ARABIA MONITOR ENERGY

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HIGHLIGHTS

- **Saudi Arabia** has raised its June 2020 official selling price (OSP) for all grades to all customers, but lesser so for Asian customers, whom it is targeting as a core market for demand security. Steady high-sulphur fuel oil (HSFO) margins have caused Saudi Arabia to raise the premium for its Arab Heavy grade by US$ 1.7/b from May's OSP of -US$ 7.4/b, a record low.

- **Aramco**'s exports are expected to average 5 Mb/d in June, an 18-year low, assuming refining runs (which look bullish due to higher availability of feedstock) remain at ~2 Mb/d, and crude burn volumes increase to 500 kb/d (from March's levels of 280 kb/d) to meet peak summer demand.

- **Qatar Petroleum** may be facing a delayed impact of the oil market collapse in late Q2 and early Q3 2020, as oil-linked LNG prices begin catching up with the historic drops in spot LNG prices.

- **Iraq** raked in its lowest oil revenues in April, even though it exported a sizeable 3.85 Mb/d, the highest so far this year. Plummeting demand and oil prices – Federal Iraq sold its oil at US$ 13.8/b, half the price of March, and 77% lower than January's selling prices – resulted in earnings of US$ 1.4 B, the lowest since January 2015.

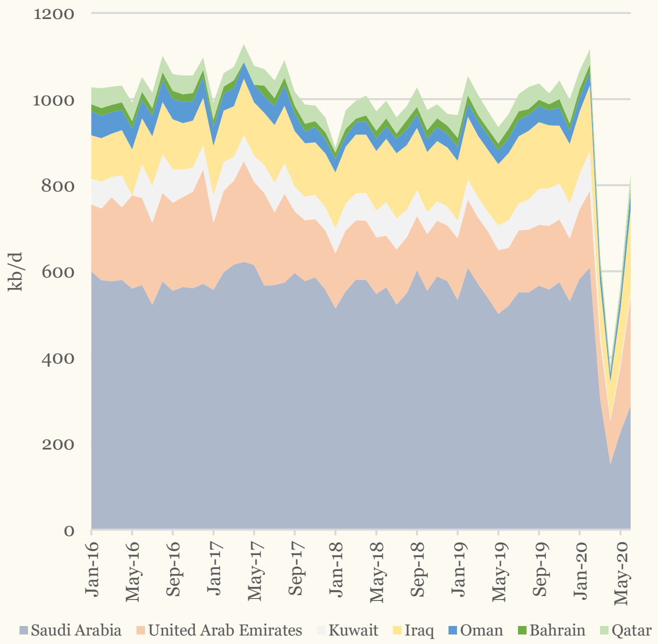
- Waning global demand and the OPEC+ agreement of April 12 have caused **Kuwait** and Saudi Arabia to shut down the Neutral Zone's recently re-opened Khafji oilfield.

- The **East Mediterranean** faces a challenging future in the near-term for its gas business. The European Green Deal has put a question mark over financing for the much-hyped EastMed pipeline, while major firms continue to slash discretionary spending on the region's capital-intensive and geopolitically complex gas-fields.

CORONAVIRUS (COVID-19) UPDATE SCORECARD

IMPACT OF COVID-19 ON DEMAND & TRANSPORT
(Qamar Energy Analysis, based on lockdowns eased by end-April)

MOTOR & AVIATION GASOLINE



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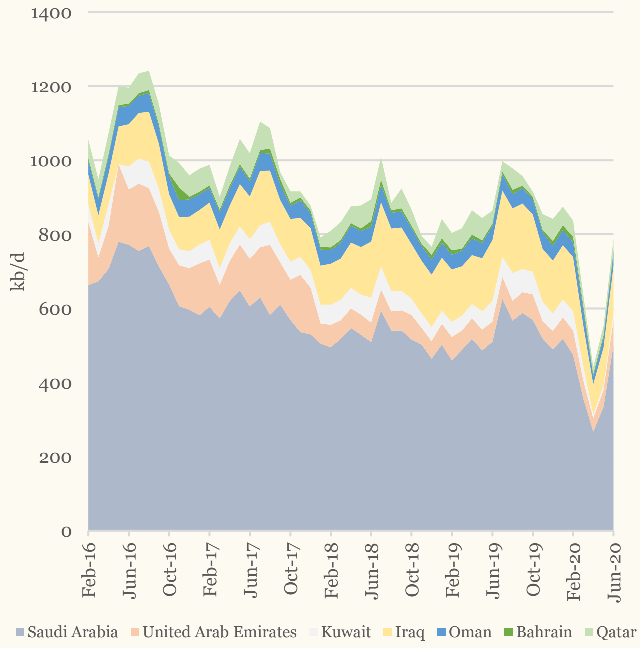
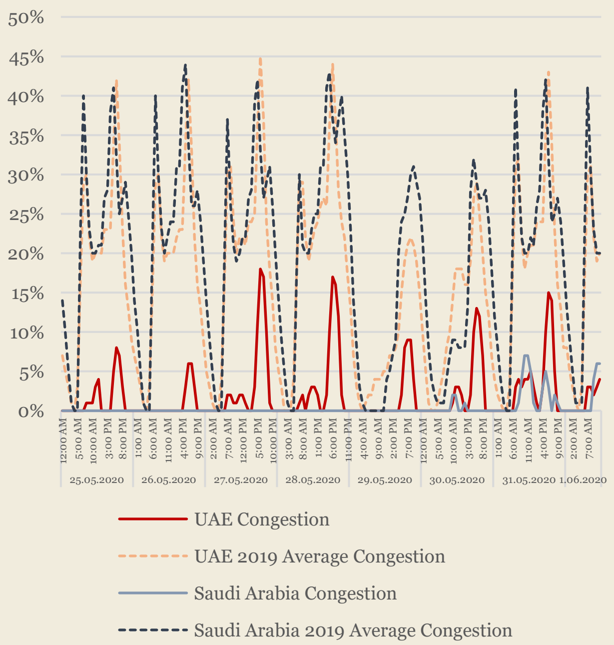
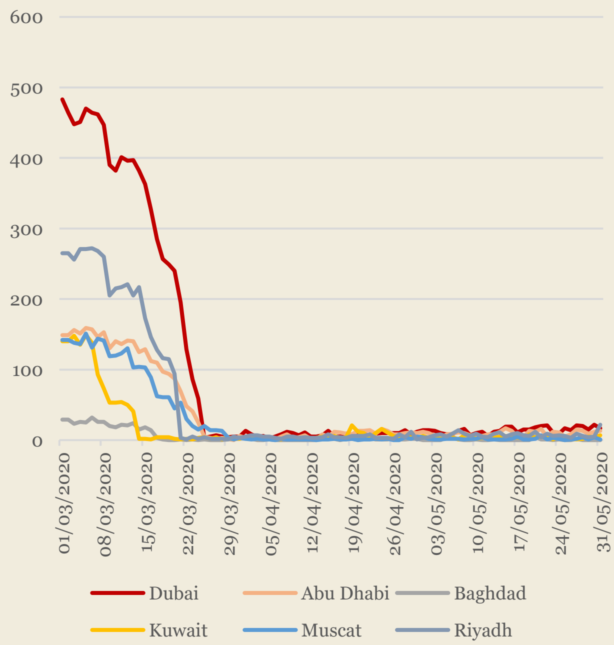


