2025
December

2025 Energy Wrap-Up, 2026 Outlook

Webinar White Paper

The Al-Attiyah Foundation

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The Al-Attiyah Foundation's fourth webinar of the year, "2025 Energy Wrap-Up, 2026 Outlook", was held in partnership with the London Stock Exchange Group (LSEG) on 2 December. The discussion brought together leading experts from industry, research, and policy to assess the pivotal energy and climate developments of 2025—from shifting oil, gas, and LNG dynamics to the accelerating rise of renewables and low-carbon technologies. Looking ahead to 2026, the session delved into emerging opportunities in hydrogen, carbon capture, evolving carbon markets, and green finance. The panel also examined the geopolitical risks that could either propel or challenge the energy transition.

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 is a crucial networking and learning opportunity in the calendar of industry CEOs, members, and Foundation partners.

By connecting lessons from 2025 with strategic foresight for 2026, this webinar equips industry leaders, policymakers, and stakeholders to navigate uncertainty while advancing energy security and climate goals.

As 2025 draws to a close, the global energy and climate agenda stands at a pivotal inflection point. Markets have responded to geopolitical shocks, technological breakthroughs, and mounting pressure for climate action, while governments and businesses face urgent and often conflicting demands for both energy security and progress towards mid-decade sustainability goals. Global energy investment should hit a record US$3.3 trillion in 2025, with clean energy technologies attracting twice the capital of fossil fuels.

Global natural gas demand growth has slowed to around 1.5% in 2025 due to economic uncertainty, elevated liquefied natural gas (LNG) prices, and cautious consumption in price-sensitive markets. Buyers are mitigating supply risk by diversifying sources and securing more flexible LNG contracts. The International Energy Agency (IEA) forecasts demand will rebound in 2026 as supply from the US, Canada, and Qatar rises by 7%. Greater supply should lower prices and support a recovery in demand, especially in Asia.

Crude oil supply is outpacing demand, and some experts expect Brent crude prices to fall further to about US$50 a barrel. OPEC+'s rollback of production cuts has already pushed prices to four-year lows. Speculative investors have quit crude markets, yet the Middle East is attracting record levels of upstream investment, highlighting a mismatch between today's oversupply and longer-term energy security considerations.

Low-carbon technology adoption has been mixed over the past year. Carbon capture, utilisation, and storage (CCUS) gained ground with first-of-a-kind projects such as Northern Lights in Norway and Stratos DAC in the US. With over 50 million tonnes of capacity in operation, the technology is gaining traction, but cost, regulatory, and infrastructure hurdles still limit deployment at scale.

Renewables will have met most additional electricity demand in 2025, overtaking coal as the world's largest power source and strengthening the case for cost-competitive clean energy in climate negotiations. In 2026, record wind and solar additions will reinforce this dominance, though grid flexibility and storage will remain key constraints.

Carbon pricing became a key policy instrument in 2025, with the European Union (EU) refining its mechanisms, although full implementation of the Carbon Border Adjustment Mechanism (CBAM) seems some way off. China is asserting leadership among emerging economies, and Southeast Asia is advancing regional cooperation. In 2026, Brazil, Uzbekistan, and others are set to launch national registries and trading systems, supported by digital infrastructure for transparency, though oversupply risks persist in markets like Alberta.

WEBINAR SPEAKERS

Moderator:

Nawied Jabarkhyl, Senior Director – Head of International Media Relations APCO

Speaker

Andreas Kyrilis, Senior Partner Bain & Company

Speaker

Norela Constantinescu, Acting Director IRENA Innovation Technology Center

Speaker

Faysal Taher, Partner – Energy Transition & Climate Investments Boston Consulting Group

Speaker

Paula Van Laningham, Director – Carbon Research LSEG Data & Analytics

Speaker

Giles Farrer, Vice, President – Head of Gas and LNG Asset Research, Wood Mackenzie

Carbon pricing and emissions trading systems will become increasingly important mechanisms to combat climate change, but stronger innovation in financial services is also required to help developing economies expand renewable energy capacity, webinar panellists explained.

Beginning the discussion, Paula Van Laningham, Director of Carbon Research at London Stock Exchange Group (LSEG), gave a presentation on the many facets of carbon pricing and carbon credits more generally.

"We view carbon pricing primarily as a financing tool. It creates cost incentives by providing price signals, which are particularly important in very-difficult-to-decarbonise industries, where such price signals are needed to drive innovation and investment," said Ms Van Laningham.

