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MENA ENERGY OUTLOOK 2023 and Beyond

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INTRODUCTION

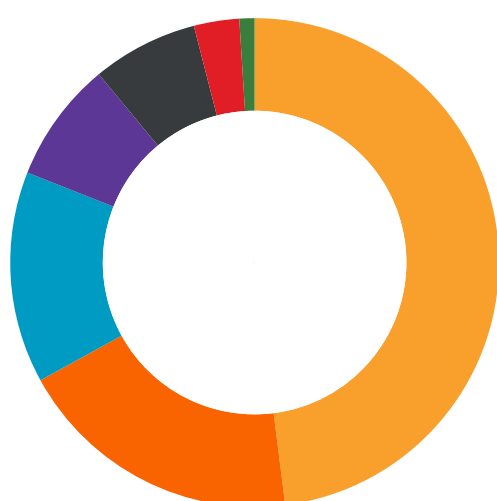
Few parts of the world are more closely tied to energy production than the Middle East and North Africa (MENA). The region, while comprising a wide range of markets, has some of the largest oil and gas exporters in the world. While definitions vary, the World Bank classifies MENA as Algeria, Bahrain, Djibouti, Egypt, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Libya, Malta, Morocco, Oman, Qatar, Saudi Arabia, Syria, Tunisia, the United Arab Emirates (UAE), West Bank and Gaza, and Yemen.ⁱ

Fossil fuel extraction in the region dates back to the start of the 1900s, when the Anglo-Persian Oil Company was founded in Britain to exploit oil reserves discovered in Masjed Soleiman, Persia (present-day Iran). This was followed in 1938 with the first oil struck in Saudi Arabia, in the Dammam oilfield. Saudi Arabia's oil exports amounted to more than USD\$202 billion in 2021, equivalent to almost 71% of the country's total export receipts.ⁱⁱ

Overall, MENA holds roughly 57% of global proven oil reserves and 41% of natural gas resources. To date it has supplied around 37% of the world's oil and 35% of gas.ⁱⁱⁱ This abundance of fossil fuels has delivered significant revenues to a region that is limited in other resources, albeit that the economic benefits have been unfairly distributed across the population.

DISTRIBUTION OF GLOBAL PROVEN OIL AND GAS RESERVES IN 2020.

Source: BP Statistical Review of World Energy, 2021^{iv}



Middle East
 S. & Cent. America
 North America
 CIS
 Africa
 Asia Pacific
 Europe



Middle East
 CIS
 North America
 S. & Cent. America
 Africa
 Europe

MENA's gross domestic product amounted to \$3.7 trillion in 2021,^v compared to \$26.8 trillion in North America,^{vi} despite that latter only having 77% of the population of the former. The Gini index, or ratio of income inequality, ranges from 0.26 to 0.42 across countries in the region for which there is data.^{viii} This is well below the 2020 global average of 0.67, on a scale where 1 equals complete income equality.^{ix}

The administrations of oil-rich economies in MENA, such as Iran and Saudi Arabia, have used fossil fuel earnings to shore up autocratic regimes but face growing social pressure to address equity issues. More importantly, the source of these nations' riches is also under scrutiny as the need to combat climate change by curtailing fossil fuel use increases. A global move away from fossil fuels need not be excessively problematic for the region, however.

With abundant solar and wind resources and well-established trading partnerships, MENA economies are well placed to produce renewable electricity and climate-friendly fuels such as low-carbon hydrogen. Countries that currently export fossil fuels can use export surpluses to fund this transition. Those that do not may finally have an opportunity to participate in global energy markets.

The question is whether the region's leaders, many of which rule over societies tightly bound by tradition, will have the vision to embrace changes in global energy demand before other markets steal the initiative. This report looks at MENA's role in the global energy economy and evaluates regional strategies in the light of current geopolitical trends and the climate pledges expected at this year's climate talks in the UAE.



ENERGY MARKET TRENDS

While MENA has been blessed with abundant fossil fuel reserves, these are unevenly distributed across the region. Thus, while nations such as Saudi Arabia, Iran and Iraq have some of the largest oil reserves in the world, countries including Jordan, Lebanon, Morocco and Tunisia are net hydrocarbon importers.^x This results in very different energy priorities and profiles.

MENA ENERGY MARKET OVERVIEW

In general, the priority for energy-exporting countries in MENA is to maximize export revenues while global demand for fossil fuels remains high, while investing in low-carbon alternatives to meet the demands of future low-carbon energy markets. In energy-importing nations, meanwhile, the focus is on developing low-cost, home-grown sources of energy to mitigate the impact of high fossil fuel prices.

Increasingly, these sources of energy are in the form of low-cost solar or wind, potentially funded with help from development finance institutions. Like all global markets, the countries across MENA have been affected in recent years first by the impact of the COVID-19 pandemic and latterly by Russia's invasion of Ukraine.

The COVID pandemic broke out almost simultaneously with an oil price shock that saw crude prices entering negative territory. This ended up "hitting oil-exporting developing countries particularly hard at a time when the fossil fuel industry is facing a process of structural decline," said the Organization for Economic Co-operation and Development.^{xi}

As government programs gradually brought COVID under control, it looked as though the outlook for MENA oil-exporting nations was grim. Demand for energy fell during

the pandemic yet the outlook for renewables remained strong, leading oil majors and sovereign wealth funds such as the Public Investment Fund of Saudi Arabia to accelerate investments in transition programs.^{xii}

This picture changed quickly and radically, however, first with an unforeseen explosion in economic demand after COVID and then, more importantly, with Russia's invasion of Ukraine in February 2022. European concerns over energy security following the loss of Russian oil and gas supplies led to a scramble for alternative suppliers, with the United States and Middle East emerging as winners.

This has led to a windfall for oil-producing MENA nations, improving the economic outlook for the region despite generally downbeat global prospects. This was apparent in measures such as corporate mergers and acquisitions (M&A) activity.

