THE QAMAR NEWSLETTER

Issue 46, March 2023

@Zbynek Burival, Unsplash

Why America's 'energy dominance' waned in the Middle East. Cover story by Robin Mills.

IN THIS ISSUE

Authored By: Robin Mills, Maryam Salman, Maryem El Farsaoui, and Hanin Izzeldin

INSIDE: MIDDLE EAST ENERGY REVIEW

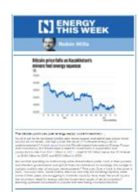
Rig Count Snapshot • Fuel Prices & Subsidy Reforms • OPEC Watch • Key MENA Energy Scorecard

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.

The UAE's role in the global hydrogen economy, Robin Mills and Julio Friedmann, along with Maryam Salman and Maryem El Farsaoui

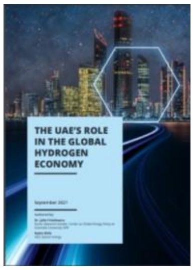
Eastern Mediterranean Deepwater Gas to Europe, Dr Shangyou Nie and Robin Mills



Energy this week, The National newsletter, Robin Mills

*Find us on Eikon Refinitiv! Access our exclusive content, in-depth specialist energy reports, and expert commentary across the energy spectrum by visiting **Refinitiv***

LATEST PAPERS & PUBLICATIONS BY QAMAR ENERGY



THE UAE's ROLE IN THE GLOBAL HYDROGEN ECONOMY

Authored By: Robin Mills and Julio Friedmann, along with Maryam Salman and Maryem El Farsaoui

The UAE is well-placed to take an early-mover advantage in global hydrogen production and is pursuing a balanced strategy covering both 'blue' and 'green' hydrogen. The UAE and its corporate entities have been highly active since late 2020 in developing global partnerships to expand the local hydrogen value chain. This report presents an analysis of the hydrogen industry in the UAE covering strategic opportunity, market development, projects and partnerships, and cost-competitiveness. Read the full report ***here***

EASTERN MEDITERRANEAN DEEPWATER GAS TO EUROPE: NOT TOO LITTLE, BUT PERHAPS TOO LATE

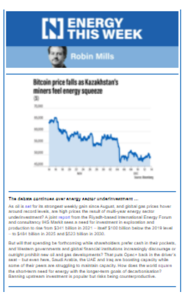
Authored By: Dr Shangyou Nie and Robin Mills

This paper, part of the work by the Center on Global Energy Policy, Columbia University SIPA, on oil and gas and the energy transition, focuses on Egypt, Israel, and Cyprus' prospects of supplying gas to Europe from a technical, geopolitical, and economic perspective. The report finds that such gas can meaningfully contribute to European energy security, though mainly in the medium term and only given the involvement of external players—likely the US and/or the EU—and with buy-in from Eastern Mediterranean countries, which will need to see an upside in terms of their own energy security and energy transition.. Read the full report ***here***

THE EU BAN ON RUSSIAN OIL: CRUDE IMPLICATIONS FOR THE MIDDLE EAST

Authored By: Robin Mills and Ahmed Mehdi

This paper examines the EU ban on Russian oil and the friction it triggered in oil markets and petroleum supply chains. With the ban taking place against major uncertainties, key Middle East producers have strategic decisions to make in response, including on the oil policies of the Organization of the Petroleum Exporting Countries (OPEC), the group with 10 additional oil exporters (known as OPEC+). This paper is part of a three-part series and covers crude oil (this commentary), refined oil products (Part 2) and geopolitical implications (Part 3). Read Part 1 ***here***



ENERGY THIS WEEK, THE NATIONAL NEWSLETTER

Authored By: Robin Mills

Energy this Week is a weekly newsletter authored by Robin Mills, published every Wednesday. Some of the topics covered under the latest newsletter are: the debate continues over energy sector underinvestment, cryptocurrencies face energy challenges, forecasters see a short-term oil surplus – are they correct? 'A new global energy economy is emerging'. Read and subscribe to the Newsletters

WHY AMERICA'S 'ENERGY DOMINANCE' WANED IN THE MIDDLE EAST

Robin Mills • *A version of this article appeared in The National, Mar. 27 '23* • COVER STORY

Twenty years ago last week, US tanks rolled across the Iraqi border. And nearly to the day, Saudi Arabia and Iran signed a Chinese-mediated deal to restore diplomatic ties. During those two decades, America's unipolar moment faded, it achieved its longed-for "energy dominance", but that dominance is nowhere less apparent than in the Middle East.

The motivations for the 2003 American invasion have been deeply debated, and varied between proponents and depending on the audience. Unlike Saddam Hussein's earlier seizure of Kuwait, it was not a "war for oil". Certainly, Iraq's military and economic power depended on its petroleum, and it had earlier threatened to dominate the hydrocarbon-rich Arabian Gulf with its invasions of revolutionary Iran and then its smaller GCC neighbour. A stable, pro-American Baghdad might indeed help assure the US's dominance over this critical area.

Various figures in the Bush administration had hopes that a post-invasion Iraq might be detached from Opec, that they could privatise its petroleum industry, or that a flood of new Iraqi oil might bring down oil prices, which then seemed uncomfortably high at around $30 per barrel. Richard Perle, a leading neo-conservative advocate for the war and an influential defence official at the time, said in July 2002: "Iraq is a very wealthy country. Enormous oil reserves. They can finance, largely finance the reconstruction of their own country."
The White House press secretary, secretary of defence Donald Rumsfeld, deputy secretary of defence Paul Wolfowitz and others made similar comments.

But the US did not seize Iraqi oil for its own use or determine who should have access to it and who should be denied. Indeed, ex-president Donald Trump repeatedly complained that the US should have done so, saying in 2011, "In the old days, when you had a war, to the victors belong the spoils. You go in. You win the war and you take it", and repeating that theme numerous times in 2016, 2018 and, regarding Syrian oil, 2019. Instead, the occupation authorities were remarkably lackadaisical about rebuilding the Iraqi petroleum industry, in the middle of an insurgency, a civil war and the takeover of the oil hub Basra by the Mahdi Army militia.

Two decades of war, sanctions and brain drain had devastated the sector. Outside the semi-autonomous Kurdistan region, Iraqi nationalism won out over American free-market ideology and there was no significant foreign investment. As late as 2010, output was below 2001 levels. That failure contributed to the remarkable global oil price surge up to the middle of 2008, which was supercharged by China's runaway economic growth.

When the 2008-2009 financial crisis caused prices to crash, the Iraqi government finally offered its major fields to international oil companies in competitive bids. The winners were a fairly balanced mix of Americans, Japanese, Europeans, Malaysians, South Koreans, Russians, Chinese and others.

Far from plundering Iraq's resources as the western left alleged, these companies ended up with extremely harsh contracts that left them with just one or two dollars per barrel profit and low or negative returns on capital after shouldering long bureaucratic delays, late payments and lack of required infrastructure. The last American corporation, ExxonMobil, is in a protracted process of withdrawal; Equinor (then Statoil), Occidental and Shell left the oil sector years ago, though Shell hangs on in gas. Russia's Lukoil has repeatedly threatened to go. Chinese companies secured most of the spare stakes.

Last month, Baghdad finally signed six exploration and field development contracts that had been in limbo since its 2018 bid round; three went to Sharjah-based Crescent Petroleum and the other three to Chinese firms. The Iraqis have grown concerned that China is too dominant in their oil business — Chinese service and engineering companies also play a big role, including operating the giant Majnoon field on the border with Iran, after Shell withdrew.

Nevertheless, they have not improved their terms enough to entice new entrants and the painful experience of France's TotalEnergies in exhaustive negotiations for an oil, gas, power and water package deal will deter others. Iran, now a major gas and electricity provider to Iraq, also plays an important, usually negative, behind-the-scenes role in the energy sector. The Kurdistan region's claim to an independent oil sector appeared as a relative success, but it emerged out of the hasty, messy constitutional compromises of 2005.

On Saturday, Turkey ceased pumping oil from Kurdistan through its territory, in deference to a Paris arbitral tribunal's finding in favour of Baghdad. This is a potentially devastating blow to the generally western-aligned government in Erbil. The US ended up playing the role it had hoped Iraq might. Its surge of shale oil production brought down prices sharply from 2014 and gave the Obama administration the confidence to impose stringent sanctions on Iran's oil exports. Opec realised it could not tackle both shale and Russia together. It brought Moscow into the Opec+ alliance in 2016.
The US has stepped up as a critical provider of oil and gas to Europe following Vladimir Putin's invasion of Ukraine.