TRAFFIC CONGESTION



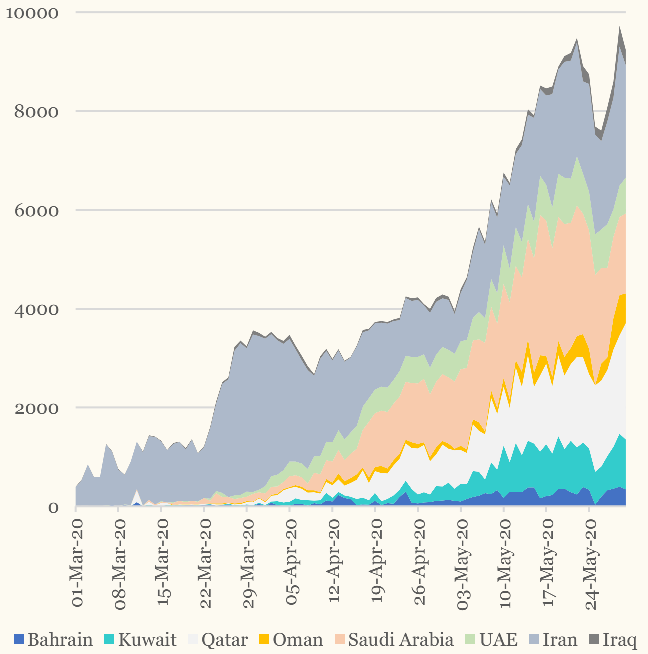
DAILY FLIGHTS



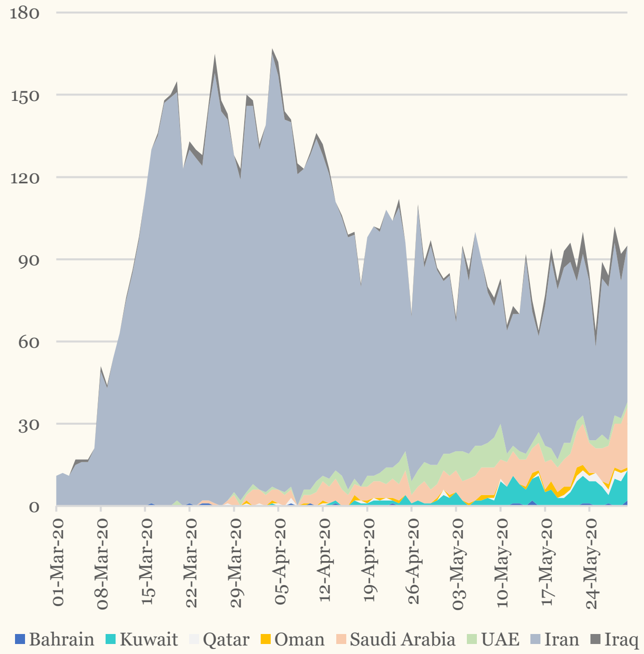
CORONAVIRUS (COVID-19) UPDATE SCORECARD

DAILY REPORTED CASES & DEATHS IN MENA[1]
(World Health Organisation Statistics)