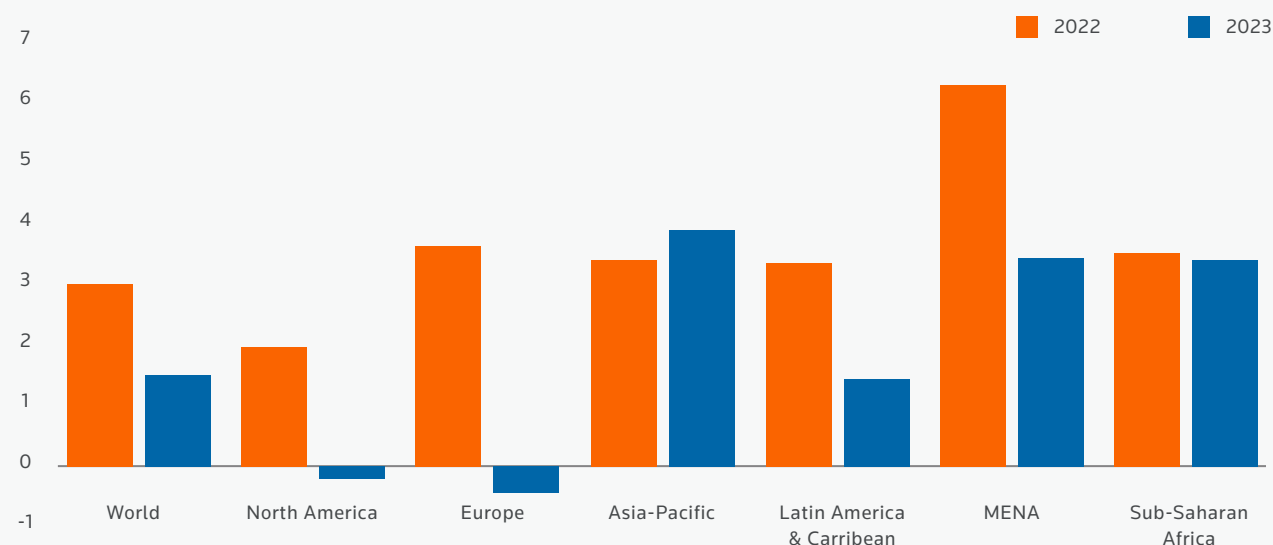
"Overall, 2022 saw a notable slowdown in global M&A deal activity, as the triple headwinds of soaring inflation, rising interest rates and looming recessionary fears created a bearish outlook and heightened caution among investors," said the consultancy firm PwC. "However, the Middle East proved a remarkable exception to this general pattern, as favorable regional dynamics such as elevated oil prices and increased fiscal discipline contributed to greater economic flexibility and relatively high growth."^{xiii}

It is unclear how long this favorable economic climate will last as European energy demand stabilizes. MENA's GDP growth is expected to slow from 6.1% in 2022 to 3.5% in 2023 and 2024, says S&P Global.

"For the MENA hydrocarbon exporters group, we forecast real GDP growth will move down from 6.7% in 2022 to around 3.5% in 2023-24," says the intelligence provider. "For the MENA hydrocarbon importers group, we anticipate a real GDP growth slowdown from 4.2% in 2022 to 2.9% in 2023 and 3.1% in 2024."^{xiv}

COMPARATIVE REAL GDP GROWTH FORECASTS, BY REGION.

Source: S&P Global Market Intelligence.^{xv}



Continuing high energy prices resulting from the Ukraine conflict will benefit exporters but penalize fuel-importing nations in the region, according to the Washington, U.S.-based Middle East Institute. Meanwhile, reduced food exports from Ukraine and a faltering global economy could further punish states where government coffers have been stretched by COVID.

“The multiple strains will put serious pressure on the most populous MENA country, Egypt, as well as other economies in the region, including Morocco, Tunisia, Jordan, Turkey and Iran,” said the Middle East Institute in January 2023.

“Lebanon has already tipped over the economic brink. Iraq will struggle to leverage its resource riches to address the socio-economic and governance needs of its people,” it added. “The populations in the fully or partially failed states of Yemen and Syria, as well as the millions of refugees throughout the region, will have an extremely trying year.”^{xvi}

BEYOND 2023: GREEN ENERGY LEADERS DRIVING CHANGE

A key question for MENA policymakers is how changing global energy requirements will affect national economies. Oil-exporting countries have benefited from recent high hydrocarbon pricing but are aware that such conditions cannot last forever as major energy markets in Asia, Europe and North America pivot towards low-carbon sources of generation.

Some oil-rich MENA nations are deploying significant amounts of capital into clean energy projects, although the level of commitment to low-carbon technologies varies widely across the region.

“The region’s big hydrocarbons producers are putting a lot of emphasis on the development and rollout of carbon capture, use and storage (CCUS) technologies to allow them to keep pumping oil and gas out of the ground,” said Informa Markets in March 2022. “Another critical element will be the transition away from relying on the burning of fossil fuels to generate electricity and instead ramping up renewable energy generating capacity.”^{xvii}