But Washington's moment of "energy dominance" may have been fleeting, as its shale oil expansion runs out of steam. President Biden visited Saudi Arabia in July hoping for more Opec output to compensate for losses from Russia. Instead, the organisation consulted its own interests and cut output in November, apparently wisely given the recent sharp price drops. American commentators from right to left welcomed the idea that shale would free the US from dependence on the Middle East.

But that goes both ways. Now the largest importer from, and exporter to Iraq, Iran and Saudi Arabia, is Beijing, not Washington. Then China was able to mediate the restoration of Riyadh-Tehran relations. If and when it wants, China will be able to call the shots in Baghdad too.

WHY EUROPEAN OIL COMPANIES FACE A VALUATION GAP WHEN COMPARED WITH US PEERS

Robin Mills • *A version of this article appeared in The National, Mar. 20, '23*

The company formerly known as Royal Dutch Shell — simply Shell from January last year — has a proud European heritage. But the continent's investors don't love it, or its fellow oil companies, even while Americans rediscover the charms of petroleum stocks. The big European oil companies, BP, Shell, TotalEnergies and Eni, trade at about five times their forward earnings; the leading Americans, ExxonMobil and Chevron, at 10 to 11 times.

All have done well with rising oil and gas prices. But while Shell's share price has gained 78 per cent since the start of 2021, ExxonMobil's is up 165 per cent. The European corporations nearly closed the valuation gap with their US peers after the 2008-2009 global financial crisis, but it ballooned again. The Europeans have been trying to boost their low-carbon businesses, investing in offshore wind, solar power, electric vehicle charging and batteries.

Shell and BP both recently paid billions of dollars to acquire bio-gas companies. They still have to demonstrate that they can run non-fossil businesses as well as specialist competitors do, and as well as their own petroleum assets.

The Americans, by contrast, have concentrated on their core petroleum businesses. They are developing carbon capture and storage (CCS), which fits well. Otherwise, their major purchases have been of shale oil and deepwater exploration companies. This may be short-sighted given the ever-increasing imperative of climate policy, but for now, it has paid off. The European regulatory and public environment is not friendly to oil companies, to say the least. In May 2021, a Dutch court ruled Shell should cut its greenhouse gas emissions by 45 per cent by 2030 in line with global climate targets — including the emissions caused by customers, anywhere in the world, who burn the oil and gas they purchase.

Following Russia's invasion of Ukraine, as oil prices rose, the UK and EU both imposed windfall taxes on what they called energy companies' excess profits. Such a levy was debated in the US but not implemented. Instead, the Joe Biden administration's Inflation Reduction Act includes subsidies (or "incentives"), both for renewables and for oil company-adjacent biofuels, hydrogen and CCS. Last week, the White House also approved a significant new oilfield development in Alaska, despite environmentalist opposition.

In December 2021, Shell consolidated its headquarters and listing in the UK, dropping the Royal Dutch part it had held since its 1907 merger. This was primarily to make share buybacks easier and avoid the Netherlands' dividend withholding tax which had been a persistent irritant. Still, environmental groups suspected the court ruling on emissions was another motive.

That year, the company reportedly also considered shifting to the US. But it was not clear that such a move would suddenly have seen it enjoy the valuation multiples of ExxonMobil or Chevron. Some of its core shareholders would have opposed the idea, and the US levies a dividend withholding tax on foreign non-residents.

BP and Shell have shifted their focus recently. Higher oil and gas prices since the post-2014 slump, and the need to replace Russian supply, make upstream investment in hydrocarbon exploration and production more enticing. "2022 taught us that too much focus on the decarbonisation agenda led to a mismatch between supply and demand," BP's chief economist, Michael Cohen, said last week.

In February, chief executive Bernard Looney revealed plans to cut oil and gas output to a more moderate 20 per cent to 30 per cent, from an earlier estimate of 35 per cent to 40 per cent. Within four days, BP's stock gained more than 30 per cent. Patrick Pouyanne, TotalEnergies' chief executive, notably said in February 2021: "I'm proud to be black [oil] and green, because if I don't have the black part, which is delivering cashflows, I don't have the green part."

New Shell chief executive Wael Sawan took the top job after leading the gas and renewables business, which some took to indicate he would lead the company in a lower-carbon direction. But before this, he ran the upstream division, and before that Shell's US upstream, and its successful global deepwater business. As a Lebanese-Canadian who grew up in Dubai, he brings a different perspective from the previous run of Dutch, Swiss and British chiefs. Now, he is demanding that the low-carbon businesses pull their weight and earn returns commensurate with those in oil and gas.

What can the European oil companies do to counter the valuation gap with their American peers?

They could spend more on oil and gas development. As noted, Mr Looney and Mr Sawan have made partial moves in that direction. Shell and TotalEnergies have hugely promising new finds in Namibia, which could be the growth engine for them that Guyana's oil has been for ExxonMobil. But pressure from environmentalists, the general public, the law, shareholders and even their own employees in Europe makes it impossible to go unashamedly "back to petroleum". The European majors could go big in renewables, making a really major acquisition — more like $50-100 billion than the few billions of bolt-on deals so far — to build the scale and skills they need. But they have to accept that most low-carbon businesses are inherently lower-return — though less volatile — than upstream.

CCS will look more like sewage treatment than buccaneering frontier exploration. And today's low valuation multiples make big share-based acquisitions unfeasible. They can be bought by the Americans — a politically controversial Transatlantic move, and likely to be impossible in the case of TotalEnergies. They could sell their upstream assets piecemeal or en bloc. BP and Shell could merge, but that would be a purely defensive move unless accompanied by a radical shake-up of strategy. Or could they find another buyer, perhaps an epochal tie-up with a Gulf company?

If they are to continue as independent entities, there is no easy way round the fundamental contradiction: European stakeholders demand energy transition but aren't willing to value it as oil company investors. The situation won't change until the European chief executives articulate and deliver compelling pathways to high returns with low carbon.

ADDRESSING POLITICAL DIFFERENCES KEY TO IRAQ'S ENERGY SECTOR REVIVAL

Robin Mills • *A version of this article appeared in The National, Mar. 06, '23*

It's a rare forum these days that can bring together senior figures from the US, Russia, Turkey, the Iraqi federal government, including groups close to Iran, and the two main parties from the Kurdistan Region of Iraq. The Erbil Forum last week did that, but it also illustrated just how hard it will be to find common ground between all parties involved — and that is before throwing China into the mix.

There was a general feeling that, amid the war in Ukraine and the strategic competition with Beijing, Washington had lost interest in Iraq.

Yet the country remains pivotal to global energy. The second-largest oil producer within Opec, Iraq has room to grow output substantially and is a critical part of replacing any losses from Russia, if and when the group decides to open the taps. The Iraqi Kurdistan region's gas resources could power the rest of Iraq and export to Turkey, providing Europe with a partial alternative to Moscow.

It is the fourth-largest Arab country both by population and greenhouse gas emissions. Its people languish in heat and darkness, while its renewable energy potential remains virtually untouched.

The geopolitical games are multilayered. Iraqi affairs have gradually improved since the darkest days of the civil war in 2006-2007 and the onslaught of ISIS in 2014. But the country now risks being drawn into conflicts not of its making, involving two regional players, Iran and Turkey, and three outside powers, the US, Russia and China.

Two weeks ago, the federal government finally concluded six petroleum contracts waiting for signature since the fifth bid round in 2018. Three were with Sharjah-based Crescent Petroleum, which already operates Iraqi Kurdistan's largest gasfield, Khor Mor, in partnership with Abu Dhabi-listed Dana Gas and three European companies. The gas production from these blocks could be crucial in improving electricity supply and in supplementing Iraq's costly and unreliable imports from Iran.

This was doubly interesting.

Firstly, rocket attacks on Khor Mor in recent months were interpreted as warnings to Kurdish parties to fall in line with Tehran's plans for the new government in Baghdad, but since they occurred again after government formation, they may also be seen as a threat not to pursue independent gas exports in competition with Iran in Iraq and Turkey.

Secondly, the Federal Ministry of Oil had warned companies not to operate in the Iraqi Kurdistan region, after a February 2022 supreme court ruling that its oil and gas law was unconstitutional. The judgement was seen as politicised, but still has been enough to scare off several leading oil service companies and possibly to discourage traders from renewing arrangements to purchase Kurdish oil. Nevertheless, Prime Minister Mohammed Shia Al Sudani showed himself ready to sign with one of the most prominent operators in the semi-autonomous region.

A long-running arbitration wending its way through a Paris-based tribunal is expected soon to find in favour of Baghdad versus Ankara in declaring that Turkey breached a treaty when it allowed the Kurds to send oil through the Iraq-Turkey pipeline. Ankara won't pay up the mooted multiple billions of dollars in damages, but whatever compromise is reached could also cast aside Kurdish interests.