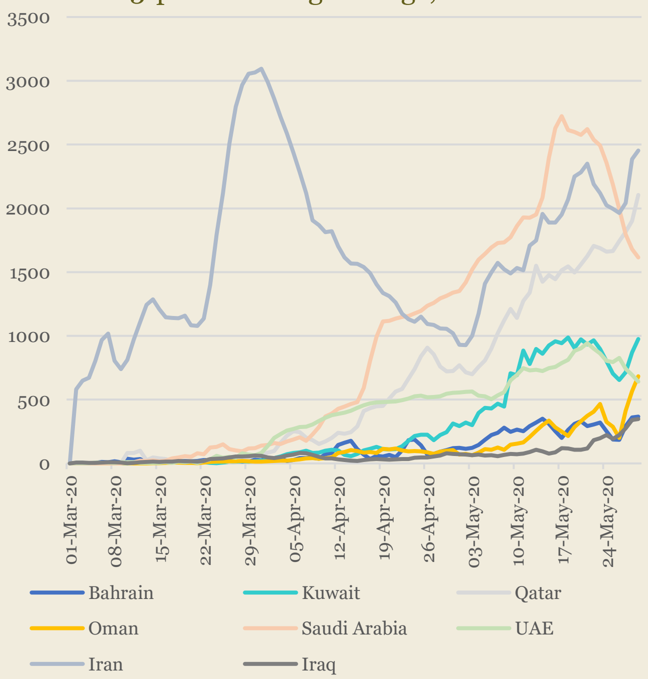
DAILY CASES



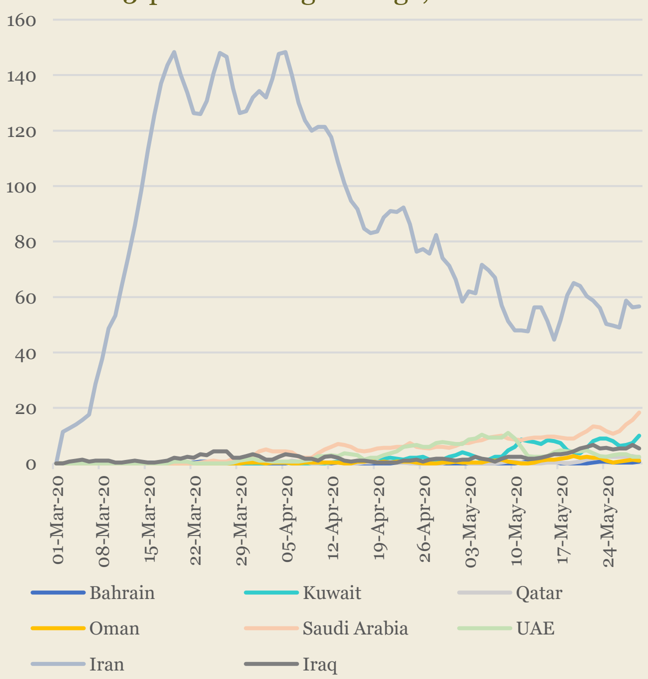
DAILY DEATHS



3-point Moving Average, Cases



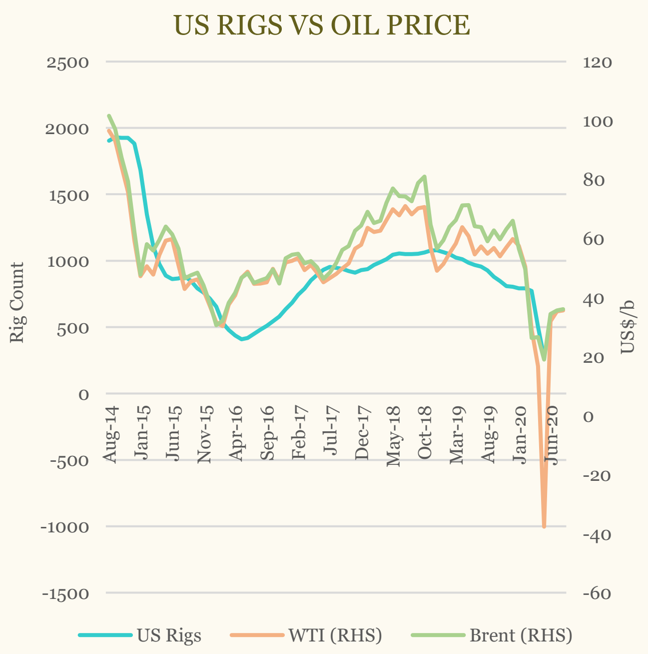
3-point Moving Average, Deaths



[1] Although lockdowns have been eased in almost all major Middle East countries, some, like Iran, seem to be experiencing a second-wave of infections, mostly "minor", thus not reflected in reported deaths yet.

CORONAVIRUS (COVID-19) UPDATE SCORECARD

US WTI RECOVERS FROM HISTORICAL LOW OF -US$ 37.63/B



Oil futures have rallied to post their highest settlement in more than 2 months, supported by OPEC+ cuts and production losses.

Brent crude futures for August have increased 35% from April's prices of US$ 26/b, while WTI closed at US$ 32/b for June futures.

WTI has seen a rally as traders struggle to deliver into the market due to logistical constraints, unlike in April, when storage was full.

Some companies have begun turning their wells back on, but the US posted its worst month for rig counts in May, at 267, a record-low.

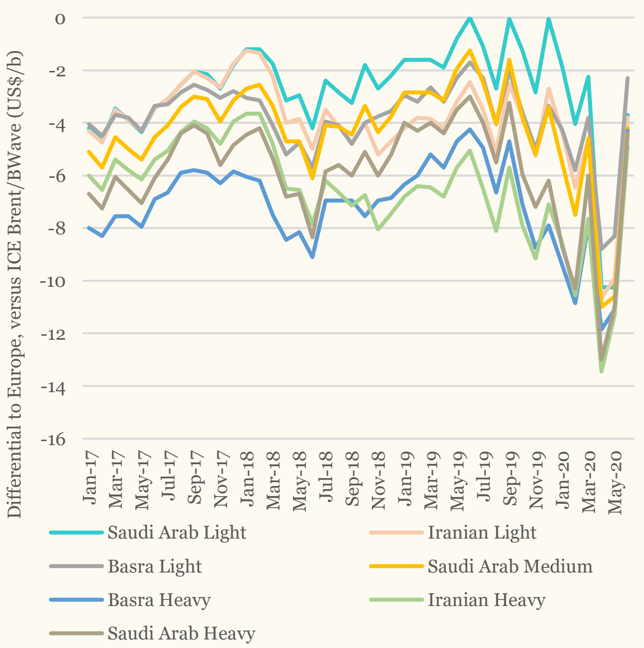
Most wells should be able to return to full production with modest expenditure – however, low-rate wells with mechanical problems likely will not be economically viable to restart[2].

