The Abdullah Bin Hamad Al-Attiyah International Foundation
for Energy & Sustainable Development

~ CEO Roundtable Series ~

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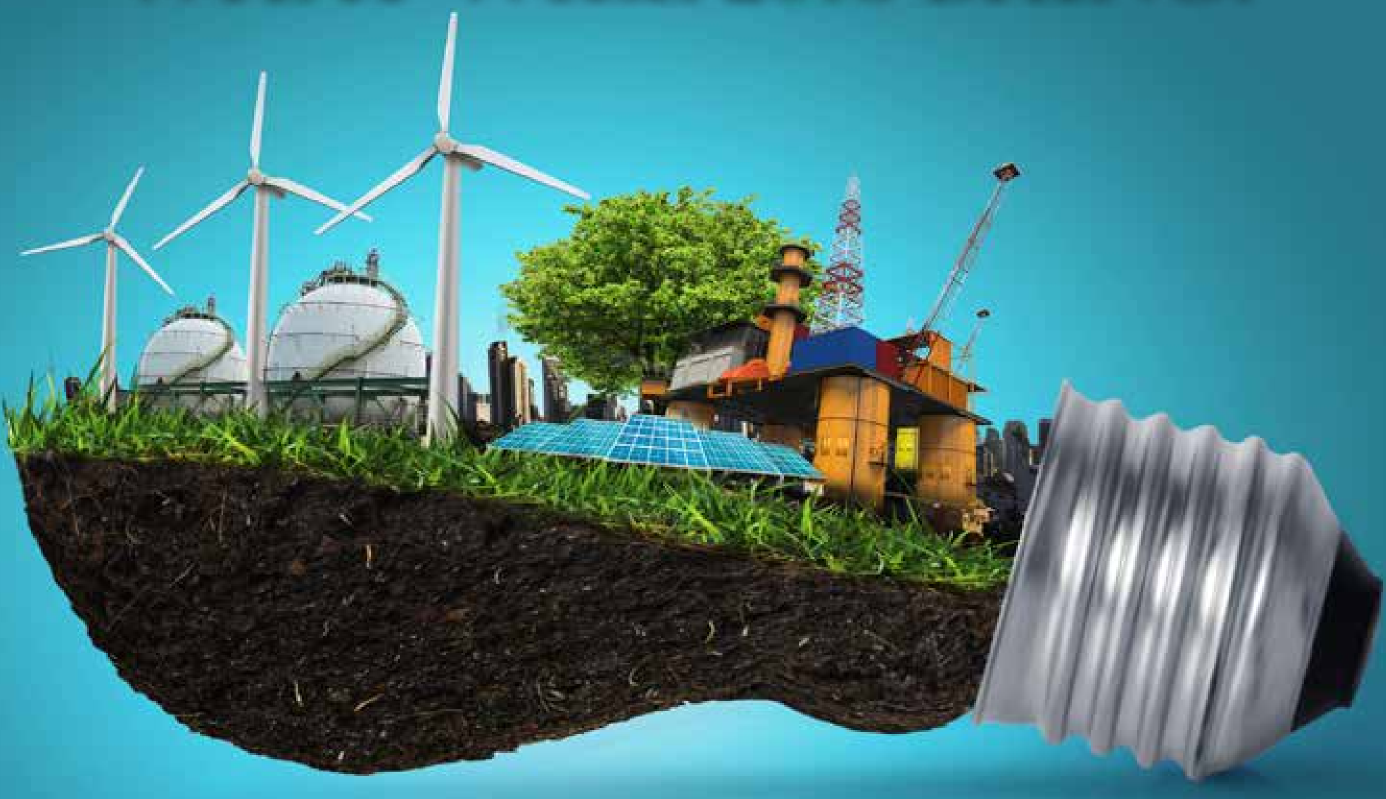
Gulf Energy Outlook:
WHAT WILL 2018 BRING?



