to drop by over 20% (see Figure 4).⁴

The transformation of the power model is already underway. In this context, utilities are showing a better performance than oil and gas companies, particularly in terms of market capitalization (see Figure 5). Just over the past five years, oil and gas companies, valued at more than US\$1 billion globally, saw their market cap fall by 18%. A similar global set of utilities witnessed a market cap gain of more than 21% (with certain top performers, such as NextEra Energy in North America, more than doubling their market capitalization, a phenomenon not witnessed in oil and gas). Although utilities are lagging the overall market, and in certain geographies like Europe performing considerably worse than the market, these figures reflect more stability than the oil and gas industry.⁵

Given the differing prospective growth trajectories of utilities and oil and gas companies, a strong argument can be made for oil and gas companies to move into power as a source of long-term market growth. Several of the oil majors are already considering their options.

Oil consumption per capita will decline, while use of electricity will rise significantly

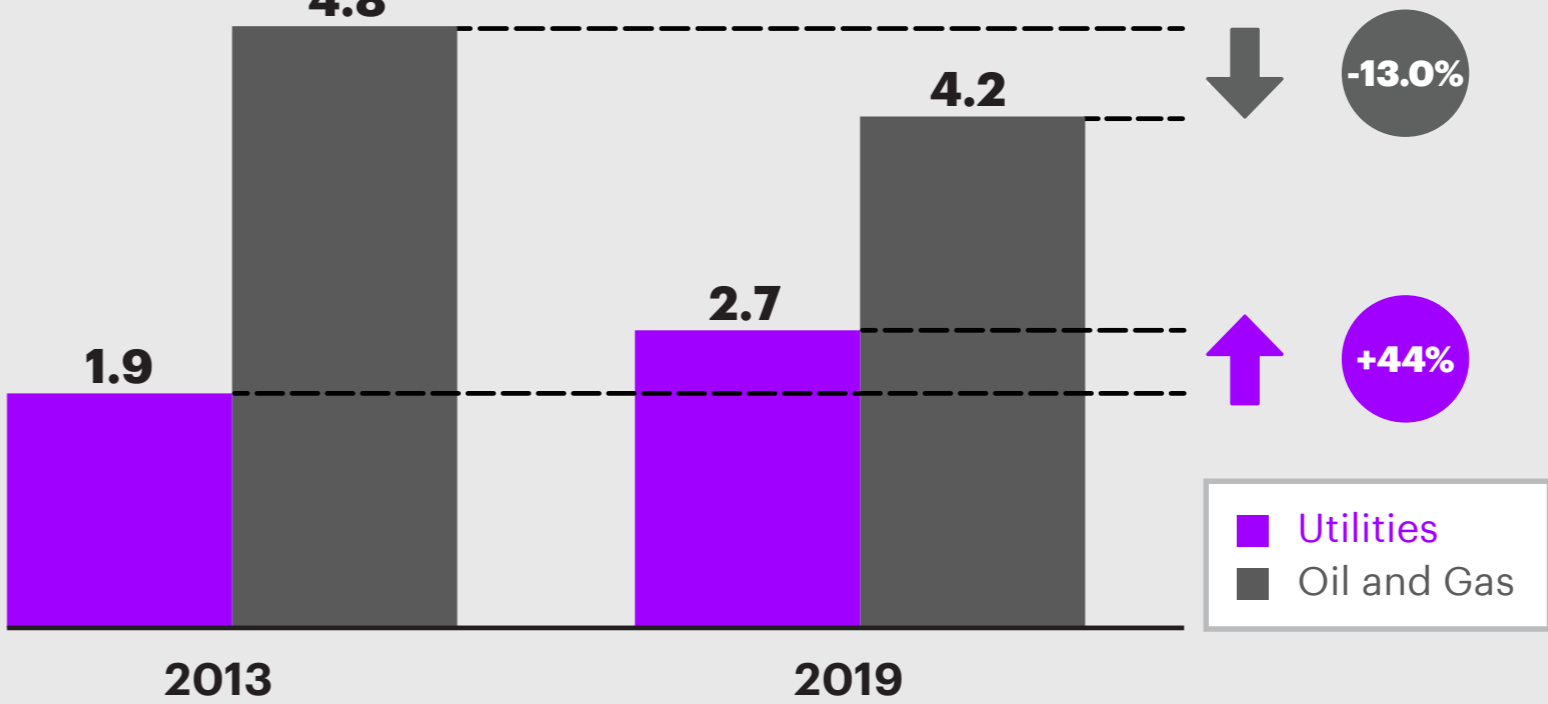
Figure 4: Energy consumption per capita. GIGAJOULES/CAPITA



Source: Accenture Strategy, Energy: analysis, 2020; World Energy Council, World Energy Scenarios 2019.

Market cap of largest globally traded oil and gas companies has declined, while that of utility players has gone up

Figure 5: Oil and gas vs. utilities market cap. US\$ TRILLION



Source: Accenture Strategy, Energy: analysis of 339 public energy companies with over US\$1 billion in revenues and 304 public utilities companies with over US\$1 billion in revenues, 2020.

THE MOVE TO POWER

As enticing as a shift to power may be for oil and gas companies, it's not for the faint of heart. The power sector is by no means a "sure bet." It is riddled with its own unique challenges.

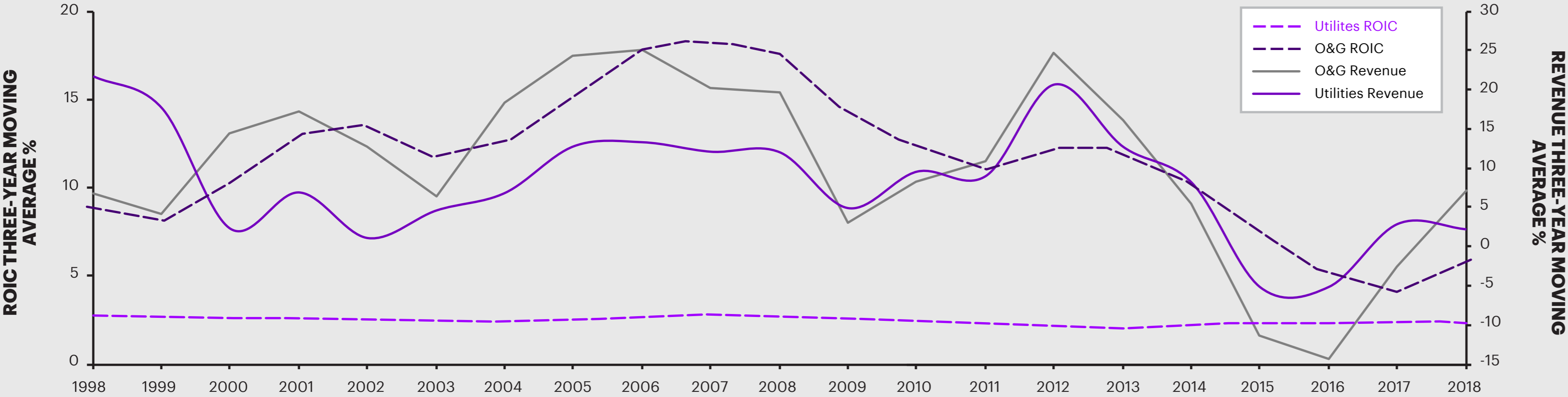
One challenge is **profitability**. The energy and power industries have very different risk/reward profiles. For utilities in regulated businesses, revenues are dictated by an allowed Return on Equity (ROE) and allowed recovery determined by a regulator. Allowed ROEs have been gradually shrinking in many countries and in the United States stand between 8-10% for distribution and 9-11% for transmission. Globally, the returns for the sector have averaged around the mid-single digits. Returns have historically been higher for oil and gas companies, although their averages have lately been trending toward the margins enjoyed by utilities. And they still have their historical volatility tied to commodity prices, which can lead to near zero or negative

margins for certain parts of the cycle. Energy companies considering a move into power will need to weigh the trade-off between potentially higher returns and stable, albeit lower, profitability (see Figure 6).

Utility companies' returns are traditionally stable, while oil and gas companies experience large variations

Figure 6: Revenue and return on invested capital (ROIC) over time: Oil and gas vs. electric power.

ELECTRIC UTILITIES VS. OIL AND GAS: THREE-YEAR MOVING AVERAGE ROIC / REVENUE



Source: Accenture Strategy Energy Analysis of 270 public energy companies over \$1 billion USD revenue and 264 public utility companies over \$1 billion USD revenue, 2020.

