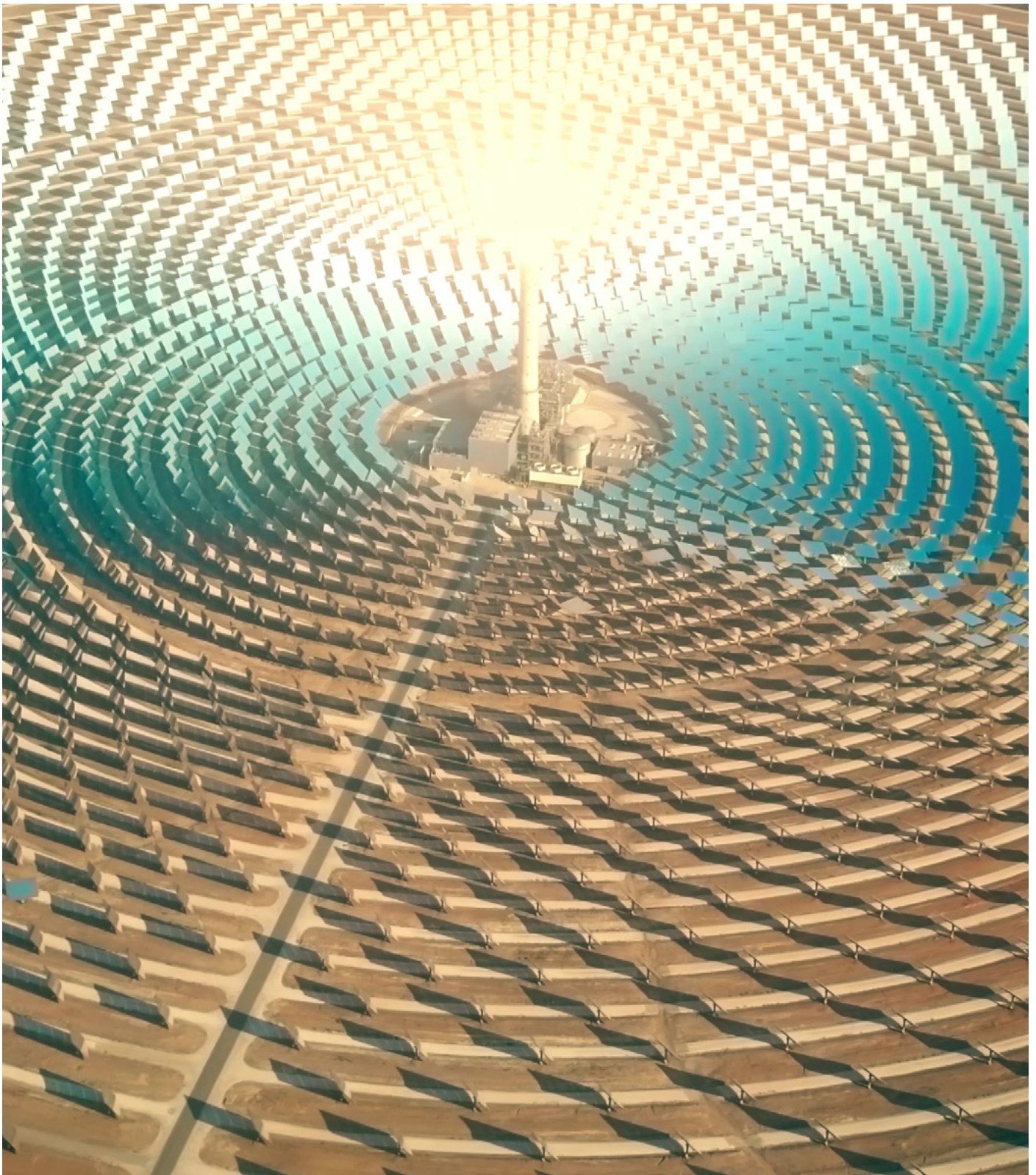


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# BIANNUAL ENERGY NEWSLETTER

H2, 2023



## A Message from Mashreq's Energy Sector Team

The success of our team is built on consistent knowledge exchange with our stakeholders, partners, and customers. We hope you find the insights inside valuable and useful.

Thank you for taking the time to read our H2 newsletter.  
We wish you the best of health and wellbeing always.

**Disclaimer:** Mashreq Bank is required to act in accordance with the laws and regulations operating in various countries and regions around the world relating to international sanctions. Under these sanctions requirements, the bank is prohibited from engaging in certain transactions. These limitations include, but are not limited to, the acceptance of cheques presented for deposit that are drawn on sanctioned Financial Institutions and/or the acceptance of cheques presented for clearing by sanctioned Financial Institutions.

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# Now is the time for carbon markets

By Badar Chaudhry  
Head of Energy Sector, Mashreq



**K**ickstarting the creation of a carbon market is a must-have to enable the UAE and others across the Middle East and North Africa to reach Net Zero by 2050. Our collective management of the world's carbon budget is wildly off course. How to tackle this major and complex task will be under the spotlight at COP28, the world's biggest annual climate gathering in Dubai this November.

That our daily news headlines are filled with climate disasters reflects the severity of the global environmental crisis and reaffirms that carbon trading is a cornerstone of supporting the three Ps: people, planet and profit.

The good news is that rising prices in the carbon market reflect stakeholders' growing confidence in such mechanisms and ultimately make it far more environmentally effective. This year, the price of carbon permits on the EU Emissions Trading Scheme (ETS), the world's oldest such cap-and-trade market, reached a record high of \$106.57 per ton – making it more expensive than ever to pollute.

Plus, 4,200 companies worldwide have science-based targets, marking an astonishing 36x growth rate from 2007-2022, according to Refinitiv. The need to meet these targets again helps underpin the necessity of carbon markets



in the Middle East and beyond.

Yet, despite these clear drivers, overall progress is not fast enough. This year, 73 carbon pricing initiatives worldwide cover 11.66 GtCO<sub>2</sub>e – representing 23% of global greenhouse gas (GHG) emissions, reported the World Bank. This data means 77% of GHG emissions are uncovered. For example, there is only one such initiative in the Middle East; a carbon tax in Israel, which is under consideration. We need to all work together to start plugging these gaps on the world map as fast as possible.

## STEPPING IN

The Middle East is ready to ask and hopefully answer some of the tough questions surrounding carbon markets. The UAE and Saudi Arabia are largely driving the conversation on the ins and outs, with pressing questions coming to the fore.