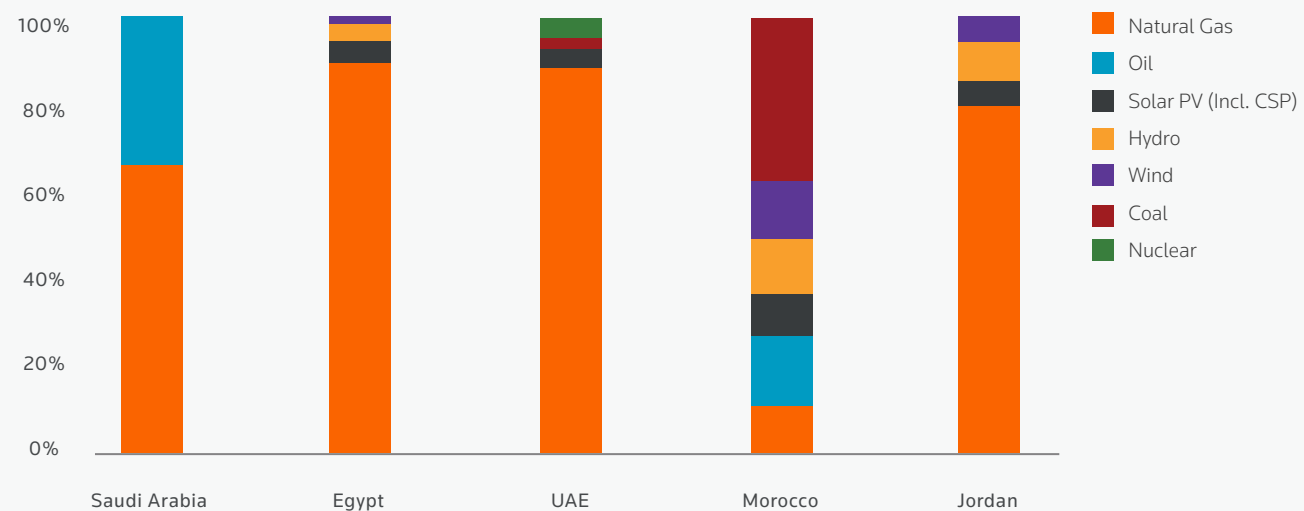
Saudi Arabia, for example, has a National Renewable Energy Program that aims to get 50% of domestic energy from renewable sources by 2030. The country has consistently failed to live up to grand expectations when it comes to renewables deployment,^{xviii} although in February 2023 announced what was said to be the world’s largest single-site solar power plant.^{xix}

Such initiatives sound laudable and should help the country reduce its carbon emissions by more than 278 megatons a year, but a key thrust of the strategy is to ensure less oil and gas is burned at home so that it can be sold instead on export markets.^{xx} Elsewhere, MENA energy importers have much to gain from embracing clean generation technologies, not least because they have a vested interest in avoiding the worst impacts of climate change.

“MENA is one of the most climate-vulnerable regions,” says the World Bank. “Extreme high temperatures of up to 56 degrees Celsius [133 Fahrenheit] could become the norm in MENA in a world where global average warming reaches 4 degrees Celsius above pre-industrial levels.”^{xxi}

POWER GENERATION MIX IN SELECTED MENA COUNTRIES, 2020.

Source: World Bank.^{xxii}



Furthermore, most MENA countries will need to expand power production to meet rising energy demand. Primary energy demand in MENA is expected to double by 2030, the World Bank says. “Both oil and gas exporter and importer countries face increasing fuel insecurity and vulnerability, as climate change and decarbonization efforts will pose significant transition risks,” it notes.^{xxiii}

Notwithstanding the high levels of fossil fuel use across most of MENA, there are a few countries that are already emerging as potential energy transition leaders. Perhaps the most notable is Egypt, which as of 2021 had 6.2 gigawatts (GW) of renewable capacity, the highest level in MENA after hydro-heavy Iran, including 1.6 GW of wind and 1.7 GW of solar, based on International Renewable Energy Agency (IRENA) data.^{xxiv}

Egypt hosts one of the world’s largest solar complexes, the 1.8 GW Benban Solar Park northwest of Aswan, and was able to show off its energy transition credentials as the host of the COP27 climate summit in 2022. Another putative clean energy leader in the MENA region is Morocco. The fifth-largest economy in Africa in GDP terms,^{xxv} Morocco has more limited fossil fuel reserves than many of its MENA peers and is net energy importer.

The country’s economy is forecast to grow 3.1% in 2023^{xxvi} against a background of continuing high fuel prices, making it important for the administration to diversify an electricity generation mix that, unusually for the region, has high levels

of coal. By 2022, Morocco had already installed 1.4 GW of wind and 774 megawatts (MW) of solar power to accompany an existing 1.7 GW of hydro-based low-carbon generation.^{xxvii}

Morocco’s solar-based generation capacity is skewed towards concentrated solar power (CSP) thanks to the country’s Ouarzazate Solar Power Station. This is a hybrid plant comprising 72 MW of photovoltaic (PV) solar plus 510 MW of CSP, the largest concentration of the technology anywhere in the world.

In terms of installed capacity, MENA’s renewable leader is also its largest economy, Iran, thanks to a generation mix containing 11.9 GW of legacy hydro.^{xxviii} Iran has long sought to increase the level of solar power in its energy mix, offering a feed-in tariff program that attracted a raft of predominantly Italian developers in 2016.^{xxix}

At the end of 2021, the Iranian Energy Ministry announced plans to install 10 GW of renewables over four years, with the country’s Renewable Energy and Energy Efficiency Organization saying it had received proposals for 80 GW from private investors.^{xxx} In practice, however, “The Iranian power market has been severely impacted by the series of sanctions that have been imposed by the U.S.,” says GlobalData Energy.^{xxxi}

This situation “has made it difficult for Iran’s finance and banking sectors to make payments or secure debt and equity finance for projects,” the information provider comments.

FUTURE ENERGY GENERATION, DISTRIBUTION

MENA's largest economies have largely grown off the back of fossil fuel exports and so are likely view the global energy transition with misgivings because of its potential to cut off a major source of wealth. At the same time, though, the region is also blessed with abundant wind and solar resources, potentially allowing MENA nations to maintain their energy leadership in a low-carbon world.

ADDRESSING THE ENERGY TRILEMMA: SETTING STRATEGIES FOR RESILIENCE

Another benefit of this focus on renewables is that it can help address growing domestic energy needs in a sustainable, equitable fashion, underpinning economic growth through assets that are only minimally affected by geopolitical concerns. The UAE has been preparing for a low-carbon future since the mid 2000s, Energy Minister Suhail bin Mohammed al-Mazroui told Reuters Events in an interview.

"We knew that transition is going to happen," he said. "And even though we are a country with vast resources of hydrocarbons we elected to enter that transition more than 15 years ago when we decided that we will have the [region's] first peaceful nuclear program."