Three of the other new field development contracts went to Chinese companies. They have become increasingly dominant in Iraq as others have packed their bags. If ExxonMobil leaves the West Qurna-1 field in favour of a Chinese partner, as is widely expected, China would operate more than half of Iraqi oil output. Chinese credit lines help underpin lending to Iraqi infrastructure, and Baghdad recently announced it was open to conducting some trade in yuan.

Russian corporations — Rosneft, Gazprom Neft and Lukoil — also have a strong position. Rosneft paid and loaned up to $3 billion to the Iraqi Kurdistan region for oil sales, fields and pipelines just ahead of Erbil's referendum on independence in September 2017. They are unlikely to expand their position, though, given the difficulties of access to finance, banking and technology imposed by the Western sanctions.

The Iraqis themselves are aware of the danger of over-dependence on Beijing, but their investment-unfriendly policies block off alternatives. Recently, France's TotalEnergies reportedly nearly walked away from a multibillion package to develop oil, gas, water injection and solar power. A last-minute change of heart in Baghdad has brought them back to the negotiating table. However, there is not a great appetite from the other major international oil companies to do more, given their decarbonisation trajectories and the spread of opportunities elsewhere.

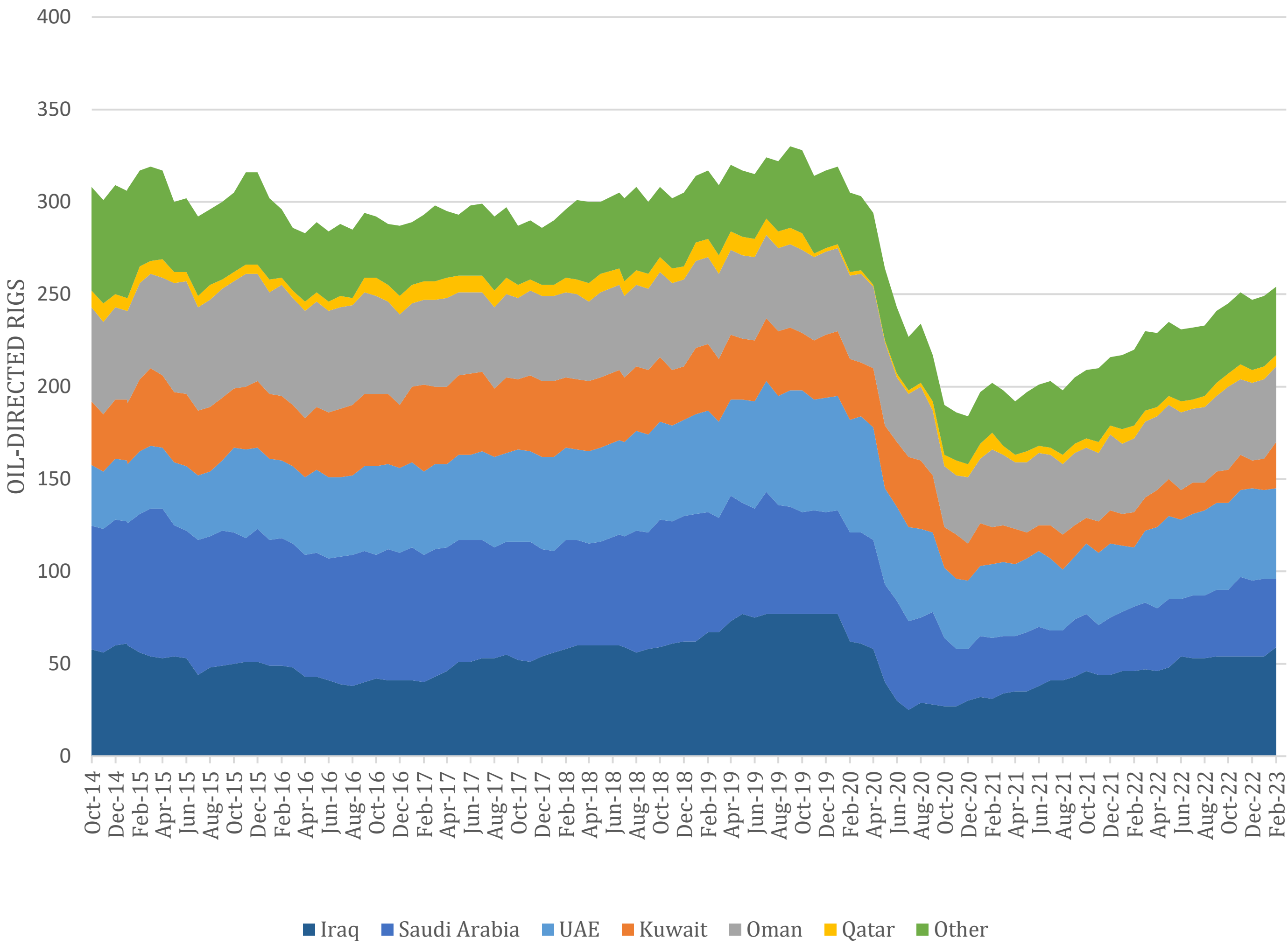
Iraq could manage external powers better if its own house were in order. But a federal law that would resolve management of the Kurdish petroleum sector, how oil should be sold and the revenues divided, appears out of reach. Despite talk of progress, the outline sounds like several previous deals that fell apart almost as soon as concluded.

The Kurdish position, meanwhile, is weakening, because of the widening split between the two main parties and even within the smaller of them, the Patriotic Union of Kurdistan. The colourful Bafel Talabani, leader of the PUK, appeared at the forum wearing his trademark mountain boots and, at the conclusion of his interview, theatrically tore off his tie, reportedly borrowed from his urbane brother Qubad.

He has previously said that gas exports to Turkey, from fields located in PUK-controlled areas, would take place over his "dead body" if the people's interest were not fairly consulted. But with oil resources running down, major gas projects are the main hope for new revenues and political importance. Iraq thus illustrates in microcosm the dilemmas that many smaller and fragile states will encounter as Sino-Russo-American relations become increasingly uncompromising.

Stronger non-aligned countries can cleverly play off one great power against another. Weaker ones can easily be torn apart — bad news not just for their people, but for global energy security.