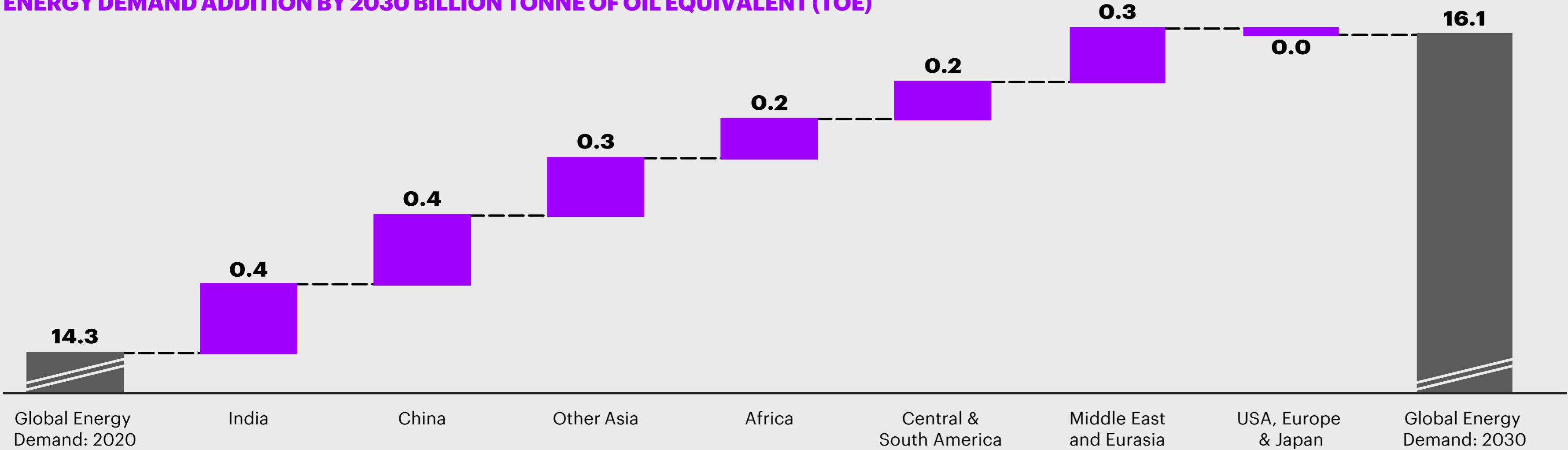
Another challenge is **market access**. At-scale access to power markets is not a given. The power industry is not a global one. At the micro-level, the industry is highly concentrated. With few exceptions, utilities operate at a country level or, in North America, at a state level. Regulatory hurdles make entering such markets a big challenge. Additionally, many of the largest utilities in developing countries—where demand for electricity is growing rapidly (see Figure 7)—are government-owned. Making inroads into such high-risk markets comes with its own set of challenges.

Related to market entry challenges, **scale** needs to be evaluated. Supermajors with market capitalizations of more than US\$100 billion need to recognize that there are few investment opportunities in the electricity sector that will “move the needle” on their revenue and earnings. The power industry is fragmented at a state or country level with very few truly global companies. At-scale investment opportunities will be few and far between. A strategic shift is, therefore, challenging and may amount to little more than “dabbling.”

Bulk of growth in energy demand is coming from developing markets

Figure 7: Global energy demand addition by 2030.

ENERGY DEMAND ADDITION BY 2030 BILLION TONNE OF OIL EQUIVALENT (TOE)



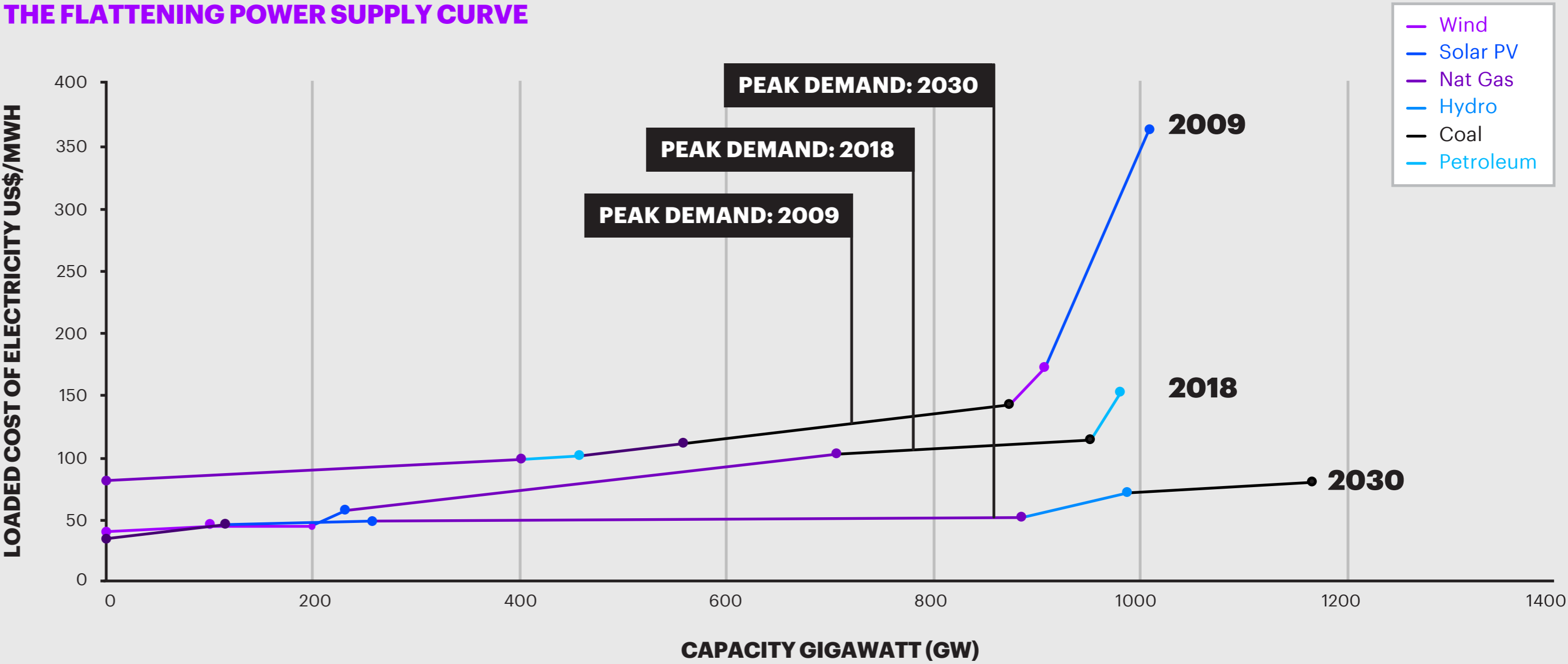
Source: Accenture Strategy, Energy: analysis, 2020; BP Energy Outlook 2019.

Perhaps the greatest obstacle facing oil and gas companies looking to move into power is **disruption**. The power industry is going through its own disruption, thanks to energy efficiency actions, as well as the advances and pace of change in storage, distributed generation, electric vehicles and renewables. We're already seeing the effect on power generation (see Figure 8). As power supplies and costs flatten, the profit pools for power providers will likely shrink even further.

As the power supply curve flattens, profit pools for power providers will likely shrink

Figure 8: 2009–2030 US power supply curve.

THE FLATTENING POWER SUPPLY CURVE



Source: Accenture Strategy, Energy: analysis, 2020; EIA Electric Power Annual 2019; EIA Annual Energy Outlook; Lazard; Energy Innovation; Statista; Peak Demand in 2030 projected from Future Energy Scenarios by National Grid figures for Great Britain in 2050. Assumes constant rate of growth between 2017 and 2050 and parallel growth to the United States.

