



The Global Energy Outlook: From Crisis to Growth

December – 2020

Webinar Series
Whitepaper



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



INTRODUCTION

THE GLOBAL ENERGY OUTLOOK: FROM CRISIS TO GROWTH

The Al-Attiyah International Foundation for Energy and Sustainable Development, in partnership with the Financial Times, held a webinar on "The Global Energy Outlook: From Crisis to Growth", on Tuesday, 8 December 2020. The purpose of the webinar was to reflect upon the highs and lows of 2020, and what might unfold in 2021. The Al-Attiyah Foundation is a leading not-for-profit international think tank in the region, with the mission to provide robust and practical knowledge and insights on global energy and sustainable development topics and communicate these for the benefit of the Foundation's members and community.



Webinar Series

H.E. Abdullah Bin Hamad Al-Attiyah founded the Webinar Series as a platform for knowledge exchange and support for the global community in the quest towards a sustainable energy future. The quarterly events, which have been hosted in Qatar for three years, are a crucial networking and learning opportunity in the calendar of industry CEOs.



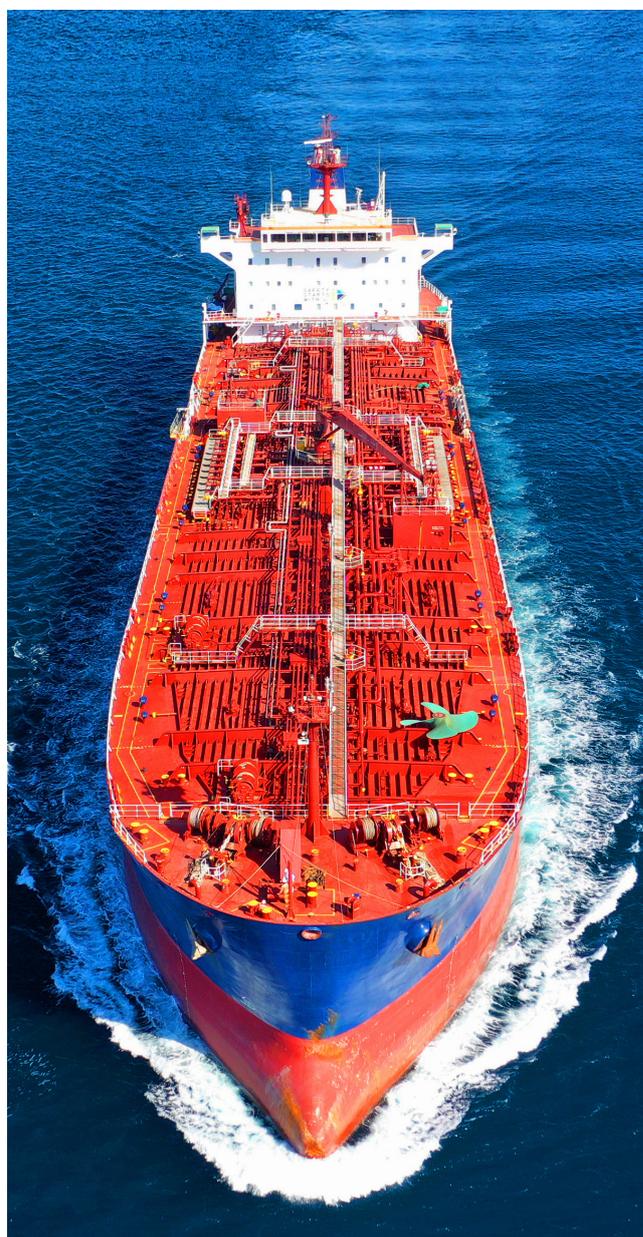
FT FINANCIAL TIMES

The Financial Times (FT) is an international daily newspaper that focuses on business and economic current affairs. The newspaper has a prominent focus on financial journalism and economic analysis.

The Foundation and FT hosted senior international special guest speakers, with a wealth of experience in regulatory energy and climate change matters, energy policies, energy industry association, energy economics, and commodity markets. The special guest speakers shared their unique perspectives and predictions and explored the key issues and opportunities that would shape the year 2021, as we leave the 'black swan' of 2020 behind.