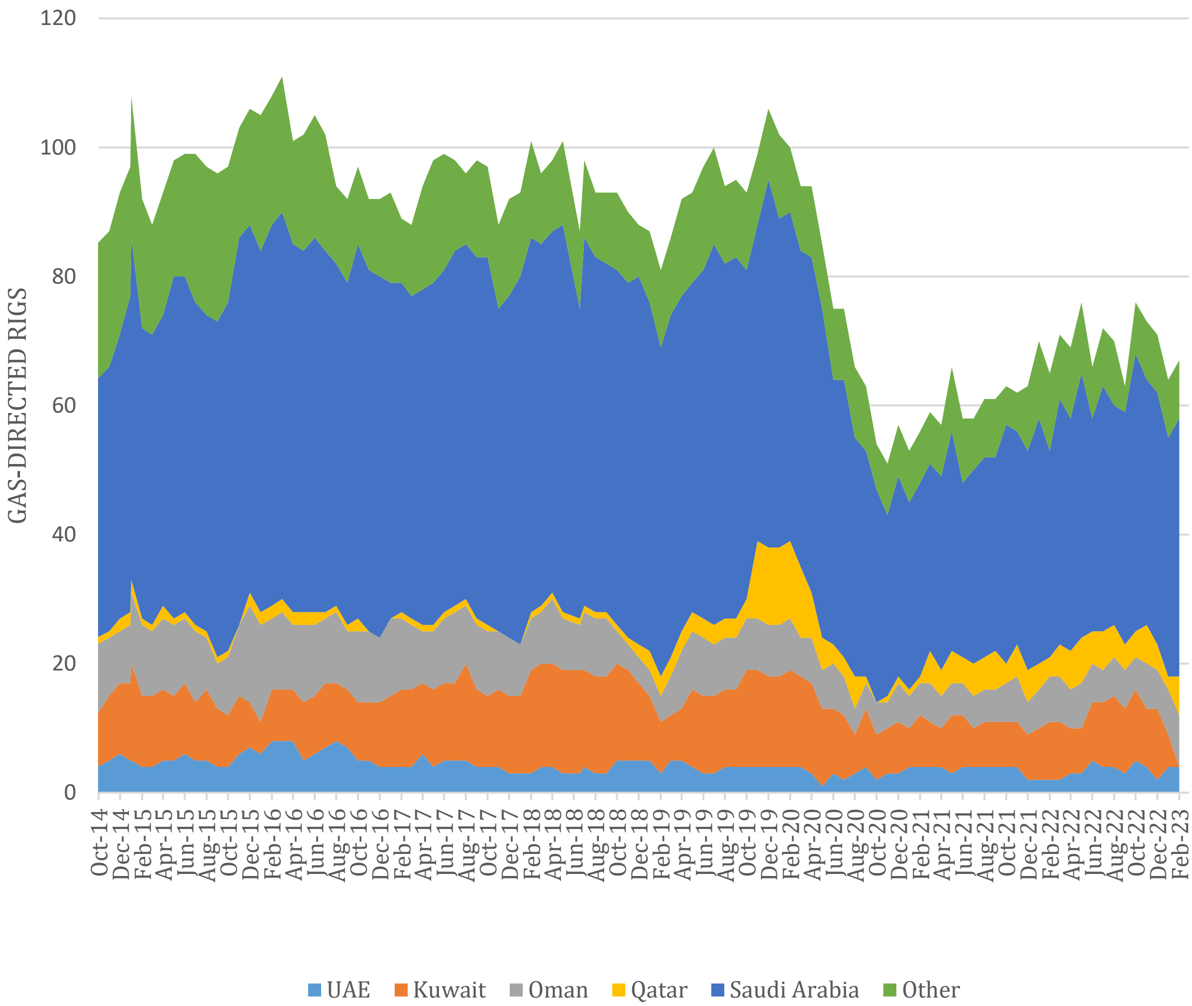
RIG COUNT SNAPSHOT: **OIL**



- Total Middle East rig count increased by 9 to reach 327 in February despite OPEC countries agreeing to cut production.
- Iran had a two-month high in oil production during November and December, with overall exports hitting 1.23 Mb/d in November 2022 and dropping down to 1 Mb/d in December. After a slight production drop from 2.559 Mb/d in December 2022 to 2.577 Mb/d in January 2023, exports continued to surge and Iran reports that sales from the 21st of January to 19th of February exceeded revenue raked in the same time last year by 2.5.
- After missing its OPEC production quota for two months, Iraq bumped up its oil rig count by +5 to stand at a total of 59 rigs.
- UAE's oil rig count increased by only +1 to a total of 49 in February as it braces to cut production.
- After a year of fluctuating rig counts, Kuwait added 8 oil rigs to its count as it secures multiple contracts for funding and infrastructure projects.
- Saudi Arabia ended its rig count highs of November to January after long periods of stagnation and once again cut down drilling, shutting down 5 rigs.
- Oman's oil rig count decreased by -2 to 41 as it shifts its focus to gas and renewables.

Source: Baker Hughes; OPEC

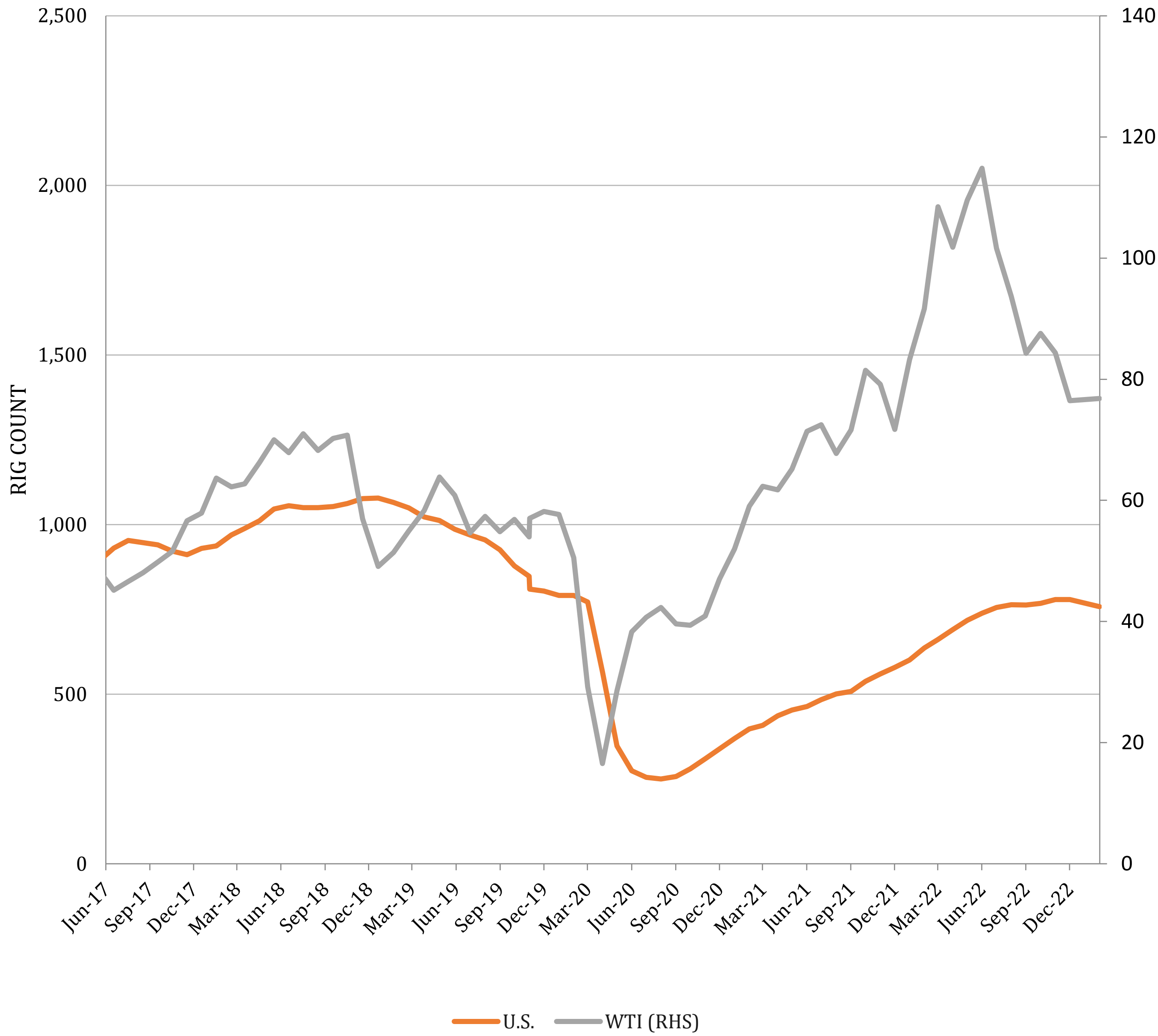
RIG COUNT SNAPSHOT: **GAS**



- After a sudden drop of -8 in January the Middle East's overall gas rig saw a minor increase by +2 to 67 in February, still higher than 51 in November 2020 but much lower than the pre-Covid average of 99.6 in 2019.
- Oman's rig count increased by +1 to 8 and will continue increasing after securing exploration contracts and bringing more production wells online in March.
- Kuwait appears to have shut down all gas drilling in February as rig count drops to a 0.
- The UAE maintained its gas rig count in February at 4 rigs. ADNOC's new LNG plant in Fujairah aims to bump total LNG production up to 15.6 Mtpa by 2028 and will require additional upstream gas.
- Qatar's rig count stopped the monthly decrease by -2 since November after reaching its lowest since March 2021, and triples its count to 6 and is likely to rise as new upstream developments of the North Field are required to meet its 2026-7 LNG export expansion.
- Saudi Arabia's rig count went up by +3 in to 40; these values are lower than pre-Covid. Saudi Arabia plans to develop its Jafurah shale gas to 2 Bcf/d of gas, 418 MMcf/d of ethane and 630 kboe/d of gas liquids as part of its 2030 plan to cut the use of oil in power generation.