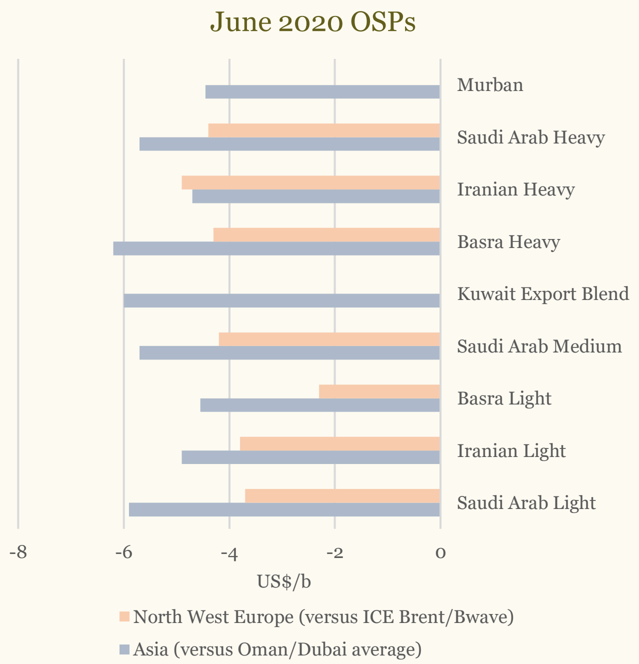
Further upside in prices will most be modest due to higher oil stocks and constraints around US supply, unless demand returns majorly.

US shale remains under pressure with prices at US$ 35/b, and smaller companies will struggle to service debts.

Operating costs in the US are ~US$ 36.3/b, and more bankruptcies could be expected in the near-term, according to S&P Global Platts.

MENA JUNE OSPs HIGHLIGHT DEPRESSED DEMAND FOR MIDDLE/LIGHT DISTILLATES



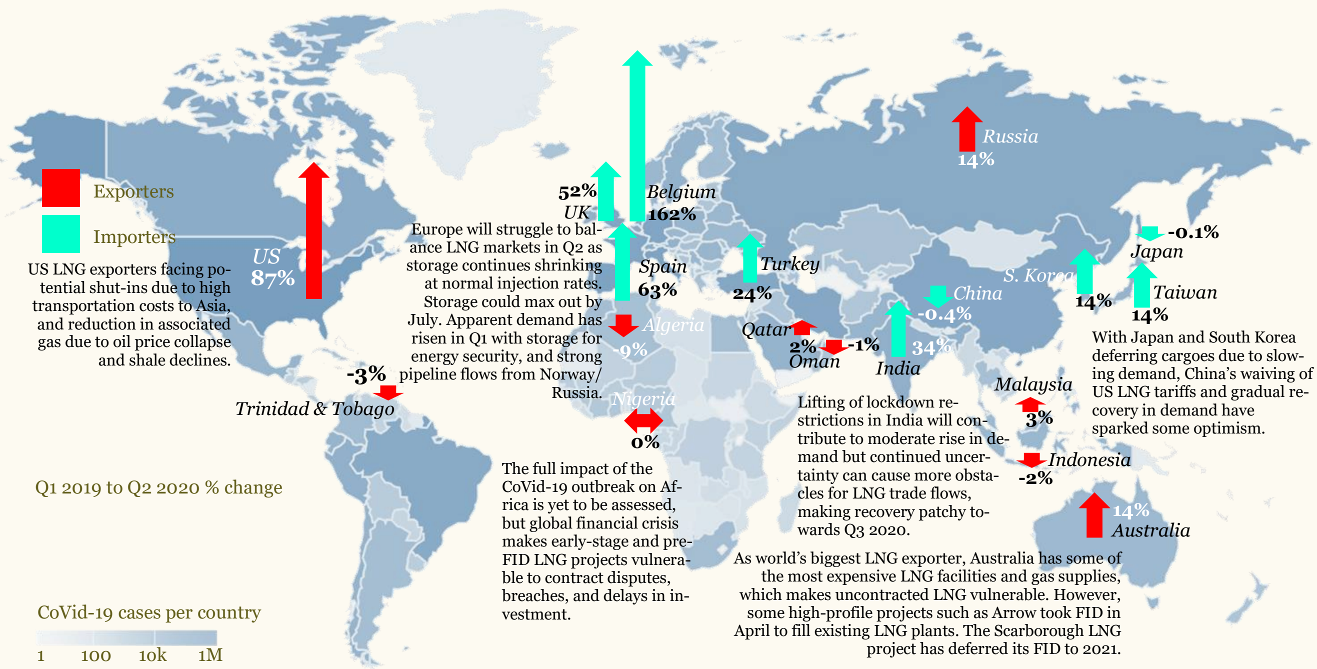


[2] According to our analysis, most wells are viable to restart unless they have a very low-rate of production or expensive mechanical problems. Permanent loss should occur from such wells and/or natural declines in shale. But while shale wells are shut in, they are not declining (and might even restart at higher initial rates for a short time). This in turn tens to cap the rise in oil prices, as does OPEC+ undercompliance (due to high prices), and the drain of oil from storage.