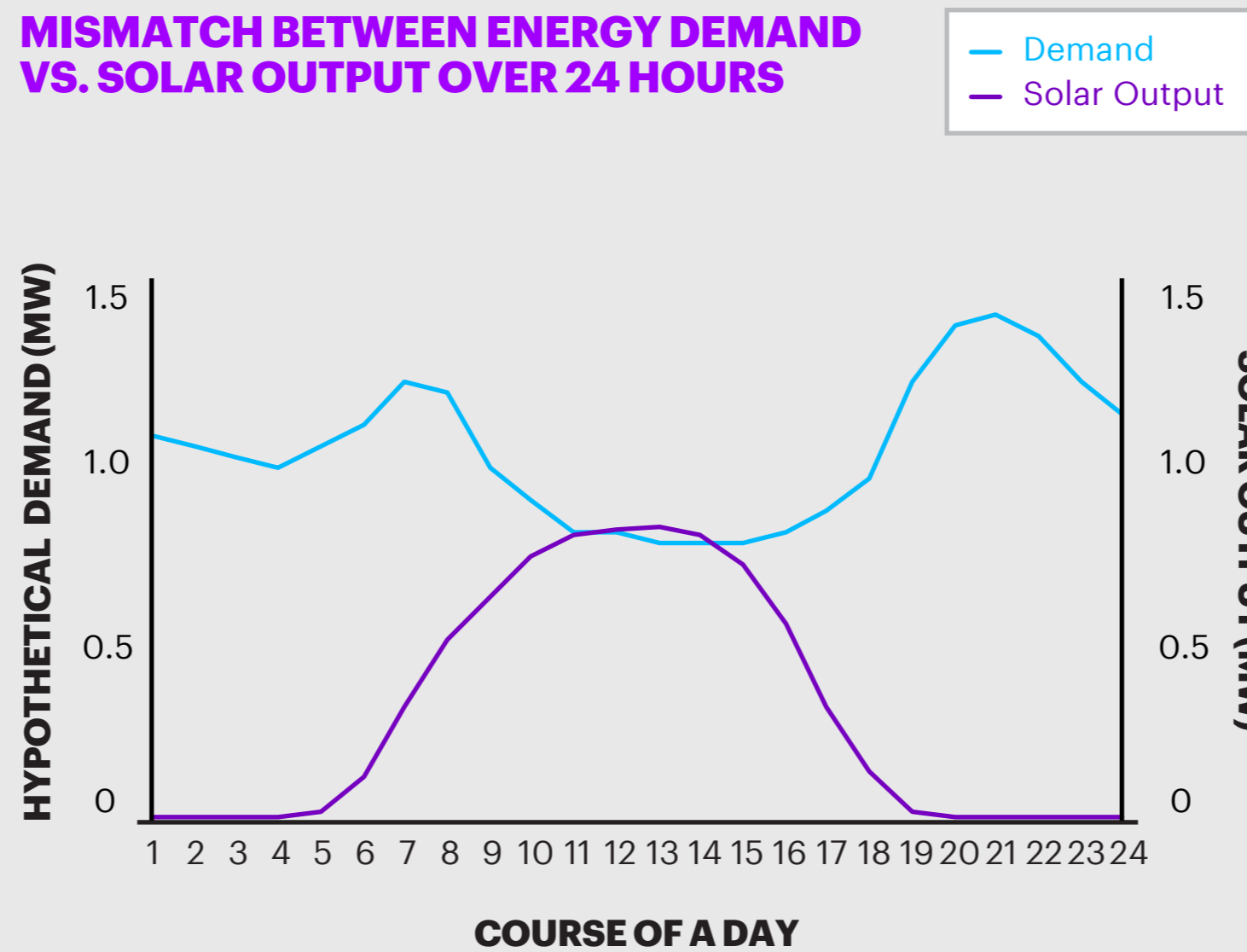
Disruption in storage is worth special mention. New disruptive battery solutions are becoming available and they're getting cheaper. Between 2010 and 2017, battery prices fell by 80%.⁶ In 10 years, renewable energy plus battery storage will likely be competitively priced and provide the back-up power that's needed to address the challenge of intermittency (see Figure 9). While natural gas continues to be the most viable energy source to accompany solar and wind when additional power is needed, the days of natural gas peaker plants may be numbered.

The potential impact of renewables and large-scale battery storage—especially when coupled with other disruptive forces such as electric vehicle adoption, distributed generation, smart infrastructures and demand-side management—cannot be overstated. Every part of the power sector's value chain, from generation to retail, is primed for disruption. The Western world has hit peak electricity demand. European utilities in particular have had to fend off a drop in performance as a result of oversupply, changing economics of energy sources and decarbonization. Transmission and distribution companies across the board are having to rethink the role of the grid in a distributed renewable energy environment. And competitive retail continues to both lag and be substantially disrupted on the consumer front. Oil and gas companies need to consider the risks and opportunities associated with moving into an industry at the cusp of such monumental change.

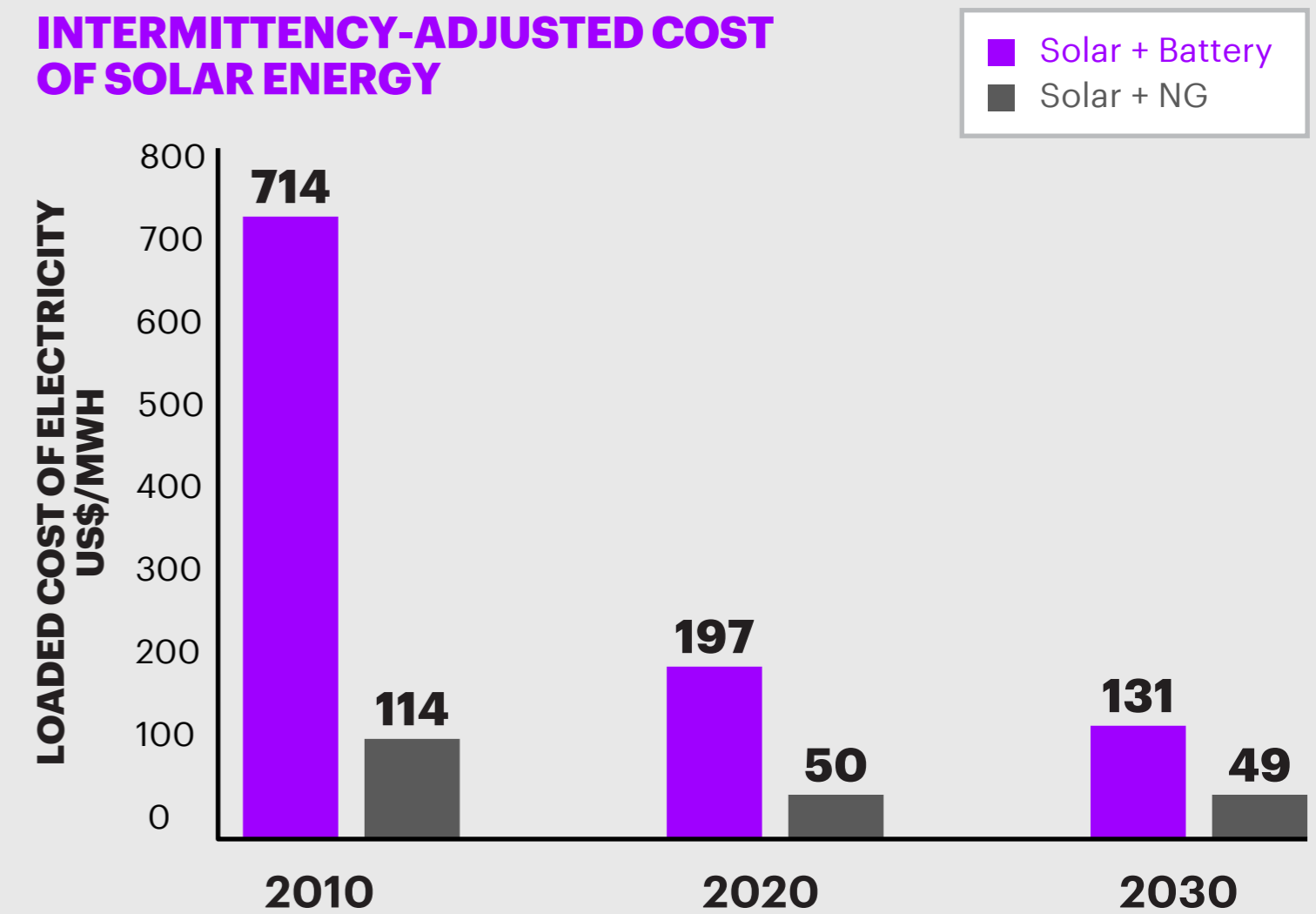
Disruptions in storage technologies will make renewables and energy storage integral parts of power generation—but natural gas generation is still competitive

Figure 9: Intermittency-adjusted cost evolution for solar plus battery and solar plus natural gas (NG).

MISMATCH BETWEEN ENERGY DEMAND VS. SOLAR OUTPUT OVER 24 HOURS



INTERMITTENCY-ADJUSTED COST OF SOLAR ENERGY



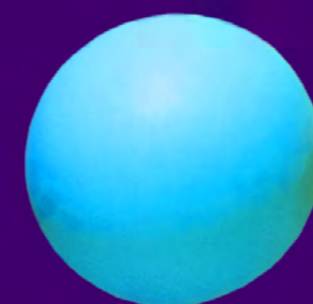
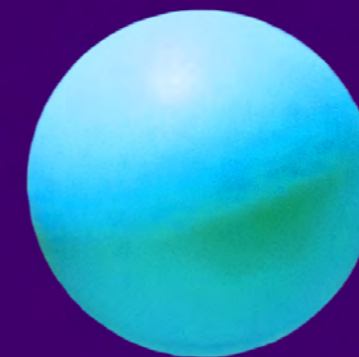
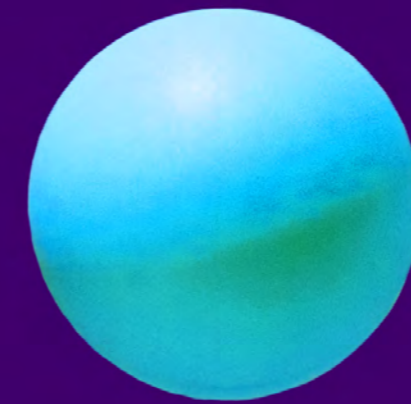
Source: Accenture Strategy, Energy: analysis; All numbers are based on a hypothetical average demand of 1 MW/h through the course of a day;

Assumptions: Solar Power Capacity 1.2 MW; Battery Size 1.37 MW; Battery Duration 4 hours; NGCC Capacity 1 MW; NGCC at 65% Utilization; NGCT at 10% Utilization; Peak Demand 1.37 MW; Demand distribution is based on a California Jan – Jun daily Average from EIA; Solar Panel Output is based on a simulated panel in California sourced from EIA; EIA AEO 2019; Lazard; NREL; Energy Innovation; Greentech Media; Macrotrends

Not Considered: Ramp Up/Down limitations and costs; Impact of the battery duration.