What does it involve and who participates? What price level is both viable and effective? How will this progress interlace with other countries' developments, notably our partners and competitors? How does carbon pricing weave into our existing and bold climate targets and multi-bn-dollar green projects?

The questions go on, for creating a national carbon market is not a quick journey. The market itself is always maturing, so stakeholders across the Middle East need to both keep abreast of their own plans and consider how they slot into the global picture.

## BLUEPRINTS TO REALITY

In response to our fast-changing world, a new coalition of UAE companies has been established to develop and grow a carbon market across the nation. The UAE Carbon Alliance will help support the transition of companies to a green economy in support of the country's goal to reach Net Zero by 2050 – the first country in the region to commit to this ambitious target. Plus, The Abu Dhabi Global Market, the UAE capital's financial free zone, announced plans last year to team up with AirCarbon Exchange (ACX) to create the "world's first fully regulated" carbon trading exchange and clearing house in the emirate.

The UAE, OPEC's third largest producer, has also signed a memorandum of understanding (MoU) with Zambia to develop forestry-based carbon removal projects to generate carbon credits. In another illustration of global cooperation, the UAE recently became the 26th country worldwide to agree to a bilateral carbon trading framework with Japan under the Joint Crediting Mechanism (JCM).

To the west, Saudi Arabia's Public Investment Fund (PIF) announced the establishment of the Regional Voluntary Carbon Market Company (RVCMC) last October, with Saudi Tadawul Group Holding Company. Shortly after, PIF auctioned off 1.4mn tonnes of carbon credits, followed by 2.2mn tonnes of carbon credits in June this year – the largest ever voluntary carbon credit auction, RVCMC said. Plus, the Dammam-based investment fund APICORP issued a \$75mn funding facility for voluntary carbon offset projects last November.

## AVOIDING ANALYSIS PARALYSIS

It has never been easier to participate in carbon markets, no matter the sector nor size of a business. The option of Emissions Trading Schemes (ETS), carbon taxes, carbon fees, voluntary carbon markets (VCM), shades of internal carbon pricing (ICP) and others are all on the table.

Amid this vast potential, some stakeholders are still getting used to how the concept of carbon markets differs from other, more established market. A barrel of oil is a globally understood visual representation of the oil market, for example. In carbon markets, we cannot see what is being traded and there are many routes to market and variations of what a carbon credit means to an individual or a company.

This nuanced situation means there is no single blueprint for companies looking to enter and operate in a carbon market in the Middle East. But it also means that companies can finetune their needs to embrace carbon trading in a way which best suits them. Such choice should serve as a positive rallying cry to achieve real action up to COP28 and beyond.

Read More: Mashreq Whitepaper titled 'Putting a Price on Carbon: What's Next?'

[https://www.mashreqbank.com/-/jssmedia/pdfs/corporate/cibg/energy/mashreq\\_whitepaper\\_carbon\\_pricing.ashx](https://www.mashreqbank.com/-/jssmedia/pdfs/corporate/cibg/energy/mashreq_whitepaper_carbon_pricing.ashx)

# Mashreq supports COP28

## Marking two consecutive rounds of support for the world's most crucial climate conference

**M**ashreq, a leading financial institution in the MENA region, has today announced its support and sponsorship of this year's United Nations Climate Change Conference (COP28), which will take place in the UAE from November 30th until December 12th, 2023, as Associate Pathway Partner.

Building on its successful sponsorship of COP27 last year – when it was the only bank in the MENA region to sponsor the conference – Mashreq will further leverage its position as a sponsor of COP28 to advance sustainable finance and climate action and contribute to the UAE's implementation of a transformative COP of action and a COP for all. The announcement aligns with Mashreq's target to reach \$30bn in sustainable financing by 2030. As of the first half of 2023, Mashreq has already facilitated \$20bn of sustainable finance and adaptation-related investments up in the UAE, Egypt, India, Bahrain, and Qatar.

Commenting on the announcement, Ahmed Abdelaal, Mashreq Group Chief Executive Officer, said: "We are pleased to announce our sponsorship of COP28 to support the UAE's goals of making this event a landmark COP of action. We recognize that the transition to a more sustainable economy requires substantial investment and access to finance, and we are committed to driving the region's efforts in providing inclusive and targeted financing solutions, working closely with our clients across all industries. This sponsorship is fully aligned with our commitment to close the financing gap by directing capital flows to transition projects that will help advance the UAE's 2023 Year of Sustainability vision and move the needle towards Net Zero by 2050.

"Through our sponsorship of COP28, Mashreq reaffirms its continued support to address climate change and promote a sustainable future. In full alignment with the Forum's aims,

we understand that COP28 will be a milestone moment to assess progress on the Paris Agreement targets, and we are committed to having a meaningful presence in the delivery of its ambitious agenda. We believe that, together, we can make COP28 a COP for all to make a significant impact and drive positive change for a better tomorrow."

Faisal Mohammed Al Shimmari, Head of ESG & Corporate Strategy at Mashreq, added: "We are thrilled to be an Associate Pathway Partner for COP28, reaffirming our commitment to sustainable finance and climate action. This partnership reflects our ongoing commitment to driving positive change and contributing to global efforts to combat climate challenges. We hope to play a significant role in crafting a more sustainable and resilient future for our region and beyond by aligning Mashreq's strategic goals with the transformative agenda of COP28."

"A wide range of stakeholders are key to ensuring COP28's success, and we are proud of the high level of interest in sponsorships received from across the world. All organizations and sectors of society have an important role to play in climate action, and I am encouraged by the enthusiasm demonstrated by our sponsors who are committing to Unite, Act, and Deliver to keep 1.5°C within reach," said Ambassador Majid Al Suwaidi, Director-General and Special Representative of the 28th Conference of the Parties to the UN Framework Convention on Climate Change.

The announcement builds on Mashreq's ongoing efforts to become a catalyst for change by leveraging the bank's expertise and resources to drive sustainable finance, combat climate change, and positively contribute to the transition to a more sustainable future. As COP28 approaches, Mashreq's alignment with the UAE's climate goals positions the bank favourably to make a valuable contribution to this year's conference.



**Ahmed Abdelaal, Mashreq Group Chief Executive Officer, said: "We are pleased to announce our sponsorship of COP28 to support the UAE's goals of making this event a landmark COP of action."**

# UAE Banks Federation: US\$51.8BN in green financing dedicated by 6 major banks including Mashreq



**U**AE Banks Federation (UBF) revealed the remarkable success of the UAE banking and financial sector in developing sustainable banking solutions in line with the UAE's strategy to reduce emissions and achieve climate neutrality by 2050 and with United Nations Sustainable Development Goals.

