

07 June - 2023

# CEO Roundtable

Are Volatile Energy  
Markets Slowing the  
Energy Transition?



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# AGENDA



Wednesday, 7<sup>th</sup> June 2023

## 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 meeting takes place under the Chatham House Rule whereby participants are free to use the information received, but neither the identity nor the affiliation of the speaker(s), nor that of any other participant, may be revealed.*

- 10:00 AM** Coffee and Networking
- 10:30 AM** Special Speakers
- 10:40 AM** Moderated Discussion
- 12:15 PM** Closing Comments
- 12:35 PM** Lunch







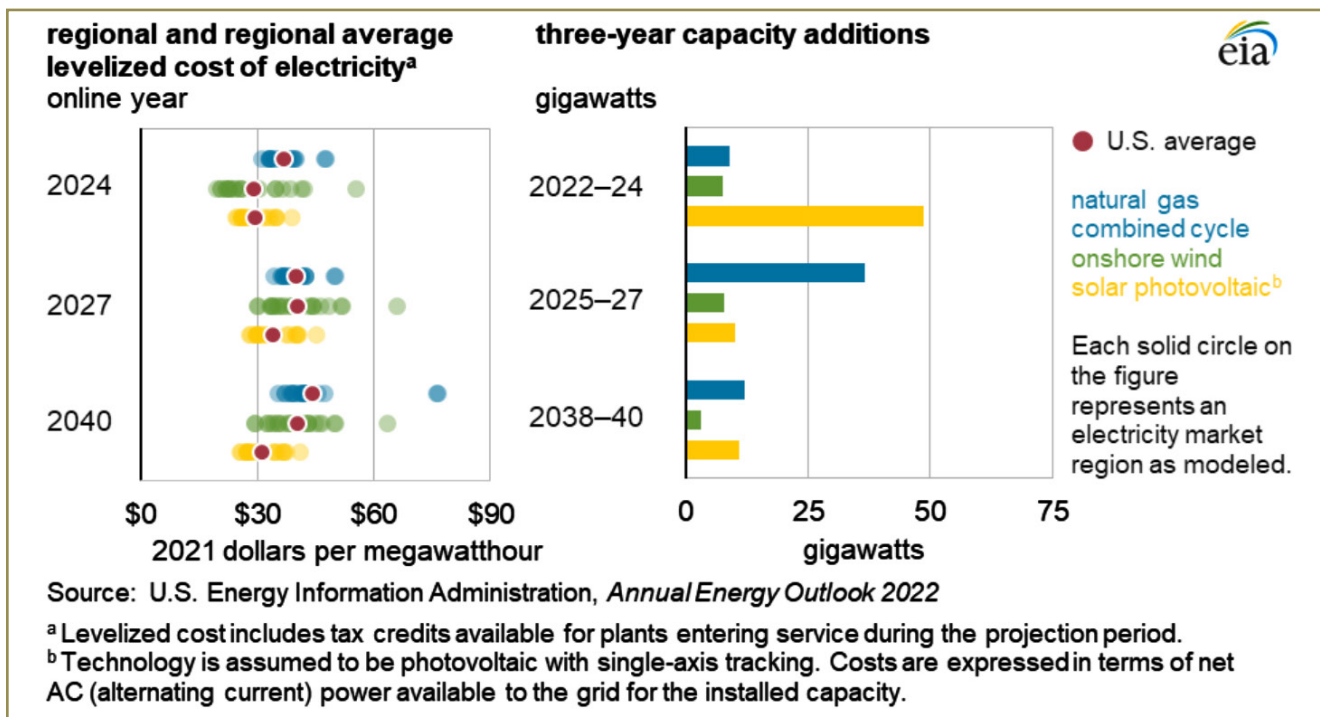
Energy transition institutions within academia, research organisations, the private sector, and the energy industry have all been developing and updating energy transition scenarios. While these organisations have different methodologies and varying assumptions, most of their scenarios are not optimistic about the world meeting targets set by the Paris Agreement. For the second CEO Roundtable of 2023, international experts will provide new insights into short and long-term scenario planning and discuss whether volatile energy markets are slowing or accelerating the energy transition.