A carbon price of about €200 per tonne is necessary to drive decarbonisation in the cement industry, she estimated.

Cement, petrochemicals, steelmaking and aviation are among the major global industries in which reducing carbon emissions is difficult.

Looking ahead to 2030, Ms Van Laningham said, "an increasingly large volume of the global emissions will be covered by carbon pricing. However, this would not necessarily lead immediately to lower emissions in some sectors, because carbon markets allow some levels of emissions, with the idea that these levels are gradually tightened over time to drive decarbonisation."

Carbon emissions trading systems cover an increasing portion of carbon dioxide emissions, thanks in part to the Paris Agreement. Early mover markets adopting such systems include the European Union, New Zealand, China, California and Quebec, explained Ms Van Laningham.

"Carbon credits have been an extremely challenging area, particularly in the voluntary carbon market, but they're going to play an

increasing role as we talk about carbon markets globally," said Ms Van Laningham.

"The big question around carbon credits has been around market credibility. Credibility only really works for credits if both the supply of and demand for credits is credible. The stability and efficacy of a carbon market is only as good as the worst quality project or credit that is allowed to be traded in it. If policymakers are not careful with the methodologies and the credits you permit in that market, you run the risk of undermining even the better projects as well."

Technologies such as carbon capture and green or low-carbon hydrogen are coming under much closer, more sceptical scrutiny than before in terms of whether they will provide a sufficient return for investors, said Andreas Kyrilis, a Senior Partner at Bain & Company.

Many energy companies, rather than seeking to decarbonise, are trying to expand their exposure to natural gas including LNG, said Mr Kyrilis, in part due to geopolitical concerns and worries about energy supply security.

In the first audience poll, 50 percent of respondents said renewables growth would have the biggest impact on global energy markets next year, while 50 percent said geopolitical risks. Surprisingly, no audience members cited oil market oversupply or surging LNG supply.

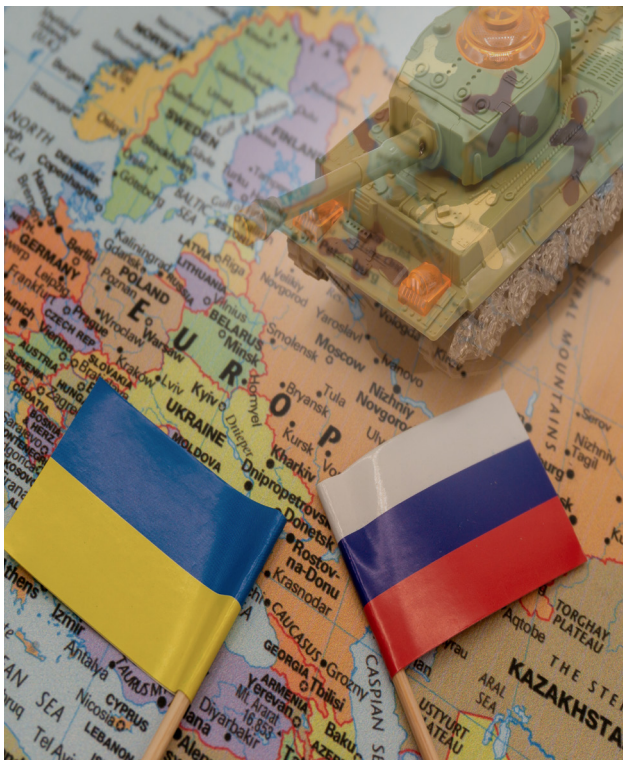
"The potential ending of the Russia-Ukraine conflict has immense implications for both gas markets and oil markets," said Giles Farrer, Vice President and Head of Gas and LNG Asset Research at Wood Mackenzie.

A peace agreement between Russia and Ukraine, ending the Russo-Ukrainian war, may permit Russian oil and gas to return to Western markets, which would further pressure prices "in already quite bearish markets", whereas if the conflict persists then additional sanctions on Moscow could tighten supply, said Mr Farrer.

Forward and spot pricing for LNG is declining due to expectations of increasing supply, said Farrer.

China and India will be the biggest growth markets for LNG next year, where the fuel is mostly for use in industry, said Mr Farrer, adding that as gas prices decline in the medium term it will become a greater part of the energy mix in developing countries.

Faysal Taher, Partner for the Energy Transition and Climate Investments at Boston Consulting Group, highlighted how annual clean energy investment was far below the level required to meet long-term climate change goals. About US$2 trillion is invested annually, but this needs to at least double to US$4 trillion or US$5 trillion, he estimated.



