THE QAMAR NEWSLETTER

Issue 40, December 2020



For OPEC and oil there is a silver lining in CoVid-19 vaccines. Cover story by Robin Mills.

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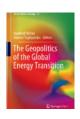
Authored by Robin Mills, Maryam Salman, Maryem El Farsaoui

INSIDE: MIDDLE EAST ENERGY REVIEW

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Qamar Energy, headquartered in Dubai, is the leading regionally-based energy consultancy on the Middle East and North Africa (MENA).

The QAMAR NEWSLETTER is a monthly publication that provides critical appraisal and focussed assessments of the month's energy developments across the MENA region.



A Fine Balance: The Geopolitics of the Global Energy Transition in MENA, Robin Mills



Powering Iraq: Challenges Facing Iraq's Electricity Sector, Robin Mills & Maryam Salman

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FOR OPEC AND OIL THERE IS A SILVER LINING IN COVID-19 VACCINES

Robin Mills • A version of this article appeared in The National, Nov. 16 '20 • COVER STORY



After a string of bad news, the oil market needed a shot in the arm. It got it last Monday, when pharmaceutical company Pfizer announced its new vaccine against coronavirus had shown 90 percent effectiveness in initial trials. Oil prices gained \$3 per barrel on hopes of ends to lock-downs and a resumption of flights. The vaccine is good news, but for now the market needs to come down off its high. Oil has been among the worst-hit sectors from the pandemic, and the prospect of an end to the outbreak consequently has favoured it. While the S&P stock index gained just 1 per cent, US petroleum firms were up from 11-20 per cent on the day of the announcement.

The news from Pfizer and its partner BioNTech has been almost the only recent ray of light for the oil market. A surge in virus cases in the US and Europe has led to the threat of renewed restrictions. The prospect of the US presidency and senate being held by opposing parties risks gridlock on a badly-needed economic stimulus. OPEC's latest monthly report suggests lower demand for its crude next year than previously expected, because of a weaker world economy.

The exporters' organisation sees a drop of oil demand this year by 9.8 million barrels per day, and a rise of 6.2 million bpd next year, 0.3 million bpd less than it expected last month. That means global oil sales are 3.6 million bpd lower next year than they were last. And this market will be more contested: output from Libya, an OPEC member not bound by the group's current quotas, has swiftly rebounded to 1.215 million bpd from

almost nothing after a blockade of its ports was lifted. Iraq has returned to over-producing to ease its desperate financial situation.

Iran too, under strict US sanctions, could see some recovery next year if new American president Joe Biden returns to engagement with Tehran. Under these strains, the next scheduled OPE meeting, on November 30, will consider whether to go ahead with the previous plan to reduce cuts by 2 million bpd as of this coming January. More likely, it will decide to maintain the current cuts through the first quarter, and maybe the second quarter too.

This would be sensible. I have advocated that OPEC should move to regain its lost market share as fast as possible – but not faster. This winter in Europe and the US will likely be grim – Covid-19 cases, hospitalisations and deaths are all soaring. Never mind a second or third wave: for many countries, now is the wave. The Pfizer vaccine is very promising, and the company hopes to have it authorised for emergency use in the US before the end of this year, but questions remain over the data from the initial trials.

The mRNA approach, different from traditional vaccines made from deactivated, weakened or dead infectious agents, would be the first ever of its type. It remains to be proved whether the vaccine also prevents asymptomatic infections, though BioNTech's chief executive is confident it will. Perhaps more daunting are the logistics. The mRNA does have the

advantage of being quicker to manufacture. Pfizer hopes to produce 1.3 billion doses by the end of next year. Of those, almost one billion have been snapped up by the EU, UK and USA. Other states may have to wait more than a year. And anti-vaccine pseudoscience and conspiracy theories may also deter take-up.

In September, more than half of adults in the US said they would definitely or probably take a vaccine to prevent Covid-19 if it were available, down from 72 per cent in May, according to a survey by the Washington-based Pew Research Centre. In June, 71.5 per cent of participants in 19 countries said they would probably take a Covid-19 vaccine, according to a survey published last month. About 90 per cent on respondents in China said they would take it and 55 per cent in Russia.

The Pfizer vaccine is given in two doses, 21 days apart, and has to be stored at -70 degrees Celsius, which complicates distribution and may be a challenge for many developing nations. Immunity might not be long-lasting, with top-up shots perhaps required annually. Other vaccines are also in trial, including one from China's Sinopharm and Russia's Sputnik 5, both being tested in the UAE, and another mRNA type from Moderna. The vaccine under development by Oxford University and AstraZeneca requires just a single dose, is a tenth of the price of Pfizer's and only must be kept cool, above freezing. These alternatives could be crucial if problems emerge with Pfizer's product or if it struggles to produce enough.

So, it could be well into next year before enough people have been vaccinated in major countries for the pandemic to recede. Then economic activity will revive as people go out to work, shop and dine. Those people lucky enough to have kept their jobs may have substantial savings and be ready to spend. Flying abroad for holidays will be a welcome relief. But some habits, such as conducting most international business by teleconference instead of in-person, and working from home more than commuting, will remain.

Heavy debt burdens will weigh on many people and countries, and some governments will turn to austerity, as they did after the 2008-9 financial crisis, leading to years of slow growth. Perhaps surprisingly, when the Pfizer news broke, the contango in oil prices narrowed, prompt prices rising more than prices for future delivery. Yet as discussed, the vaccine will probably only help revive demand later in next year. This may partly reflect a growing conviction that OPEC will keep the lid on output for now. We should be hopeful that one or more vaccines are a brilliant success, but wary of all the possible pitfalls. This makes it prudent for OPEC to avoid over-supply early next year, but to be ready to react quickly as and when demand revives. The oil market has had a bad bout – it should not rush its convalescence.