LOOK BEFORE YOU LEAP

Out of 20 industries Accenture analyzed, energy (or oil and gas) is considered vulnerable and susceptible to future disruption (see Figure 10).

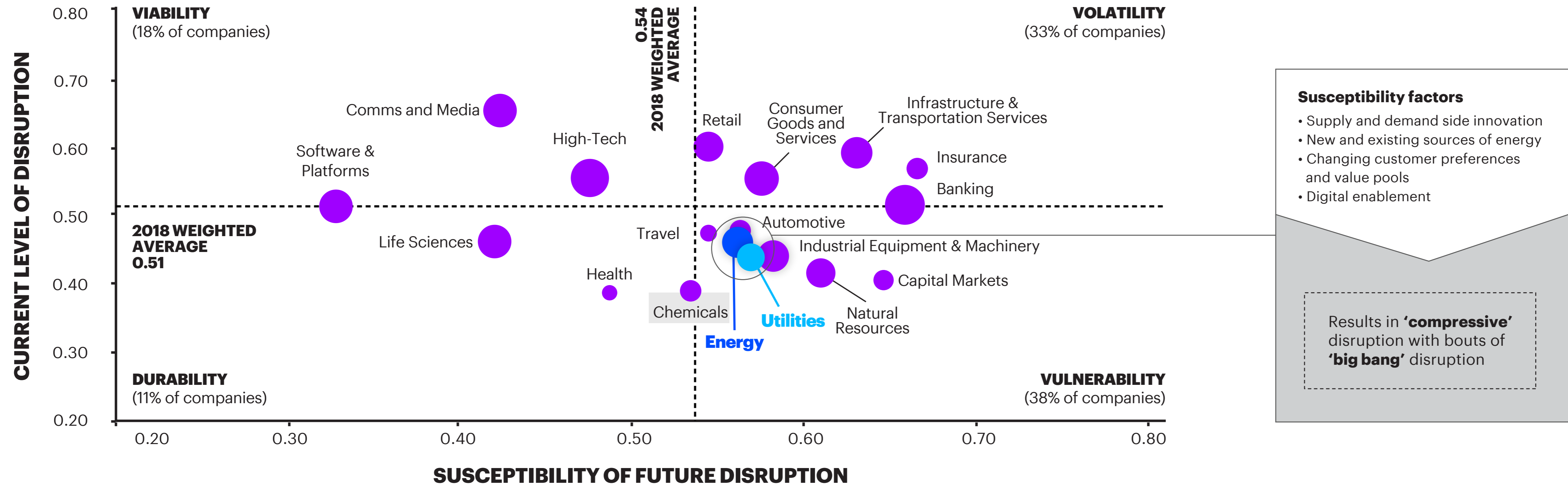


The energy industry is vulnerable to future disruption; the power sector (utilities) is no different

Figure 10: The energy and power sectors are vulnerable to disruption.

DISRUPTABILITY INDEX INDUSTRY SECTOR MATRIX - 2018 RESULTS

0-1 scale (1 = most susceptible/disrupted)



Source: Accenture Disruptability Index Pathways 2011-2018.

It makes sense, then, for oil and gas companies to extend their reach to safer harbors. Does the power sector provide such shelter? Maybe not. Accenture's analysis revealed that while utilities may provide more stability in terms of returns, they also operate in a heightened state of vulnerability—facing marginally lower disruption today, but marginally higher disruption in the future compared to energy. That is due to the fact that they are seeing changes on both supply and demand fronts: on the supply side due to the dynamic nature of fuel mix (such as solar and wind competing head on with fossil fuels), and on the demand side due to rapidly evolving value pools (such as those related to electric vehicles) and consumer behavioral changes (such as a shift toward distributed generation). At the same time, they face persistent regulatory pressure to decarbonize and investor pressure to improve their efficiencies and return on capital. These shifts are attracting opportunistic disruptors. Disruptors like oil and gas companies looking to diversify in the energy transition.

While it's important for energy companies to evaluate a move into power, they must proceed with caution. Thoughtfulness before committing significant funds and human talent is what distinguishes a smart move from a regret. The intent needs to be clear. The position they wish to adopt in the value chain needs to be identified—and it can't simply be an attempt to window dress for sustainability.

This is not to say that oil and gas companies need to have everything figured out. Amid the disruptions roiling both energy and power sectors, it is critical to ask three broad questions to get the transition going:

1

WHAT'S THE DESTINATION?

2

WHAT ARE THE RIGHT "POWER PLAYS"?

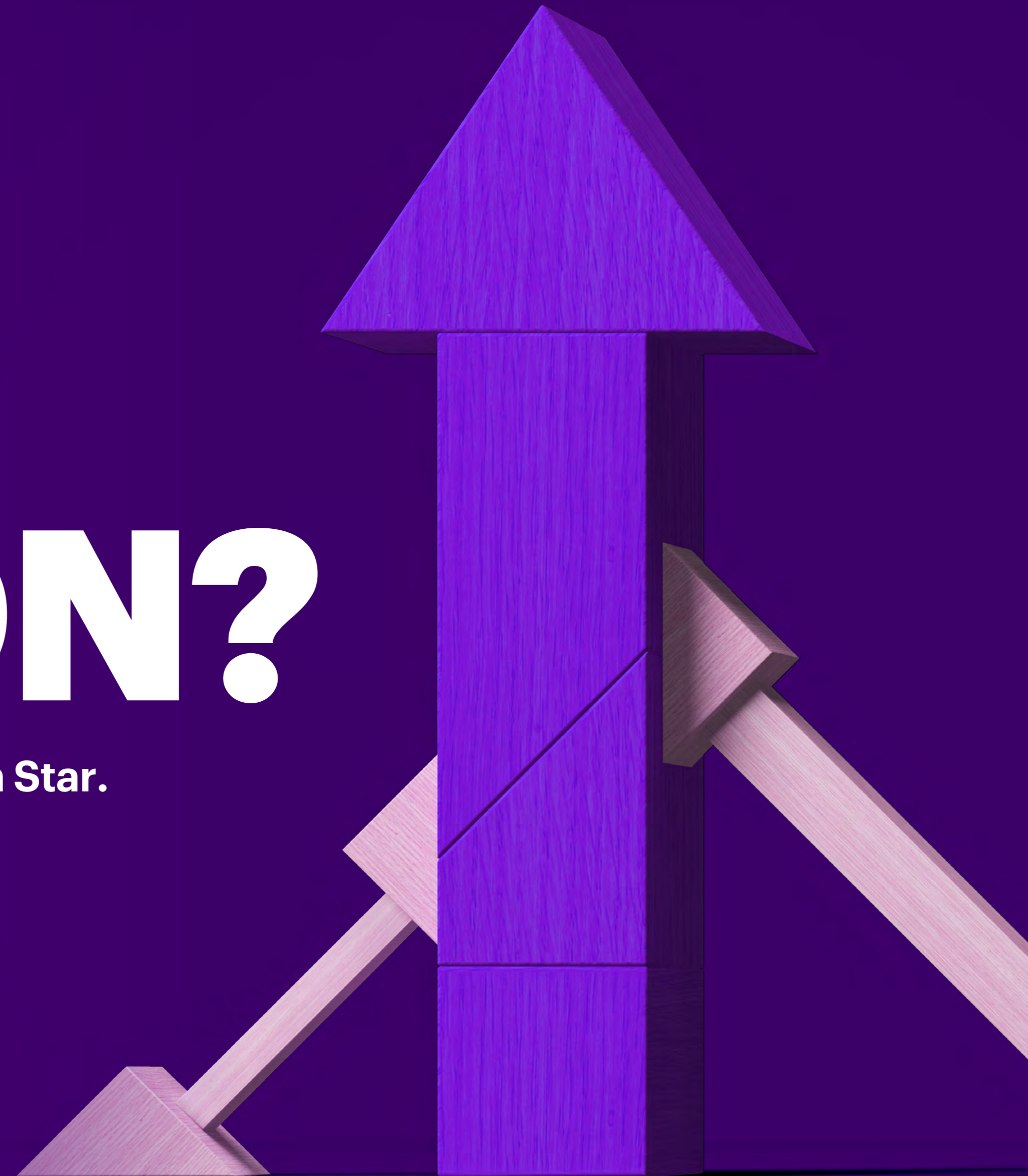
3

HOW FAST TO GO?



WHAT'S THE DESTINATION?

Every strategic expansion needs a purpose. A guiding directive. A North Star.