The Federation highlighted the proactive role of the banking sector in combating climate change through green financing commitments and climate initiatives and said that providing green finance and issuing green-oriented funds has emerged as a powerful mechanism to meet sustainability commitments of various organisations in the UAE in particular,

and the region, in general. An active partner in UAE's sustainable pursuits, UBF works in close collaboration with Central Bank of the UAE and all UBF members to support establishing the groundwork for the transformation to a sustainable economy.

According to data from UBF members, six major banks (FAB, ADCB, ENBD, DIB, Mashreq, and ADIB) have collectively dedicated over US\$51.8bn in green financing for various projects in renewable energy, waste-to-energy, and green technology by the end of 2022.

The tremendous growth in green funding by UBF members aligns with the guidelines of Central Bank of the UAE's Sustainable Finance

Working Group, and sector-wide sustainability objectives, all of which support the initiatives during the "Year of Sustainability" and the UAE's hosting of COP28.

UBF has built a top-notch ESG steering committee comprising subject matter experts to drive the ESG and green finance sector to work under the guidance of Central Bank of the UAE's policy, which will adopt sustainability principles in reserves management and monetary operation to work towards strengthening the principles and frameworks for green finance.

Jamal Saleh, Director-General of UBF, said, "We at UBF are committed to supporting its goals in delivering necessary changes in our UAE finance sector. And, in line with National Climate Change Plan of the UAE 2050 and United Nations' SDGs, our financial sector is playing a pivotal role in helping the UAE achieve net zero emissions."

The UAE is a pioneer in introducing sustainability standards and principles in the banking and finance sector, having introduced the Abu Dhabi and Dubai Sustainable Finance Declarations in 2016 and 2019, respectively, as well as the Guiding Principles for Sustainable Financing in 2020 to promote the development of a green financial market, and the National Sustainable Finance Framework in 2021.

In addition, the UAE is one of the first countries to include sustainability reports among the mandatory disclosures of public companies listed on the stock exchange, reflecting the importance given by regulators to sustainability. The country's banks and financial institutions have initiated the issuance of green sukuk and bonds, whose total market in the UAE has been around US\$17bn in recent years, with the aim of accessing institutional sources of financing that contribute to reducing the negative impact on the climate and environment and strengthen the sector's role in achieving an integrated system for sustainable development, as well as providing attractive returns for investors.

The Director General of UAE Banks Federation identified three major areas through which Federation members will drive the transformation of the financial sector.

First, propelling green projects by providing funds and issuing green bonds. Second, by inculcating green practices among customers, SMEs, suppliers, and vendors by promoting eco-friendly operations and living. And, last, by measuring and efficiently managing every UBF member's own carbon footprint and reporting the reductions achieved by the sector.

"Achieving net zero emissions requires the full participation of the financial sector to channel capital into environmentally sustainable and climate-resilient investments. Together with our member banks, we are working under the direct supervision of Central Bank of the UAE to further advance sustainable finance in the region. Collaboratively defining a framework for accountability and best practices will encourage the transition to a climate-neutral, resource-efficient and resilient economy," Saleh added.

Moreover, Saleh also commented about the partnership which UBF has entered into with UAE's Securities and Commodities Authority (SCA), where SCA and UBF will join hands and make collective efforts to foster mutual cooperation in developing the financial sector, establishing the UAE as a major attraction for asset and wealth management in line with government's aspirations for the next fifty years, ensuring the sustainable growth of the national economy, and cooperating with all authorities to create a flexible environment that attracts foreign businesses and further motivates banks and financial institutions to set up local asset management firms and help support and promote local investment fund industry, including green and sustainable funds, at regional as well as international levels.

Talking about the upcoming COP28 and how it will impact the banking sector in the UAE, Saleh said, "Our member banks and financial institutions will play a critical role in integrating environmental values into business and industrial progress. We believe the upcoming COP28 will provide a platform for global discussions and action on climate change. The UAE hosting the event will enable collaboration with international stakeholders, sharing best practices and building partnerships to accelerate the implementation of sustainable finance initiatives."



**Badar Munir Chaudhry, Head of Energy Sector, Mashreq and Elia Fedorovski, Chief Operating Officer, Pact Capital AG**

## COP28 Panel Discussion: Carbon Border Adjustment Mechanism Implementation

**M**ashreq conducted a panel discussion on the "Implementation of the Carbon Border Adjustment Mechanism," bringing together thought leaders and experts in the field including representatives from Pact Capital AG, CEO Leila Ayman, Elia Fedorovski (Chief Operating Officer), and Badar Munir Chaudhry

(SVP Head of Energy Sector, Mashreq), for their active engagement in this insightful discourse. The discussion centered around the European Union's commitment to holding polluters accountable through its Emissions Trading System (ETS). While this approach seeks to establish fairness, concerns were raised



regarding potential competitive disadvantages for companies operating in regions with less stringent emissions regulations.

The panel delved into the intricacies of the Carbon Border Adjustment Mechanism (CBAM), exploring its various aspects and phases. Key focal points included a thorough examination of the transitional period, insights into the evolving nature of the mechanism, and a detailed analysis of its broader implications on various sectors.

Particular emphasis was placed on the transitional period, with participants discussing the challenges and opportunities associated with implementing CBAM during this phase. The importance of a smooth transition that allows industries to adapt while aligning with global climate objectives was underscored.

The broader impact of CBAM on various sectors, from manufacturing to energy, was a key theme throughout the discussion. Understanding these implications is crucial for businesses to strategically adjust their

operations and policies in response to evolving environmental regulations.

Beyond the Carbon Border Adjustment Mechanism, participants highlighted their commitment to translating vision into action. Initiatives such as Climb2Change were presented as proactive efforts to combat climate change. Additionally, active support for COP28 was announced, reflecting a collective dedication to addressing climate change on an international scale.

In conclusion, Mashreq's panel discussion provided a valuable platform for industry leaders to share insights and perspectives on the implementation of the Carbon Border Adjustment Mechanism. As companies transition from vision to action, initiatives like Climb2Change, coupled with support for global initiatives such as COP28, underscore a collective determination to address climate change and foster a sustainable global economy.



IEA Director Fatih Birol has forecast in an OP-ED in the FT that demand for oil, natural gas and coal will all peak before 2030?

**81%** Disagree **19%** Agree



Saudi energy minister said OPEC+ oil supply cuts agreed last week should be enough to offset the increase in global oil inventories during Q1, 2024?