Source: Baker Hughes; OPEC

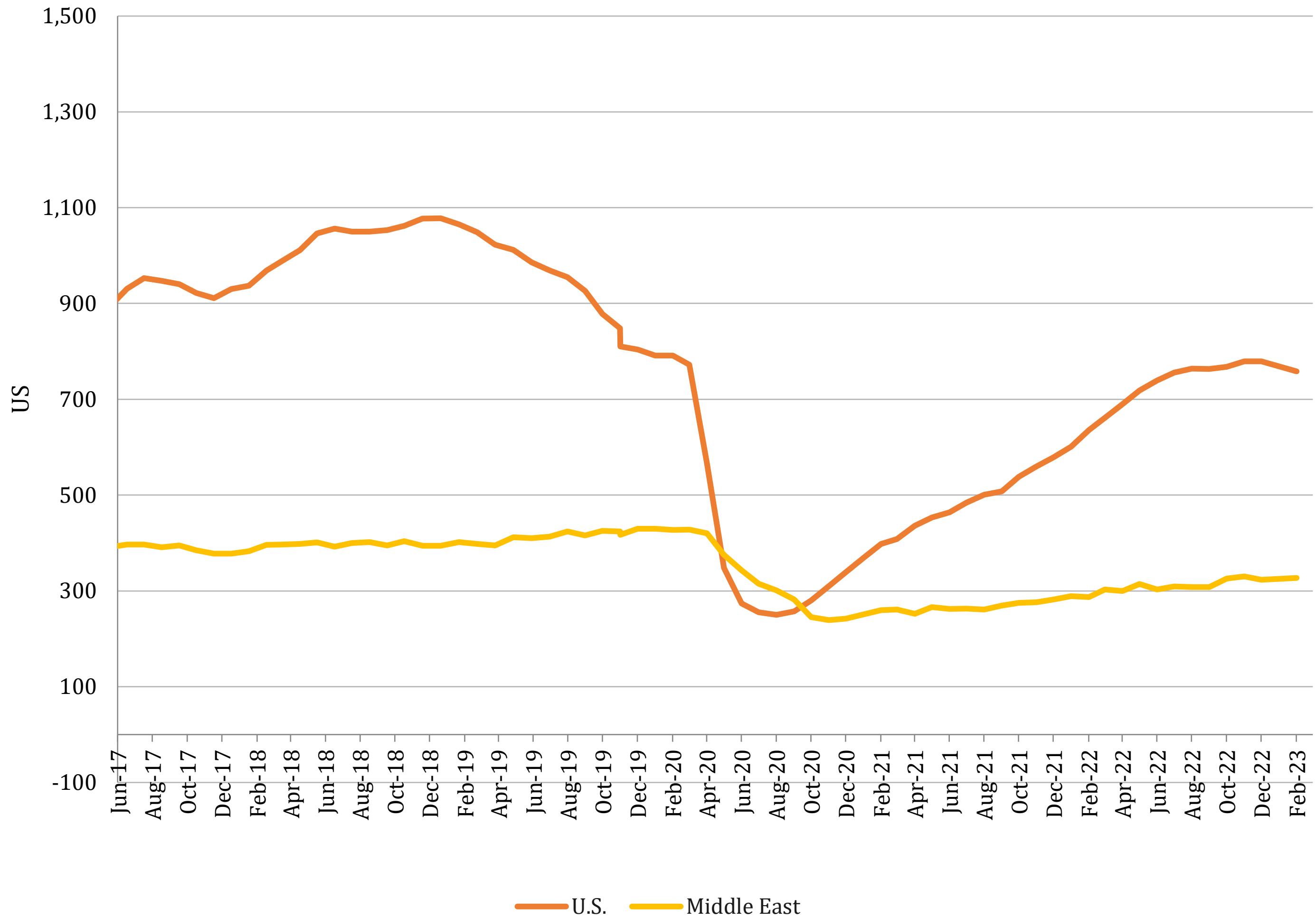
RIGS VERSUS OIL PRICES: **US RIGS & WTI**



- US rig count increased from 753 to 748 in March, the increase in gas rigs balancing out the shut-down of 7 oil rigs.
- Oil Rig count changes are as follows: a +1 m-o-m increase at Cana Woodford, +3 at the DJ-Niobrara; meanwhile Eagle Ford rig count dropped by 6. There were no changes in the Utica, Williston (Bakken, Three Forks), Permian, and Barnett basins.
- Despite 3 consecutive months of rig cuts and an expectation of further drops as a result of increased gas production recently (a +466mn cfd increase in February), overall gas rig count in the US hit 162 with 9 rigs drilled in the third week of March alone: the most since 2018.

Source: Baker Hughes, EIA

RIG COUNT: **US & MIDDLE EAST**

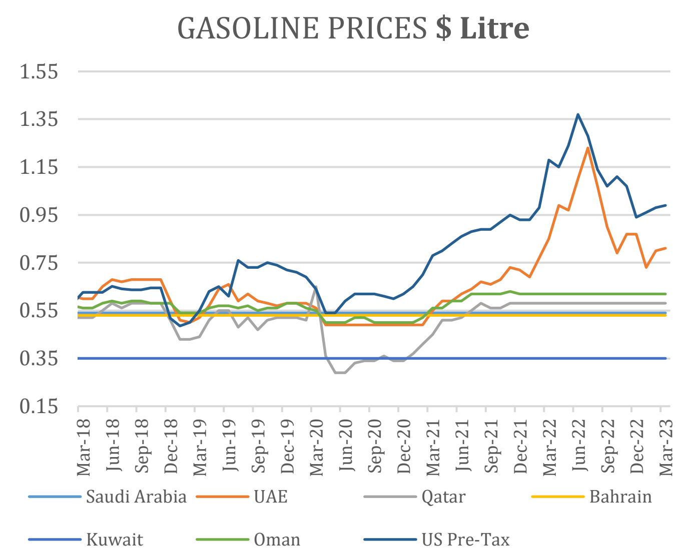


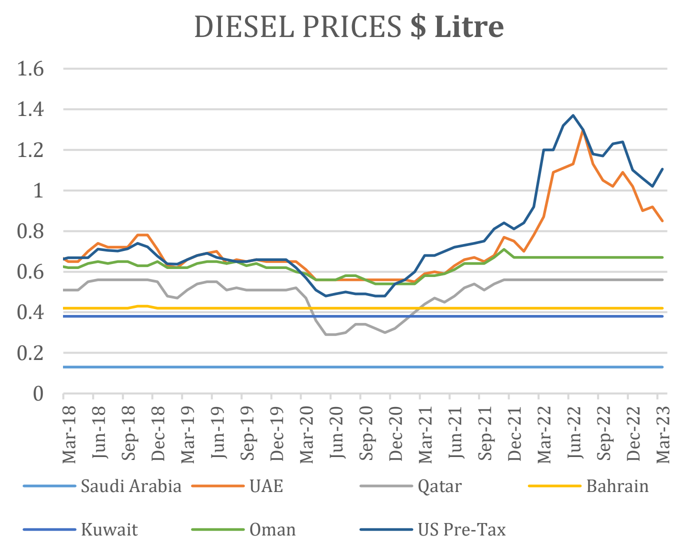
- US Offshore rig count rose from 17 to 18 and overall rig count rose +5 m-o-m in March. The -7 cut in oil rigs were offset by the increase in gas rigs by +11, matching the intended production increase for 2023 to 100.27bn cfd.
- While most Middle Eastern countries maintain or work to shut down rigs in line with agreed OPEC cuts, the boost in Iraq (+5 oil, +2 misc.) and Kuwait's (+8 oil, -5 gas, -1 misc.) increased total rig count by +9 from 318 to 327.

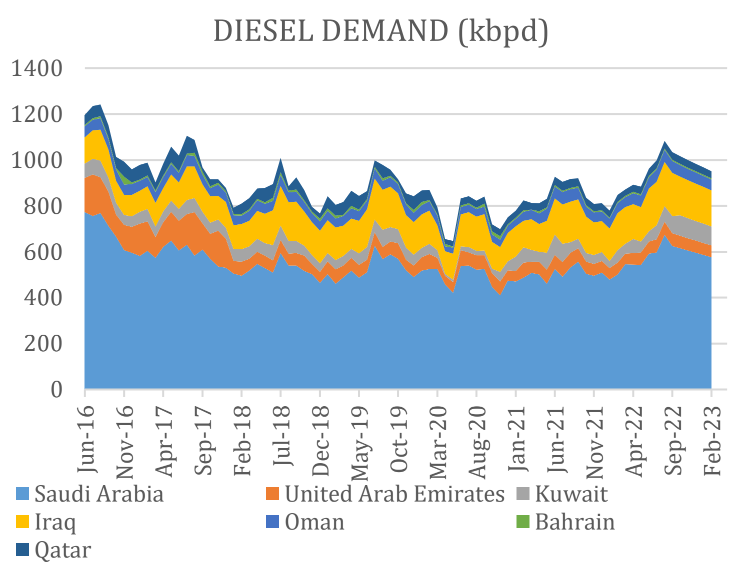
FUEL PRICES & SUBSIDY REFORMS

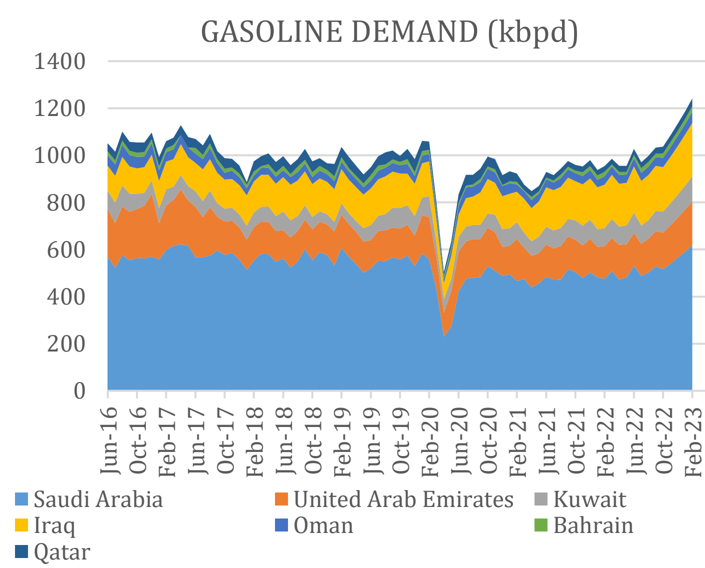
- In the UAE, gasoline had a very small bump from $0.80 in February to $0.81 per litre this March. Diesel continued its fluctuating trend, following last month's crawl to a sudden dip from $0.92 to $0.85 per litre.
- Qatar prices for gasoline and diesel have been set at $0.58 and $0.56 per litre for the 17th straight month since November 2021.
- In Oman, gasoline and diesel prices have not changed since last month, set at $0.62 and $0.67 per litre respectively. This marks 15 months of unchanged prices.
- In Saudi Arabia, gasoline and diesel prices have not changed again and are set at $0.62 and $0.20 per litre respectively.