LOW-CARBON STRATEGIES ARE KEY FOR LOW-INCOME OIL PRODUCERS

Robin Mills • A version of this article appeared in The National, Dec. 14,

When oil was found in Uganda in 2006, president Yoweri Museveni held a national prayer ceremony in thanks, and said the discovery "will accelerate our progression to middle-income country status". But discoverer Tullow just sold its assets in the country and oil is still to flow, fourteen years later. With oil prices low and clouds over the future of petroleum darkening, a growing number of countries confront the dilemma of attracting investment. When hydrocarbon prices were high, demand buoyant and resources seemingly scarce, roughly between 2003 and 2014, competition for new assets was fierce and governments could set their own terms. Hydrocarbon discoveries seemed like a path to easy wealth, as major finds were made in Uganda, Brazil's deepwater "presalt", Iraq's Kurdistan region, Ghana, Israel, the Falkland Islands, Mozambique and Tanzania, Cyprus, Kenya, Senegal, and Guyana and Mauritania. But oil prices have been depressed since late 2014, even before the pandemic and despite the OPEC+ group restraining, since 2016, the production of its adherents, who account for almost 60 per cent of world crude production and nearly 80 per cent of reserves.

At a recent conference, Gerald Kepes, a consultant, said out of the five hundred geological basins worldwide considered prospective for oil and gas, about two hundred would historically have seen at least one exploration well drilled each year. But recently, this has dropped to just a hundred, with only fifty to sixty of the basins – mostly the prolific, low-cost ones in the Middle East, Russia, Brazil, West Africa and the US – seeing significant ongoing activity. Outside the major oil-exporting states, appetite for investment in oil and gas has dwindled because of poor returns and concerns over the sector's sustainability. Energy companies now account for less than 2 per cent of the S&P 500 share index. Since 2014, ExxonMobil's share price is down 57 per cent and its market capitalisation is \$185 billion; in the same period, Tesla is up 21 times and it's valued at \$578bn.

BP forecasts the all-time peak in oil demand may already be behind us. Commitments by the EU, Japan, South Korea, China and the new administration in the US to reach net-zero carbon emissions between 2050 and 2060 promise a future of lower hydrocarbon consumption. States with significant undeveloped hydrocarbon resources thus face a stark choice. They can try to move quickly to start or raise output, while there is still a market, even if prices today appear relatively low. Or, they can take their time in development, hoping for optimum conditions, with the risk that their fields are never developed. Otherwise, they could simply abandon plans to extract fossil fuels, and instead bet on low-carbon energy sources and key minerals for the new economy, such as lithium.

What they should not do is to accumulate debt, plan grandiose public works and raise their people's expectations, in the hope of major hydrocarbon revenues just round the corner, without the policies to get there. From the thirteen aforementioned jurisdictions, only five have begun production from their new resources. Yet governments often appear relaxed about the slow pace of progress, with lengthy wrangling over issues such as pipeline routes and taxes on the transfer of assets. "I am not worried about the delay... There is no short cut for sustainable development of a resource meant to create lasting value for Ugandans", Mr Museveni told a conference this October. Progress on exporting liquefied natural gas from large offshore fields has stalled over discussions related to taxes, in contrast to neighbouring Mozambique. This applies not just to new exploration frontiers, but also to established producers with large reserves, such as Mexico, Venezuela, Algeria and Iraq. In September, Mexican president Andres Manuel Lopez Obrador said he might reverse his country's energy liberalisation next year, despite new finds by several international oil firms. They have been frustrated by attempts by state oil company Pemex to muscle in on their fields.

Algeria has long been famous for stifling bureaucracy, with straightforward projects delayed for many years waiting for approvals. New energy minister Abdelmadjid Attar did recently reassure the Middle East Economic Survey of a more constructive approach. Meanwhile, Iraq's ambitious plans to up capacity to 7 million barrels per day from about 4.8 million depend on improving contracts that offer international companies just \$1 or \$2 per barrel produced, ensuring payments are made on time, and organising the provision of treated water for field operations and offtake to avoid the flaring of unwanted gas.

New producers often confront the desire to maximise government revenues while not scaring off investors. After a five-month dispute following elections in March, Guyana finally confirmed Mohamed Irfan Ali as its new president; he had promised to renegotiate contracts with oil companies that were seen as overly favourable to them. It is not just about the level of production share and tax that governments expect. Investment conditions have to be attractive.

That means a speedy and efficient bureaucracy, fair and transparent legal system, adequate supporting infrastructure, and constructive relations with local communities and non-governmental organisations. Petroleum-rich, often low-income, countries will increasingly confront this conundrum as market and climate challenges grow. One solution may be to pair new oil and gas projects with support in low-carbon development strategies. Both governments and their investors need to move beyond zero-sum wrangling to new thinking about resource wealth.