**7%** Disagree **93%** Agree



OPEC+ latest announcement on output cuts failed to convince the market. What should it do next?



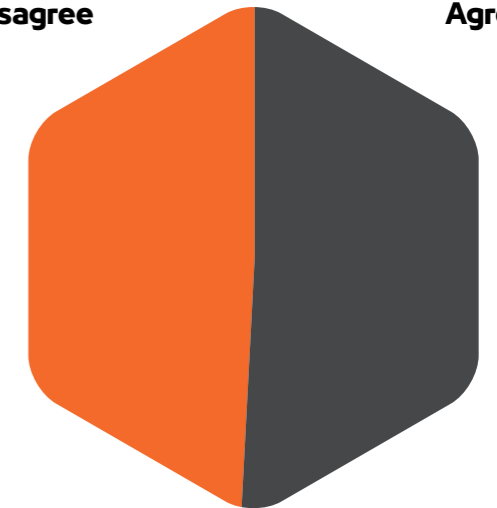
Do you expect COP28 outcomes to have any impact on direction of global oil markets in Q1?

**31%** Disagree **69%** Agree



Weak OECD and China demand expectations will outweigh any additional OPEC+ Cuts in 2024?

**49%** Disagree **51%** Agree



What is top of agenda for Putin tour of Gulf today?



Source: GIQ

## Global Oil Demand

The world oil demand growth forecast for 2023 is revised up marginally from the previous month's assessment to 2.5mn b/d. Revisions to data for the OECD countries throughout the first three quarters largely offset each other. In the non-OECD, the upward revisions to China's oil demand in both 3Q23 and 4Q23 outpaced the downward revisions in the non-OECD region in 3Q23. In 2023, OECD oil demand is expected to rise by around 0.1mn b/d, while non-OECD oil demand is expected to increase by 2.4mn b/d. For 2024, world oil demand is expected to grow by a healthy 2.2mn b/d, unchanged from the previous month's assessment. The OECD is expected to expand by about 0.3mn b/d in 2024, with OECD Americas contributing the largest increase. The non-OECD is set to drive next year's growth, increasing by about 2.0mn b/d, with China, the Middle East, Other Asia and India contributing the most.

Sources: OPEC Oil Market Report, November 2023

## Global Oil Supply

Non-OPEC liquids supply growth forecast is revised up to 1.8mn b/d in 2023. Main drivers of liquids supply growth for 2023 include the US, Brazil, Kazakhstan, Norway, Guyana, Mexico and China. For 2024, non-OPEC liquids production is expected to grow by 1.4mn b/d, broadly unchanged from the previous month's assessment. Main drivers for liquids supply growth next year are set to be the US, Canada, Guyana, Brazil, Norway and Kazakhstan. OPEC NGLs and non-conventional liquids are forecast to grow by around 50k b/d in 2023 to average 5.4mn b/d and by another 65k b/d to average 5.5mn b/d in 2024. OPEC-13 crude oil production in October increased by 80k b/d m-o-m to average 27.90mn b/d.

Sources: OPEC Oil Market Report, November 2023



	SEP 2023	OCT 2023	CHANGE (SEP/OCT)	YEAR-ON-YEAR (Y-O-Y)	
				2022	2023
<b>WTI</b>	<b>\$89.43/bi</b>	<b>\$85.47/bi</b>	<b>-4.4%</b>	<b>\$97.12/bi</b>	<b>\$78.14/bi</b>
<b>BRENT</b>	<b>\$92.59/bi</b>	<b>\$88.70/bi</b>	<b>-4.2%</b>	<b>\$101.61/bi</b>	<b>\$82.63/bi</b>
<b>DME OMAN</b>	<b>\$93.37/bi</b>	<b>\$89.31/bi</b>	<b>-4.3%</b>	<b>\$99.28/bi</b>	<b>\$82.41/bi</b>
<b>SPREAD</b>					
<b>Brent-WTI</b>	<b>\$3.16/bi</b>	<b>\$3.23/bi</b>	<b>2.2%</b>	<b>\$4.49/bi</b>	<b>\$4.49/bi</b>

Sources: ICE, CME, DME and OPEC Nov. 2023



### UAE'S MINISTER OF ENERGY AND INFRASTRUCTURE REVEALS UPDATED UAE ENERGY STRATEGY 2050 AND NATIONAL HYDROGEN STRATEGY

July 4, 2023 - Suhail bin Mohammed Al Mazrouei, Minister of Energy and Infrastructure, revealed the details of the updated version of the UAE Energy Strategy 2050 and the development of the National Hydrogen Strategy that were approved by the UAE Cabinet to enhance the country's efforts to meet its climate and net-zero commitments by 2050. Through both strategies, UAE aims to shape a prosperous, climate-safe, energy-secure future for the nation, while contributing to the global agenda for environmental sustainability. The strategies support the objectives of the 'We the UAE 2031' Vision, the Circular Economy Policy 2031, the National Strategy for Wellbeing 2031, and the UAE Net Zero by 2050 Strategic Initiative.

Source: WAM- The Emirates News Agency <https://www.wam.ae/en/details/1395303174303>

### UAE AND JAPAN TO BOOST GREEN ENERGY AND INVESTMENT TIES

July 17, 2023 - The relationship between the UAE and Japan to focus on boosting green energy and investment ties, Japan's Prime Minister Fumio Kishida has said. "Japan will promote the Japan-UAE innovation partnership initiative and the green global energy hub initiative for the Middle East including [for the UAE] to be a global clean energy and decarbonisation hub," Mr Kishida told the UAE-Japan Business Forum in Abu Dhabi. "Our bilateral relationships have made great strides including in start-ups and space. The UAE is home to 350 Japanese companies and more than 4,000 Japanese residents," Mr Kishida said.

Source: The National <https://www.thenationalnews.com/business/economy/2023/07/17/uae-and-japan-to-boost-green-energy-and-investment-ties/>

### IEA AND COP28 CONVENE GLOBAL ENERGY DECISION MAKERS TO ACCELERATE A JUST, ORDERLY ENERGY TRANSITION

July 21, 2023 - The International Energy Agency (IEA) and the COP28 UAE Presidency have convened the first in a landmark series of high-level dialogues through to COP28 around building a 1.5°C-aligned energy transition. The initiative is being carried out in collaboration with the International Renewable Energy Agency (IRENA) and will be supported by the United Nations Framework Convention on Climate Change (UNFCCC). Dr. Sultan bin Ahmed Al Jaber, Minister of Industry and Advanced Technology, UAE and COP28 President-Designate, said, "Building a new energy system can only happen at speed and scale with united action on the supply and the demand sides together. These high-level dialogues are bringing public- and private-sector energy decision-makers together under the framework of a COP for the first time."