The following charts represent the prices of gasoline 95 and diesel ($/litre) till March 2023 in the GCC countries.





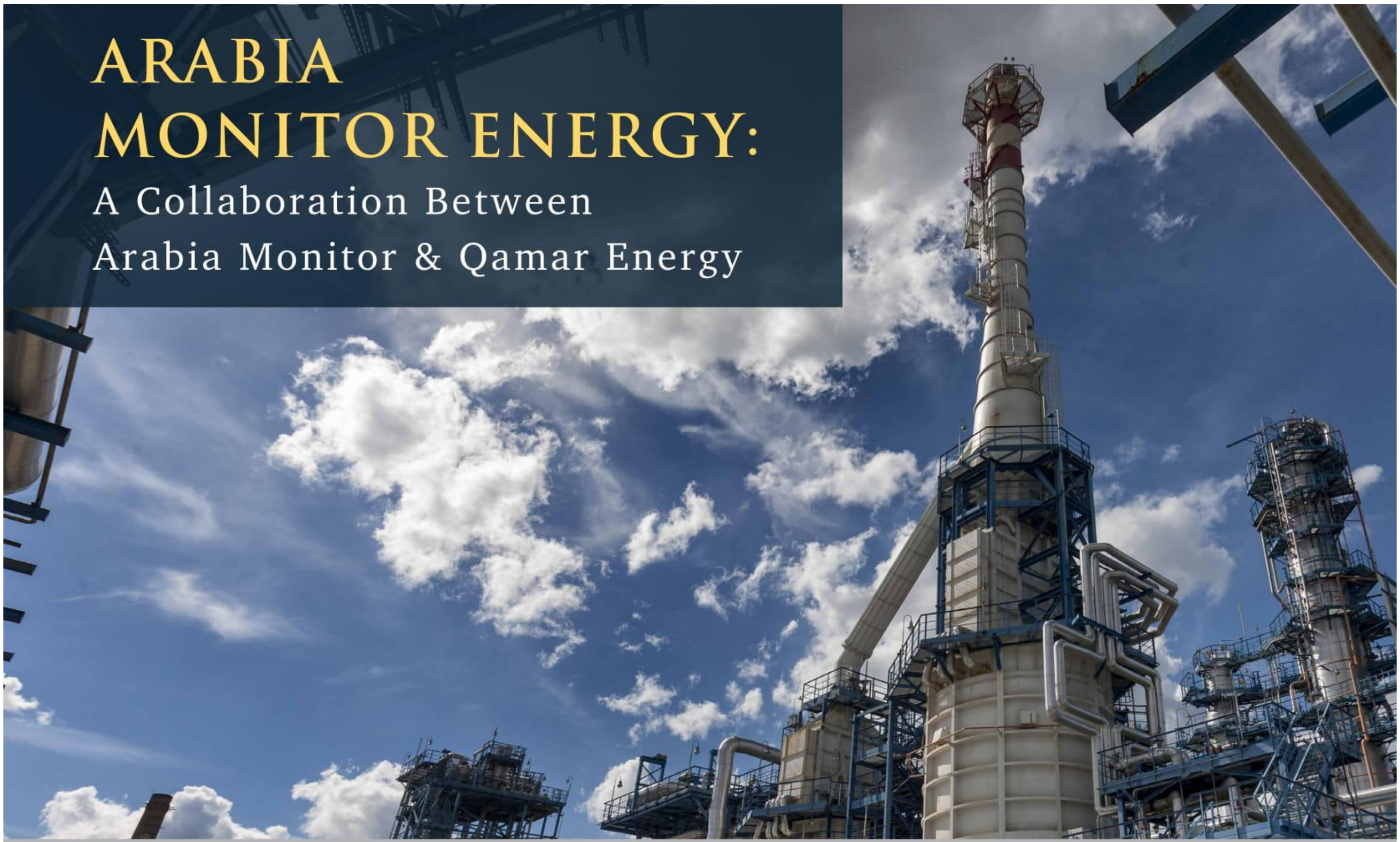




Note: JODI Bahrain, Kuwait, and Saudi Arabia gasoline and diesel figures are unavailable for February and March 2023

ARABIA MONITOR ENERGY:

A Collaboration Between Arabia Monitor & Qamar Energy



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)

For Further Information, Contact Us On:

info@qamarenergy.com or
+971 4 364 1232
DUBAI - UAE

OPEC WATCH

OPEC Production	OPEC+ Compliance

OPEC Production

- Global oil demand estimate revised from 101.7 Mb/d to 101.9 Mb/d with the bulk of the demand growth stemming from Asia-Pacific. OPEC crude demand revised to 29.3 Mb/d (a 0.2 Mb/d drop).
- Expected oil demand from China increased once again, with growth predicted at 710,000 b/d in 2023.
- Russian crude averaged 9.8 Mb/d in February and announced a 500 kb/d cut in response to Western sanctions.
- Despite intended production cuts, OPEC crude output hit 28.92 Mb/d in February, a 117 kb/d m-o-m increase.
- Bulk of production cuts from Iraq (-25 kb/d) and Angola (-52 kb/d), while Nigeria continued boosting production (+72 kb/d) following increased security in its Delta region along with Saudi Arabia (+59 kb/d) and Congo (+21 kb/d).

OPEC+ Compliance

- OPEC+ overall compliance hit 169% in February against January's 172% after a 150 kb/d m-o-m production boost. Total production was still below the target level (880 kb/d below) even with increased production from Saudi Arabia and Nigeria and while Libya, Iran, and Venezuela are still exempt from OPEC cuts.
- Nigeria had managed to boost its production after increased security in its Delta production region, adding 100 kb/d in February, but still below its expected 1.6 Mb/d quota. Both Nigeria and Angola (an 80 kb/d drop due to its Dalia stream maintenance) struggle to hit expected levels due to insufficient production capacity after long periods of under-investment.
- Between the maintenance in the West Qurna 2 field and the interrupted exports from the Ceyhan Port following the Turkey/Syria earthquake, Iraq once again missed its agreed output quota as it had anticipated, with production in February having dropped to 4.33 Mb/d (a 150 kb/d drop).

OPEC Production, Mb/d			Non-OPEC Production[1], Mb/d		
January	February	Change (%)	January	February	Change (%)
28.81	28.92	--0.380	57.2	57.7	--0.867

Latest Organisational Changes

- Expecting an economic recession in 2023, OPEC+ decided to maintain the production cut decision made in October 2022 by an overall 2 Mb/d from November 2022 until the end of 2023 for stabilisation. This is in line with the 0.1 Mb/d growth to 2.32 Mb/d for 2023 and non-OPEC's 1.9 Mb/d increase to offset declines in Russia amid price caps and sanctions. Market is expecting volatility due to demand increase in China as Covid restrictions are eased.
- The US is expected to lead the growth in supply as they near pre-pandemic levels of oil drilling; however the effects of inflation and problems in the supply chain may limit this to a 0.59 Mb/d rise. The US is followed by Brazil, Canada, and Guyana.
- The 35th OPEC and non-OPEC Ministerial Meeting will be held on June 4th, 2023. The 48th JMCC Meeting is set on the 3rd of April 2023.