HOW GULF COUNTRIES CAN EVOLVE THEIR ECONOMIES IN THE FUTURE

Robin Mills \bullet A version of this article appeared in The National, Nov. 23, '20

Oil-exporting countries of the Middle East have famously long been havens from taxation. Petroleum revenues have been ample to build modern infrastructure and welfare states. But times have changed. The present global economic environment and the advent of the Fourth Industrial Revolution necessitate change. Lower oil prices, reduced production because of cuts under the OPEC+ agreement, a slump in earnings from tourism and airlines as a result of the impact of the pandemic, and the need for fiscal and monetary to support local economies during the health crisis underpin the need for change. Regional oil exporters are projected to run a deficit of 11.2 per cent of GDP this year and 7.7 per cent next, according to the International Monetary Fund. Both the International Energy and OPEC forecast anaemic growth in oil demand to 2040, and a drop in OPEC market share on 2019 levels that is not regained until 2030.

After that, global oil demand may be approaching a peak or plateau. Unlike other producers, Gulf states will still be able to increase output because of their lower production costs, but likely at lower sales prices. The oil exporters have long employed some taxes, of course: municipality fees on property, import tariffs, taxes on bank profits, charges on restaurant and hotel bills, levies on real estate sales, excise taxes on products such as tobacco and sugary drinks, and government fees for business licenses and visas. Apart from oil and gas earnings, governments have received dividends from state firms and sovereign wealth funds and made money from selling land for development. But taxes as such historically have been minor.

For Singapore, the famously business-friendly city-state, tax in 2018 made up 13.1 per cent of GDP; in Sweden, the level is almost 28 per cent. For the oil exporters in the GCC and Iraq, this ranged from 1-3 per cent before the introduction of VAT. The crash in oil prices in 2014 and again in early 2020, and the impact of Covid-19, has driven a search for new revenue-raising measures. Electricity, water and fuel subsidies have been removed, with the UAE linking petrol and diesel prices to market levels in August 2015. At the start of 2018, the UAE and Saudi Arabia introduced value-added tax (VAT) at a rate of 5 per cent, and Bahrain in 2019. In July, Saudi Arabia hiked its rate to 15 per cent, equal to the European Union's minimum allowed.

But the looming fiscal crisis has impelled more drastic measures. Oman has announced not only that it will start levying VAT from next April but is planning to charge income tax on high earners in 2022. In June, leading Emirati lawyer Habib Al Mulla said that corporate tax in the Gulf was inevitable eventually. This would mark a sharp break with the Gulf's model of very low to zero direct taxes. The challenge is that the Middle East oil exporters are juggling four tricky balls.

They have to raise government revenues, increase export earnings, boost employment, and diversify the economy beyond oil. Local economies are much more sophisticated than in the 1970s, when oil rents made up 60-70 per cent of GDP. But diversification into large-scale export-oriented opportunities requires heavy investment in new projects, and financial incentives for novel businesses and technologies, which take time to pay off.

Raising taxes, while energy prices have also gone up, makes businesses less internationally competitive. Similarly levying VAT and perhaps eventually property and income taxes reduces the attractiveness of the Gulf as a place to holiday, settle or start a business. Requirements to locate production in-country create employment and new industries, but at the risk of higher costs for government and the domestic economy, at least in the short term.

How can the regional countries square this circle?

The UAE and Saudi Arabia have been active bringing outside capital into their energy industries, ADNOC raising more than \$28 billion in a series of deals related to pipeline infrastructure, refining, real estate and other assets, and Riyadh \$29.4bn from the initial public offering of a small stake in Saudi Aramco. Oman is considering selling 20-25 per cent of state oil firm OQ, and is restructuring its main operator Petroleum Development Oman to be able to raise loans against it. Privatisation of non-core state firms can raise funds as well as efficiency.

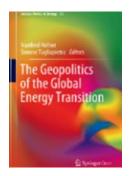
National oil corporations can improve efficiency further, but their production costs are already very low by global standards. Their heavy investment in downstream industries has created additional export value and dividends to government shareholders, though at the risk of greater exposure to the hydrocarbon industry.

Saudi Arabia has bet heavily on expanding mining, hoping to add about 6 per cent to GDP by 2030; this seems promising, but is just one component. New energy such as solar power and hydrogen is exciting, for instance Saudi Arabia's \$5bn green hydrogen plant at Neom. They will cut domestic energy costs and help "future-proof" the economy against tightening global climate change policies. But they will not generate large rents, unlike oil and gas exports.

The Gulf could be a major producer of renewable electrons and hydrogen-derived products, but its production costs are not much lower than that of competitors in areas such as Australia, Chile or North Africa, once transport costs to markets are factored in. The next decades will see the Gulf countries construct something more like typical global economies.

New industries and exports must be fostered alongside a low but fiscally sustainable level of taxation. The region needs more openness to regional trade and a slimming of uncompetitive incumbents. Tax need not be feared, if it is paired with efficiency and dynamism.