Source: WAM- The Emirates News Agency <https://www.wam.ae/en/details/1395303179542>

### TURKEY'S PATH TO CARBON-NEUTRALITY RUNS THROUGH THE UAE

August 25, 2023 - Turkey and the UAE signed a strategic partnership framework agreement in the field of energy and natural resources during Turkish President Recep Tayyip Erdogan's historic visit to three Gulf states - the UAE, Qatar and Saudi Arabia. Inked with a \$29.7bn agreement, the two countries pledged to jointly implement huge projects in a broad range of areas from renewable energy, including offshore wind and solar energy, to clean hydrogen and nuclear power. Having pledged to become a carbon-neutral economy by 2053, Turkey already generates 45% of its electricity from renewables - which makes it rank fifth in Europe and 12th worldwide.

Source: The National <https://www.thenationalnews.com/opinion/2023/08/25/turkeys-path-to-carbon-neutrality-runs-through-the-uae/>



## UAE'S MASDAR TELLS HYDROGEN SUMMIT A 'GREEN WAVE IS COMING'

September 14, 2023 - A "green wave is coming" to the hydrogen industry that will lead to the sought-after fuel being produced with renewable energy rather than gas. Andreas Bieringer, Masdar's director of business development and commercial, said lower-carbon blue hydrogen would take some of the early "heavy lifting" as the industry grows. But he told a summit in London that "ultimately the world will be green". The UAE has plans to become a leading supplier of green hydrogen. A test shipment of ammonia, a hydrogen compound, was exported to Germany last year. Mr. Bieringer said the market was starting to mature with subsidies such as US President Joe Biden's sprawling \$369bn green package "creating some momentum" for clean hydrogen.

Source: The National <https://www.thenationalnews.com/climate/2023/09/14/uae-masdar-tells-hydrogen-summit-a-green-wave-is-coming/>

## UAE ANNOUNCES INITIATIVE TO BOOST AI AND BLOCKCHAIN IN GREEN FINANCE

September 11, 2023 - The UAE has announced a new initiative aimed at developing technology solutions such as artificial intelligence and blockchain to scale the use of green finance and combat climate change. The UAE Central Bank, the Bank for International Settlements, the Emirates Institute of Finance and the COP28 Presidency have launched the COP28 UAE TechSprint, ahead of the UN climate summit in the Emirates at the end of the year. The programme seeks to encourage global innovators from the public and private sectors to use technologies such as AI, blockchain, Internet of Things and sensors to tackle challenges in green and sustainable finance.

Source: The National <https://www.thenationalnews.com/climate/cop28/2023/09/11/uae-announces-initiative-to-boost-ai-and-blockchain-in-green-finance/>

## OPEC SEES UAE ECONOMY CONTINUING TO GROW IN 2023

September 12, 2023 - The Organisation of the Petroleum Exporting Countries (OPEC) has confirmed that the UAE's economy grew by 3.8% in the first quarter of 2023. In its September 2023 report, OPEC said it expects the UAE's economic expansion to continue, noting that key sectors of the country's economy have seen significant growth. The OPEC report highlighted that the most prominent sectors with significant growth were transportation and storage (10.9%), construction (9.2%), and accommodation and food services (7.8%). The report also stated that the Central

Bank of the UAE has mirrored the interest rate policy of the US Federal Reserve, keeping the key interest rate unchanged at 5.4%.

Source: Zawya <https://www.zawya.com/en/economy/gcc/opec-sees-uae-economy-continuing-to-grow-in-2023-qh0g4yd>

## UAE ANNOUNCES \$4.5BN FINANCE INITIATIVE FOR AFRICAN CLEAN ENERGY

September 5, 2023 - The UAE will give \$4.5bn to Africa's clean energy initiatives, COP28 President-designate Sultan Al-Jaber said on Tuesday as he urged the continent to set out long-term transition plans. Al-Jaber called on the continent's leaders to set out clear transition and investment plans, along with policy and regulatory frameworks to unlock commercial finance for clean energy projects. The initiative will sit under the umbrella of Etihad 7, a development platform championed by the UAE Ministry of Foreign Affairs that aims to provide 100mn people across the African continent with clean electricity by 2035.

Source: Arab News <https://www.arabnews.com/node/2367546/business-economy>

## WORLD'S LARGEST CONCENTRATED SOLAR POWER PLANT COMPLETED IN DUBAI

December 8, 2023 - 50 kilometers south of Dubai city, Vice President and Prime Minister of the United Arab Emirates and Ruler of Dubai Mohammed bin Rashid Al Maktoum inaugurated a hybrid solar energy facility in a photovoltaic park named after him. The UAE has a clear vision to transform itself into one of the world's most sustainable nations. The fourth phase consists of the largest concentrated solar power facility on the planet, at an overall 700 MW, and 250 MW in photovoltaic capacity. The Mohammed bin Rashid Al Maktoum Solar Park is envisaged to reach 5 GW. It currently stands at 2.6 GW combined, making it one of a handful of the biggest ones on Earth already, even without CSP.

Source: Balkan Green Energy News <http://tinyurl.com/4z5r7m6w>

## COP28: UAE MINISTRY LAUNCHES PROJECT FOR ENERGY MANAGEMENT SYSTEM ON FEDERAL ROADS

December 8, 2023 - UAE's Ministry of Energy and Infrastructure (MoEI), revealed the launch of the Energy Management System on Federal Roads, a transformative initiative reshaping the way streets are illuminated, shifting from the traditional high-pressure sodium (HPS) lamps to LED lights. Announced at COP28, the new system is powered by artificial intelligence to implement an adaptive street lighting system that optimises illumination



levels and adjusts lighting intensity on federal roads through sensors installed on lighting poles. The Energy Management System on Federal Roads is a step forward in our drive to conserve energy and safeguard the environment as it effectively improves energy efficiency, reduces carbon emissions, and helps mitigate climate change.