[1] Excluding OPEC NGL and non-conventionals

KEY MENA ENERGY SCORECARD

Abu Dhabi Developments

Oil & Gas	• Perma-pipe opens six-hectare plant and export hub in Abu Dhabi to meet the increase in demand in the industry. It is the largest plant opened by the firm outside North America. • ADNOC and BP join to bid $2bn on 50% ownership of Israel's NewMed Energy for access to the Leviathan and Aphrodite offshore gas fields. • ADNOC and Borealis-owned Borouge 4 polyolefins complex to begin operations in 2025. The $6.2bn project will increase Borouge's production capacity to 6.4MT through an added 1.4MT of polyethylene. • Kenya signs 6-month long credit-based deal for monthly oil imports with Saudi Aramco for diesel shipments (2 cargoes a month) and ADNOC for super petrol (3 cargoes a month). • ADNOC Gas IPO nets total of $2.5bn after increasing offerings due to high demand. • TotalEnergies purchases some of CEPSA's Abu Dhabi upstream assets. Deal signed includes: 20% stake in the Satah Al Razboot, Umm Lulu, Bin Nashar, and Al Bateel offshore concession (including two ADNOC owned offshore fields), and 12.88% indirect interest in the Abu Dhabi Oil Company Ltd (ADOC) owned Mubarraz concession.
Alternative Energy	• ADNOC and 44.01 begin operation of carbon mineralisation pilot project and ADNOC will add solar panels and a direct air capture unit. • ADNOC, Currenta Gmbh & Co. OHG, and the Government of North Rhine-Westphalia sign MoU to develop a low carbon ammonia value chain for use of ammonia as a fuel for energy generation. • Jinko Power announces it has successfully added 4 GW of solar power in the UAE since 2014. • Manhat, a start-up company based in the UAE, gained special accreditation by the UN to be a stakeholder at the 2023 Water Conference in New York for its novel work which uses naturally evaporating water from the Arabian Gulf and turning it into an energy source. The prototype is currently in its second phase of development. • Abu Dhabi University and Atkins sign 5-year MoU for exchange of academic and scientific expertise in the nuclear energy sector. • Masdar signs 5-year MoU with ADNOC Drilling to explore and support geothermal energy development in the UAE, with ADNOC drilling providing geothermal drilling services. • ENEC signs MoU with Nuclearelectrica for nuclear energy development through exploring collaborative opportunities and exchange of commercial and technical expertise. • Masdar and Infinity joint venture Infinity Power fully acquires African-focussed Lekela Power bringing its total renewable energy portfolio up to 1.3 GW (with 13 GW in the pipeline). • Masdar signs partnership agreement with Hidroelectrica to develop green energy facilities.

- The Al Dhafra 100 MW Shams Solar Power Station announced 10 years of operation having powered 200,000 houses and save 1.75 MT of carbon emissions.
- TAQA joins up with Reykjavik Geothermal to develop geothermal energy in Saudi Arabia, forming TAQA Geothermal Energy LLC and producing 1 GW geothermal energy.
- Miral and Emerge launch 7MWp solar rooftop PV project, the largest in the UAE, at Warner Bros. World, Yas Island Abu Dhabi, the project spanning 16,000 modules across 36,000 km^2 to meet 40% of annual energy demand.
- The Ministry of Energy and Infrastructure announced the release of the UAE National Hydrogen Strategy in partnership with GHD Group and Fraunhofer Gesselschaft. The strategy will be released in April.
- Masdar signs agreement with Côte d'Ivoire to explore development of a 50 to 70 MW solar PV plant under the Etihad-7 initiative.
- Masdar-financed 200 MW Baynouna Solar Park in Jordan inaugurated.
- Emirates Nuclear Energy Corporation (ENEC) signs LoI with Idaho National Laboratory for exploring development of commercial-scale clean molecule production (such as hydrogen, oxygen, steam, ammonia, water).
- TAQA to invest $1.6bn by 2030 in green energy projects in Morocco and increasing its renewable energy capacity by 1000 MW.
- EWEC aims to boost solar power capacity to 7.3GW by 2030, requiring 3GW more to be added to the pipeline even with Al Ajban Solar PV plant coming online in 2026.
- EDF Renewables eyeing upcoming energy tenders in the UAE to expand its hand in UAE renewables (already owning a 20% stake in Al Dhafra Solar Project).
- Brooge Renewable Energy Ltd (BRE) joins with Siemens Energy to produce green hydrogen and ammonia through construction of a 650 MW solar plant.
- ADNOC and Eni sign MoU to explore opportunities for collaboration in the development of renewable energy, hydrogen, and CCUS.
- RedSea announces commissioning of agrivoltaic powered greenhouse facility in Abu Dhabi.
- Bertin Technologies and Al Masaood Group sign partnership agreement to combine technical expertise for nuclear power development in the UAE, focussing on supplying of equipment and critical systems.
- Altea Energy signs partnership with Equilibrium Engineering Consultancy (EEC) to provide technical expertise for nuclear power development in the UAE.
- Emirates Water and Electricity Company (EWEC) announces that its solar and nuclear plants have supplied 80% of total power demand in Abu Dhabi amounting to 6.2 GW of total 7.7 GW demand.
- ADNOC to invest $15bn in low-carbon and decarbonisation projects in line with meeting the 2030 carbon emissions cut by 25% goal.

	• Oracle Energy and China Electric Power and Technology to construct a 400 MW green hydrogen plant and produce 55 ktpa of hydrogen in Sindh, Pakistan (700 MW solar, 500 MW wind powered). • Ocior Energy signed a MoU to build two 1 Mtpa green ammonia facilities in India: one in Andhra Pradesh and one in Gujarat. • Masdar, having bought UK Battery company Arlington Energy in 2022, earmarks £1bn battery storage technology development.

Kuwait Developments

Oil & Gas	• $74.6mn contract issued by KOC to Bader Almulla and Brothers Co. for maintenance in the eastern and southern facilities. • New gas-powered desalination plant in west Kuwait has tenders issued by KOC worth $300mn and intends to begin operations in 2024. • Abu Sennan well in the Western Desert in Egypt has its ASH-8 brought online by Kuwait Energy Egypt. • Focussing on full-scale operation of the Al-Zour refinery, Kuwait asked refineries in Asia to import less oil with the new April contracts. • Shuaiba North Power Plant privatisation contract won by Deloitte for $4mn. Phase 1 involves a feasibility study over the next 3 years and Phase 2 is the bidding phase. • A $223mn contract was signed by the EPC company Heavy Engineering Industries and Shipbuilding Company (HEISCO) and Kuwait Oil Company (KOC) for construction of pipelines in west Kuwait over the next 5 years. • HOT Engineering and Construction Co (HOTECC) was awarded a $101.6mn contract with Joint Operations (JO) for the facilities at the south in the Neutral Zone. • Second train begins operations at the Kuwait Petroleum Corp (KPC) owned Al-Zour refinery following the start of the first train a few months prior. Two more are to be added in the next months bringing total capacity to 650,000 bbl/d.
Alternative Energy	• Kuwait delegation takes part in 9th Berlin Energy Transition Dialogue Conference for fossil fuel to renewable energy transition. • Cooperation discussed for renewable energy between Oman and Kuwait by the Omani-Kuwaiti Joint Committee.

Qatar Developments

Oil & Gas	• QatarEnergy purchases two offshore Canadian block stakes from ExxonMobil. • Qatar Electricity & Water Company (QEWC) sign a 9-year contract with GE Gas Power to maintenance and services to the Ras Abu Fontas B2 Cogeneration Plant units. • QatarEnergy discovers oil 270 km offshore Namibia in the Jonker-1X deep-water-water-well.
Alternative Energy	• Siemens Energy and Standard Chartered bank issue first green guarantee for a solar project in Qatar.

	• Qatar becomes the majority shareholder of RWE AG with 9.1% of all shares. • Nebras Power and Uzbekistan Ministry of Investment, Industry and Trade review 3.1 GW thermal power plant project in Syrdarya and Surkhandarya regions. • Qatar Investment Authority (QIA) CEO Mansoor Ebrahim Al-Mahmoud discuss investment proposals with Pakistan's Prime Minister Shehbaz Sharif with solar power parks among the investment topics.

