CEO ROUND-TABLE SERIES

Abdullah Bin Hamad
Al-Attiyah International Foundation for Energy & Sustainable Development
Wednesday, 04th December 2019
St Regis Hotel
Doha, Qatar

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<td>10:00</td>
<td>AM Tea &amp; Coffee, and Networking</td>
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<td>10:25</td>
<td>AM Welcome and Opening</td>
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<td>10:40</td>
<td>AM Special Guest Speakers</td>
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<td>AM Moderated Roundtable Discussion</td>
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CEO Roundtable Series

His Excellency Abdullah Bin Hamad Al-Attiyah, Chairman of the Al-Attiyah Foundation, launched the CEO Roundtable Series and Dialogues to provide a platform for knowledge exchange and support for the global community in the quest towards a sustainable energy future. All guests have the opportunity to share their opinions and insights in what is always a lively and thought-provoking discussion.

*The series of events take place under the Chatham House Rule and will not be attributed to any individual.
## FACT SHEET

### Global Energy Demand Growth 2040

| % | 30% |

### Major Factors Effecting Oil Markets

1. U.S. & China Trade Disputes
2. UK’s Exit from the European Union
3. Massive Growth in US Shale Oil

### Increase in Demand for Electricity

| % | 20% |

2019: Current share in total final consumption of global energy

### Increase in Demand for Gas

| % | 45% |

Growth from 2018 to 2040

### Global Growth

3.2% Global Growth
With reported GDP’s so far this year, together with softening inflation, pointing to weaker than anticipated global activity in 2019.

### Million Barrels /Pd

1.2 Million Barrels /Pd
The expected growth of oil demand in 2020, according to the IEA. 100,000 barrels a day less than originally predicted.

### Per Barrel

$57 Per Barrel
IEA forecast for Brent Spot Price by the second quarter of 2020. Rebounding to $62/b during the second half of the year.

### $2.75 MMBtu

The expected price for Natural Gas in 2020 required to bring supply into balance with rising U.S. domestic and export demand.

### Major Factors Effecting Renewables

1. Declining Solar/Wind Prices
2. Increases in Customer Demand
3. Increased Political Pressures
4. Availability of New Battery Technology
The Al-Attiyah Foundation will host its 4th CEO Roundtable of 2019, to reflect upon the highs and lows of the past year and how these might unfold in 2020. Sharing their unique perspectives and predictions, the international guest speakers, will explore the key issues and opportunities they believe will keep CEOs busy in 2020 – and beyond!

As we look forward to 2020, it is important to note several key market factors from 2019. A few challenges are apparent: there is a growing awareness that major changes in energy supply have to take place; demand has been dominated by inconclusive trade talks between the world’s two largest economies; and events that would have once shocked markets, such as attacks on shipping or infrastructure, now have a far reduced effect; posing the question, has the world’s security of supply become more resilient?

The aim of the meeting is to reveal the key geopolitical and energy trends that influenced the world in 2019 and most importantly, what or who will be disrupting the status quo in 2020?

**OVERALL OBJECTIVE**

The aim of the meeting is to reveal the key geopolitical and energy trends that influenced the world in 2019 and most importantly, what or who will be disrupting the status quo in 2020?

**KEY QUESTIONS**

- What are the threats to security of supply, chiefly to Asia? Can the Straits of Hormuz be secured?
- Can we expect attacks from any source on key production installations in 2020? Can installations ever actually be secured?
- World demand for oil and oil products were fairly flat in 2019. Can we expect any significant upturn in demand in 2020? What are the implications for the Middle East?
- Markets for gas and particularly LNG looked over supplied in 2019. Is there worse to come in 2020?
- Will there be a significant cut in demand for fossil fuels because of increased supply from?
- What will be the impact of the 2020 change in International Maritime Organisation (IMO) regulations on sulphur limits on marine fuel oil?
- With the growing production of fossil fuels from the USA and Russia and the growing demands at least in the medium term from China, what are the geopolitical implications? Is the supply of fuels being weaponised again?
- China’s “Belt and Road” Initiative seeks to increase China’s influence across much of central Asia and the Middle east. However, it is also leading to increased indebtedness by many nations. How will all this work out?
- There has been a definite increase in populism in recent years. How will this effect energy trade?
- The Energy Talent Glut: What can energy CEOs do to educate, attract and retain good talent? Can we retain staff as society in Qatar changes with technology shifts?
DISCUSSION POINTS

• The short-term impact of the rise of renewables
• Changes in governance and regulations that might affect energy markets
• The Geopolitics of Energy: Security of energy supply - how is this impacting purchasing decisions in the short and long-term?
• China's Belt and Road Initiative: Will China's global dominance become a reality?
• Trade Wars and the weaponisation of LNG
• The energy sector’s skill gap: Attracting and retaining the right people
KEY MESSAGES

During 2020, environmental impacts and regulation changes will influence how the energy industry operates. But there are predominant challenges that are changing the nature of capital investment, and how energy is produced, all the way through to how it is consumed, for example:

Power Generation: power market design will have the greatest impact on the industry in 2020, along with greenhouse gas emission reduction policies, as a response to climate change and rapid expansion of renewable energy sources. Further, companies have a high risk of stranded investment that the industry will have to deal with in the long run. These developments will have varying, but substantial impacts on different parts of the value chain.