There are several lenses oil and gas companies (and also utilities) can apply to zero in on their end goal.

DECARBONIZATION

In the coming years, oil and gas companies will need a social and financial license to operate. That license is bestowed by customers and investors in exchange for authentic commitments to address environmental, social and governance (ESG) imperatives and, specifically, actions to fight climate change. Pursuing opportunities in the clean power sector is one way energy companies can reduce their emissions. But it will likely not be enough. Moving into power must be considered as be part of a larger decarbonization strategy—one that is brought to life through technological investments, publicly stated climate targets, environmental risk assessments, and transparency around the impact of their operations. In assessing their opportunities in the power sector, oil and gas companies will need to determine how such a move will not only lessen their environmental footprint, but also infuse their business models with the resiliency they need during the energy transition.

PROFITABILITY

Companies must choose to follow the money. This exercise involves identifying where the greatest profit potential lies today, and also making educated guesses about where the greatest value is likely to be in the future. Is the end state about operating at the lowest cost? Is it about delivering must-have customer services and experiences? Is it about having a competitive presence in various pockets of an extended value chain? In assessing an opportunity's potential, companies must consider how they can drive a material impact on earnings. In many cases, this may involve pursuing a large-scale merger or acquisition in the coming years.

UNIQUE ABILITIES, ASSETS AND BALANCE SHEETS

Many oil and gas companies have built their success (and their balance sheets) largely on the basis of their expertise in asset management and large-scale project execution. At their core, they are asset companies, proficient at implementing asset-based strategies. There's no reason they can't bring their knowledge, experience and skills in asset management to the power sector. The oil majors possess balance sheets that dwarf that of most utilities, and this can provide an avenue to scale that utilities can't create. Gas-by-wire projects and large-scale renewable solutions that incorporate battery storage are just two examples.

APPETITE FOR RISK

Moving into the power industry can be an inherently risky proposition due to the significant capital requirements and regulatory burden. Oil and gas companies will need to evaluate their options in terms of the amount of risk they are willing to take on—and the type of risk investors will tolerate. Beyond the risks they know about, energy companies need to assess how comfortable they are in uncharted waters. What industry changes are coming in the next five years? The next 10? What new regulatory pressures might emerge? How will society's reliance on (and trust in) energy companies evolve—and how might that affect a company's license to operate? How will a move into power affect a company's way of working? Its values? Its culture? Thoroughly exploring the answers to these questions can help companies determine how much risk they are willing to assume—and, by extension, the North Star they are willing to follow.

WHAT ARE THE RIGHT “POWER PLAYS”?

We believe there are five distinct roles oil and gas companies can play in the power space. Within each, there are multiple approaches to value—each supported by existing assets and capabilities.

These power plays are not mutually exclusive; they can be combined. There are other opportunities available in the power space, such as investment in core infrastructure or management of transmission and distribution (T&D), but we think the five power plays described below present the greatest potential.

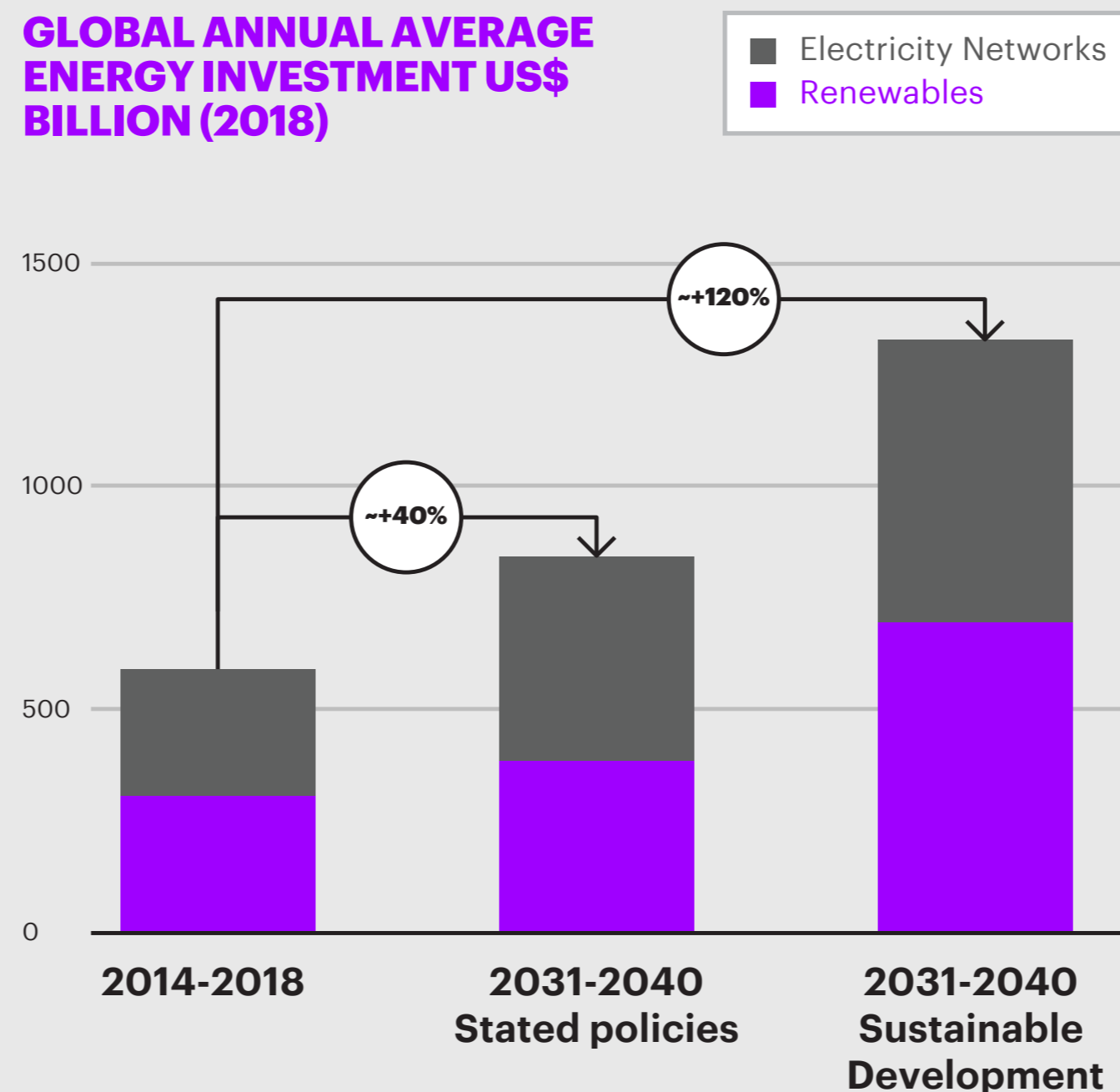


As the world continues its steady advance to and investment in electrification (see Figure 11), there's a tremendous opportunity for some oil and gas companies to become literal powerhouses. Staking a claim in power generation will require large investments and acquisitions, primarily in the wind and solar segments, both onshore and off. Given the maturity of the technologies underpinning the renewables market, the cost-competitiveness of wind and solar power generation, and the seemingly unstoppable demand for electricity in developing markets, the time is right for scale generators to make their move to clean generation. This infrastructure "power play" would be complemented by investments in enabling infrastructure, such as in next-gen storage.

While such projects generate lower ROIC, they also come with less risk and lower cost of capital (typically less than 5%). Large funds see these annuity-style investments in at-scale generation as safer. The lower investment return threshold and higher-volume growth potential make it an accretive and attractive value proposition. Additionally, the complexity of large-scale capital programs needed for such a posture make it a good fit for large integrated energy companies.

The power sector (specifically, renewables and infrastructure) is expected to see significant growth through 2040, particularly in a sustainable development scenario

Figure 11: Energy supply investment forecast by 2040.



Source: Accenture Strategy, Energy: analysis, 2020; IEA – World Energy Outlook 2019; World Energy Investment 2019 – Stated Policies and Sustainable Development Policies.

NextEra – From regulated utility to leader in renewables

NextEra Energy Resources is working with Oklahoma-based Western Farmers Electric Cooperative to create 400 megawatts of capacity to meet its resource-adequacy obligation. The traditional capacity-building approach would have involved building a natural gas peaker.

NextEra has opted, instead, to build the largest solar+wind+storage plant in the United States. The facility will include 250 MW of wind capacity, 250 MW of solar power and 800 MW-hours of battery storage. By taking advantage of tax credits, the innovative solution is expected to be cheaper than a similarly sized gas peaker plant.⁷

The Oklahoma project reflects NextEra's commitment to identifying smart capital investments to benefit customers. Shareholders benefit too. The company, which boasts the world's largest clean energy portfolio in the world, has seen its market capitalization grow from \$12 billion to nearly \$95 billion since 2003. Over that period, it's delivered total shareholder returns of 905%.⁸



RESOURCE MONETIZATION

Oil and gas companies may choose to focus on boosting gas-fired generation capacity and monetizing hydrocarbon resources along the way. They can do this in several ways. Upstream players may, for example, monetize “stranded” gas by building gas-by-wire capabilities to augment existing pipeline transmissions. Converting stranded assets and “wasted” resources—such as the 145 billion cubic meters of liquified natural gas (LNG) production that is flared each year⁹—can enhance both near- and long-term margins in a low-price regime that has been prevalent in the commodity market (gas, in particular) for an extended period of time.