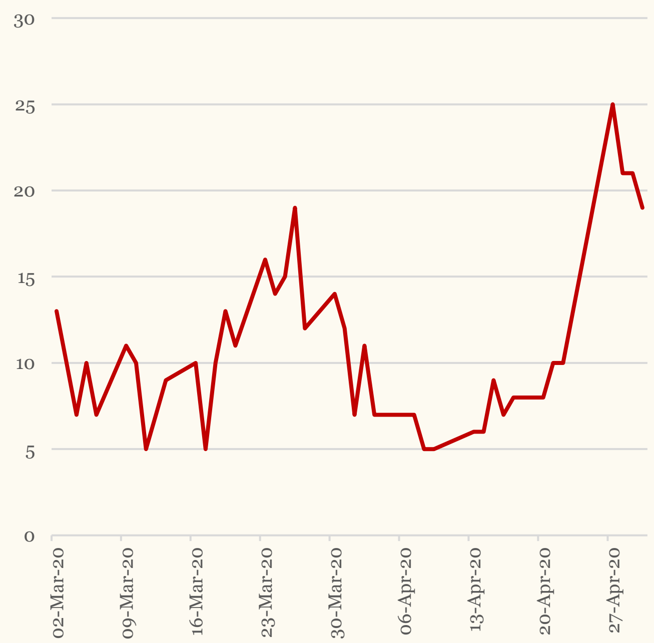
CORONAVIRUS (COVID-19) UPDATE SCORECARD

GLOBAL LNG MARKETS SET FOR FURTHER SLUMP IN 2020[3] AS STORAGE FILLS UP

While late Q1 and early Q2 2020 saw a surge in demand for energy security, Q3 seems to be heading towards a significant crash with storage levels rising rapidly. In April 2020, out of 29 Mt imports, 16.5 Mt remained on water as floating storage[4].



FLOATING STORAGE LNG CARGOES



GLOBAL LNG FLOWS TRACKER

Exports Mt	April 2020	April 2019	% Change	March 2020	March 2019
Global	31.5	30.3	+4%	30.4	30.8
Asia Pacific	7.6	7.1	+7%	7.5	6.81
Arab Gulf	7.6	7.3	+4.1%	8.0	7.7
North America	3.8	2.4	+58%	4.6	2.6
North Russia	1.7	1.6	+6.2%	1.8	1.6
Imports Mtpa	**April 2020**	**April 2019**	**% Change**	**March 2020**	**March 2019**
East Asia	15.1	14.3	+5.6%	16.5	15.7
South Asia	2.4	3.75	-36%	3.3	3.1

[3] Qamar Energy Analysis; Media Reports; S&P Global Platts; ClipperData
[4] Poten & Partners

OIL PRICE SCORING

OIL PRICE SCORING (Rated Based on Impact on Oil Price)			
OPEC agreement	Positive	↑	Saudi Arabia, Kuwait, and the UAE have pledged additional voluntary cuts of 1 Mb/d, 100 kb/d, and 80 kb/d in June 2020, over their new OPEC+ commitments of 2.5 Mb/d, 720 kb/d, and 640 kb/d respectively, which has resulted in sustained bullish sentiment. Russia has allegedly agreed to a 2-month extension of current cut levels, but this shall be confirmed only at the next OPEC+ meeting on June 06. Saudi Arabia had perfect compliance in May, producing 8.49 Mb/d, as did the UAE with 2.4 Mb/d output[5].
OPEC supply outlook	Positive	↑	OPEC revised the call on OPEC for 2020 down to 24.26 Mb/d for 2020 from April's forecast of 24.52 Mb/d, 5.6 Mb/d lower than the 2019 level, mainly due to the massive fallout from the coronavirus crisis, even as major economies are partly restarting; OPEC+ members like the GCC-3 and Russia are complying strongly with cuts, as is Iraq, even though some undercompliance may occur alongside Nigeria. Supply disruptions in Libya, Iran and Venezuela shall continue but won't have much of an impact on oil prices.
Non-OPEC supply outlook	Positive	↑	OPEC revised its non-OPEC supply outlook in the May Monthly Oil Market Report (MOMR) downwards by 2 Mb/d from April's estimated decline of 1.5 Mb/d. Non-OPEC liquids supply shall now decline by 3.5 Mb/d in 2020 for an average of 61.5 Mb/d, mainly due to shut-ins and natural decline of US producers (US production has been reviewed downwards by -1.4 Mb/d, of which 0.9 Mb/d is shut-ins for the year). Other high-cost producers (Canada, UK, Brazil, Venezuela) have also been forced to shut-in production temporarily. Norway has cut production by 13%, voluntarily, or 250 kb/d in order to shore up the market[6].
Global Demand	Positive	↓	OPEC has slashed its global demand forecast to 91.01 Mb/d for 2020, which is 2.23 Mb/d lower than the previous month's estimate. Overall demand shall now decline by 9.1 Mb/d, due to the impact of the CoVid-19 outbreak in major economies, and the further bleak indications for the transportation sector in OECD Americas and Europe. Chinese demand is expected to remain muted through H1 2020, though improving recovery may return in July/August. Expectations of a robust turn in H2 in MENA are based on the recent lifting of lockdowns in countries like the UAE and Saudi Arabia, but the fallout may be too large to surmount.
Progress of non-oil technologies	Neutral	↔	Saudi's 300 MW Sakaka solar plant is now connected to the national grid; Algeria awarded 50 MW solar project to Power Generation consortium for US¢ 6.9/kWh; Abu Dhabi received world's lowest tariff for solar power (US¢ 1.35 per kWh) from EDF and JinkoPower to build 2 GW Al Dhafra plant; Dubai's 900 MW solar tender awarded to Acwa for US¢ 1.69/kWh; Qatar's 800 MW solar tender awarded to a consortium of Total and Marubeni for US¢ 1.6/kWh. However projects are likely to be delayed/reduced in scale due to CoVid-19.