The Levelised Cost of Energy (LCOE) is the economic method of comparing costs of energy over differing technologies and timescales. (A more detailed explanation of the calculations involved can be found in the additional reading below).

Simply put, it is a time discounted comparison of costs and energy flows.

The LCOE varies considerably by time, technology, location, and energy use. However, it is most useful when comparing technologies against usage e.g., wind against solar for electricity generation or hydrogen against coal for steel production.

In its 2022 Annual Energy Outlook, the United States based Energy Information Administration (EIA) presented evolving and complex trends with regards to cost of electricity. Costs for generation are practically static (in constant REAL 2021\$s), with capacity additions predominant in gas and solar.



However, the simple equation for LCOE contains many assumptions. It is these assumptions that form the basis for the discussion at this CEO Roundtable. The points to be discussed include:

- 1). What are the long-term costs for the energy sources that are being compared and used?
- 2). How does the presence of suitable infrastructures such as gas pipelines or grid connections affect the direction and rate of the energy transition?
- 3). How and by what mechanisms can the cost of carbon be included?
- 4). How will government or intergovernmental policies and agreements affect costs? For example, what affect could cross border adjustment taxes have?

The assumptions associated with LCOE suggest a scenario-based approach will be adopted. However, what should these scenarios be and what scenarios will provide meaningful results?

There are other factors to consider as well, such as:

- 1). Security of supply has become more important to certain countries but not to others. This will impact the costs of project implementation depending on location.
- 2). How will abatement and mitigation costs be factored into any LCOE equation?

A combination of some returning Russian supplies, a lot of new LNG, and weakened demand in Asia and Europe is a major indication that global gas in the second half of the 2020's may suddenly be heavily oversupplied, meaning prices could tumble.

LNG output is inflexible: plants are costly to build, so they generally run as close to maximum capacity as possible. Users of American facilities, which buy their gas from the grid, might cut back exports if domestic prices are relatively high and international prices low, as happened in 2020, but that is a rarity.

Russia used to provide global flexibility, scaling back exports when demand was low, as in the 2009 financial crisis. The Netherlands' Groningen field did the same on a smaller scale; but it is now being closed. That leaves only Norway as a likely flexible supplier of scale.

A number of forecasters believe that prices will become much more volatile. They might have to drop very low at times to choke off unwanted supply. On the other hand, prices can soar when the market tightens, as they did in August 2022 when the German government spent some €7.8 billion (\$8.4 billion) to refill stocks, leaving it sitting on a paper loss of some €4.4 billion when the warm weather caused prices to tumble again.

## OVERALL OBJECTIVES

- To obtain a clear understanding of the key points of the Intergovernmental Panel on Climate Change (IPCC) report on climate change.
- To discuss historic energy market volatility.
- To provide insights on whether the demand for fossil fuels will reduce due to climate change pressures or increase due to population demands.
- To examine the effects of changes in fossil fuel demands on volatility of markets.
- To assess if security of supply has already surpassed any price effects.

## DISCUSSION POINTS

- 1). Given that energy markets have been volatile in the past, what has caused that volatility or conversely in times of price stability, what causes price stability?
- 2). Has the game now changed so that markets can become more volatile or less volatile?
- 3). Have the LOCE prices become so overwhelmingly in favour of non-fossil fuels that volatility is no longer an issue? Or do some scenarios point to continued use of fossil fuels in some circumstances?
- 4). How are technology costs changing volatility by providing near substitutes for some fossil fuels?



