



**2023**  
**December**

## COP28 Outcomes Shaping the Global Energy Landscape for a Sustainable Future



The Al-Attiyah Foundation



The Al-Attiyah Foundation is proudly supported by:



The Abdullah Bin Hamad Al-Attiyah International Foundation for Energy and Sustainable Development provides robust and practical knowledge and insights on global energy and sustainable development topics, communicating these for the benefit of the Foundation's members and community.

Since 2020, the Foundation has staged a series of webinars, in partnership with London Stock Exchange Group – Data & Analytics, to explore key trends and insights during a period of unprecedented global uncertainty.

## WEBINAR WHITE PAPER

H.E. Abdullah bin Hamad Al-Attiyah founded the Foundation as a platform for knowledge exchange and support for the global community in the quest towards a sustainable energy future.

The Webinar Series, which began two years ago, is a crucial networking and learning opportunity in the calendar of industry CEOs members and Foundation partners.





The urgency to act to limit climate change is greater than it has ever been. The World Meteorological Organisation (WMO) predicts there is a two-thirds likelihood that global temperature rises will exceed 1.5°C above preindustrial levels by 2027.

More positively, renewables are proving to be an excellent way to mitigate climate change, enabling rapid, substantial emissions reductions. In 2022, global renewable capacity additions rose by 13% to nearly 340 GW. By the end of 2023, this capacity will reach 440 GW.

Yet to be on track to limit global temperature rises to 1.5°C as mandated in the 2015-16 Paris Agreement, renewable electricity capacity must expand at three times the current annual rate by 2030, according to the International Renewable Energy Agency (IRENA).

Such a scale-up poses huge challenges, especially relating to electricity grid instability and energy storage. It also requires massive spending. IRENA estimates that USD 131 trillion must be invested in the clean-energy transition by 2050 to achieve climate goals, 80% of which must be invested in renewables, energy efficiency, end-use electrification, power grids, sustainable bioenergy, and hydrogen.

The Conference of the Parties (COP), held under the United Nations Framework Convention on Climate Change (UNFCCC), is of paramount importance in crafting global climate policies and fostering robust political determination. The energy transition is a key priority, particularly at COP28, which Dubai hosted from November 30 to December 12, 2023.

COP28 led to significant pledges from participating nations to address global warming, emphasising the need for increased financing in the energy transition, particularly in less-developed countries, to effectively combat climate change.

These were the conclusions drawn by the expert panelists in the December 12 online webinar.

Key commitments included doubling the global annual rate of energy efficiency improvements from approximately 2% to over 4% annually until 2030 and tripling the installed renewable energy capacity to 11,000 gigawatts by 2030. As of the webinar's recording, 123 countries had committed to these goals.

Energy intensity improvements have decelerated to 1.3% in 2023 due to rising energy demand, but Nicholas Howarth, an energy analyst at the International Energy Agency (IEA), anticipates a rebound to 3% annually if countries adhere to their climate commitments.

"Energy intensity and progress in energy efficiency really determines the pace as well as the composition of the clean energy transition," said Mr Nicholas Howarth.

Investment in energy efficiency has surged nearly 40% since 2020, yet it falls short of the levels required for net-zero goals, with most investments concentrated in developed economies.

"There's a big gap that needs to be filled when we come to emerging economies, where most of the energy demand growth is expected to be," said Mr Howarth.

This year is projected to be the hottest year on record, with soaring electricity demands worldwide. Mr. Howarth underscored the need for more efficient air conditioning to manage

## WEBINAR SPEAKERS

### Moderator:



**Axel Threlfall,**  
Editor-at-Large at  
Reuters

### Speaker



**Adrian Del Maestro,**  
VP Global Energy  
Advisory at AECOM

### Speaker



**Paula Vanlaningham,**  
Director – Carbon  
Research at the  
London Stock  
Exchange Group –  
Data & Analytics

### Speaker



**Dr. David Robinson,**  
Economic Consultant  
and Senior Research  
Fellow at the Oxford  
Institute for Energy  
Studies (OIES)

### Speaker



**Nicholas Howarth,**  
Energy Analyst at the  
International Energy  
Agency (IEA)

electricity demand. At COP28, more than 60 countries pledged to increase the average efficiency of new air-conditioning units by 50% versus a 2022 baseline.

An IEA study in Southeast Asia revealed that more efficient air-conditioning units are similarly priced to less efficient models.

"This underscores that these targets are achievable. The technologies are there and they're cost-effective, but we need much stronger ambition from governments to bring this to reality," said Mr Howarth.

In a webinar poll, 56 percent of participants identified the mobilisation of financing and investment for energy transition in developing countries as the most anticipated outcome of COP28. Equal percentages (22 percent) were interested in greater cross-border public-private partnerships and stronger national policies to aid energy transitions. No participants favoured more transparent and effective carbon markets.

The audience's scepticism towards carbon markets reflects the volatility of voluntary carbon credit prices amid doubts about the methodology upon which the underlying projects are based and whether such schemes truly lead to a reduction or offsetting of carbon dioxide emissions.

"There will always going be some subjectivity about the effectiveness of credits, whether you're talking about (CO<sub>2</sub>) removals or avoidance-based credits," said Ms Paula Vanlaningham, Director of Carbon Research at the London Stock Exchange Group (LSEG).

She noted the challenge in standardising prices for voluntary carbon projects due to their location-specific nature.

"Carbon markets are one potential tool to mobilise financing and investment for the energy transition in developing countries," explained Ms Vanlaningham. "The biggest challenge with that has been this question of transparent and effective carbon marketplaces, specifically for voluntary credit-based markets."

Adrian Del Maestro, VP of Global Energy Advisory at AECOM, emphasised that no single solution exists for decarbonization. Instead, companies should explore various options, including voluntary carbon credits, but "until we see much more transparency and regulatory standardization, (companies) need to be careful about that".