Federal Iraq Developments

Oil & Gas	• Ministry of Oil announces that production has started in the Akkas gas field in Anbar. • The Oil, Gas and Natural Resources Committee announce that a new federal gas law between Baghdad and Erbil will be enacted soon. • Iraq and Egyptian General Petroleum Corporation (EGPC) renew deal for Iraqi crude oil and purchase 4bn barrels. First two will be sent in June and the second in August. • $27bn Iraq and TotalEnergies deal to be finalised soon. • Supplementary bidding round to be opened for the Mansuriya Field in East Baghdad. • Iraq opens bids for 7 refinery projects: 3 currently open [50 kb/d unit in the Southern Maysan; 70 kb/d unit in Nineveh; 30 kb/d unit in Southern Basra], 3 to open in April [50 kb/d unit in Southern Dhi Qar; 100 kb/d in Wasit; 70 kb/d in Muthanna], and the last to open much later [70 kb/d in Western Alanbar]. • Ministry of Oil inaugurates the Samawah gas project. • South Gas Company (SGC) in negotiations with Halfaya Gas Company and Raban al-Safina to develop two 150mn cfd gas units, one for sweet gas and the other for sour, in the Nahr Bin Omar field in Basra. • Crescent Petroleum signs three 20-year deals for oil and gas production in two blocks in Diyala and one in Basra. • Iraq signs 5-year long service contracts with Siemens Energy for the Al Sadr, Kirkuk, and Al Rasheed power stations. • Thi-Qar Oil Co. (TOC) give approval to PJSC Lukoil and Inpex to develop Eridu oil field in Block 10. • The Al Faw Grand Port in south Iraq built by Daewoo E&C has 6 of 11 infrastructure projects of Phase 1 complete. Phase 1 will be complete by 2025.
Alternative Energy	• Iraq to soon sign deal for 1000 MW solar power project with ACWA Power in Najaf. Iraq is aiming for 5000 MW of solar power projects launched by 2023. • Minister of Electricity discusses funding infrastructure projects with China Export and Credit Insurance Corporation (SINOSURE) within the existing agreement, considering combined cycle power plants and solar power stations. • Mass Group Holding to invest over EUR 1bn to turn decommissioned Mintia coal plant in Romania to a 1.29 GW capacity power plant of which 800 MW is gas and hydrogen powered.

Saudi Arabia Developments

Oil & Gas	• Forum Energy Technologies (FET) wins $25mn deal with Saudi Aramco for engineering design and services to 4 electrostatic desalter systems in Safaniyah field. • Saudi Aramco acquires 10% stake of Rongsheng Petrochemical Co. for $3.6bn, increasing Saudi Arabia's exports to China for refining to 700 kb/d. • Kenya signs 6-month long credit-based deal for monthly oil imports with Saudi Aramco for diesel shipments (2 cargoes a month) and ADNOC for super petrol (3 cargoes a month). • Saudi Aramco funded (63.4% stake ownership) Shaheen Naphtha Refinery by S-Oil Corp. broke ground on March 9. At 1.8mn Mtpa of ethylene it is the world's biggest naphtha-fed steam cracker. • Saudi Aramco's Arab Light Crude OSP for April increased by +$2.50 per barrel compared to Dubai/Oman from April onwards for Asia, US, and Europe. • The National Shipping Company of Saudi Arabia, also known as Bahri, is to invest $407mn for gas transportation vessels under the Shareek program. Other projects also under the Shareek program include TotalEnergies SE and Aramco's Amiral Petrochemical Complex and Maaden's phosphate fertilizer plant expansion. A total of $51bn is drafted for the program.
Alternative Energy	• Larsen & Toubro (L&T) granted EPC contract for a 380kV substation in Saudi Arabia including 400km overhead lines and a 230kV gas insulated substation with protection systems. • TAQA joins up with Reykjavik Geothermal to develop geothermal energy in Saudi Arabia, forming TAQA Geothermal Energy LLC and producing 1 GW geothermal energy. • TotalEnergies and Zahid Group joint owned Saudi Total Petroleum Products (STPP) start construction of 250kWp solar rooftop project installed by SAFEER to produce 390 MWh a year for its Kind Abdullah Economic City lubricant blending plant. • Korea Eximbank signs 3-year framework deal with Saudi Aramco to clinch giga-project contracts for Korean companies, with Eximbank signing $62bn. • Seven MoUs signed between Saudi Arabia and Germany for cooperation in renewables, chemicals, and technology among other topics. • The Japan Bank for International Cooperation (JIBC) sign loan with the Saudi Electricity Company (SEC) to finance the Saudi Arabia-Egypt 3000 MW HVDC electricity interconnection link (1350km overhead lines, 22km submarine cables). JIBC's loan share is $103mn while SEC's is $104mn bringing the total to $207mn. • The following MoUs were signed: the PIF and Marubeni Corporation for clean hydrogen production, the Ministry of Energy with the National Energy Administration of China for clean hydrogen development, ACWA Power and PT Pupuk Indonesia for clean energy development. • ILF Consulting Engineers won consultancy contract to conduct pre-development studies of three solar PV parks with 30 GWp total capacity.

	• ACWA Power signs \$2.5bn agreement with Uzbekistan's Ministry of Energy to three solar power plants with total capacity of 1.4GW and three power storage systems worth 1.5GWh capacity in Tashkent (1 solar plant worth 400 MW, storage worth 500 MWh), Samarkand (2 solar plants worth 500 MW each, storage worth 500 MWh), and Bukhara (storage system worth 500 MWh). • ACWA Power signs \$1.5bn agreement with Kazakhstan's Ministry of Energy and the Samruk-Kayzna Sovereign Wealth Fund to construct a 1 GW wind farm with energy storage in Zhetysu, Kazakhstan. • Saudi Arabia's planned 2.8 GW capacity two-reactor nuclear power plant receives bids from foreign investors and is anticipating further bids from South Korea, China, and France.
Oman Developments	
Oil & Gas	• Bidding for the next round of oil and gas blocks is open for Blocks 15, 36, and 54. Bidding ends on the 25th of June. • Maha Energy AB begins multi-well test in the onshore Oman Block 70, testing 8 wells and processing the oil. First well to be tested is the Mafraq-9 and a new well will be added biweekly until all are connected. Preliminary results to be realised May 2023. • BP and Eni to explore gas wells in Eni-owned Block 77. • OQ and Kuwait Petroleum International (KPI) owned Duqm Refinery in the Special Economic Zone of Duqm will be brought online by the end of the year to refine 230 kb/d. • Oman signs MoU with Iran for joint development of oil, gas fields, and petrochemicals. • Abraj IPO bids nets \$244mn from sale of 377mn shares. • TotalEnergies announces gas production from the Mabrouk North-East field in onshore Block 10 in Oman and expects production to reach 500mn cfd by 3Q24.
Alternative Energy	• Solar Wadi and Tamani Global Development & Investments LLC sign deal to power 40% of Mall of Muscat in Maabelah with solar power through installation of 5 MWp solar PV panels, generating 9000 MWh/year. • Solar Wadi and Nafath Renewable Energy sign framework agreement for solar PV plant EPC operations at approximately 30 MWp capacities. • OPWP's Manah 1 IPP won by Korea Western Power and sign a 20 year power purchase agreement with OPWP. • Energy Development Oman's (EDO) Hydrom signed 6 agreements finalising the round of bids announced in November 2022 for projects with total capacity of 15GW. • Shell's Green Hydrogen for Mobility Project has land allocated in Oman by Shell Oman and Oman Airports Management Company close to the Oman International Airports, owned by the Civil Aviation Authority. • Jindal Shadeed Group to begin work and construction on green-steel complex located in SEZQ to start production in 2027. The plant will be powered by 5MT of green hydrogen through two 2.5MT lines.

	• OPWP's Manah 2 IPP won by joint Sembcorp Utilities and Jinko Power Technology and sign a 20-year power purchase agreement with OPWP. • Oman signs MoU with the UAE for cooperation in sustainable development and environmental protection. • Solar projects Manah 1 and Manah 2, each at 500 MW capacity, in Al Dakhiliya to invite foreign investors following the agreement from the Authority for Public Services Regulation (APSR). Construction is slated to begin in 3Q23 and come online start of 3Q25. • Three wind projects legal consultancy RFPs have been issued by Nama Group's Oman Power and Water Procurement Company (OPWP) for the following: Duqm Wind IPP (operations slated to start in 2Q26), Jaalan Bani Bu Ali Wind IPP (operations slated to start 2Q26), and Harweel Wind IPP (operations slated to start in 4Q26). Bids open until the 23rd of March.

MENA Energy Pricing Reform

- Qatar amends Income Tax Law to impose tax on incomes and investments earned abroad.
- Bahrain suspends industrial land fees for food storage facilities for three months, briefly suspends supermarket promotional campaign fees, and extends low-income family financial support to January.
- Oman to boost budget reserves through listing 49% of Abraj Energy Services on the Muscat Stock Exchange through an IPO.
- The UAE introduces Corporate Tax Law, setting the tax rate at 9% for profits over AED 375,000 and 0% below from June 2023.
- The UAE sets $15bn budget for low carbon projects for green transition. ADNOC to push investments to $150bn over next 5 years.

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

Erbil Forum 2023 organised by the Rudaw Research Center
1st – 2nd March 2023

Atlantic Council Global Energy Forum, Abu Dhabi
14th – 15th January 2023

World Utilities Summit, Abu Dhabi
9th May, 2023

Gulf Intelligence Daily Energy Markets Podcast
22nd March, 19th April, and 19th May, 2023

Gulf Intelligence 11th Energy Markets Forum, Fujairah
10th-11th October, 2023