The Abdullah Bin Hamad Al-Attiyah International Foundation for Energy & Sustainable Development: WHITE PAPER

GULF ENERGY OUTLOOK: *What will 2018 Bring?*

As 2017 draws to a close, optimists may say that Eurasia Group's forecast that the year had the highest level of global political risk since World War Two was off the mark. But do not be fooled – 2018 will have its own bag of political and economic surprises that will keep the Gulf's energy stakeholders on their toes.

Unpredictable, challenging, promising, innovative – all are key words to describe the next twelve months. This year has already seen the credibility of OPEC probed more deeply than ever, the re-revival of the US' shale market, and Asian LNG importers raise their demands as they seek to call more of the shots. A myriad of developments dots the 2018 energy calendar. What is the trick to cresting the waves of change, rather than being crushed by them? Flexibility. As well summarized by American actor Will Rogers in the early 1900s: "Even if you're on the right track, you'll get run over if you just sit there."

OPEC STANDS TALL

As widely anticipated, OPEC and non-OPEC members opted during their November meeting in Vienna to extend the 1.8 million barrels a day (b/d) of collective production cuts to the end of 2018. But there are still raised eyebrows; cooperation between the two camps has remained strong ever since the surprising alliance in December 2016. Devoid of any major hiccups, the deal has so far achieved its goal; the oil price has risen, stocks have fallen. But non-OPEC supply will increase this year – largely fuelled by the US – and pressure on the members' so-far commendable compliance efforts will inevitably mount. Sticking to the rulebook in 2018 will be much harder. It remains to be seen which respondents to a Gulf Intelligence (GI) Industry Survey held in the fourth quarter of this year guessed correctly. As the OPEC-non-OPEC alliance stands, nearly half (45%) of respondents expect the average price of Brent crude oil to be in the $60s/bl in 2018, with more than a third (38%) saying $50s/bl is more likely. A bullish 8% expect the price to be in the $70s/bl.

Taking a broader geopolitical view, the dynamics within OPEC will continue to shift in 2018. For one, the status of members Iraq and Iran, home to the world's fourth and fifth-largest oil reserves, respectively, is rising. Both long-time energy players who have fallen short of their vast potential, they are now increasingly seen as 'oil pals' singing from a similar playbook. Their collective production capacity is nearing 9m b/d, with some roundtable participants believing they could one day, together, challenge the role of OPEC linchpin, Saudi Arabia. But this would only be viable if – and it remains a relatively big if – Iraq and Iran are able to garner major and sustainable financial support. The annual percentage change in real GDP growth for Iraq stands at 2.9% and 2.1% for 2018 and 2022, respectively, according to the International Monetary Fund's (IMF) World Economic Outlook in October.

The Russian factor

Russia's commitment to the OPEC-non-OPEC deal has garnered praise amongst fellow members; many energy stakeholders have long questioned Moscow's dedication to the rulebook. Such doubt has increased as the oil price remains steady around $60/bl. But the majority of roundtable participants believe that Moscow's effort to stick to the deal is part of a longer-term strategy that will pay dividends well beyond supporting the oil price. Moscow's compliance is in part aimed at building trust and cooperation within the Gulf and wider Middle East, deepening what has been an increasingly public role of late. Russia's military, political, financial or economic presence in Syria, the Kurdish region of Iraq, Libya, Egypt and the Gulf are such examples. Russia's political and economic influence in the Middle East does not match that of the US and China, respectively. But the country's reputation as a favorable alternative to both could gain traction in 2018.

A Myriad of Change

1946

"The road ahead is not an easy one. We do not underestimate the difficulties facing us," as written by the International Monetary Fund's (IMF) Executive Directors following the inaugural meeting in 1946. More than seven decades on, little has changed

3.6%

The IMF has raised world growth forecasts to 3.6% this year and 3.7% in 2018, from 3.2% in 2016

3rd

The World Economic Forum's (WEF) Annual Meeting 2018 will be held in the third week of January in Davos-Klosters, Switzerland. The gathering of 2,500+ thought leaders will be an early indicator of how the coming twelve months will play out

"The OPEC-non-OPEC deal has much more road to travel before achieving the balanced and sustainable market that the organization would want."