POWERING IRAQ: CHALLENGES FACING THE ELECTRICITY SECTOR IN IRAQ

Authored By: Robin Mills and Maryam Salman

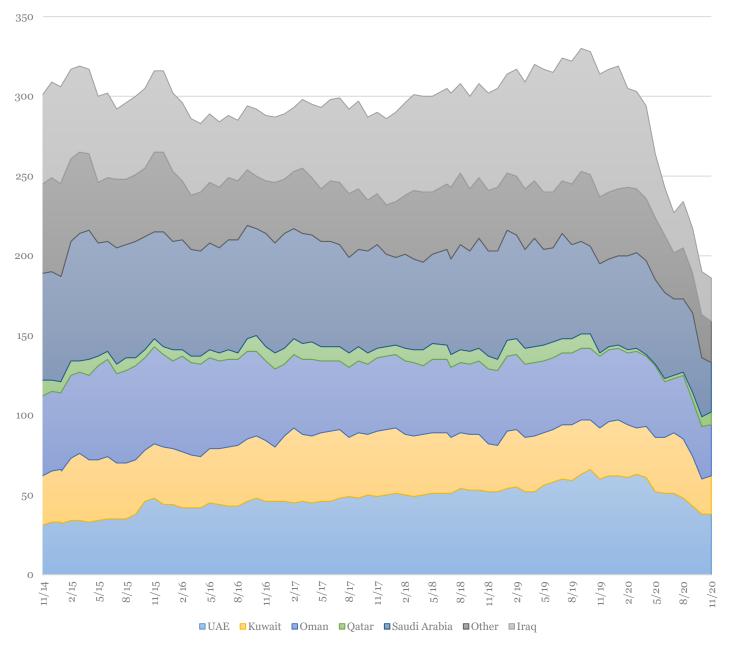
On February 21, 2020, Iraq recorded its first case of the novel coronavirus. Five months later, total recorded cases are 129 000 at the time of writing, and daily reported deaths almost 100. The crisis has battered the country's economic development plans, and put an indefinite question mark over the realisation of a massive US\$ 15 billion electricity infrastructure upgrade roadmap announced by former Prime Minister Adel Abdel Mehdi in April last year. Simultaneously, global energy markets continue to struggle ever since the oil market collapsed between March and April... Read the full report <u>here</u>

A FINE BALANCE: THE GEOPOLITICS OF THE GLOBAL ENERGY TRANSITION

Chapter Authored By: Robin Mills

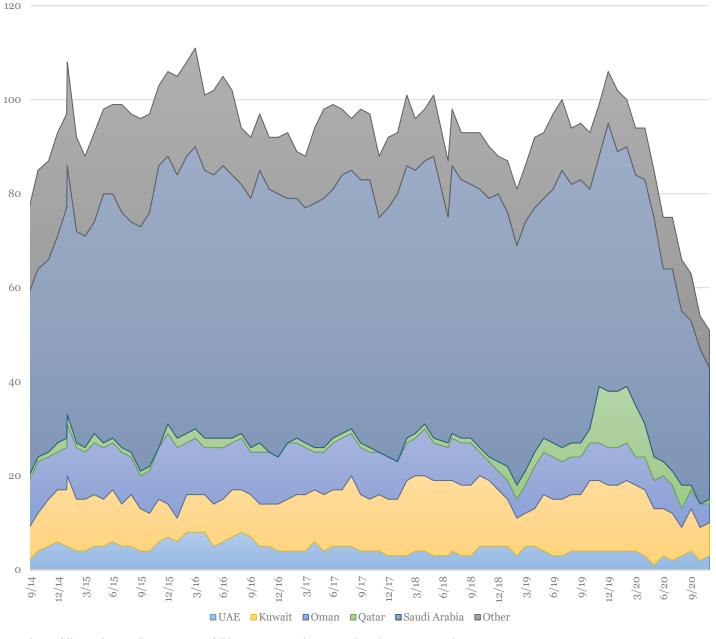
In MENA, this [energy] transition is bound up with a geoeconomic transition, which centres on the shift of oil and gas markets away from traditional customers in North America, Europe, and developed Asia, and towards developing Asian countries, notably China and India. This is accompanied by trends in political power, notably the possible diminution of the US role in the region (particularly in the Arabian Gulf), the greater self-assertiveness of regional powers, and the rising involvement of Russia, and in the future, likely China and India. The MENA region faces these developments against the backdrop of... Read the full report *here*

RIG COUNT SNAPSHOT: OIL



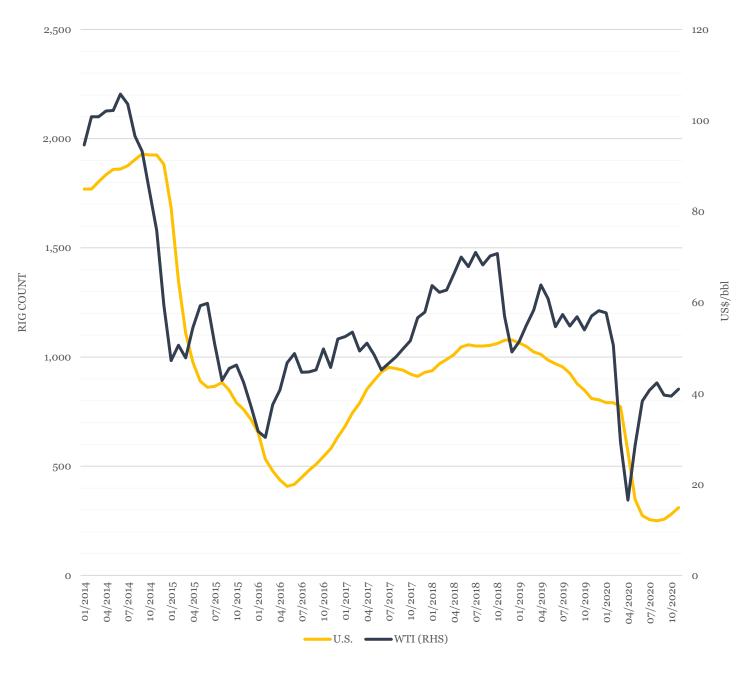
- The Middle East's overall oil rig count in May decreased by -4 excluding Iran due to the OPEC+ agreement.
- Iran's rig count is not included by Baker Hughes; OPEC estimates total (oil and gas) rig count in Iran at 157 in 2018, remaining the same till December 2019, which is doubtful, due to falling production and exports in the face of sanctions and CoVid-19.
- Iraq's rig count remained stable in 20Q4 at 27, although 50 rigs down from its pre-pandemic January rig count (77). This is expected to fall further as two wells at the Khabbaz oilfield in Kirkuk were bombed, taking 2 kbpd of the field's 26 kbpd offline, while the 30 kbpd Sarqala field in the Kurdistan region stopped loading trucks as protests demanding overdue pay and jobs expanded.
- The UAE's rig count decreased to 39, the lowest since September 2015 and -24 rigs down from its pre-pandemic levels (62). Rig count is set to increase in the long run as the UAE plans to boost production capacity to 5 Mbpd by 2030 from 2020's 4 Mbpd. The country approved a budget of US\$ 122 B for oil and gas expansion. This came after ADNOC discovered an additional 2 billion barrels at conventional fields, bringing the country's total reserves to 107 billion barrels.
- Kuwait's November rig count increased by +2 to reach 24, although -14 rigs down from July's record of 38. We expect rig count to rise as Kuwait signed an agreement to lease out 3.14 Mbbl of oil storage to Japan's Ministry of Economy, Trade and Industry, while it plans to award contracts worth US\$ 754 M to regional companies for 31 drilling towers to increase production from 3.15 Mbpd to 4 Mbpd by 2040.
- Saudi Arabia's November rig count decreased by -6 to 31, the lowest since January 2011 due to continuing OPEC+ production cuts. Output is expected to increase by 126 kbpd in January to reach a target output of 9.12 Mbpd, signifying a potential increase in rig count.