Source: Khaleej Times <https://www.khaleejtimes.com/cop28-uae-ministry-launches-project-for-energy-management-system-on-federal-roads>

## EGYPT, UAE PEN COOPERATION PROTOCOL FOR PEACEFUL USES OF NUCLEAR ENERGY

December 10, 2023 - Egypt's Nuclear Power Plants Authority (NPPA) signed a cooperation protocol with Emirates Nuclear Energy Corporation (ENEC) in the field of peaceful uses of nuclear energy, as per a statement on December 8th. The signing took place on the sidelines of COP28 in Dubai. In August, the Egyptian Nuclear and Radiological Regulatory Authority (ENRRA) approved the establishment of the fourth and last unit of El Dabaa Nuclear Power Plant with a capacity of 1,200 megawatts (MWs).

Source: Zawya <https://www.zawya.com/en/economy/north-africa/egypt-uae-pen-cooperation-protocol-for-peaceful-uses-of-nuclear-energy-vsxqm0xr>

## UAE RANKS SECOND IN THE WORLD IN ENERGY TRANSFORMATION, SAYS SHEIKH MOHAMMED

December 11, 2023 - Sheikh Mohammed chaired a Cabinet meeting coinciding with the COP28 conference. At the beginning, the outcome of the country's national efforts was reviewed in the environmental field, which included more than 120 decisions in sustainability, climate change, and the development of our natural resources. More than 60 new decisions were launched that formed an integrated system of policies, legislation, strategies and initiatives to enhance the country's efforts in combating the effects of climate change. National strategies and policies in the field of



environment and climate change have borne fruit, as the country ranked second in the world in energy transformation, within the Global Green Future Index 2023 (GFI), and sixth in the world in the rate of per capita solar energy consumption, and invested more than \$50 bn in clean energy projects in 70 countries, and pledged to invest another \$50 bn in the sector over the next decade.

Source: Gulf Today <https://www.gulftoday.ae/news/2023/12/10/uae-ranks-second-in-the-world-in-energy-transformation-says-sheikh-mohammed>

## ARAB OPEC MINISTERS MEET IN DOHA AS COP28 DISCUSSES PHASING OUT OIL AND GAS

December 12, 2023 - OPEC's top Arab energy ministers arrived in Doha on Monday for the 12th Arab Energy Conference as countries clash at the UN's COP28 climate summit over a possible agreement to phase-out fossil fuels. OPEC Secretary General Haitham Al Ghais urged OPEC members to reject any COP28 deal which targets fossil fuels rather than emissions. Countries in the OPEC hold about 80% of the world's proven oil reserves, most of which is concentrated among Middle Eastern members. Sultan Al Jaber, who is chief of UAE state oil giant ADNOC and president of COP28, has maintained that a phase down of fossil fuels is inevitable and essential, but is part of a transition that takes into account the circumstances of each country and region.

Source: Reuters <https://www.reuters.com/business/environment/arab-opec-ministers-gather-doha-cop28-fossil-fuel-talks-continue-2023-12-11/>

## EGYPT, UAE PEN COOPERATION PROTOCOL FOR PEACEFUL USES OF NUCLEAR ENERGY

December 10, 2023 - Egypt's Nuclear Power Plants Authority (NPPA) signed a cooperation protocol with Emirates Nuclear Energy Corporation (ENEC) in the field of peaceful uses of nuclear energy, as per a statement on December 8th. The signing took place on the sidelines of COP28 in Dubai. In August, the Egyptian Nuclear and Radiological Regulatory Authority (ENRRA) approved the establishment of the fourth and last unit of El Dabaa Nuclear Power Plant with a capacity of 1,200 megawatts (MWs).

Source: Zawya <https://www.zawya.com/en/economy/north-africa/egypt-uae-pen-cooperation-protocol-for-peaceful-uses-of-nuclear-energy-vsxqm0xr>

## “There’s an Expectation From COP28 to Get the Energy Transition Back on Track!”



**Ian Jones**  
Head of Knowledge, Insights, and Research, Energy Institute

“The world is not on track to meet its 2050 net zero targets, with greenhouse gas emissions growing nearly 1% in 2022, despite a record year of growth for renewables. Until we get to a point where the annual addition of clean energy starts to exceed the annual increases in energy demand growth, it’s going to be very difficult to see fossil fuels losing their 80% plus grip on the world’s energy mix. The Energy Institute’s recently published UAE Energy Barometer survey, which was conducted on our membership and other professionals across the energy sector in the UAE, confirmed the expectation that the region will be adversely affected by climate change by 2050. At a global level, there’s an expectation that the focus of COP28 must be to get the Energy Transition back on track, and ideally ahead of schedule. We must see a proactive push on multiple fronts; including strengthening

existing country commitments, increasing the deployment of renewables, and reforming and reinforcing climate financing and agreements to phase out coal. Climate change is a universal problem and requires universal action. And while funding large capital investments is crucial, end users also have a significant role to play and need to be adjusting behaviors and attitudes to energy consumption, through simple actions such as lowering heating or raising cooling levels in homes, turning off lights, or installing effective insulation. And equally important are the choices that we all make in terms of the technologies that we buy, such as smart and efficient appliances, and hybrid and electric cars. There are very simple actions that we can all take to reduce our energy and carbon footprint.”

Source: Fujairah New Silk Road WEEKLY NEWSLETTER- VOL. 179

## “The World is More Than 50% Short of the Finance Required to Tackle Climate Change!”



**Saugata Saha**  
President, S&P Global Commodity Insights

“There’s a lot more work to be done to get us on track to meet the Paris Climate Agreement goals. The S&P Global Commodity Insights base-case centers around global warming getting to about 2.4°C by the year 2100. Our optimistic best-case scenario talks about a significant amount of carbon reduction and that would get us to about 1.7°C global warming by 2100. And our pessimistic worst-case scenario sees about 3.0°C global warming over the period, which assumes that there will not be a lot of abatement or reduction in the usage of carbon-based fuels. One of the themes we’ll hear a lot about at COP28 over the coming weeks will be around financing decarbonization, or the lack there of, and how we go from vision to strategy to execution on climate action. Our research shows that over the next several years, globally,

we will need about \$1.7trn of financing annually and if you look at what’s lined up currently, it gets us to only about \$700bn per year, so that’s more than a 50% gap between what’s required and what’s available. Another theme at COP 28 will be ‘stocktaking’ - looking at what was planned and promised, and where we are now and how we bridge the difference. We will also hear a lot of conversations around ‘phasing out’ versus ‘phasing down’ hydrocarbons. We also expect there to be robust conversations at COP28 between the so-called Global North and the Global South, and how can we have a thoughtful Energy Transition while continuing to bring a bn people out of poverty across the world and increase their standard of living.”