As we look forward to 2021, Covid-19, and its continuing impact on energy demand, will likely remain the background against which other significant events will unfold. Yet, by any measure, 2021 will be a significant year for the industry. Policy changes arising from the forthcoming COP26 meeting in November, the potentially game-changing transformation of energy in the US post the November 2020 election, and the launch of a 14th Five-Year Plan in China all have repercussions, adding to the uncertainties the sector is already facing. And the world will look on anxiously to decipher the next moves in the oil markets—whether shale will rebound, and the possibility of countermeasures by OPEC+ to balance the market. These and other issues shaping the energy landscape in a push to transition to cleaner energy were the focus of a very engaging debate during the webinar.

This whitepaper presents a summary of the expert opinions on the continuing impact of the pandemic for the energy markets; the strategies needed to adapt and build resilience in a fast-evolving energy market, and how the energy debate will be reframed by the climate challenge, customers, and investors. The full content of the webinar is available on the Foundation's website, and members and partners of the Foundation, as well as the general public, are welcome to watch the video.



KEY HEADLINE MESSAGES



Jeffery Currie, Global Head of Commodity Research, Goldman Sachs

- The belief that the zero-carbon economy is attainable by mid-century is increasing. This optimism is driven by several factors, including climate change momentum generated by the Paris Agreement, increasing commitment to net-zero carbon emissions, and encouraging trends in the development of technologies needed to achieve a zero-carbon economy.
- The way China handles coal, in the context of its climate change ambition and targets, will be one of the biggest issues for the climate.
- There is much potential for hydrogen. While in the short term, the focus would be on blue hydrogen, in the medium to longer-term, green hydrogen will become more affordable.
- The outlook for future energy markets is bullish. The expected increase in investment in renewables will provide a secondary boost for natural gas as the most convenient "standby fuel".

- Geopolitics will continue to play a more significant impact on the global energy landscape, with countries that rely heavily on fossil fuels expected to face substantial challenges. However, countries that are low-cost producers would be able to address the challenges efficiently.
- In the future, the energy powerhouses would become wider spread, and high-cost producers should be rightly concerned about ending up with substantial stranded assets.
- The transformation of the energy sector could come faster than we expect, happening rather suddenly instead of through a gradual process.
- The finance required for the transition to cleaner energy will come from both public and private sources, with more substantial amounts coming from the public as governments will need to increase spending on social and climate change issues.



INSIGHTS FROM THE EXPERT SPEAKERS



Laszlo Varro, Chief Economist, International Energy Agency (IEA)

In response to the questions posed by the moderator and from the audience, the guest speakers provided insights on diverse issues, at times with differences of opinions on some issues, adding to the robustness of the debate during the webinar.

On renewables, all the speakers agree that renewables will need gas as a standby fuel, but the degree of dependency of solar on gas was debatable. There were also differences of opinion regarding the challenges associated with storage batteries. Some of the speakers expressed the view that the metal sector cannot produce enough of the metals, like lithium, that the battery market needs, while others thought that there is no shortage of lithium. Furthermore, the use of lithium for batteries is not as exhaustible as the consumption of other natural resources such as coal. In other words, the amount of lithium required in batteries to attain the level of renewables commensurate with the goal of zero carbon could be readily available met. There were diverging views on when a breakthrough in battery technology would occur. It was acknowledged that progress



INSIGHTS FROM THE EXPERT SPEAKERS

has been slow to date but that there is now substantial research activity in this area.

The speakers recognised that industry is investing substantially on carbon capture and storage (CCS), but much more investment is still required to operate CCS technology at scale. The insights from the speakers on CCS was that the technology would be essential for decarbonising heavy industries (hard to abate industries), with a decreasing role in power generation. For other sources of emissions such as vehicles and domestic heating, it was thought that regulation might suffice.

The circular economy will play some role in the future energy scenario, with more potential occurring in plastics.