RIG COUNT SNAPSHOT: GAS



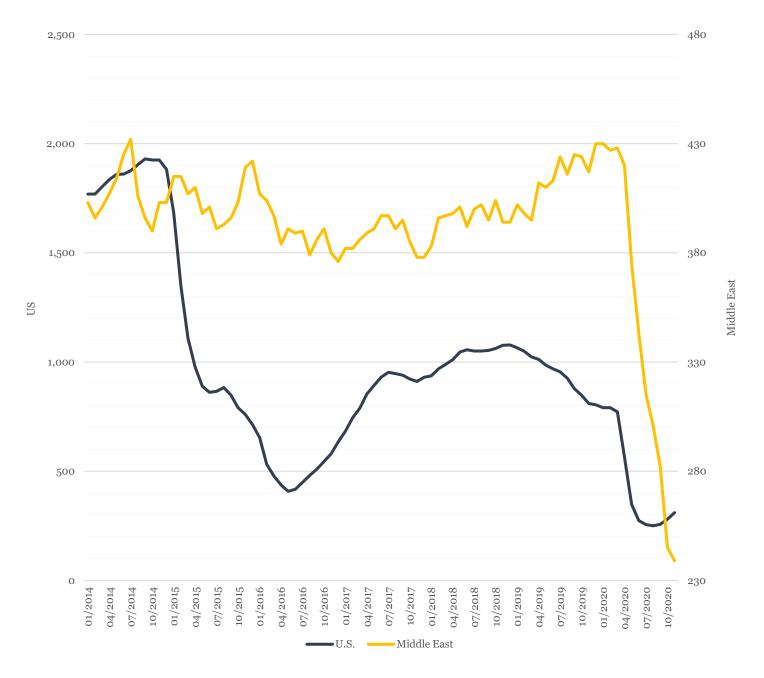
- The Middle East's overall gas rig count fell by -3 in November to reach 51, lowest since February 2006.
- Oman's rig count fell by -1 in November to stand at 4. This is likely to increase as BP plans to start production at the phase-2 1 Bcf/d Khazzan tight gas project by end-2020, pushing it back from its initial mid-2021 schedule. Upon completion, an additional 500 MMscf/d will be added to Khazzan's capacity, boosting the country's production to ~5 Bcf/d.
- Kuwait's rig count remained stable in November at 7, -8 down from its pre-CoVid-19 levels. Rig count might increase in the long-term as the country pre-qualified three Chinese companies and a local firm for Northern Jurassic gas projects (worth US\$ 1.5 B).
- The UAE's November rig count increased by +1 to stand at 3, in line with its Q1 average, following the cancellation of two EPC contracts worth US\$ 1.65 B for the Dalma Gas Project, implying a potential delay for future gas production expansion.
- Qatar's rig count increased to 1 in November after falling to 0 in October. This is caused by weak LNG demand and oversupply, but could increase, as the signing of a \$19.1 B deal with South Korea to build >100 ships for its LNG exports shows some progress on the planned 2027 capacity expansion.
- Saudi Arabia's rig count decreased by -5 in November to 28, a 7-year low. This is expected to fall further after the Kingdom delayed the \$18 B Marjan and Berri expansion project by 6 months as well as the \$110 B development project of the 200 Tcf Jafurah gas field due to CoVid-19's economic impact. Yet, the 2.5 Bcf/d Fadhili gas processing plant has started partial operations feeding power plants and desalination plants across Saudi Arabia with gas.