"Most of the incremental demand for renewables, for clean electricity, comes from emerging and developing economies. There's a gap in the amount of investments, and where it needs to go is very concentrated."

Developing countries struggle to attract investment or financing for renewable energy projects for several reasons, Mr Taher explained. These include higher borrowing costs due to countries' low credit ratings and policy frameworks that inspire little confidence among investors.

He said so-called blended finance – which combines public, philanthropic or concessional funding from multilateral institutions with private investment – can help unlock large-scale investment in renewable energy projects in developing countries.

Standardised and replicable project structures, which have proved hugely successful in enabling LNG and telecom infrastructure projects, could be repurposed for building renewable energy facilities, said Mr Taher.

"It's less about having enough money, it's more about affordability and managing the risk in these emerging economies," he said.

Norela Constantinescu, Acting Director at the IRENA Innovation Technology Center, estimated that around 90 percent of new electricity generation capacity in 2024 came from renewables. However, only 10 percent of this new renewable capacity was built in developing countries, she noted, despite the levelised cost of electricity being similar in Europe and Africa.

"Scaling-up concessional finance to support the reduction in risk associated with the cost of capital may provide the solution," said Ms Constantinescu.

Another audience poll asked which challenge was most urgent regarding renewable energy integration in 2026. Among respondents, 40 percent of respondents indicated energy storage deployment, while grid flexibility; financing and investment; and permitting and siting delays each attracted 20 percent of votes.

U.S. energy policy under President Donald Trump has deterred investment in solar and wind, with electricity companies increasingly turning to gas to meet surging demand from data centres, said Mr Farrer. Data centres are essential to artificial intelligence and build-out of such infrastructure has led U.S. electricity prices to soar.

A third audience poll asked where clean hydrogen would find its strongest foothold by 2030. Two-thirds of respondents cited industrial applications such as in steelmaking and chemical manufacturing, one-sixth chose power generation and storage, and one-sixth said there would be limited uptake across all sectors.

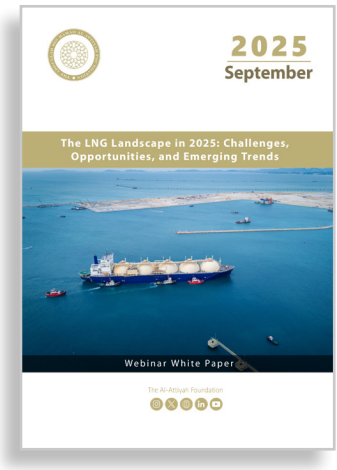
As the discussions highlighted, 2025 has been a year shaped by geopolitical uncertainty, shifting technology economics, and a widening gap between climate ambition and available finance.

Carbon markets are expanding and renewables dominate global capacity additions, yet high capital costs and insufficient financing structures constrain developing countries despite their vast renewable energy resources.

With 2026 expected to bring record renewable build-out, rising LNG supply and deeper carbon-pricing coverage, the coming year will test whether policymakers and investors can accelerate the transition while maintaining resilient and affordable energy systems.

09 PAST ISSUES

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 publications



September – 2025

The LNG Landscape in 2025: Challenges, Opportunities, and Emerging Trends

The Al-Attiyah Foundation's third webinar of 2025, "The LNG Landscape in 2025: Challenges, Opportunities, and Emerging Trends", was held in partnership with the London Stock Exchange Group (LSEG).

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June – 2025

Harnessing AI for a Sustainable Energy Future

The Al-Attiyah Foundation's second webinar of 2025, "Harnessing AI for a Sustainable Energy Future", was held on the 5th of June. The debate convened an expert panel—featuring leaders in energy systems, AI, and data science— to explore the challenges organisations face in Artificial Intelligence (AI) adoption and practical strategies to overcome them.

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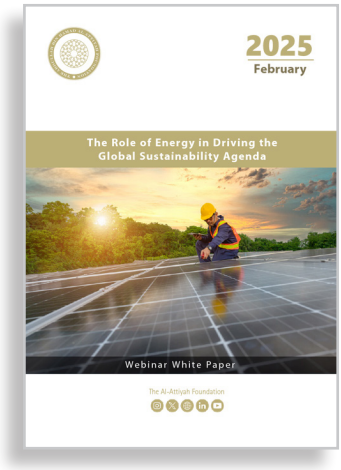

February – 2025

The Role of Energy in Driving the Global Sustainability Agenda

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

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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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