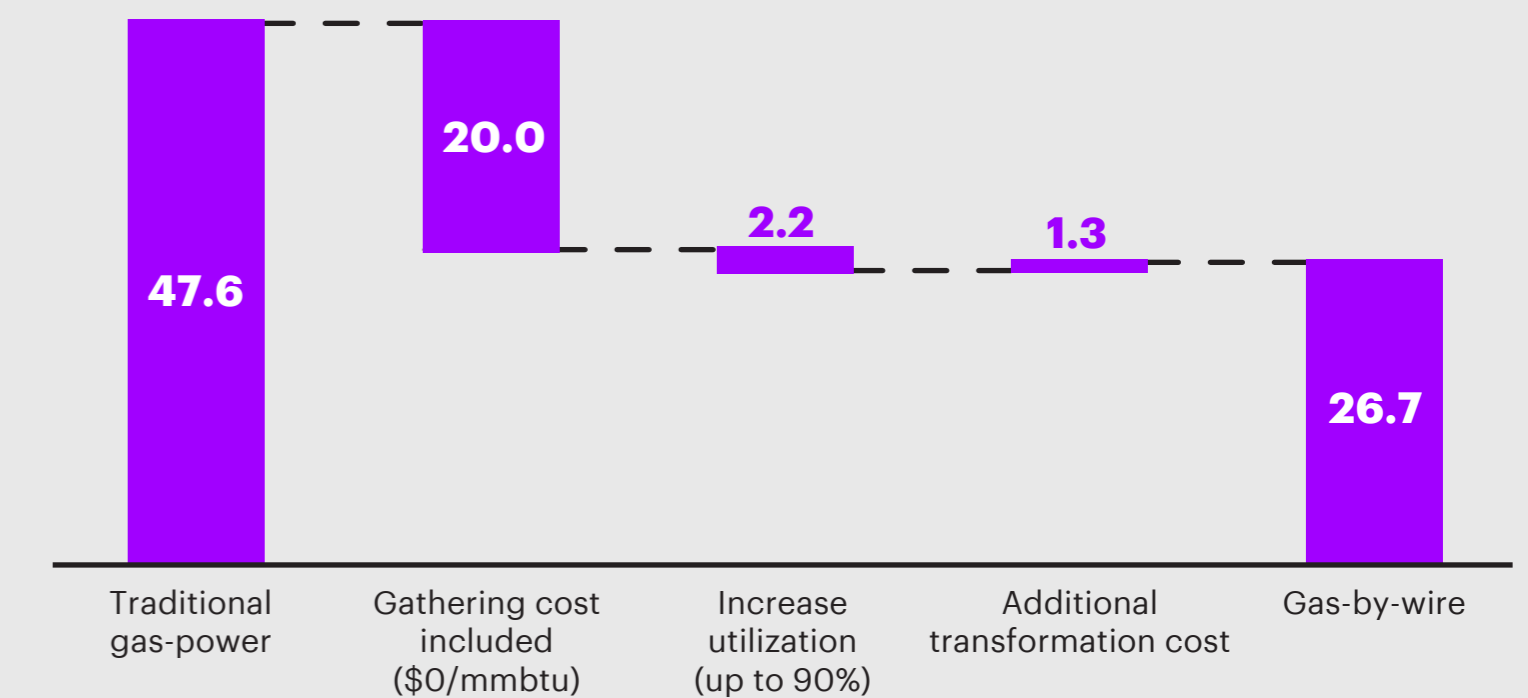
It is also not dissimilar from the approach some of the majors have applied through expanding their petrochemicals footprint to boost end-to-end value chain access and enhance the economic rent derived from their resources. The economic potential of such a move is enormous. It can nearly double the return on traditional gas power (see Figure 12) or be the equivalent of improving the economics of stranded/flared gas in basins like the Permian.

Alternatively, oil and gas companies can expand their LNG value chain investments to include power (generation and T&D infrastructure). That may open up doors in developing countries where gas is increasingly seen as the transition fuel in power and where both regasification and power infrastructure continue to be bottlenecks. This posture, while riddled with the risks that come with operating in some of these developing geographies, offers the opportunity to monetize gas assets, capture the steep demand growth in those countries, and also develop favorable commercial constructs relative to the developed world.

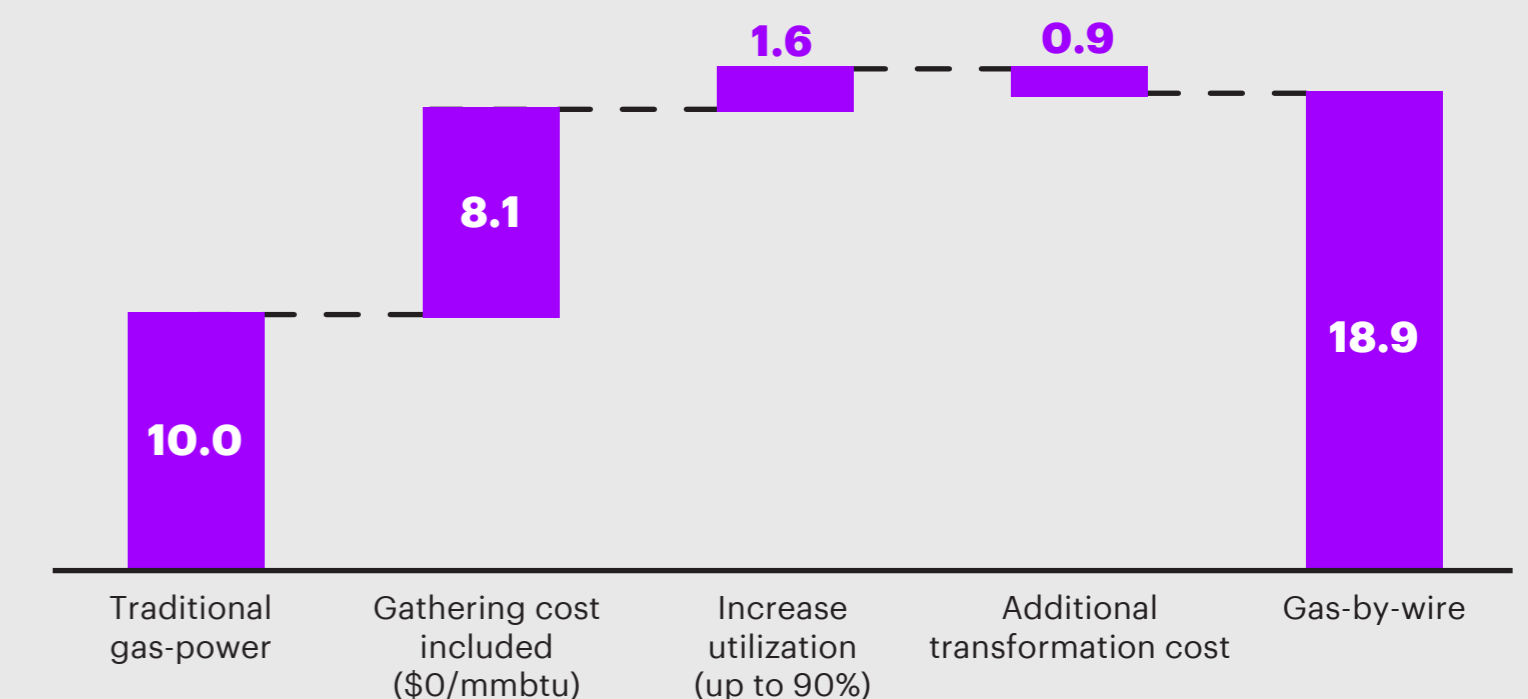
Gas-by-wire could provide an attractive way to monetize otherwise stranded gas

Figure 12: Gas-by-wire economics.

LOADED COST OF ELECTRICITY US\$/MEGAWATT HOUR (MWH)

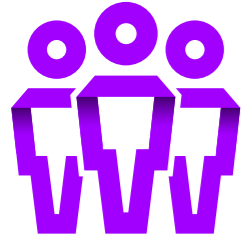


RATE OF RETURN (%)



Source: Accenture Strategy, Energy: analysis, 2020.

Notes: Traditional Gas Combined Cycle Power Generation (base case) assumes: 80% power plant utilization and 0 miles distance to the grid, \$2.5/thousand cubic feet natural gas price; Gas-by-wire case assumes: utilization of 90%, \$0/thousand cubic feet natural gas price, 1,000-mile distance to the grid.