RIGS VERSUS OIL PRICES: US RIGS & WTI



- US rig count for November increased by +30 at 310, -500 rigs from 2019's November levels.
- Rig count at the Permian Basin was up +6 mid-December standing at 174, though -240 down from last year, as the OPEC+ agreement has helped shore up prices and demand somewhat. This is, of course, supported by expenditure cuts by high-cost producers as debts and pressure rose for shareholder returns. Operating costs in the Permian Basin have not reduced, even though it has better economics than other basins. The fall in number of rigs reveals higher productivity per rig and fracking crew, but also the need for higher prices to encourage more capital investment.
- The EIA revised US crude production to average 11.3 Mbpd in 2020 and 11.1 Mbpd in 2021, -1 Mbpd down from 2019's production at 12.3 Mbpd.

RIG COUNT: US & MIDDLE EAST



- The US' offshore rig count increased by +3 to 16 in December, as operators continue to replace output setbacks imposed by CoVid-19's related curtailments. While 21Q1's rig count recovery might be limited, we expect horizontal rigs to range between 350-360 by mid-2021, assuming private E&Ps activity represent publics' budget conservative trend. More successful CoVid-19 vaccines could cause an uptick in in the US and North America rig count.
- Total Middle East rig count fell by -6 at 339 in November, as major MENA producers cut their production substantially (Saudi Arabia's output decreased to 8.96 Mbpd) in line with the OPEC+ agreement.

FUEL PRICES & SUBSIDY REFORMS

- In the UAE, gasoline and diesel December prices remained steady at \$0.49 and \$0.56 per litre respectively since April, with diesel recording its lowest price since October 2017, 20% down year-on -year from June 2019's \$0.70.
- In Qatar, December prices for gasoline remained stable at \$0.34 per litre while diesel increased to \$0.32 per litre, 38% drop from the pre-pandemic prices.
- In Oman, the price of M95 and diesel in December remained unchanged at \$0.50 and \$0.54 per litre respectively.
- In Kuwait, the Parliament's Financial and Economic committee has approved the cancellation of the decision enforced in September 2016 to raise fuel prices to 'reduce financial burdens on citizens.' Its gasoline prices remain the lowest in the GCC.
- In Saudi Arabia, gasoline prices have recovered slightly to \$0.41 per litre after falling to lows of \$0.22 per litre in May 2020 as part of relief measures introduced by the government in the wake of the pandemic.

The following charts represent the prices of gasoline 95 and diesel (\$/litre) till December 2020 in the GCC countries.



Note: JODI UAE and Qatar gasoline and diesel figures are unavailable for 2019 and 2020.



ARABIA MONITOR ENERGY

Oil and gas tensions in the Middle East continue to influence the volatility of the world's energy markets. The Arabia Monitor Energy, a novel collaborative effort by Qamar Energy and Arabia Monitor, combines macroeconomics, geopolitics and energy intelligence to explain what the region's energy geo-economics mean for business.

WHAT SETS IT APART?

1. INSIDE OPEC

Focussed assessment of the month's OPEC developments, policy advancements and strategies.

2. NOC & IOC ANALYSES

Examination of factors affecting NOC and IOC policies, and their impact on regional diversification schemes.

3. SPOTLIGHT THIS MONTH

Targeted reading of the geopolitical, macroeconomic and energy landscape of a MENA country utilising our specialised energy intel.

4. SCENARIOS TO WATCH

Detailed forecast of global oil developments and their impact on the risks and opportunities for MENA's oil production.

5. STRATEGIC IMPLICATIONS

Concise summary of major oil trends and their effect on investment strategies under bearish, bullish, and wobble scenarios.

6. OUTLOOK FOR THE YEAR

Cohesive outlook of the oil production, gas production, renewable energy projects, and geopolitics of key MENA countries.

WHO BENEFITS?

ENERGY TRADERS

- What factors will contribute to oil and gas price fluctuations?
- What is the outlook for oil and gas pricing?
- What is the outlook for OPEC's production and export strategy?
- How are NOCs adapting their oil marketing strategies?

INVESTMENT AND RISK ANALYSIS

- What are the operational risks and investment opportunities in MENA?
- How do economics, politics, government policy changes, production and export bottlenecks contribute to risk mitigation?

UPSTREAM FIRMS

- What are the chief economic, political and fiscal regime factors driving/limiting upstream investment decisions and progress?
- What are the oil supply outlooks for the countries by project?

DOWNSTREAM FIRMS

 What are the demand challenges, patterns, and trends for oil and oil products?

NATIONAL OIL COMPANIES

- What are future oil and gas pricing trends?
- What developments will intensify or weaken demand?
- What are IOCs' incentives and drawbacks in operating in the country?

ALTERNATIVE / RENEWABLE ENERGY ORGANISATIONS

- What are the challenges to renewable energy targets?
- What is the progress of major renewable energy projects?
- Are there opportunities for more entrants?

THE DELIVERABLES

8 MONTHLIES

- · Oil Price Scorecard
- Headline Developments
- Spotlight this Month
- Scenarios to Watch
- Projects in the News
- Macro Dashboard for Oil Exporters/Importers
- Outlook for the year

4 QUARTERLIES

- MENA Map as per Political Grouping
- Map of New Licensing Rounds
- Political & Regional Security Issues
- Oil & Gas Prices Outlook
- Global Barriers to Oil & Gas Production
- Deep Dive into OPEC & NOPEC
- MENA Energy Investments
- MENA Energy Fiscal System
- MENA Energy Upstream Bidding map
- MENA Economic Outlook
- Probability Scorecard for Bearish & Bullish
 Oil Supply/Demand
- Investor Implication Scenarios (Under 3 Oil Price Dynamics)