Under a just energy transition, advanced economies would decarbonise first, allowing developing countries to rely on fossil fuels for longer, explained Dr. David Robinson of OIES. He highlighted the role of subsidies in lowering renewable electricity production costs, which will continue to decrease globally.

Mr Del Maestro identified pace, scale, and complexity as key factors in the energy transition.

Previously, it took 12 years – from 2010 to 2022 – to triple global renewable energy capacity. Yet as IRENA estimates, this capacity must triple again by 2030 for us to remain on target to limit global warming to 1.5°C above preindustrial levels by 2027.

"You can see enormous progress in terms of collaboration between governments and the private sector, bringing the investment, the

capital, the innovation to build these energy systems," said Mr Del Maestro. "It's just that we have to keep that momentum going and increase it all the time."

Yet the realities of global finance and the world economy will also shape the switch to renewables, with borrowing and capital costs far higher in the developing world.

More broadly, "higher interest rates, cost inflation, strained supply chains, make it harder for companies to deliver low-carbon projects because they need to focus on projects that are bankable and that they know are commercially feasible", said Mr Del Maestro.

In another audience poll, 71 percent of respondents said COP28 would have a major impact driving initiatives in their businesses.

Switching to renewables is not motivated solely by wanting to decarbonise. Such sources can also provide greater energy security. This has become a much greater priority in much of mainland Europe that had previously relied on low-priced and plentiful Russian gas.

A third poll asked audience members which policy approaches to decarbonise the power sector would intensify following the COP28. Two-thirds of respondents chose incentives for renewable electricity generation, 22 percent opted for cap-and-trade systems and 11 percent for industry-wide standards for carbon dioxide per kilowatt-hour (kWh). No audience members selected carbon tax mechanisms.

The oil and gas sector has the potential to be an important enabler in delivering the energy transition, said Dr Robinson, acknowledging that environmentalists may be sceptical of such a view.

"International oil companies have significant capital to deploy and we're going to need a lot of money to develop our low-carbon energy system," he explained. "They have a global footprint, which means they can deliver projects in the global north and global south, and they have very strong project management, engineering and technical excellence that will be required as we scale up many of these technologies."







The pledges at COP28 as of December 12, as well as from earlier iterations of the conference, would only get humanity 30 percent of the way to net zero, according to IEA calculations.

"So, even if all the countries that have signed up deliver on that, we still have quite a long way to go," said Mr Howarth.

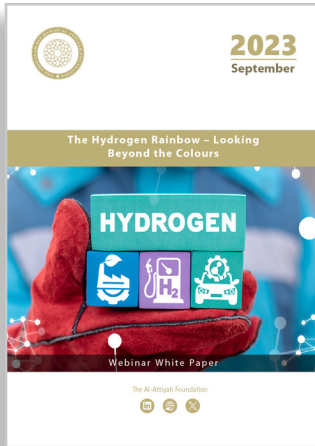
Nevertheless, COP28 has given the public and private sectors a direction of travel, argued Mr Del Maestro.

"Business needs to respond to that and accelerate," he added. "The advice we give to all our clients is to have a clear net zero strategy. How are you going to deliver it? How are you going to measure progress? What other initiatives can you do? What is the portfolio of options you can do to help decarbonise your business?"

Such questions will be essential for all companies, large and small, if they are to both thrive financially and fulfil their obligations to safeguarding the planet.

The insights from COP28 underscore the urgent need for increased investment and international cooperation to achieve ambitious climate goals. Moving forward, it is imperative for both public and private sectors to intensify efforts towards a sustainable and equitable energy transition.

Have you missed a previous issue? All past issues of the Al-Attiyah Foundation's Research Series, both Energy and Sustainability Development, and Whitepapers can be found on the Foundation's website at [www.abhafoundation.org/publications](http://www.abhafoundation.org/publications) publications



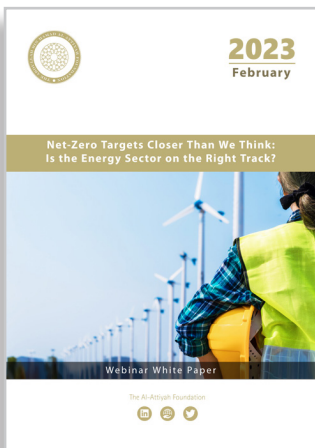
### September - 2023

#### The Hydrogen Rainbow – Looking Beyond the Colours

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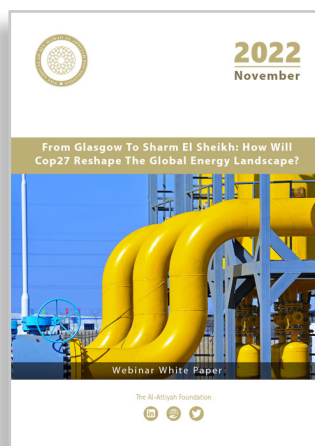
### February - 2023

#### Net-Zero Targets Closer Than We Think: Is the Energy Sector on the Right Track?

With little time left to halt the continuous increase in greenhouse gas (GHG) emissions into the atmosphere (i.e., achieving net-zero), the next few years will be critical for our planet. Already, the earth is about 1.1°C warmer than it was in the late 1800s.



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### November - 2022

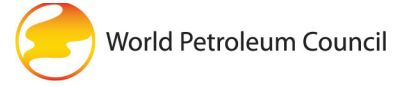
#### From Glasgow To Sharm El Sheikh: How Will Cop27 Reshape The Global Energy Landscape?

COP26 in November 2021 was one of the most significant summits on climate change, leading to new pledges from world governments to cut emissions and accelerate the green energy transition.





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





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