Demand: CO2 reduction initiatives may lead to a decline in oil and gas demand in the late 2020s in Europe. Significant threats and challenges to these initiatives are already visible. They include the inability of companies to plan and invest for a post 2030 decarbonised future.

Investments: companies need to balance the near-term requirement for fossil fuels versus the viability of these investments, as the world demands lower CO2 alternatives.

Upstream & Midstream: long-term contracts have underpinned investments in production and distribution networks of the fossil fuel industry. However, anticipation that serious demand decline could start by the late 2020s, raises the question as to how long, beyond mid-2030s, it will be possible to sell large volumes of oil and gas in major EU markets?

Axel Threlfall

Editor-at-Large, Reuters.

Axel Threlfall is Editor-at-Large, Reuters, based in London. He hosts high-profile engagements and thought leadership events for and on behalf of Reuters and Thomson Reuters, such as the Newsmaker series and the World Economic Forum news show in Davos. He was previously Lead European Anchor for Reuters Digital Video. Prior to joining Reuters, Axel spent four years as an anchor for CNBC in London.

Before that, he was an editor with The Wall Street Journal in New York and a news reporter for Bloomberg in London. He has also advised businesses and NGOs on their dealings with the international media. Axel is frequently asked to moderate events for international organisations, including the United Nations and the OECD. He has a BA in History from Durham University and a postgraduate degree in journalism from City University, London.
Ms. Gulmira Rzayeva is a Research Associate at the Oxford Institute for Energy Studies (OIES), Expert/Advisor of the World Energy Council’s Global Gas Center based in Geneva and visiting Research Fellow at the Center on Global Energy Policy of Columbia University. She is a Founder and Managing Director of the London-based Eurasia Analytics Ltd consulting company. She was a Senior Research fellow at the Center for Strategic Studies (SAM) under the President of the Republic of Azerbaijan for last ten years until January 2019. Her areas of expertise include energy security – covering issues such as the energy policy of Azerbaijan and East Europe/Caspian region and the Turkish domestic natural gas market.

Jos Delbeke is Professor at the European University Institute in Florence and at the KU Leuven in Belgium. He has been the Director-General of the European Commission’s DG Climate Action since its creation in 2010 until 2018. Jos was very involved in setting the EU’s climate and energy targets for 2020 and 2030, and was a key player in developing EU legislation on the Emissions Trading System (ETS), cars and fuels, air quality, emissions from big industrial installations and chemicals (REACH). He has been responsible for developing Europe’s International Climate Change strategy and was, for several years, the European Commission’s chief negotiator at the UNFCCC Conference of the Parties. In that capacity he played a key role on the EU’s implementation of the Kyoto Protocol and in the negotiations on the Paris Agreement.

Alan Gelder is VP Refining, Chemicals and Oil Markets, Wood Mackenzie. As Downstream Global Content Lead, he is responsible for formulating Wood Mackenzie’s research outlook and integrated cross-sector perspectives on this global sector. Alan has extensive experience in oil, refining and commodity chemicals, providing outlooks on market developments, asset competitiveness and the key drivers for long term viability. Prior to joining Wood Mackenzie, Alan had 10-years of industry consulting, largely focused on project techno-economics and project financing. Alan has a first-class Master Degree in Chemical Engineering from Imperial College, London, supplemented by an MBA from Henley Management College.

Wil Wilson served as a security and intelligence specialist in Britain’s Royal Air Force for 30 years. During that time, he deployed on operations to Iraq, Saudi Arabia, Oman, Kuwait, Afghanistan, Sierra Leone and the Falkland Islands. In 2012 he set up his own consultancy business that delivered a broad portfolio of work, but focused on how emerging strategic trends – like disruptive technology, economic redistribution, climate change, resource scarcity, urbanisation and migration – are impacting societies, governments and businesses, and what strategies, structures, capabilities and cultures organisations will need to manage these. In 2017, Wil joined a cyber security scale-up in Edinburgh as a senior security consultant, before he was enticed to Qatar to take up a lecturing position at the Ahmed Bin Mohammed Military College.
The Abdullah bin Hamad Al-Attiyah International Foundation for Energy and Sustainable Development is a non-profit think tank providing independent insights, in-depth research and informed debate on energy and sustainable development themes.

The Foundation's Chairman, His Excellency Abdullah Bin Hamad Al-Attiyah's 40 years' experience is unprecedented. Over several decades he held many high-profile positions including Deputy Prime Minister for the State of Qatar, CEO, Qatar Petroleum, and President of OPEC. In addition, His Excellency was elected Chairman of the United Nations Commission on Sustainable Development in 2006 and six years later successfully served as the President of the United Nations Convention on Climate Change, COP 18.

H.E. Al-Attiyah’s unique experience gave him first-hand knowledge of the challenges and opportunities faced by the global community in their quest to provide sustainable energy. He hopes the Al-Attiyah Foundation’s work can support its members, partners and society with this quest.
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Currently the Foundation has over fifteen corporate members from Qatar’s energy, insurance and banking industries as well as several partnership agreements with business and academia.
OUR PARTNERS

Our partners collaborate with us on various projects and research within the themes of energy and sustainable development.