Source: Fujairah New Silk Road WEEKLY NEWSLETTER- VOL. 178

## “High Interest Rates and Strong USD Main Driver Capping Oil Prices!”



**Ilia Bouchouev**  
Ph.D., Managing Partner, Pentathlon Investments LLC

“The main reason why oil is around \$80 and not higher is macroeconomic. Higher US interest rates have choked economic growth and that means lower demand for oil. The even bigger issue is the US dollar, which has been strengthened by the higher interest rates, and since oil is denominated in dollars, the price for non-dollar denominated countries like China and India, is quite high. Secondly, from the trading perspective, there are just not enough buyers above \$80. When interest rates were 1%, financial macro traders were willing to buy oil above \$80, and oil call options, to hedge against inflation. Today, with interest rates at 5%, they don’t need to waste capital on doing that. There are plenty of other alternatives to invest in and so the participation on the buy side has not been huge. That has made everything more complicated for OPEC, which has been replicating the strategy of central banks over the last

decades, to try and impact market sentiment. But the market is selling off, mostly because it is driven by set algorithms and so it does not hear what OPEC is saying. OPEC needs to fine tune its strategy - it doesn’t really make any sense to scare away the speculators. Over the last month, give or take, speculators sold 6 mn financial barrels per day, compared to Saudi Arabia cutting 1 mn barrels per day. Obviously, the sheer size of the financial versus physical markets matters. And not all of that financial barrels trade is being driven by what we call speculators in the traditional sense of the definition. For example, there are options traders that are risk managers, who don’t even think about the physical oil market. They are quantitative traders executing mechanically and have many other reasons to trade futures, not based on supply and demand.”

Source: Fujairah New Silk Road WEEKLY NEWSLETTER- VOL. 177

## “China Has Conflicting Pressures in its Approach to Mideast Conflict!”



**Jonathan Fulton**, Associate Professor of Political Science College of Humanities and Social Sciences, Zayed University

“At first, China’s response to the outbreak of hostilities between Hamas and Israel, was to put the blame on US support of Israel and that American policy in the region is what set this conflict in motion. The calculus in Beijing is that their relationships with a lot of the developed world - the EU, the UK, North America, Japan, and others - which have been most important to China since it embarked on its economic reforms in 1978 - have been severely strained for the last five years or so. As a result, China has been reaching out a lot more to the so-called Global South. The Middle East is a major source of energy, Chinese state-owned enterprises do a lot of contracting in the region, there’s a tremendous amount of trade and a large expatriate presence. China looks at the Middle East as a place where it can develop political

goodwill. They think that if they support Palestine, they’ll get the Arab League countries support and solidify themselves as leaders in the region. However, I don’t think there’s evidence that all the Arab world sees this in the same way. Also, if there’s an escalation in the conflict, that will impact energy markets and for a country like China which imports 40-50% of its crude oil from the Gulf, skyrocketing oil prices because of geopolitical problems certainly is not in their interest. So, we now see China quietly working behind the scenes at the UN Security Council and they’ve also sent a special envoy to the region. There’s been a realization that it’s better to be a constructive actor.”

Source: Fujairah New Silk Road WEEKLY NEWSLETTER- VOL. 176

## “China’s Renewables and New Energy Industries Have Been Booming!”



**Alex Whitworth**  
VP & Head of Asia Pacific Power Research, Wood Mackenzie

“China’s Belt and Road Initiative investment in the past decade has exceeded \$1trn, mainly poured into South-South cooperation with other developing markets in Asia and Africa, and even as far as Europe and South America. Roughly one fifth of the investment has been in the power sector, with the focus on coal and conventional projects. Many of these were completed in the first five years of the BRI, but a large number of coal plant projects have been cancelled since then because of China’s concerns around climate change. The country announced in 2021 that it would no longer support investment in overseas coal projects through its BRI. Another trigger has been the increase in global geopolitical tensions in the last five years, which has pushed energy security up the priority list for China, also accelerating its Energy Transition domestically.

China’s renewables and new energy industries have been booming. It is expected to install 230GW of wind and solar capacity this year, double that of the US and Europe combined. China is leading in renewables technology, deployment and economies of scale. It is rapidly expanding exports of many Energy Transition technologies such as solar modules and panels, (accounting for about 80% of global supply), in addition to wind turbines, electric vehicles and batteries and electrolyzers. The amount of money China is investing globally into wind and solar is five times that going into coal. It is still the largest country in terms of constructing new coal power in the world, but it has a clear timeline over the next three or four years, to bring that to an end.”

Source: Fujairah New Silk Road WEEKLY NEWSLETTER- VOL. 180

## “Fujairah is a Frontrunner to Become One of the UAE’s Hydrogen Oases!”



**H.E. Eng Sharif Al Olama, Undersecretary for Energy and Petroleum Affairs, UAE Ministry of Energy & Infrastructure**

“The UAE anticipates that by the year 2031, we will be producing around 1.4 mn tons of hydrogen per annum – both green and blue. We are taking measurable steps in terms of delivering what we anticipate will be a major contributor to our vision for diversifying our energy mix. We have around seven projects that are currently at different levels of maturity. Today, there’s only grey hydrogen in our refineries and the quantities are very limited. But we have test sent blue ammonia cargoes to Europe and Japan through ADNOC. We are also working on studies to produce pink hydrogen, capitalizing on the heat from our nuclear reactors. As part of the hydrogen strategy, we have identified hydrogen oases – one in Ruwais and one is KIZAD, Abu Dhabi. I see

Fujairah as a frontrunner to become one of these future hydrogen oases. It is the third biggest bunkering port in the world, with significant storage facilities and has all the infrastructure required to enable hydrogen. Fujairah’s geographical location and access for shipping routes is also key; it could allow us to import all the equipment we need to produce hydrogen and allow us to export to the likes of Japan, South Korea, and others. Today, only blue hydrogen is economically feasible, so this is where we are going to start, eventually transitioning into green as we’ve seen done in Europe.”