CONSUMER DISRUPTION

Two sets of customer-facing solutions—one for business and one for residential consumers—provide additional opportunities for oil and gas companies to capture more revenue, as well as customer loyalty. While these business-to-business (B2B) and business-to-consumer (B2C) opportunities are being shaped by experiential competitors (e.g., Amazon, Google, telecommunication players, etc.), by technological advances, and by disruptive trends like distributed generation, it's not too early for companies to think about where they might place their bets. Other industries provide clues for how to reshape the customer experience and value proposition (see Figure 13).

Success in the role of a consumer disruptor is anything but certain. The few success stories are overshadowed by numerous stories of failed investments.

However, a few possible plays for oil and gas companies are already emerging. By building large-scale B2B power operations, for example, they can capture additional revenues from industrial customers—many of whom may already be customers in other business areas. Or they can use their existing retail footprints and expertise to

shift to new profit pools. Developing smart home services, facilitating the distributed generation revolution, creating a “forecourt of the future” (complete with charging stations), or integrating multiple eMobility infrastructures and solutions are some examples of disruptive service offerings that end consumers would likely welcome.

Overall, the B2B segment is one that shows more immediate promise, and that space is actively being targeted by utilities. However, the expansion in distributed generation, proliferation of smart and demand management services, and the ubiquity of electricity in every aspect of life may change the economic profile of the B2C segment in the future. Moving into this segment of the value chain requires scale (at least 2-3 million customers at the residential level) to absorb the cost to acquire and serve customers. That said, many of the larger oil and gas companies are known entities in most of the world, which gives them a potential brand advantage to lure customers.

Access to end customers could enable new value pools and creative returns

Figure 13: Cross-industry examples of reimagined customer service.

CROSS-INDUSTRY EXAMPLES

	WHAT AND WHY	HOW	OUTCOME
<p>THE GROWTH OF SERVICE OFFERINGS</p>	<ul style="list-style-type: none"> Revenue of leading manufacturers of agricultural equipment declined by 28% between FY14 and FY16 	<ul style="list-style-type: none"> Developed software to offer a differentiated connection of machines, people and insights 	<ul style="list-style-type: none"> Increased sales by 25% between FY17 and FY18
<p>THE CUSTOMER-CENTRIC ECONOMIC IMPERATIVE</p>	<ul style="list-style-type: none"> Energy company installed Solar PV for ~40,000 customers in Australia FY16 and plateaued in FY17 with zero EBITDA 	<ul style="list-style-type: none"> Switched to a “solar-as-a-service” model that included free installation with monthly payments 	<ul style="list-style-type: none"> Grew customer base by ~1000% by FY19 (~440,000 customers) & generated 12% EBITDA margin
<p>SHIFTING TO NEW PROFIT POOLS</p>	<ul style="list-style-type: none"> Dealerships were faced with 40% margin decline for new car sales between FY09 and FY16 	<ul style="list-style-type: none"> Focused on the “service center” value pool such as service and parts 	<ul style="list-style-type: none"> Service and parts are ~15% of total sales in FY19 and accounted for ~50% of gross profits

Source: Accenture Strategy, Energy: analysis, 2020.

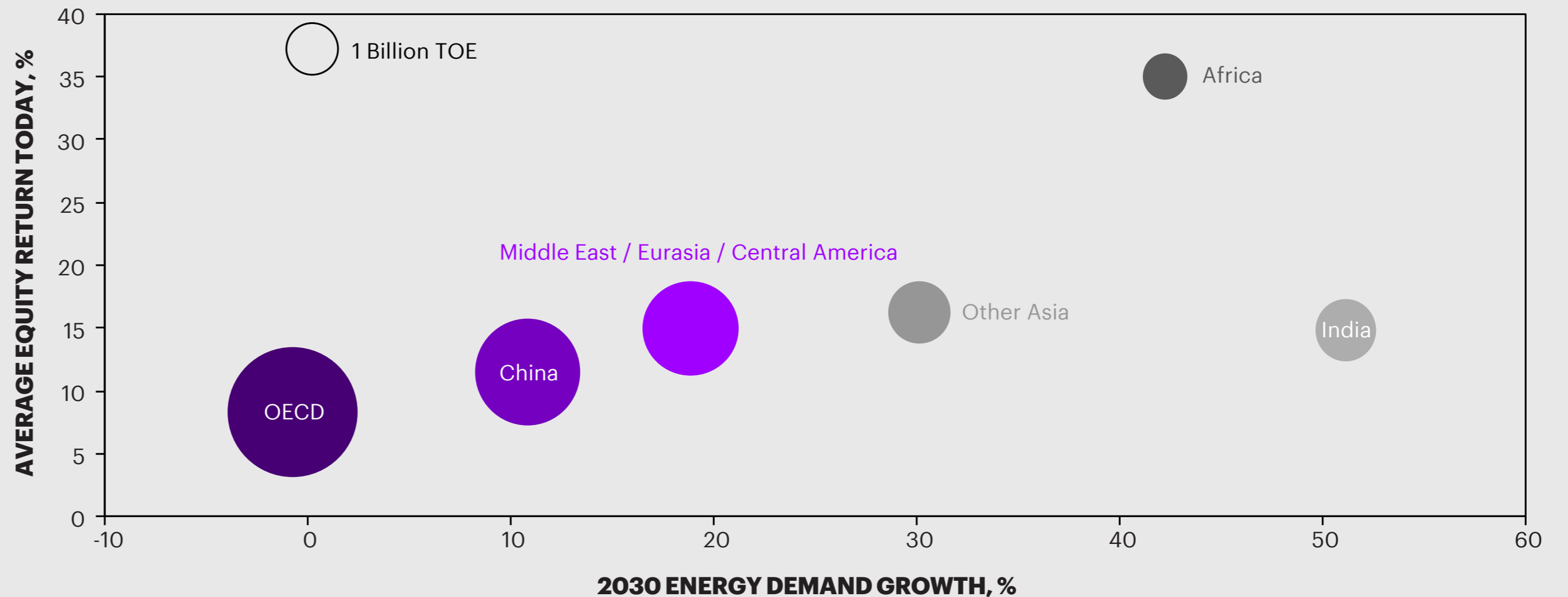


Larger oil and gas companies (majors and international NOCs) have the opportunity to expand their reach in developing markets, where power demand growth is poised to create significant economic value. But those potential rewards come with significant risk. Regulatory and commercial structures are immature and geopolitical circumstances can thwart best-laid plans.

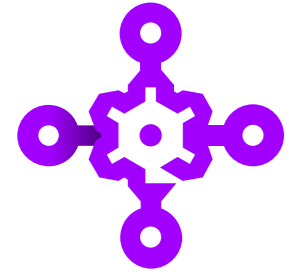
For some companies, the potential for high returns will be too tempting to refuse (see Figure 14). Within five to 10 years, there will be multiple options for companies considering such a move—from regasification infrastructure development and power generation to consumer service delivery. There will also be multiple paths to penetrate new markets. Partnerships with sovereign funds or national utilities may be wise.

Returns in developing markets will be higher, compensating investors for taking on the relatively higher risks

Figure 14: Regional energy demand growth and average equity risk premiums, percentage.



Source: Accenture Strategy, Energy: analysis, 2020; BP Energy Outlook 2019, Growth is from 2020 to 2030; "Market Risk Premium and Risk-free Rate Used for 69 Countries in 2019: A Survey," by Pablo Fernandez, Mar Martinez and Isabel Acin, April 23, 2019.



MARKET FACILITATION

The fifth power play involves bridging supply and demand by building integrated resource-to-power trading capabilities. Expanding existing supply and trading capabilities—and linking those to the larger energy ecosystem—can be attractive, and would build on the long history of trading among many oil and gas companies. A potential opportunity to consider is the capturing of natural gas-to-power arbitrages via the ownership or control of gas-powered generation in areas with local and global transportation optionality. Another opportunity lies in creating virtual power plants (e.g., the aggregation of distributed solar generation and/or battery storage) that can be used to capture intraday power price differences.

Some oil and gas companies already have sophisticated trading desks, including those focused on natural gas and power. Others are eagerly building or expanding their capabilities. Such is the case with Saudi Aramco, which recently announced its ambition to become a top-three global oil trader.¹⁰ As NOCs and other oil and gas companies expand their oil and products trading desks, the competition for margin will increase. Building resource-to-power trading capabilities may be one way for a handful of players to get ahead.



HOW FAST TO GO?


























We believe oil and gas companies should be preparing today to go “all in” with one or two of the large-scale power plays described above if they are going to “move the needle” by playing in power.

The days of dabbling in sub-scale, multiple opportunities are coming to an end. While the power plays described above represent areas of potential opportunity, most of them have not yet proven their ability to generate large-scale, sustainable growth for an oil and gas company. But they soon will. And at that point, it may simply be too late for companies to make their moves.

In making their decisions, leaders will need to consider multiple factors (see Figure 15).

One of the reasons Scale Generation, Resource Monetization and Market Facilitation are potentially more appealing options is that these areas are more mature, have relatively lower risk, and also align most with the capability set and balance sheet profile of larger integrated listed or national oil companies.