The UAE is now aiming to get 50% of its energy from non-fossil sources by 2050, potentially reducing emissions by 70%. Alongside its nuclear program and the use of smart technologies for energy reduction, the country is betting heavily on renewables. One project alone—the Al Dhafra solar park, touted as the world’s largest single-site PV plant—is due to add 2.1 GW of generation capacity to the grid.^{xxxii}

The scale of the project, plus the UAE’s excellent solar resources, should allow Al Dhafra to deliver electricity at a world leading \$13.50 per megawatt-hour. The administration is planning to invest \$162 billion in renewables by 2050 but foresees savings of \$191 billion across the energy system compared to sticking with gas-fired generation, al-Mazroui said.

“It is a win-win, from an environmental point of view and for cost reduction,” he said.

But contrary to warnings from bodies such as the U.N. Intergovernmental Panel on Climate Change (IPCC) and the International Energy Agency that further hydrocarbon extraction will derail climate goals, the UAE is not planning to phase out fossil fuel use altogether. “We think that natural gas will always be there as a baseload until we innovate to a baseload that is cleaner and more sustainable,” al-Mazroui said.

Concerns over a full-scale transition to clean energies are partly driven by the need to address the so-called energy trilemma, which is the challenge of securing supplies that are simultaneously sustainable, secure and affordable. Adding

expensive generation sources to the mix “is going to put lots of pressure on consumers,” said al-Mazroui. “We are realistic when we choose our sources.”

Such worries are common to many administrations across MENA. Addressing the energy trilemma not only requires a close eye on technology developments but also the coordination of a wide range of stakeholders. One way to improve the affordability of renewables, for example, is to build transmission lines that can transport low-cost wind and solar from areas of high renewable resource to load centers such as cities and industrial hubs.

However, if such transmission lines traverse national borders, it could compromise energy security given geopolitical tensions in parts of the MENA region. It remains to be seen how the energy trilemma will be resolved in MENA, not least because security, affordability and sustainability are not directly comparable quantities.

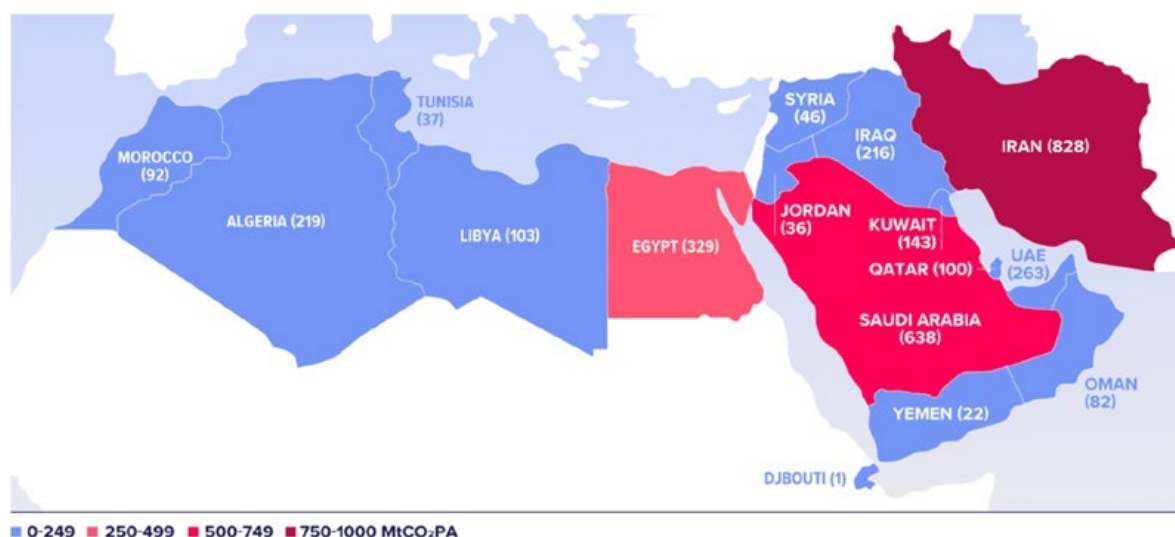
A failure to address the carbon dioxide (CO₂) emissions inducing climate change, for instance, could trigger massive social unrest in MENA and elsewhere, compromising the ability of administrations to ensure secure and affordable energy supplies.

GENERATION: HOW CAN MENA PRIMARY ENERGY PRODUCERS BALANCE THE MIX?

In an ideal world, MENA’s primary energy exporters—nations such as Saudi Arabia, Iraq and the UAE—would benefit from continued strong demand for fossil fuels even in a low-carbon world. This seems hard to achieve in practice but there are several pathways that could allow it to happen.

GREENHOUSE GAS EMISSIONS ACROSS THE MENA REGION.

Source: Global CCS Institute.^{xxxiii}



One is to deploy carbon capture and storage (CCS) and CCUS technologies at a scale that cancels out or even overrides the emissions from fossil fuel exports. Unsurprisingly, oil-producing Gulf Cooperation Council (GCC) nations are eying these technologies with interest.

MENA is already home to 10% of global carbon capture capacity thanks to facilities in Qatar, Saudi Arabia and the UAE, according to the Global CCS Institute, an industry body.^{xxxiv} Furthermore, Bahrain, Egypt, Iran, Iraq, Saudi Arabia and the UAE have included CCS in their nationally determined contributions towards global climate goals.

“The MENA region shows a very high potential for CCUS hubs,” says the Global CCS Institute. “With current carbon capture facilities, industrial facilities, available natural CO₂ sinks and future plans in the GCC countries, the GCC countries could be a world-class hub for CCS.”

Alongside existing experience in CCS, GCC countries are ideally placed to become major carbon capture hubs because they can store the gas underground in extensive depleted oilfields. Another promising route to decarbonized energy supremacy is hydrogen, which is being touted as a low-emissions alternative to molecular fuels such as oil and gas.

Today, hydrogen is mostly produced from natural gas via a process called steam methane reforming, which releases large amounts of CO₂ into the atmosphere. However, these emissions can be trapped using CCS, giving rise to so-called ‘blue hydrogen.’ Alternatively, hydrogen can be created with virtually no emissions by using renewable energy to power the electrolysis of water.