For Iran, it is 3.8% and 4.1% for the same period. Both are steady indicators of growth – for Iran especially – when compared to the 3.5% and 3.8% growth rate anticipated in the wider Middle East, North Africa, Afghanistan, and Pakistan. So far, so good. But Iraq will likely have a smoother run than Iran, as Tehran continues to court foreign investors following the lifting of more than a decade of economic sanctions in January 2016. Iran has already posted impressive economic recovery rates and more deals like the $30 billion agreement to collaborate on strategic energy deals with Russia will certainly help bolster investors' confidence. The extent of Iran's access to cash in 2018 remains unclear, though it will likely be heavily influenced by the rhetoric of US President Trump's administration.

A STRONGER AMERICA

The US State Department will continue backing projects that encourage the diversification of fuel types, technologies, supply sources, countries of origin and delivery routes. Strategy teams of competing energy producers in the Gulf will be kept busy.

"A remarkable ability to unlock new resources cost-effectively pushes combined US oil and gas output to a level 50% higher than any other country has ever managed," said the International Energy Agency (IEA). The US has already rapidly emerged as a net exporter of gas, but will also become a net exporter of oil in the late 2020s. The 8m b/d rise in US tight oil output from 2010 to 2025 would match the highest sustained period of oil output growth by a single country in the history of oil markets, the IEA details in the World Energy Outlook 2017.

The US will also continue to invest in diplomatic capital and technical assistance resources to ensure other countries can deepen their own energy security. Rather than re-creating the wheel every time a new customer joins the LNG market, for example, the US is initiating programs and workshops to share their expertise. This includes strengthening the legal and regulatory environment in energy-hungry countries, such as India, to encourage foreign direct investment (FDI). The US is a well-qualified teacher. The country will be the world's biggest LNG exporter by around 2025, forecasts the IEA – gaining such a title within a decade of its first exports from the lower 48 states in February 2016.

At the same time as the US ratchets up the competitive tone, the collaboration between the superpower and Gulf energy producers is also evolving. Plans are underway to establish an export facility at the Golden Pass LNG Terminal near the Sabine Pass in Texas, in which Qatar Petroleum has a 70% share. Successful completion would significantly enhance Qatar's global footprint and underpin the US' energy goals; a win-win for two of the world's energy behemoths.

US Administration: Energy Ethos

The Three Tent Poles of the US' energy policy

The policies are bound by the Administration's foreign policy – national security and economic growth – and will inevitably have a knock-on effect on the Gulf's energy market and alliances.

- Seek to remove barriers to energy trade and development
- Seek to promote US energy exports, including resources, technologies and services
- Seek to ensure economic and energy security for the US and for our allies and partners

6

Six of the seven largest economies in the world are projected to be emerging economies in 2050 led by China (1st), India (2nd) and Indonesia (4th), according to PwC. Ignore their influence at your political or economic peril

30%

In the IEA's New Policies Scenario, global energy needs rise more slowly than in the past, but still expand by 30% between today and 2040. This is the equivalent of adding another China and India to today's global demand

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In Focus: Qatar

TEMPLATE FOR SUCCESS

Qatar has long been a leader for investment, technology and stability in the LNG market; invaluable expertise as the industry braces for inevitable uncertainties in 2018. Qatar benefits from having an extraordinarily sharp competitive edge, due to its clear policies, soft diplomacy, technical resources and fortunate geography. As competition amongst LNG exporters intensifies in 2018 and beyond – spearheaded by the US and Australia – Qatar's strong foothold means it could remain the single largest such organization. But as the world's biggest LNG exporter, Qatar and its partners must adjust to customers' shifting needs. The emergence of many smaller LNG customers in 2018 could lead to exporters having a large portfolio of clients with significant variations in their volumes, much like a bank's customer profile. Individually, such customers are not highly valuable, but as an aggregate, they represent the future demand stream of the LNG market. The sooner customers' shifting preferences are mastered, the more competitive the exporter.