Very positive · Positive · Neutral · Negative · Very negative · Improvement in last month · No change · Deterioration in last month

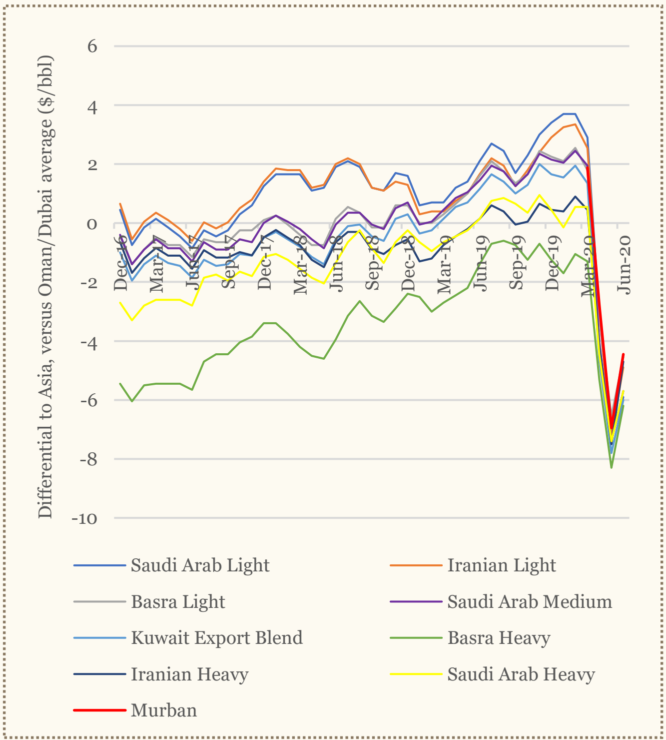
SECTION SNAPSHOT

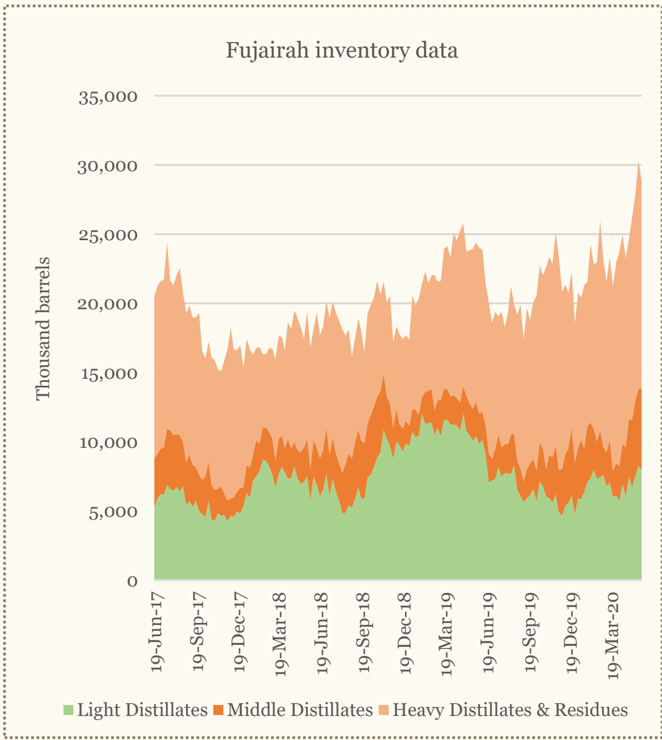
- Saudi Arabia raised its June 2020 official selling price (OSP) for all grades to all customers, but lesser so for Asian customers, whom it is targeting as a core market for demand security. Steady high-sulphur fuel oil (HSFO) margins have caused Saudi Arabia to raise the premium for its Arab Heavy grade by US$ 1.7/b compared to May's OSP of -US$ 7.4/b, a record low. Other producers have followed. ADNOC, who has moved to forward pricing rather than its traditional retroactive pricing, raised the differential for its flagship Murban crude to -US$ 4.45/b discount to Platts Dubai for June, US$ 2.25/b higher than May's OSPs.