This so-called ‘green hydrogen’ is expensive today because of the cost of electrolyzers and renewable electricity, although these costs are falling quickly. MENA nations are well placed

to become a global leaders in blue and green hydrogen production, in the first case because many countries have access to gas reserves and CO₂ storage capacity, and in the second thanks to the availability of low-cost renewable energy.

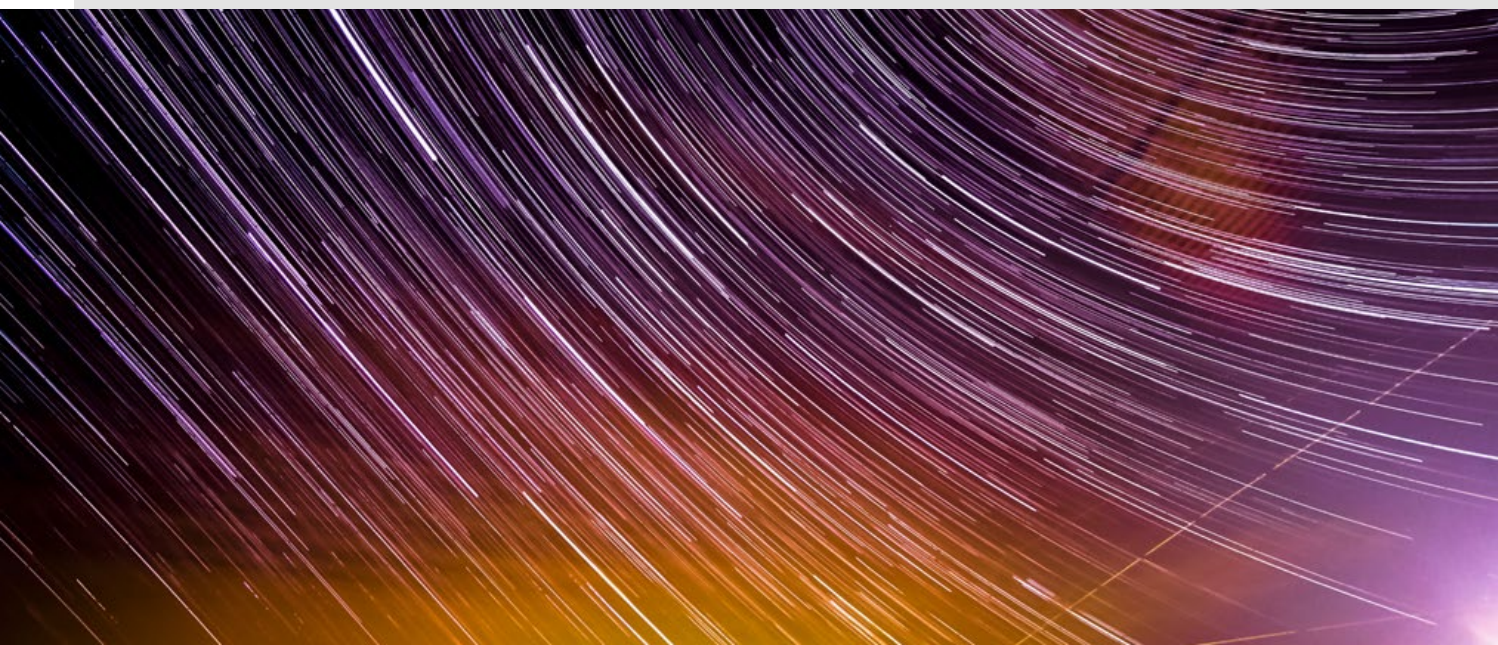
Clearly there are synergies in co-developing CCS and blue hydrogen simultaneously. “CCS provides a platform for low-carbon hydrogen production from natural gas or coal and provides an opportunity to bring low-carbon hydrogen into new markets,” says Kyle Hodge, a senior technical research analyst with S&P Global Commodity Insights.

“The cost of CCS-equipped hydrogen production—blue hydrogen—is approximately half that of hydrogen produced through electrolysis powered by renewable electricity—green hydrogen.”^{xxxv}

The Middle East, he says, “has a potential competitive advantage in blue hydrogen production in that it already utilizes large amounts of hydrogen in several industries.”

While unlikely to ever match hydrocarbon exports, the global annual hydrogen export market could hit \$300 billion by 2050, says S&P Global Commodity Insights. “This underpricing of blue hydrogen production paves the way for the Middle East to become one of the future innovators of CCS technology and opens the door for it to become a market leader in hydrogen production,” Hodge says.^{xxxvi}

Green hydrogen, meanwhile, is of interest to MENA nations that are currently net energy importers. Using low-cost wind and solar energy, these countries could develop competitive green hydrogen industries and vie with GCC members for export markets. North African countries could have the added advantage of being close enough to European demand centers to export hydrogen via pipelines.