UP, UP AND UP

Qatar plans to increase its production of LNG from 77 million tons (mt) to 100mt, with pre-feasibility and basic engineering already underway and first production anticipated within seven years. Qatar's announcement, which follows the lifting of a 12-year moratorium on gas development of the country's giant North Field in April, will be adding supply to an already well-stocked market. LNG stakeholders' confidence that Qatar will reach its goal – supply will rise, competition will intensify – puts the ambitions of other producers, such as Canada and Mozambique, in a tricky spot. While established, Canadian production can be very expensive and the country's export route on the Pacific shore directly competes with Australia for coveted Asian clients. While Mozambique benefits from high quality resources, it must create an industry locally, thus adding strain as profitability relies heavily on the uncertainty of the final cost of product. How both fare remains to be seen.

PROACTIVITY PAYS

Since the seeds of a concept that ripened into LNG were sown by chemist Richard Doyle in the 1600s, the narrative of the market has undergone several rewrites. For the last three decades, Qatar has essentially held the pen. Doha's appetite to explore untrodden energy paths has spearheaded the growth of the global LNG market since Qatargas, now the world's biggest LNG exporter, was established in 1983. Qatar launched its LNG industry against a wave of cynicism that expected the product's high capital costs to be a black mark on Qatar's economic scorecard. Instead, LNG revolutionized Qatar's economy and put the country front and center on the global energy stage, while also achieving one of the world's highest rates of GDP per capita. Aside from Doha's forward thinking, Qatar's coveted niche in the global LNG export market is largely due to its unique ability to provide the entire value chain – from production through to shipping – and never failing to deliver a cargo. Qatar's strategic position on the doorstep of the world's booming energy economies has helped, with easy access to Asia, the Middle East and East Africa.