## MODERATOR & SPEAKERS

### Moderator:



Stephen Cole,  
International  
Broadcasting Journalist,  
the Al-Attiyah  
Foundation

### Speaker



Stephen Thompson,  
Global Head of LNG &  
Natural Gas Consulting  
Global Head at Poten &  
Partners

### Speaker



Wayne Bryan, Director of  
European Gas Research at  
Refinitiv

### Speaker



Dr. Valerie Marcel,  
Associate Fellow at  
Chatham House

### Speaker



Dr. Jan Braun,  
Senior Expert Fraunhofer  
at CINES







## FURTHER BACKGROUND READING AND VIDEO MATERIALS

### Levelized Costs of New Generation Resources in the Annual Energy Outlook 2022 EIA.

Every year, the U.S. Energy Information Administration (EIA) publishes updates to its Annual Energy Outlook (AEO), which provides long-term projections of energy production and consumption in the United States using EIA's National Energy Modeling System (NEMS). The AEO update for 2022 (AEO2022) includes projections through 2050 given certain specified assumptions and methodologies. Investment in the expansion of electric generation capacity requires an assessment of the competitive value of generation technologies in the future that is determined as part of a complex set of modeling systems. [https://www.eia.gov/outlooks/aeo/pdf/electricity\\_generation.pdf](https://www.eia.gov/outlooks/aeo/pdf/electricity_generation.pdf)

### Climate Change 2022: Impacts, Adaptation and Vulnerability

The Working Group II contribution to the IPCC Sixth Assessment Report assesses the impacts of climate change, looking at ecosystems, biodiversity, and human communities at global and regional levels. It also reviews vulnerabilities and the capacities and limits of the natural world and human societies to adapt to climate change. <https://www.ipcc.ch/report/ar6/wg2/>



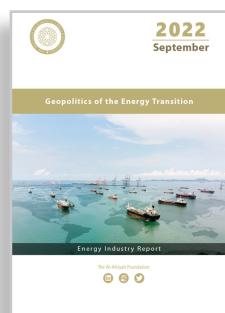
February – 2022

#### Anticipated Energy Scenarios in a Net-zero World

Institutions within academia, research organisations, the private sector, and the energy industry have all been developing energy scenarios. While these organisations have different methodologies and varying assumptions, most of their scenarios are not optimistic about the world meeting targets set by the Paris Agreement.



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September – 2022

#### Geopolitics of the Energy Transition

The increasing penetration of renewables in the global energy mix, the rise of electrification from 20% currently to 60% by mid-century, and improvements in energy efficiency and storage are essential characteristics of the energy transition, which will have wide-ranging and profound geopolitical consequences.



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November – 2022

#### COP27 and the Consequences for Fossil Fuel Demand

COP27 was held in a major oil- and gasproducing country but, unlike COP26, it featured substantial engagement from the fossil fuel industry. Although it ended with significant progress in some areas, particularly on climate finance and adaptation, progress on mitigation was limited. Nevertheless, around COP27, and looking forward to COP28, important deals concerning 'just transitions', methane, renewables, and hydrogen were struck.



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## ABOUT THE FOUNDATION

The Abdullah bin Hamad Al-Attiyah International Foundation for Energy and Sustainable Development is a non-profit think tank inaugurated by His Highness the Father Emir, Sheikh Hamad Bin Khalifa Al Thani, in 2015. The Foundation works closely with its members, academia, and a wide network of international experts, to provide independent insights, in-depth-research and informed debate on critical energy and sustainable development topics.

**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 the community.

**Vision:** To be an internationally respected independent think tank that is a thought leader focused on global energy and sustainable development topics.

### Research Reports & Publications

- Daily News Flash
- Weekly Energy Market Review
- Monthly Energy Research Report
- Monthly Sustainability Research Report
- Monthly News Articles
- Special Industry Reports
- Webinar Whitepapers
- CEO Roundtable Whitepapers
- Annual Sustainable Development Book




### Podcasts, Webinars & Videos

- Bi-monthly Podcast Interviews
- Monthly Energy Educational Video
- Monthly Sustainability Educational Video
- Monthly Webinars
- Annual High-Profile Webinar

### Events & Activities

- The Al-Attiyah International Energy Awards
- Quarterly Energy Dialogues
- Qatar Sustainability Week
- The ICP Bosphorus Summit

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-  The Al-Attiyah Foundation
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## OUR PARTNERS

The Al-Attiyah Foundation collaborates with its partners on various projects and research within the themes of energy and sustainable development.







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