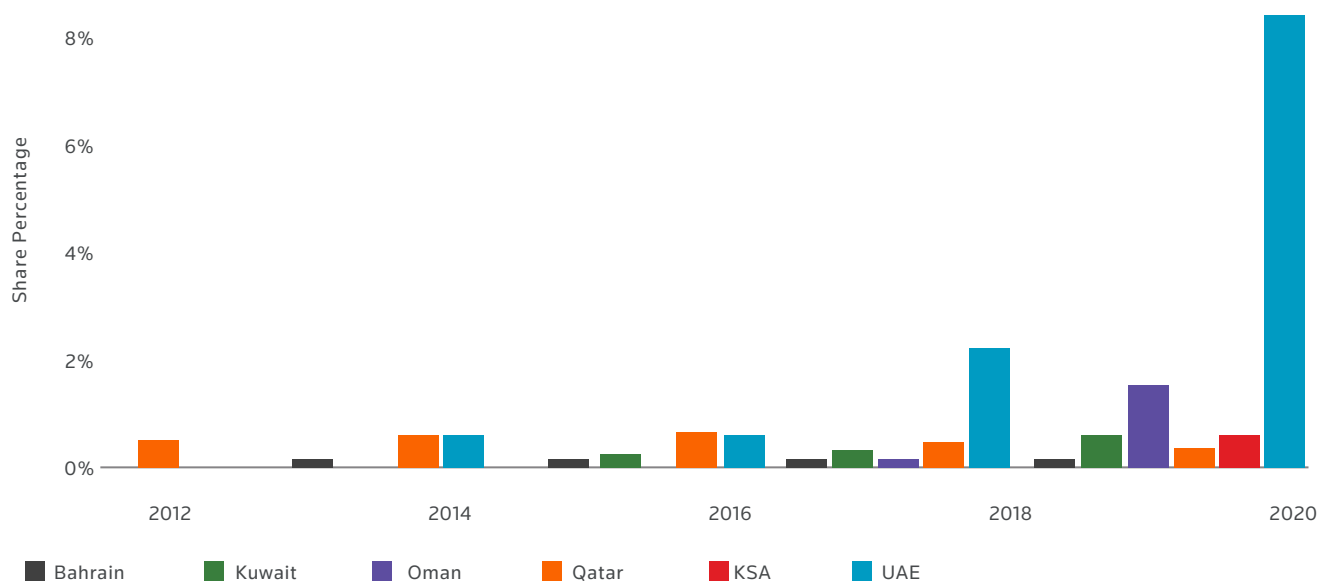
TRANSMISSION AND DISTRIBUTION: IS THE GRID READY FOR A GREEN TRANSITION?

Grids incorporating large shares of intermittent renewables need to be robust so that as much energy as possible can be transmitted to load centers whenever it is generated.

Most MENA countries, however, lack extensive, robust grids because they have been able to rely on fossil fuels for generation close to areas of demand.

RENEWABLE SHARE OF GENERATION CAPACITY ACROSS GCC COUNTRIES, BY YEAR.

Source: IRENA.^{xxxvi}



This need not be a problem for the region since most MENA cities and industrial centers are surrounded by desert, offering plenty of open space and wind and solar resource for renewable plant construction without the need for massive transmission lines. Nevertheless, existing grid infrastructure will likely need to be updated with flexible alternating current transmission systems (FACTS) to cope with a growing renewable share of the energy mix, including:^{xxxviii}

- Synchronous condensers, which are large rotating generators that can improve voltage regulation and stability by continuously generating or absorbing reactive power as well as delivering inertia for short-circuit strength and frequency stability.^{xxxix}
- Static var compensators, which are reactive power compensation devices that can increase transfer capability and reduce losses while maintaining a smooth voltage profile under different network conditions.^{xl}
- Series compensation systems, which involve strategically placed capacitors that can increase transmission transfer limits by a factor of two or three at a fraction of the cost of new transmission lines.^{xli}
- Static synchronous compensators, which are capable of providing or absorbing reactive current and thereby regulating the voltage at the point of connection to a power grid.^{xlii}

There has so far been little demand for FACTS technology among GCC countries other than Saudi Arabia, according to Power Technology Research.

“As the share of renewable generation increases in the energy mix, installed base of FACTS devices in the Middle East will not only increase but also spread geographically,” it says. “This demand could further increase as the region is full of strategic ports which might be implementing shore-to-ship power solutions, leading to grid expansions next to ports including medium-voltage FACTS devices.”^{xliii}

Elsewhere, there is interest in building interconnectors not only to deliver clean energy to local markets but also to provide export routes to regions such as Europe. MENA’s first large-scale high-voltage direct current (HVDC) project, a \$1.8 billion, 3 GW interconnector between Saudi Arabia and Egypt, was awarded in 2021.^{xliv}

The project will build on an existing 1,200-kilometer, 400 kilovolt HVDC link that unites the six GCC member states. North African countries in particular could see greater benefits from exporting energy north to Europe, although longstanding plans to do this have so far met with limited success.

The Sahara Desert is said to have an annual solar power potential of 22 billion gigawatt-hours, more than 7,000 times what Europe consumes in electricity a year.^{xlv} For decades there has been interest in exporting some of this to Europe, although—so far—the only form of energy that has

crossed the Mediterranean in bulk is natural gas, either in liquified form or through one of three pipelines.

Electrical interconnection capacity is limited to two 700 MW links between Morocco and Spain, with the possibility of a third entering service before 2026.^{xlvi} There is renewed interest in exports to Europe following energy security concerns linked to the conflict in Ukraine.

Projects on the drawing board include XLinks, which would see 7 GW of Moroccan wind and solar power being exported direct to Britain via a 3,800-kilometer HVDC link. However, energy experts remain skeptical of such projects, forecasting instead that MENA power is more likely to be exported in the form of clean hydrogen or other molecular fuels.^{xlvii}

Alongside grid upgrades and interconnectors, another way of dealing with renewables integration is to deploy energy storage so that excess generation can be stored and delivered later as needed. Because of still-low levels of renewables on most MENA grids, energy storage has yet to be deployed at scale across the region, with most of the roughly 1.5 GW of capacity reported in 2022 corresponding to legacy pumped hydro projects in Morocco.^{xlviii}

This situation looks set to change as MENA grids switch to wind and solar, with a 2021 report predicting 30 projects across the region up to 2025. To a growing extent, energy storage in MENA will rely on fast-reacting, modular lithium-ion battery technology.^{xlix}



TAKING TO THE GLOBAL STAGE AT COP28

Energy policy is highly politicized in many countries, but this is even more so the case in MENA because of the extent to which oil and gas exports are linked to national economies and the strength of autocratic regimes. These regimes could be justified in viewing the energy transition as an existential threat because of its likely impact on hydrocarbon exports. .

Furthermore, renewable energy, and particularly rooftop solar, is generally considered a democratizing technology because it can allow consumers to generate their own power, severing links with utilities that in MENA are traditionally state owned. A more positive perspective, however, is that renewables can provide low-cost energy to underserved populations, addressing inequality and potentially helping to avoid social unrest such as that seen during the Arab Spring uprisings of the early 2010s.