Source: Fujairah New Silk Road WEEKLY NEWSLETTER- VOL. 172



## “World Faces Energy Chaos and Economic Chaos Without More Oil Investment!”



**H.E. Haitham Al Ghais**  
OPEC Secretary General

“Energy security is at the core of OPEC’s founding commitment to support a stable and sustainable oil market in the interest of producers, consumers, and ultimately the global economy. This issue has gained additional momentum over the past six years as OPEC has been working with other leading oil producing countries through the Declaration of Cooperation. Together, we have been front and center in helping reduce volatility and supporting a balanced and stable global oil market. The importance of energy security and market stability is not only vital for the short term; it is critical for the long term too. This is clear when we look at the Energy Transition and its intertwined issues on energy availability and affordability and the need to reduce emissions. In this regard, at OPEC, we take a fact-based approach to deliver an inclusive and realistic transition and sustainable energy future. Unfortunately, some people remain ideologically driven about the world’s energy future, with a

narrative that fossil fuel demand will peak by 2030, and in some net zero scenarios, global oil demand drops to 75 or 80 mn barrels a day. That is less than six years from now and yet, over that same period, it is expected that another half a bn people will move into cities. The OPEC World Oil Outlook 2023 shows global energy demand expanding by 23% between now and 2045. There is no credible way to address this without utilizing all forms of energy. And yes, renewables will have to play a greater role. OPEC members are already investing significantly in this area, but oil will remain integral in the future energy mix, at around 30% by 2045. Our outlook now estimates that oil demand will reach 116 mn b/d by 2045. To meet this, \$14trn of investment will be required across the whole value chain. We believe that calls to stop investment in new oil projects, are misguided and will only lead to energy chaos and economic chaos.”

Source: Edited Comments, Energy Markets Forum, Fujairah October 10th

The global carbon market, valued at nearly \$100bn, signifies a significant turning point in climate finance towards Net Zero. As carbon pricing initiatives emerge in the Middle East, ensuring their full potential and achieving compatibility among 73 global initiatives are vital steps towards a global carbon price.

**CLICK HERE** to watch the Mashreq Energy Webinar featuring: Gordon Bennett, Managing Director, Utility Markets, ICE and Michael Curran, Head of Environmental Products, Vitol. Hosted by: Badar Chaudhry, Head of Energy Sector, Mashreq



**Exclusive Mashreq Energy Webinar**

**Topic: Unity with carbon pricing?**

**Special Guest Speaker: Gordon Bennett**  
Managing Director, Utility Markets, ICE

**Special Guest Speaker: Michael Curran**  
Head of Environmental Products, Vitol

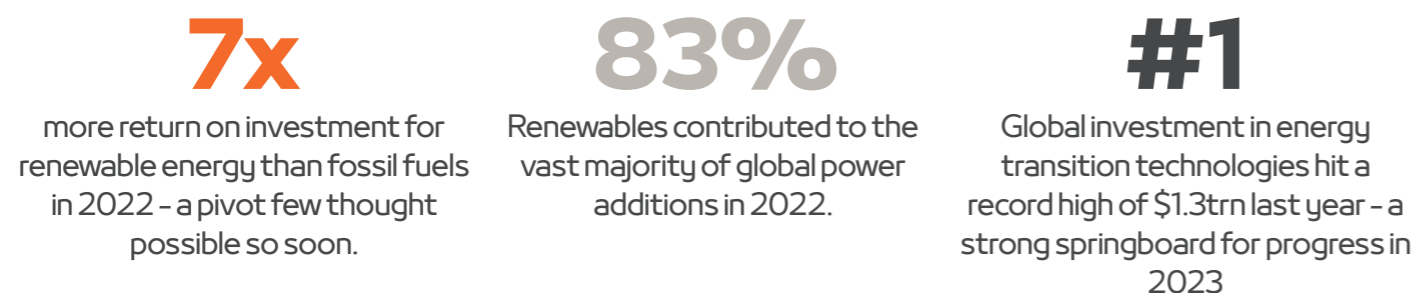
**Hosted by: Badar Chaudhry**  
Head of Energy Sector, Mashreq

*Rise every day*

## Middle East Energy Transition

### Stay sharp, stay committed

COP28 must urgently transform dialogue into action, but celebrating our successes is also key to sustaining positive momentum - especially amid the world's rising economic and geopolitical strain.



Sources: International Energy Agency (IEA), International Renewable Energy Agency (IRENA).

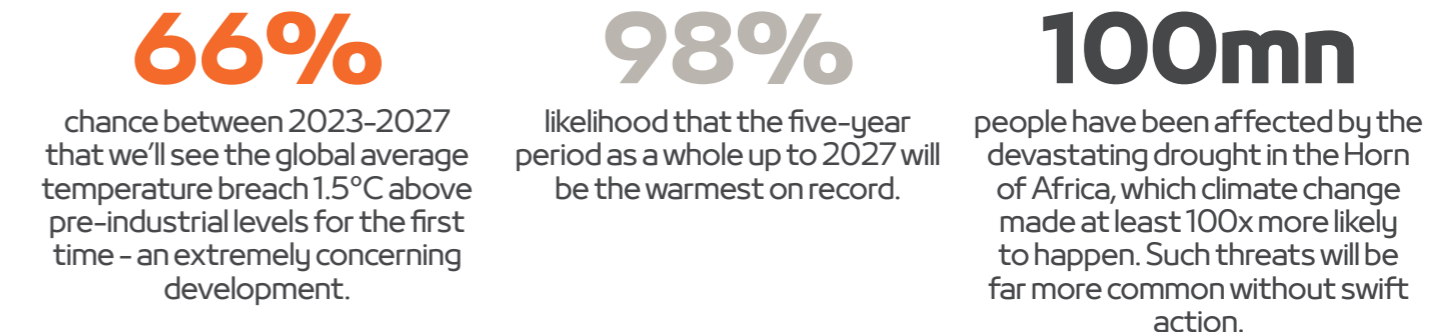
## Mashreq In-Numbers



“The natural ebbs and flows of global economics mustn’t steer us off course from Net Zero by 2050 – the biggest financial task in history. We must keep sight of our collective goals to create a happier population and a greener planet.”

**Badar Chaudhry**  
Head of Energy Sector, Mashreq

With just three months until COP28 in Dubai opens its doors. Urgent and collective action is needed to implement solutions, especially for developing countries.



Source: World Meteorological Organisation (WMO), The Guardian.

As global recession concerns rise, securing \$35 trillion is crucial for the Net Zero journey. COP28 in Dubai spotlights the need for financial support.



Source: World Economic Forum (WEF), International Monetary Fund (IMF), International Renewable Energy Agency (IRENA).

# The Oman Artificial Intelligence Forum 2023



Vinod Kumar, Senior Director, CIBG - Corporate Origination and Business Development at The Oman AI Forum 2023, VIP Leadership Roundtable. Hosted by H.E. Dr. Ali Al Shidhani, Undersecretary for Communications and Information Technology, Ministry of Transport, Communications and Information Technology (MTCIT)



Mashreq Branded Breakfast Briefing Session at the Oman Industry 'AI' Forum 2023, 1<sup>st</sup> Nov, Muscat, Oman