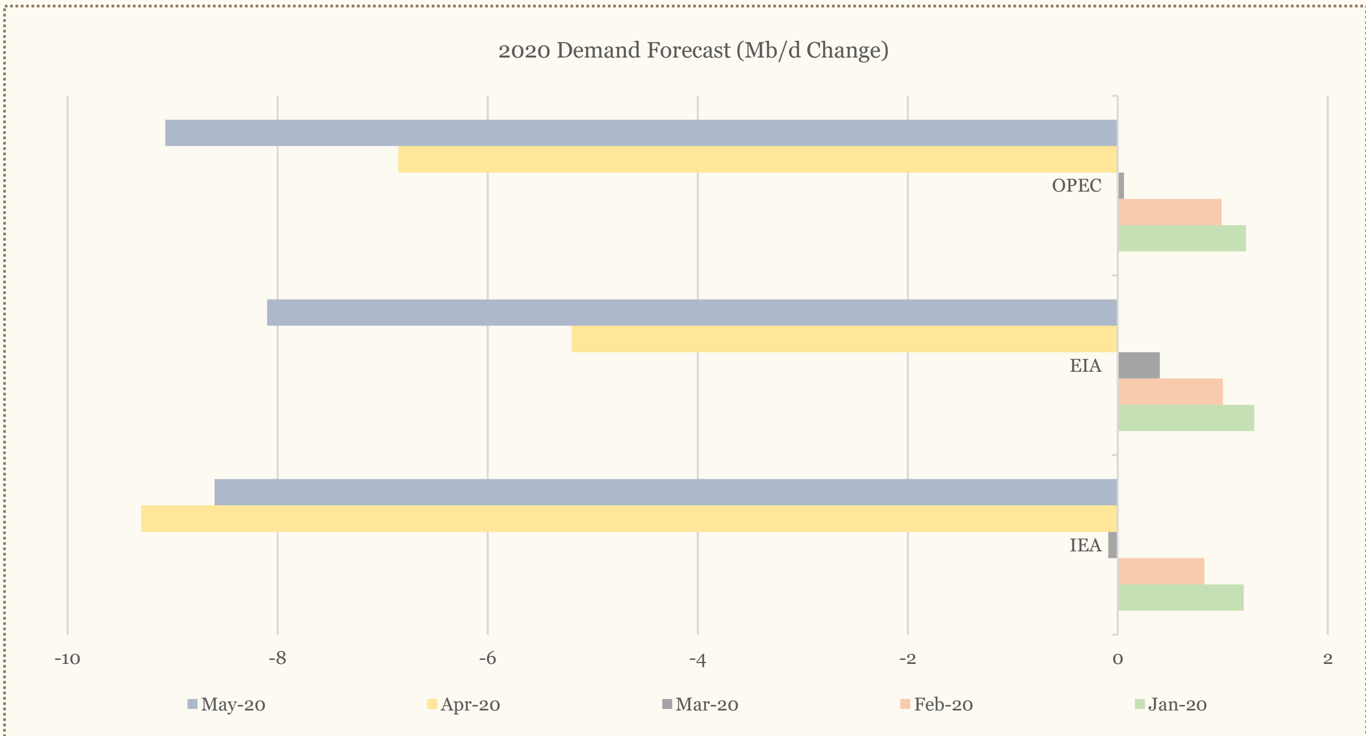
- In Fujairah, total oil stocks for May rose by 4.1 million barrels (Mb) from the previous month with light distillates rising by 0.5 Mb, and fuel oil stocks rising by 0.9 Mb. Middle distillates rose by 2.1 Mb, while light distillates increased by 1 Mb, due to depressed demand for transportation fuels.

- All 3 leading forecasting agencies – OPEC, IEA, and EIA – in May have revised their 2020 oil demand growth forecasts downwards from the previous month's (April 2020). The EIA revised its demand forecast by -2.9 Mb/d (most drastic), while the IEA and OPEC revised theirs by -0.7 Mb/d and -2.23 Mb/d respectively. The major contributor to demand decline is the coronavirus outbreak.

[5] Energy Intelligence
[6] Ministry of Petroleum & Energy, Norway (https://www.ft.com/content/363b603e-8234-4a6b-9167-90371b7c4285)







Sources:

1. Figure 1: News sources; MEES; NIOC; SOMO; Qamar Energy Research
2. Figure 2: FEDCom/S&P Global Platts Fujairah Inventory Data
3. Figure 3: IEA, OPEC and EIA monthly oil reports

HEADLINE DEVELOPMENTS

Established Producers Supply

The global collapse in demand for gasoline and jet fuel as a result of the coronavirus pandemic has caused **Saudi Aramco** to price its heavier crude grades at a premium to its traditional blue-chip Arab Light grade for June. OSPs for all grades have been increased across the board, but lesser so to Asia (see P7), where Aramco is reportedly seeking to maximise its competitive edge. Crude output from the kingdom for June is expected to be 7.5 Mb/d, 1 Mb/d lower than its OPEC+ quota of 8.5 Mb/d, in line with its plans to instate additional voluntary cuts to make up for the historic oil market collapse triggered on March 06. Export slashes target, primarily, European and other Mediterranean buyers, for whom Aramco has hiked OSPs of all grades by an average US$ 6.7/b, compared to May OSPs.

OSPs to the US have also reversed from a 2-month decline, increasing by ~US$ 1.5/b from May's OSPs, likely as a sop to President Trump and hard-pressed US shale producers. In April, US officials had said they were considering blocking Saudi crude shipments or subjecting them to tariffs, in order to support local production and protect jobs during an election year. Aramco had chartered new tankers (10 VLCCs carrying 20 Mbbl, in addition to 20 Mbbl on its own tankers) destined for the US Gulf Coast, which resulted in April deliveries spiking to 1 Mb/d, and arrivals for the week-ending May 15 at 644 kb/d, a near 12-month high. Exports have since simmered down, reaching an overall ~700 kb/d for May.

The US had initially considered filling up its Strategic Petroleum Reserve (SPR) with cheaply-priced heavy to medium Middle Eastern crude, rather than US Midland condensate-quality grades, but with WTI May futures dropping to negative US$ 36.73, and political opposition keeping the SPR from receiving funding in the US$ 2 T economic stimulus bill that passed late in March, the US suddenly had ample volumes of its own "worthless" oil to fill up storage at no additional cost to itself.