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OPERATIONAL COST REDUCTION

IMPROVING OPERATIONS/PRODUCTIVITY

MAXIMISING REVENUE

INCREASING SUPPLY NETWORK AGILITY

DEBOTTLENECKING SHORTCOMINGS

OPEC WATCH

OPEC Production, Mbpd			Non-OPEC Production ¹ , Mbpd		
Q3 2020	Q2 2020	% Change	Q3 2020	Q2 2020	% Change
23.84	25.59	6.84%	61.26	60.84	+0.69%

Latest Organisational Changes

- At the 12th OPEC and non-OPEC Ministerial Meeting, an agreement was reached to increase production by 0.5 Mbpd beginning-January, bringing output cuts at the start of 2021 to 7.2 Mbpd, from the previously planned 7.7 Mbpd
- Monthly OPEC and non-OPEC ministerial meetings will be held starting January 2021 to assess market conditions and decide on further production increases – no more than 0.5 Mbpd each month to April 2021.
- The meeting also extended the compensation period for participating countries that were not able to achieve full conformity with Phase-1 cuts (May and June) until the end of March 2021 to ensure full compensation for over production.
- The new OPEC+ cuts are based on an 17.1% reduction from October 2018 production levels (except Saudi Arabia and Russia, who each have a baseline of 11 Mbpd), compared to a 18.3% reduction during Phase-2.

OPEC Production

Kuwait's production in November increased slightly to 2.29 Mbpd, from October's 2.28 Mbpd, well below its voluntary production level of 2.32 Mbpd.

- Saudi Arabia's production increased slightly by 3 kbpd in November to reach 8.963 Mbpd from October's production levels of 8.96 Mbpd. Production is expected to increase with the new OPEC quotas to stand at 9.1 Mbpd by January.
- Production from exempt OPEC members continues to be volatile; especially Libya whose production has soared in November to reach 1.25 Mbpd, following the removal of an 8-month blockade, Iran's production is slowly working its way to 2 Mbpd (1.98 Mbpd), while Venezuela's production is rising by a meagre 25 kbpd to stand at 407 kbpd.

OPEC+ Compliance

- OPEC+ overall compliance reached 102% in November, with strongest compliance recorded from Saudi Arabia (99%), Russia (95%) and all other OPEC-10, except Congo and Gabon, in an attempt to balance the market.
- Iraq's compliance reached 100% in November, based on its
 Phase-2 production cuts; however, the country still needs
 to cut 165 kbpd that it had committed to.
- Nigeria improved its compliance to 99% producing 1.5
 Mbpd in November in compliance with its Phase-2 production cuts. This is mainly as Brass River exports have been on force majeure due to a pipeline explosion.
- The UAE's November compliance soared to 114% as output decreased to 2.51 Mbpd, as the country cut extra production to make up for overcompliance in August due to crude burn for peak summer demand.

¹ Excluding OPEC NGL and non-conventionals

KEY MENA ENERGY SCORECARD

Qatar Developments

- Qatar Petroleum has participated in a buy-side tender organised by Pakistan LNG Ltd. for the supply of liquified petroleum gas, and has offered the lowest price for 1 cargo at slope rate of 15.3% of Brent crude, which is much steeper than the 13.37% Brent slope for its current long-term, oillinked contract with Pakistan State Oil (PSO)
- QatarGas signed a 10-year, 1 Mtpa gas supply agreement with China's Sinopec at a 10.19% slope to Brent crude, delivered on an ex-ship basis, on September 03. The deal is indicative of how some Asian buyers are taking advantage of a currently oversupplied market, and Qatar's option to negotiate long-term deals successfully at a time when spot LNG in Asia has just risen above US\$ 5/MMBtu after falling below US\$ 2/MMBtu in April
- Qatar Petroleum has placed an order with Baker Hughes for main refrigerant compressors for the North Field East (NFE) project, as part of 4 LNG mega trains that will raise Qatar's LNG production to 110 Mtpa by 2025 and 126 Mtpa by 2027; QP has also hinted at further LNG expansions after 2027, to deter competitors from taking investment decisions in the currently oversupplied market. It is certifying its LNG as low-carbon and planning a large carbon capture and storage scheme, to future-proof its LNG industry and give it further competitive advantage

MENA Energy Pricing Reform

- In UAE, DEWA's new net metering regulations introduced 2.08 MW cap for rooftop installations and excluded ground-mounted solar projects to limit competition with its retail rates, damaging the so-far very successful commercial and industrial rooftop market, where several local players have emerged
- Saudi Arabia increased VAT to 15%, while cost of living allowances were suspended to raise revenues; meanwhile, UAE ruled out any plan to increase VAT and has considered temporary suspension till economy is back on track
- Abu Dhabi will offer industrial companies a reduction of 40% on electricity tariffs under Ghadan-21 Programme to support the private sector in exchange for significant contributions to the economy; scheme dependent on companies improving energy efficiency
- Dubai and Sharjah cut utility prices by 10% in March 2020
 and FEWA (northern emirates) by 20%
- Oman will start removing utility subsidies from January 2021 in a plan, along with revised labour laws, privatisation, and new taxation, aimed at reducing a widening fiscal deficit expected to come to 10% of economic output this year

Abu Dhabi Developments

- Abu Dhabi plans to spend US\$ 122 B in oil and gas projects over the next 5 years to boost production capacity, despite OPEC obligations
- Abu Dhabi's Supreme Petroleum Council (SPC)
 confirmed the discovery of an estimated 22 billion stock
 tank barrels (STB) of unconventional oil resources located