One of the speakers expressed the view that carbon tax is not necessary to achieve a net-zero carbon scenario, as it was not a price on carbon that was responsible for the significant decrease in the costs of renewables. However, there was consensus on the crucial role of carbon pricing in the decarbonisation of the industrial sectors. A global carbon price will help to get to the targets of the Paris Agreement. Therefore, it is vital to get the politicians and negotiators to realise the urgent need to agree on the rules for Article 6 of the Paris Agreement.

Zero-carbon energy is very capital intensive, and in short to medium term, global demand will be in sectors that are very difficult to decarbonise. As the global population continues to grow, the world will still need oil, gas, and even coal. Global oil and gas prices are expected to increase, but higher prices will not necessarily attract more investments into the sector.



Pierce Riemer, Director General, World Petroleum Council (WPC)

There are massive opportunities for clean energy, with lots of potential for hydrogen. The encouraging commitments that companies and countries are making towards carbon neutrality by 2050 give room for optimism and may well lead to a world of zero coal, a 75% reduction in oil, and 50% reduction in natural gas. The expected decrease in the cost of electrolysis would also enhance the role of green hydrogen in the race to carbon neutrality by the mid-century.

The medium to longer-term impact of Covid-19 pandemic on the energy market is difficult to predict. Still, the speakers believe that the short-term economic impact of the pandemic will be minimal. The most significant impact of the pandemic will continue to be in demand for jet fuel. It is also expected that there will be a continued reluctance to use public transport and continued increase in the shift to using Electric Vehicle (EV) deliveries. However, as 'work from home' remains part of the new normal, this business lifestyle requires more use of air conditioning, with consequential use of energy.