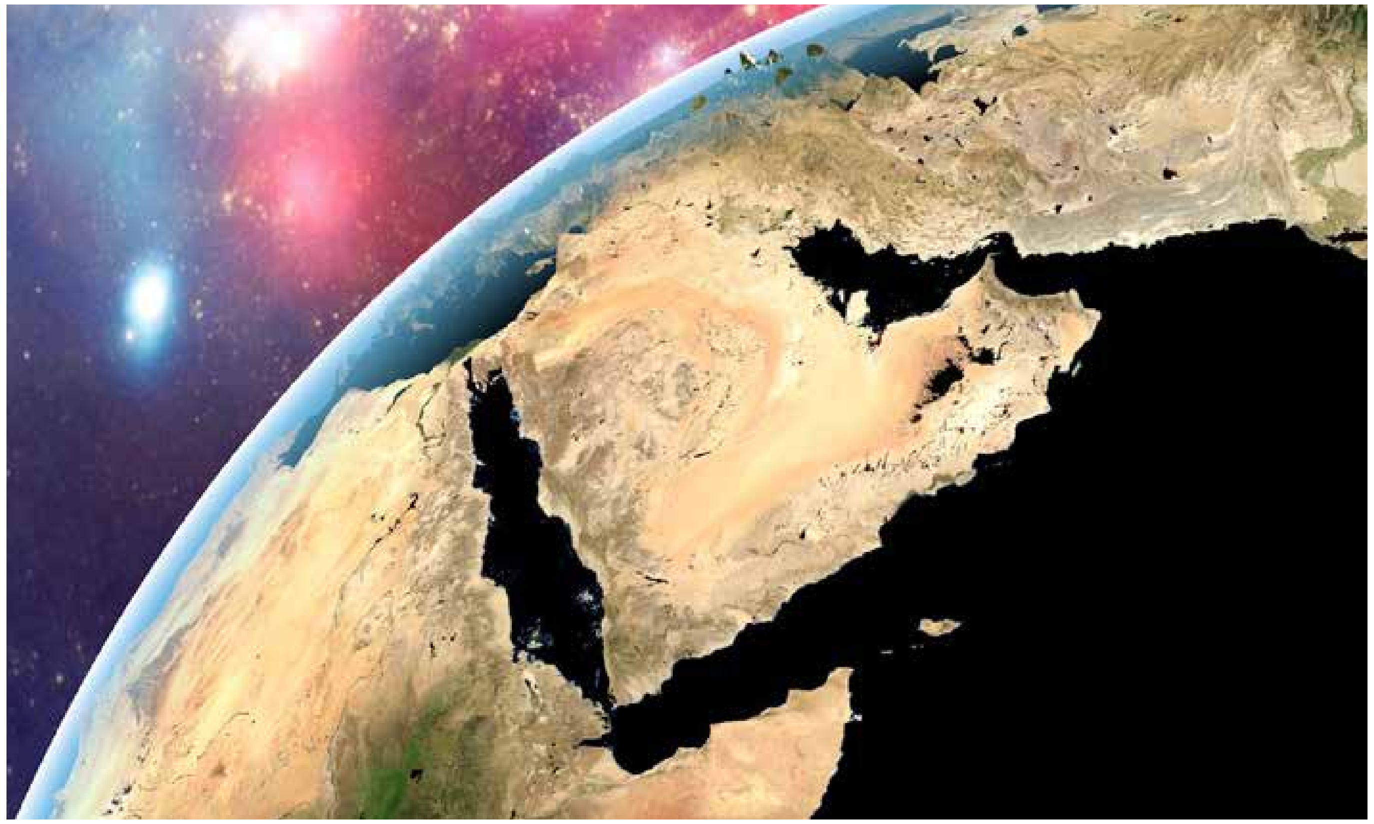
GREEN GAINS TRACTION

Investing time and capital to answer globally-pressing questions in the rapidly-advancing world of renewables should be on energy companies' list of priorities in 2018. Such efforts could lead to significant economic gain, enhanced energy security and also support Gulf countries' transformation into knowledge-based economies. It would would also underpin local commitments to the Paris Agreement, the world's most comprehensive climate change deal agreed in the French capital in 2015. Three key trouble spots need addressing: how to store renewable energy to ease intermittency issues, identifying accessible locations for what can be very large solar and wind farms and how to improve affordable cleaning measures to counter the damaging effects of dust. The region has a strong head start, as geographical opportunities abound. The Abu Dhabi-based International Renewable Energy Agency (IRENA) estimates that around 60% of the GCC's surface area has strong suitability for solar photovoltaic (PV) deployment. This geographic fortune will help the region sustainably meet the 7.4% annual increase in the Gulf 's power consumption up to 2021, as forecast by Riyadh-based Apicorp. Developing just 1% of this area could create almost 470 gigawatts of additional power-generation capacity. Therein lies huge potential for the Gulf's pioneering oil and gas companies, especially as many are re-writing their strategies to secure a larger slice of the emerging green economic pie.

While beneficial to long-term energy diversification plans, echoes of caution still surround the Gulf's development of nuclear power plants. Poor management risks opening a geopolitical Pandora's box. What has the potential to be a golden egg cannot be subject to political crossfire, as witnessed in neighbouring countries. Extreme efforts must be taken to reassure the global community of the region's good intentions. As it stands, the first of the four nuclear units at the UAE 's $20 billion Barakah plant, located 300km west of Abu Dhabi, is nearly complete. The project, which aims to be fully operational by 2020, makes the UAE the first country since 1985 to start construction on an inaugural nuclear power plant, the International Atomic Energy Agency (IAEA) said in 2012. Meanwhile, the contract for the first of Saudi Arabia's 16 nuclear power reactors – to be built over the next 25 years at a cost of around $80 billion – is due by the end of 2018.

There is another word of caution. Energy producers' roadmaps tend to have one factor in common: projects are capital-intensive. Project managers must remember that after nearly seven years of benefitting from a low cost of borrowing, growing

82%
Public support for low-carbon growth will gain pace in 2018. The Green Energy Barometer Survey conducted by Edelman Intelligence interviewed more than 26,000 people across 13 countries and found that 82% of people support the idea of a world fully powered by green energy



140
The politically dicey use of the 280-plus characters on Twitter by world leaders – notably the US' Trump and North Korea's Kim Jong-un – is best avoided in 2018

$7trn
Almost 1,400 companies are factoring an internal carbon price into their business plans, according to the CDP. This represents an eight-fold leap in take up over the last four years and includes more than 100 Fortune Global 500 companies with collective annual revenues of $7 trillion

Saudi Arabia's IPO: Green Light in 2018?