Figure 15: In assessing the viability of various power plays, multiple factors must be considered.

	MATURITY	COMPLEXITY	UNCERTAINTY (RISK)	VALUE POTENTIAL (RETURN)	CAPITAL OUTLAY	TIME TO ACT
SCALE GENERATION	 High	 Medium	 Low/Medium	 Medium	 High	Now at Scale
RESOURCE MONETIZATION	 Medium	 Medium	 Low	 Medium	 Medium/High	Now at Scale
CONSUMER DISRUPTION	 Low	 High	 Medium/High	 Medium/High	 Low/Medium	Test now; Scale later (5+ years)
GROWTH HUNTING	 Low/Medium	 High	 High	 High	 Medium/High	Assess Now; Scale later (5+ years)
MARKET FACILITATION	 Medium/High	 Medium	 Medium	 High	 Low	Now at Scale

Source: Accenture Strategy, Energy: analysis, 2020.

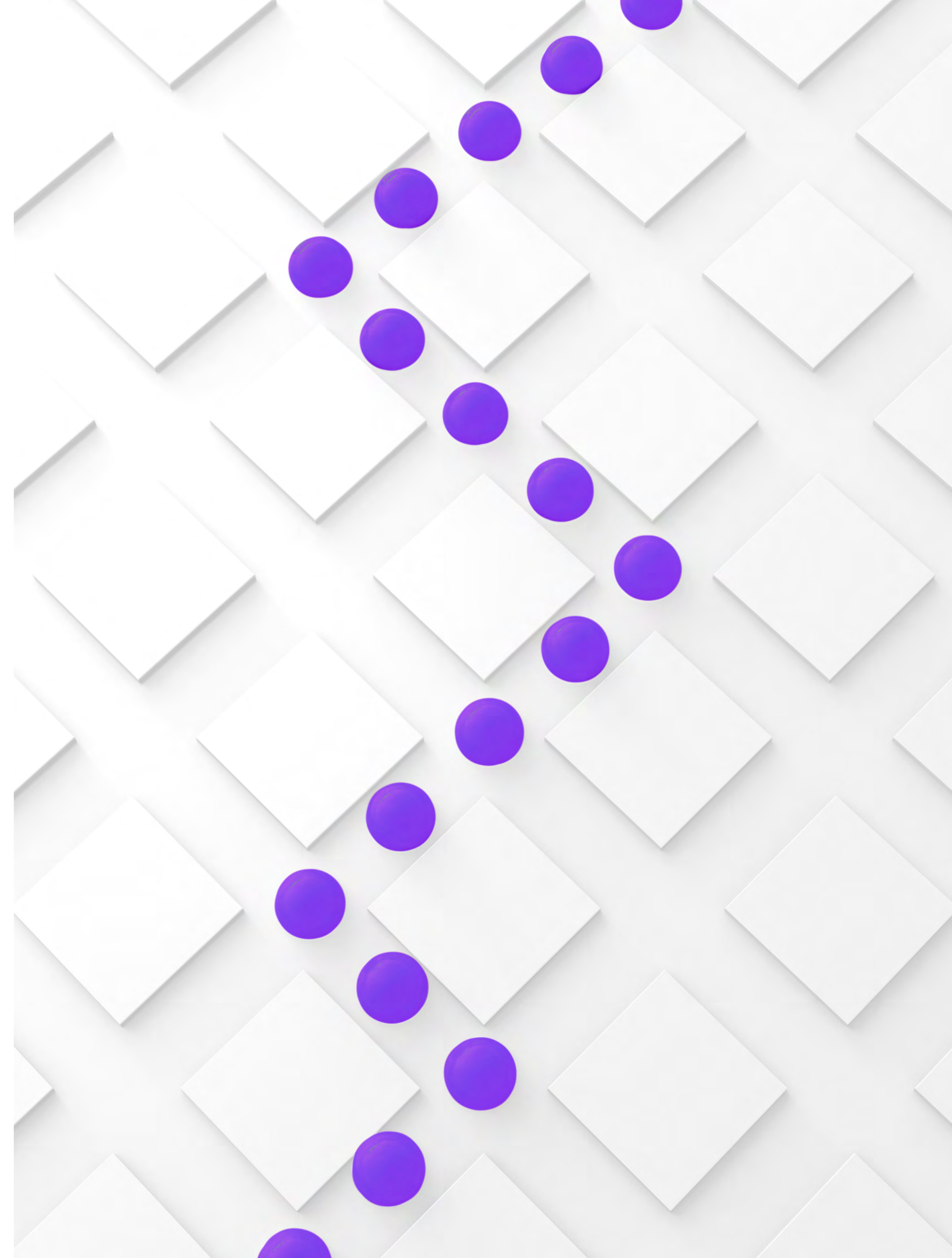
They may, however, require bolder moves such as higher capital allocations and/or (as in the case of scale generation) significant merger and acquisition activity in the near term. Winning Scale Generators, Resource Monetizers and Market Facilitators will have staked their claim within five years.

Companies wanting to become Consumer Disruptors or Growth Hunters may have more time. And that's good, considering the complexity of these moves. As disruptions take hold and the regulatory landscape becomes clearer, companies placing bets as Consumer Disruptors may want to place more manageable, innovation-led, surgical bets. Companies considering a Growth Hunter move may want to focus on larger, at-scale bets only in the most attractive geographies such as Africa.

Oil and gas companies have just a few years at most to make their move. The five power plays described above will be dominated by just a handful of players around the world. First-mover advantage will go to those that move fast and do so at scale—and in doing so have a material impact on valuation.

Of course, some energy companies will choose to do nothing or stick to their current core business. That may be an appropriate decision for a large number of upstream independents, for example. For them, investments in the power sector would divert a large portion of their relatively smaller capital expenditure budgets. They may find their paths to future growth in midstream or gas plays without having to look outside of their industry, for now.

For all others, time is of the essence.



Powering through

In an environment in which the pace of technological change is constantly accelerating and consumer behaviors and preferences change from one moment to the next, it's hard to envision new business models.

In an age of persistent disruption, predicting the future with any accuracy seems all but impossible.

Yet, amid the chaos, two things are abundantly clear. The first is that most energy companies have no choice but to explore higher-value opportunities. Future growth demands it. The second is that energy companies have the abilities to navigate the disruption that swirls around them. For generations, oil and gas companies have led the world steadily toward its future. There's no reason to think they will stop now.



AUTHORS

JACK AZAGURY

Senior Managing Director -
Accenture, North America Resources

 [Connect on LinkedIn](#)

MUQSIT ASHRAF

Senior Managing Director -
Accenture Strategy, Energy

 [Connect on LinkedIn](#)

PEDRO CARUSO

Managing Director -
Accenture Strategy, Energy

 [Connect on LinkedIn](#)

KEY CONTRIBUTORS

DAVID ELIZONDO

BORIS LESHCHINSKIY

LIVIA TEDESCHI

This document makes descriptive reference to trademarks that may be owned by others. The use of such trademarks herein is not an assertion of ownership of such trademarks by Accenture and is not intended to represent or imply the existence of an association between Accenture and the lawful owners of such trademarks.

Copyright © 2020 Accenture.
All rights reserved.

Accenture, its logo, and New Applied Now
are trademarks of Accenture.

ABOUT ACCENTURE

Accenture is a leading global professional services company, providing a broad range of services and solutions in strategy, consulting, digital, technology and operations. Combining unmatched experience and specialized skills across more than 40 industries and all business functions—underpinned by the world’s largest delivery network—Accenture works at the intersection of business and technology to help clients improve their performance and create sustainable value for their stakeholders. With 505,000 people serving clients in more than 120 countries, Accenture drives innovation to improve the way the world works and lives. Visit us at www.accenture.com.

SOURCES

- ¹ World Energy Council, “World Energy Scenarios 2019,” September 2019.
- ² Ibid.
- ³ International Energy Agency, “World Energy Outlook 2019,” November 2019.
- ⁴ World Energy Council, “World Energy Scenarios 2019,” September 2019.
- ⁵ Accenture Strategy, Energy: analysis, 2019.
- ⁶ U.S. Department of Energy, “Energy Storage Technology and Cost Characterization Report,” July 2019.
- ⁷ “‘Cheaper Than a Peaker’: NextEra Inks Massive Wind+Solar+Storage Deal in Oklahoma,” GTM, July 25 2019, © 2019 Greentech Media, via Factiva.com.
- ⁸ NextEra Energy, Investor Conference 2019 presentation.
- ⁹ World Bank, Gas Flaring Volumes By Country - <http://pubdocs.worldbank.org/en/603281560185748682/pdf/Gas-flaring-volumes-Top-30-countries-2014-2018.pdf>.
- ¹⁰ “Global traders unfazed by national oil companies' plans to grow trading units,” S&P Global Platts, March 27, 2019, © 2019 S&P Global, via Factiva.com.