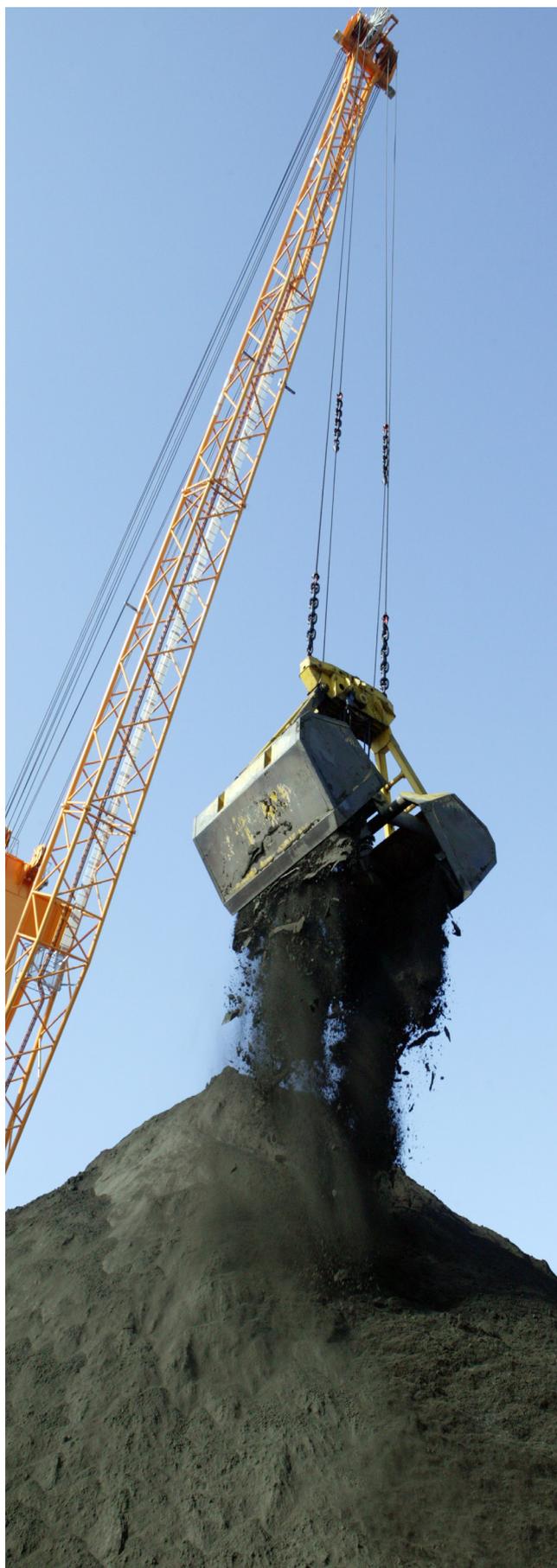
GAZING INTO THE FUTURE



Derek Brower, US Energy Editor, Financial Times

In responding to the following pertinent questions posed by the moderator, the expert speakers provided some crystal ball glimpses of the energy landscape:

- Has 2020 accelerated and made 'peak oil' inevitable, or has it already happened?
- Above \$40/bbl, will US shale oil make a comeback? If so, are we back to a price war as players battle for market share?
- How will the trend towards localisation of businesses and supply chains, combined with the potential for continued trade disruption, impact the energy markets and trade in 2021?
- How will the capital allocation strategies of energy companies and financiers evolve in 2021, and what are the investor trends?
- What are the prospects for CCS and Net Emissions technologies, including hydrogen, in achieving decarbonisation and a lower-carbon future?
- Peak gas? What is the role for gas in a net-zero economy, and will governments, consumers, and investors come after gas, as they have for oil?



GAZING INTO THE FUTURE



Lord Adams Turner, Chair of the Energy Transitions Commission (ETC)

Lord Adair Turner believed that attaining the pathways to net-zero emissions by 2050 is now more easily achievable than previously thought. Emerging investment-friendly policies, increasing belief in the Paris Agreement leading to higher climate targets, and rapid advancement in technology are building a stronger momentum behind the move towards producing clean energy. He viewed a "Hydrogen Economy" as a possible way forward as part of a portfolio of energy sources. First with "blue hydrogen (carbon capture) then with green hydrogen (electrolysis from green electricity)).

Jeffrey Currie's crystal-gazing predicts a high price of around US\$65/bbl for oil in 2021. He sees a bullish outlook for commodity markets, particularly gas, which he firmly believes will continue to benefit from increasing investment in renewables. He mentioned that the use of "high-frequency data" is adding directly to the accuracy and timeliness of forecasts. In general, he sees underinvestment in "old commodity-based industries" and predicts a "V" shaped economic recovery from Covid-19 as restocking occurs.

WEBINAR SPEAKERS:

Moderator:

Derek Brower,
US Energy Editor,
Financial Times.

Speaker:

Lord Adams Turner,
Chair of the
Energy Transitions
Commission (ETC).

Speaker:

Pierce Riemer,
Director General,
World Petroleum
Council (WPC).

Speaker:

Jeffery Currie,
Global Head
of Commodity
Research, Goldman
Sachs.

Speaker:

Laszlo Varro,
Chief Economist,
International Energy
Agency (IEA).

According to Dr. Pierce Riemer, the world is still way off from peak oil and peak gas scenarios. As the world population continues to grow, more and more energy will be required for sustainable development. The growing population will still need oil and gas, and Dr. Riemer does not rule out the continued use of coal in the foreseeable future.

Laszlo Varro believes that industry needs to invest more in CCS. Although he sees a decreasing role for CCS in the power sector, he believes CCS has an essential role to play in the decarbonisation of heavy industries, where CCS is seen as a promising solution for reducing emissions from the most challenging sectors. He also mentioned the production of ammonia as a possible fuel, maybe in shipping and hydrogen fuel cells for heavy-duty trucking.

THE LAST WORD

Whilst mention of no particular country dominated the discussion, China and the US still emerged as 'the elephants in the room', though from different perspectives. For China, it is the question of what it will do with coal and its new coal plants, whilst in the case of the US, it is from the perspective of the role of shale oil and the impact of the new Biden administration.



OUR MEMBERS

Currently, the Foundation has over 15 corporate members from Qatar's energy, insurance, and banking industries as well as several partnership agreements with business and academia.



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





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