Furthermore, forward-thinking MENA leaders might recognize that while the energy transition is inevitable it could still lead to export opportunities, particularly in hydrogen and other low-carbon fuels. MENA leadership attitudes to the energy transition have come under increased scrutiny in recent years not only because of the GCC's key role in carbon emissions but also because of the hosting of international climate talks.

THE LEGACY OF COP27: SUCCESSES, FAILURES AND TAKEAWAYS FOR 2023

A regular Conference of Parties (COP) has been held on climate since the United Nations Framework Convention on Climate Change established an international environmental treaty at the Rio de Janeiro Earth Summit in 1992. These meetings resulted first in the Kyoto Protocol of 1997 and then the Paris Agreement of 2016, which still forms the cornerstone of global climate action.

The MENA region has had a prominent role within the COP talks, with Morocco hosting COP7 in 2001 and COP22 in 2016 while Qatar hosted COP18 in 2012. However, scrutiny of the climate talks has intensified in recent years as the impacts of climate change have become clearer.



When COP27 was held in 2022 at Sharm El Sheikh, there was considerable speculation over the extent to which host country Egypt—which uses fossil fuels for 90% of energy generation and is planning to increase oil and gas exports—would push for climate action.ⁱ In the event, Egypt's leadership of the talks helped secure an agreement the creation of a loss and damage fund for countries worst hit by climate change.

This was a major achievement and addressed a longstanding claim by developing nations particularly vulnerable to climate change, including MENA members Lebanon, Morocco, Palestine and Yemen. However, observers slammed Egypt's inability to extract new emissions reduction commitments from countries at COP27.

Kathy Baughman McLeod, senior vice president and director of the Adrienne Arsht-Rockefeller Foundation Resilience Center, said the failure was “devastating to plans to keep global heating to no more than 1.5 degrees Celsius” above pre-industrial levels.

Citing the presence of more than 600 delegates from the oil and gas industry at the event, she said the fossil fuel industry

“is still so deeply influential over country delegations” that progress was difficult.ⁱⁱ

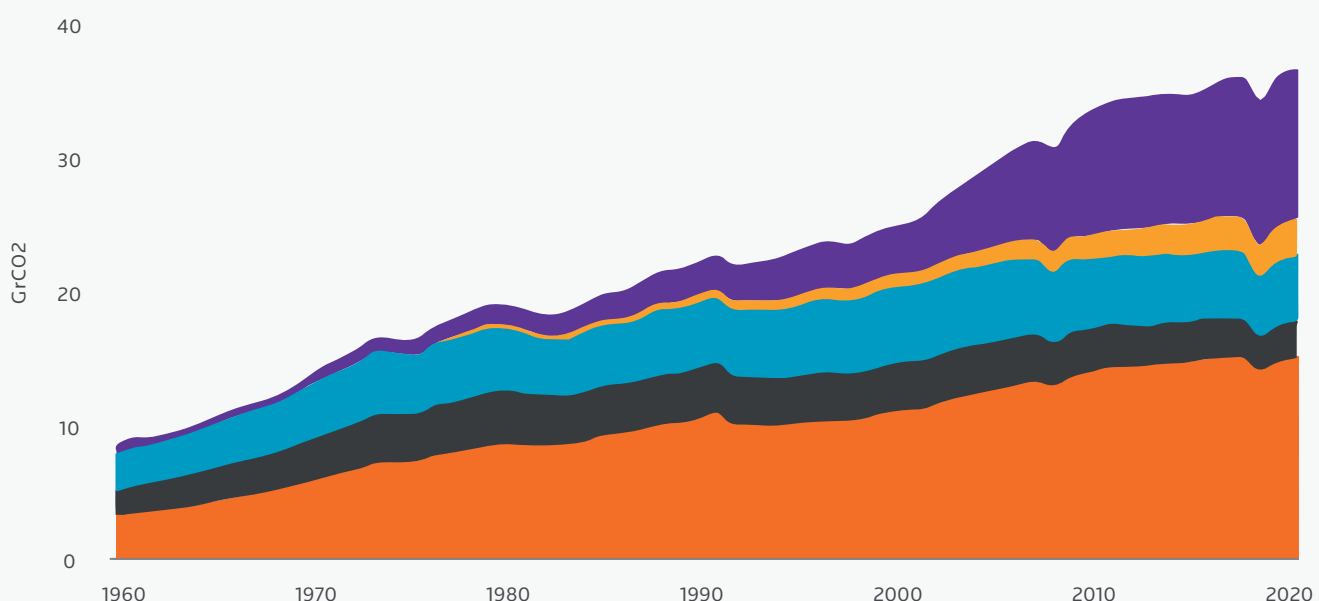
Andrei Covatariu, an international energy and climate change expert and non-resident scholar with the Climate and Water Program at the Middle East Institute, said: “On the energy front, one could even describe COP27 as a moment of climate regression. As the years go by, the gap between climate objectives and reality is widening, with no credible scenarios to limit global warming to less than 1.5°C. This increases costs for mitigation measures, but even more so for adaptation actions.”ⁱⁱⁱ

Despite this, it was evident that that MENA nations were increasingly looking to establish a degree of credibility on climate matters at COP27. The UAE, for example, used the event to launch a pathway to net-zero emissions by 2050,^{liii} while Saudi Arabia burnished its climate credentials with a Saudi Green Initiative exhibition.^{liv}

It remains to be seen how MENA and particularly GCC commitments on climate will be enhanced at COP28, which is being hosted by the UAE. As COP27 was underway, it emerged that fossil fuel CO₂ emissions in 2022 were higher than in any year before.^{lv}

ANNUAL FOSSIL CO₂ EMISSIONS FOR MAJOR EMITTERS AND THE REST OF THE WORLD, FROM 1959 TO 2022, EXCLUDING CEMENT AS NATIONAL-LEVEL VALUES ARE NOT AVAILABLE; 2022 NUMBERS ARE PRELIMINARY ESTIMATES.

Source: Carbon Brief.^{lvi}



FUTURE MENA ENERGY: WILL COP28 REALLY BE “A MAJOR COURSE CORRECTION”?