Saudi Arabia's deputy crown prince Mohammed bin Salman, the architect of plans to widen the Kingdom's influence beyond oil diplomacy, stunned the global energy market with news in January 2016 of an initial public offering (IPO) of 5% of state-owned crown jewel, Saudi Aramco. Nearly two years later, plans to complete the floatation in the second half of 2018 are still on. The IPO heralds a stepping stone in the Kingdom's 84-page Vision 2030, which has been crafted to reshape the country's oil-centric identity. This is no ordinary IPO. If held, it will mark the biggest shift in the history of the world's biggest oil company, since 1980 when the government paid its partners $1.5 billion for their 40% holding in the firm, leaving it fully nationalized. Ambiguities still need ironing out. Questions remain over whether Riyadh will divulge the level of transparency required to list on an international stock exchange, such as the New York Stock Exchange. The same applies to the true value of the IPO. Popular estimates are $2 trillion – making it the biggest ever, anywhere – while other roundtable participants said $1.4 trillion is more realistic. But what is certain is that the IPO is highly significant. Failure to host the IPO next year would dent global investors' confidence in the Kingdom's other reform ambitions, while a successful IPO could herald a new dawn for Saudi Arabia on the global stage and potentially trigger similar actions in neighboring Gulf states. Watch this space.

"The 'lower for longer' oil price is dampening Middle Eastern borrowers' appetite, with borrowing at its lowest level since 2011. Loan volumes of $28.25 billion are 60% down on last year's $71.5 billion total for the first three-quarters."

economies in the US and Europe are encouraging central banks to increase rates. At the same time— and these two factors rarely occur simultaneously – the perception of risk has increased. Consequently, both base rates and premiums are rising and capital-intensive projects in need of funds could suffer. The impact is already being felt. The 'lower for longer' oil price is dampening Middle Eastern borrowers' appetite, with borrowing at its lowest level since 2011. Loan volumes of $28.25 billion are 60% down on last year's $71.5 billion total for the first three-quarters, according to Thomson Reuters LPC data. Syndicated lending volumes in Europe, the Middle East and Africa (EMEA) fell by 9% to $610 billion in the first three quarters of 2017 compared with the same period last year, the data revealed.

Amidst such change, carving out an educated game plan that has the capacity to flex – operationally and strategically – will help shield stakeholders the inevitable surprises 2018 has in store. Rash reactions will not suffice, for clear headed competitors are waiting to pounce on vulnerable market share. American entrepreneur Jim Rohn said it best: "Either you run the day, or the day runs you."

Knocking Down Political Brick Walls

Efforts to start removing bricks from the political walls dividing the Middle East's common goals for peace and prosperity are crucial in 2018. The region's political and social crises are hindering the progress of energy roadmaps; the implementation of significant economic reforms, improving energy efficiency and meeting an increasingly long list of low-carbon criteria. There is also a very real human toll. Approximately 65.6 million people were forcibly displaced worldwide at the end of 2016, according to the UN Refugee Agency's annual Global Trends study, with nearly 15 million Syrian and Iraqi refugees and internally displaced people scattered across the region. There is a $245 million Regional Winter Assistance Plan for 2017-2018 to cover the winter needs of Syrian and Iraqi refugees and internally displaced people in Syria, Iraq, Turkey, Lebanon, Jordan and Egypt. As of early October, only 26% was funded. Resolving the crises will help create urgently needed jobs – the Middle East and North Africa is home to one of the highest levels of youth unemployment worldwide – and propel economic growth at a time when local populations are booming. The clock is ticking – loudly.

65%

Popular estimates say that more than half of children in primary schools today will be employed in jobs that do not yet exist. Investing in a workforce of critical thinkers who are digitally savvy is essential for the sustainable growth of the energy sector

23%

The flip side to the benefits of digitalization is the rise of cyber-attacks. Energy companies must create digital defenses against what is a global and invisible mafia. Accenture and the Ponemon Institute estimate that the average cost of cyber-crime globally climbed to $11.7 million per organization in 2017 – a 23% increase from $9.5 million reported in 2016

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DOHA - QATAR

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