Kuwait Developments

Kuwait signed an agreement with Japan's Ministry of Economy, Trade and Industry to lease out 3.14 Mbbl of oil storage, as it plans to award contracts worth US\$ 754 M to regional companies for 31 drilling towers, aimed to boost production from 3.15 Mbpd to 4 Mbpd by 2040

- onshore, and a 2 billion STB increase in conventional oil reserves. SPC gave approval for ADNOC to award exploration blocks in Abu Dhabi's competitive block bid round, launched in 2019.
- ADNOC signed an exploration concession agreement with Occidental Petroleum for onshore Block 5. Occidental will hold a 100% stake in the exploration phase and will invest up to US\$ 140 M, including a participation fee. ADNOC Onshore has awarded US\$ 324M worth of contracts to UAE-based, Galfar E&C and RobtStone LLC to optimise onshore field operations and enhance their efficiencies
- Kuwait Oil Company (KOC) has scrapped a US\$ 400 M northern heavy crude facilities development project, including 11 wells, to save cash due to pandemic-induced oil price slump, economic crisis
- KOC has pre-qualified 3 Chinese companies (Sinopec, Sinopec Luoyang, and Jereh Oil & Gas) and 1 local firm for Northern Jurassic gas projects worth US\$ 1.5 B as the country seeks to expand gas output to meet rising demand

MENA Renewable Energy

- APICORP will back Yellow Door with a US\$ 50 M loan
 which will be used for PV projects in Jordan and Pakistan,
 where the company has 79 MW of solar assets in operation
 and under construction.
- In the UAE, Sheikh Mohammed bin Rashid Al Maktoum inaugurated the 800 MW third phase of the MBR solar project in Dubai. Meanwhile, Swedish company Azelio AB secured an order to supply its thermal energy storage unit for a side project at the 950 MW phase IV of the MBR project. Meanwhile, the consortium led by TAQA reached financial close for the 2 GW Al Dhafra PV project in Abu Dhabi, world's largest single-site solar plant. TAQA's partners in the project are Masdar, EDF Renewables, and Jinko Power HK, each hold a 20% stake in Al Dhafra PV, except TAQA which holds a 40% stake.
- In Egypt, AMEA Power LLC, a unit of Al Nowais
 Investments, announced that the size of the Abydos solar
 plant being built in Egypt's Aswan governorate will be
 expanded to 500 MW, up by 300 MW
- In Jordan, Alcazar Energy announced that the 45 W Shobak wind farm has become operational. The project was funded by the European Bank for Construction and

MENA Energy Infrastructure Security

- The Libyan National Army ended an 8-month blockade on the country's key oil infrastructure on September 18, allowing the Libyan National Oil Company (NOC) to lift force majeure from "safe" ports of Marsa El Hariga and Brega, as well as important producing fields, such as the 300 kbpd Sharara oilfield whose output has climbed to 30 kbpd
- While the overall political situation remains fragile, Libyan production reached a record 1.25 Mbpd in November

Development (EBRD), the Islamic Corporation for the Development of the Private Sector (ICD) and the Europe Arab Bank.

- in independent power producer ACWA Power to 50% from 33.36% as it plans to support the development of renewable energy in the Kingdom. Saudi ACWA Power signed financing agreements for the 900 MW Shuaa Energy 3 PSC project in Dubai. The project, now in its fifth phase, will feature bi-facial panels with tracking technology which add 15-20% to output. DEWA will own 60% in Shuaa Energy 3 PSC, the special purpose vehicle made for this project, while the remaining 40% stake will be held by ACWA and Gulf Investment Corp.
- In Saudi Arabia, German Schmid has successfully created JV with Nusaned Investment for development and manufacture of Vanadium Redox Flow Batteries (VRFB) with plans for 3 GWh factory

MENA Nuclear Power

- Saudi Arabia is assessing Umm Huwayd and Khor Duweihin for its first nuclear power plant near the UAE and Qatari borders and has shortlisted Rosatom and KEPCO, among others
- Tendering is set for 2020, but will face significant delays due to technical plans, and ongoing negotiations with the US, who
 insists that it shall provide Saudi Arabia with nuclear technology only if the latter agrees to "intrusive snap inspections" by
 the IAEA
- Unit-1 of the Barakah Nuclear Reactor in the UAE has achieved 50% production capacity as of September 22, following fuel assembly loading on March 03
- 3 more units are now closer to completion, with Unit 3 connected to the country's electricity grid on August 05 2019. Overall construction completion of the plant is at 94%
- Once fully complete, the 5.6 GW plant will meet 25% of the UAE's electricity generation, replacing about 10 BCM/yr of gas consumption



ABOUT US

Qamar Energy provides leading-edge strategy, commercial and economic consulting across the energy spectrum to governments, international oil companies (IOCs), national oil companies (NOCs), investors, and oil traders.



Robin Mills, CEO

Robin is an expert on Middle East energy strategy and economics, described by Foreign Policy as "one of the energy world's great minds". He is the author of two books, The Myth of the Oil Crisis and Capturing Carbon, columnist on energy and environmental issues for Bloomberg and The National, and comments widely on energy issues in the media, including the Financial Times, Foreign Policy, Atlantic, CNN, BBC, Sky News and others. He is a Senior Fellow with the Iraq Energy Institute, and a non-resident fellow at the Columbia Centre for Global Energy Policy. He holds a first-class degree in Geology from the University of Cambridge, and speaks five languages including Farsi and Arabic.

UPCOMING TALKS & APPEARANCES



Gulf Intelligence Energy Forum January 13, 2021



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