COP27’s failure to achieve significantly increased commitments on carbon reduction has called the credibility of the climate talks into question.^{lvii} That credibility has not so far been helped by UAE’s leadership of the 2023 talks. The UAE has the world’s sixth-largest reserves of crude oil and seventh-largest reserves of gas, giving it a vested interest to keep fossil fuel exports alive.

In December 2021, the Abu Dhabi National Oil Company (ADNOC) announced a \$127 billion capital spending plan up to 2026.^{lviii} The country’s choice of climate envoy is ADNOC’s chief executive, Sultan al-Jaber, an appointment that pressure group Global Witness described as a “harsh blow.”^{lix}

Alice Harrison, fossil fuels campaign leader at Global Witness, said: “You wouldn’t invite arms dealers to lead peace talks. So why let oil executives lead climate talks?”^{lx}

Jaber has attempted to allay fears about his commitment to action on climate change. In February 2023 he told a World Government Summit in Dubai that society needed “a major course correction” to hit climate targets.

“The world is playing catch-up when it comes to holding global temperatures down to 1.5 degrees and the hard reality is that global emissions must fall 43% by 2030,” he said. “Let’s stop deliberating and start focusing on delivery. As COP28 president, I will lay out a roadmap for COP28 that is inclusive, results-oriented and far from business as usual.”^{lxi}

It is hard, however, to see how this role will be squared with Jaber’s leadership of ADNOC, which pumps 4 million barrels of crude oil a day and is looking to expand output to 5 million daily,^{lxii} and al-Mazroui’s statements to Reuters Events. Other pronouncements indicate that Jaber’s agenda, like that of COP27, may be more focused on seeking reparations for climate damage than on addressing the carbon emissions that are the root cause of that damage.

Jaber talked up the importance of reparation at the World Government Summit, saying: “Capital is critical to make the loss and damage fund real and operational and it is the key to a fair deal on climate finance for the Global South.”^{lxiii}

Previously, UAE president Mohammed bin Zayed al-Nahyan had pledged to keep oil and gas supplies running until demand ran out. “The UAE is known as a responsible supplier of energy and will continue to play this role as long as the world needs oil and gas,” he said at COP27.^{lxiv}

So far, the major talking point at COP28—beyond a fleshing out of COP27’s loss and damage fund details—looks set to be around the world’s first global stocktake of climate actions. Fossil fuel phaseouts could be discussed, but with little certainty of agreement.^{lxv} Against this backdrop, it appears the UAE may at best be attempting a difficult juggling act in spearheading the energy transition in MENA while reducing the carbon intensity of its oil and gas operations to safeguard its main export revenues.

In March 2023, for example, ADNOC announced a tie up with Italian supermajor Eni, but focused on renewables, CCS and blue and green hydrogen rather than oil and gas.^{lxvi} Some have argued that it makes sense for MENA oil exporters to lead the energy transition, with Dan Jorgensen, Denmark’s Minister for Global Climate Policy and Development, saying that the UAE had been very engaged in climate diplomacy.

“If we are to stay below 1.5 degrees in temperature increase, it is totally necessary that we have a transition of all societies on this planet, also the oil producing ones,” he says. “Everything the presidency has done, so far, has only given us reason to be optimistic.”^{lxvii}

It seems unlikely that MENA energy exporters will renounce their fossil fuel riches overnight, yet some have argued that the region’s leadership of COP talks could spark initiatives with a potentially material impact on carbon emissions reduction.

“Oil-producing countries need to address inefficiencies in their extractive activities,” says Ferid Belhaj, vice president for Middle East and North Africa at the World Bank. “For example, in Iraq, capturing wasted flared gas could save around \$2.5 billion per year by reducing gas imports and fueling 10 GW of electricity generation capacity, almost covering the current supply-demand gap, and improve energy security.”^{lxviii}

While some MENA countries have much to lose in terms of hydrocarbon exports, observers such as Maroun Kairouz, head of the Middle East and North Africa at the World Economic Forum, note that the entire region faces major risks from climate change. “The region is warming at twice the global average and has experienced increased drying in recent years due to a rise in greenhouse gases and desert warming amplification phenomenon, whereby drying soil prevents natural cooling,” says Kairouz.^{lxix}

OUTLOOK AND CONCLUSIONS

MENA's oil-exporting nations have long sought to diversify their economies away from hydrocarbon exports, into areas such as finance. Yet as COP28 approaches it is clear their future will still hinge on global energy markets. And these markets are gradually turning their backs on fossil fuels, as evidenced by recent global events.

In Britain, for example, two of the country's largest pension schemes were in March said to be voting against the renewals of directorships at oil majors BP and Shell in protest at the companies' faltering commitments to act on climate change. And in the U.S., the Biden administration's Inflation Reduction Act is looking to turbo-charge the energy transition across the world's largest economy, offering billions of dollars in tax incentives to accelerate decarbonization of the power sector.

These actions are being driven by increasingly obvious global climate impacts but also by another aspect of the energy trilemma. Since 2022, when Russia began weaponizing its fossil fuel supplies in the conflict with Ukraine, oil and gas imports have been viewed with increased caution by major economies such as those in Europe.

MENA leaders are aware of these trends and while energy importers in the region will be looking to the loss and damage fund talks at COP28, GCC states in particular will be anxious to come across as taking a responsible attitude towards fossil fuel reserves. Demonstrating an authentic concern for climate targets will not be easy while these countries continue to put fossil fuel exports at the heart of their economies.

But there are already measures that leaders can take—such as reducing methane flaring and deploying CCS—that could make a difference. Longer term, MENA countries, including those that do not currently play a role in global oil and gas markets, have potential to become important energy players.

This potential is not a given, however, with nations from Australia to Canada also vying to become clean energy export superpowers. Thus, MENA players will need to begin working now on moves to establish their low-carbon economy credentials. COP28 could provide a spotlight for this, but MENA leaders should also be aware that the reputation of the talks has already been tainted by fossil fuel industry interests.

Jaber's call for the need to move from diplomacy to delivery is right. For the sake of the UAE and MENA's chances of leading the energy transition, it had better also be sincere.



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