Overall exports from the kingdom are expected to average 5 Mb/d in June, an 18-year low, assuming refining runs remain at ~2 Mb/d, and crude burn volumes increase to 500 kb/d (from March's levels of 280 kb/d) to meet peak summer demand. Crude burn during the summer season has typically averaged close to 600 kb/d in Saudi Arabia, but significant new gas from the 2.5 Bcf/d Fadhili processing facility, partly offset by a reduction in associated gas of ~1.1 Bcf, could displace up to ~240 kb/d of this volume. Domestic refining capacity is currently 2.87 Mb/d, which, assuming a ~70% operating rate of recent months (due to weak domestic demand) would take in 2 Mb/d. This would result in exports declining by ~29% from 2019's export volumes of 7 Mb/d, and almost 50% from April's record export volumes of 9.7 Mb/d.

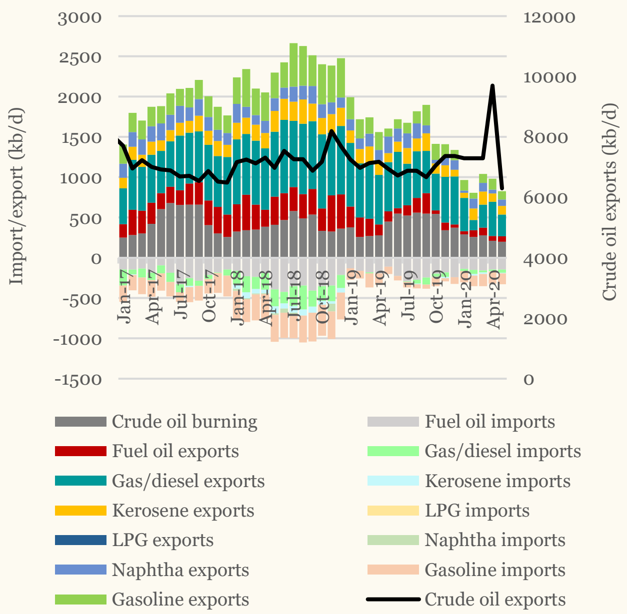


FIGURE 1 Saudi Arabia's Crude Exports & Refined Products' Exports & Imports till June 2020[7]

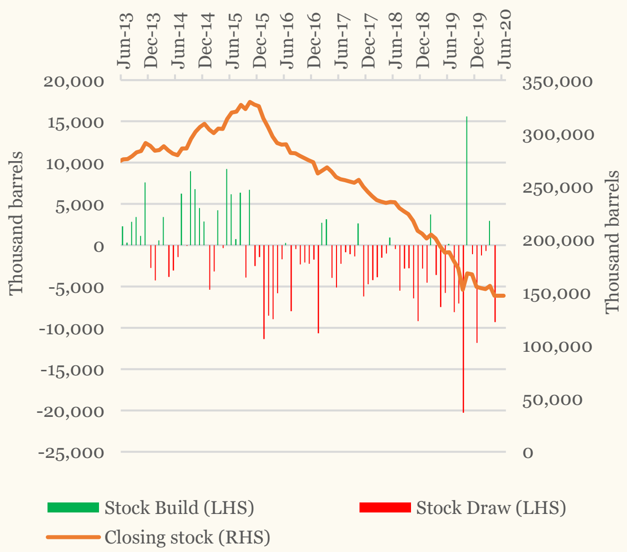


FIGURE 2 Saudi Arabia's Crude Stock Balance till June 2020[8]

[7] JODI; MEES; Qamar Energy Research

[8] JODI; MEES; Qamar Energy Research

Export volumes are unlikely to be augmented by stocks in June, even though global demand has begun showing signs of recovery in key European and Asian economies. In Asia, Aramco is expecting China and Japan to remain its largest consumers.

For instance, China has been importing close to 1.75 Mb/d of Saudi crude in May, slightly lower than April import volumes of 1.9 Mb/d. Japan has continued taking in >1.5 Mb/d, the highest since February 2017, when it took in 1.4 Mb/d. Aramco has significant stakes in local refineries in both destinations. In China, it has a 130 kb/d term deal with the Hengli Petrochemical plant, and holds a 25% stake in the 280 kb/d Fujian refinery, and a 9% stake in China's 0.8 Mb/d Zhejiang Integrated Refinery & Petrochemical Complex. In Japan, it holds a 7.65% stake in Idemitsu Kosan, ever since the latter bought Showa Shell's assets in the country, in which Aramco held a 14.96% stake till 30 June, 2019.

Similarly in the UAE, **ADNOC** will reduce production to 2.35 Mb/d in June, 100 kb/d lower than its April 12-agreed target of 2.45 Mb/d, which itself was a ~40% cut on April's record production levels of 4 Mb/d. 99% of ADNOC's exports are to Asia, and June OSPs for its four grades – Murban, Upper Zakum, Umm Lulu, and Das – have been increased only marginally as demand returns in key economies.

The heaviest amongst these is Upper Zakum (34.1° API, 1.95% sulphur), which has been priced at a premium of US$ 0.50/b for June loadings, overtaking Murban (40.3° API, 0.78% sulphur) as the country's most expensive grade. Because Murban feeds ADNOC's refining units (which have a crude distillation capacity of 642 kb/d), the grade will not face cuts as steep as the 38.8° API, 1.1% sulphur Das Blend, which is extracted from the Umm Shaif & Nasr and Lower Zakum concessions, the latter situated beneath the Upper Zakum reservoir. The reservoirs (Umm Shaif & Nasr and Lower Zakum) combined can produce up to ~800 kb/d, and with middle distillates' demand – locally and globally – currently depressed, should be the first to face output constraints (even though Das output is exported, as with all UAE offshore fields).

The UAE's crude oil refinery intake has typically averaged ~1.15 Mb/d[9], out of a total ~1.23 Mb/d[10] capacity (2018 figures), indicating a 93.2% utilisation rate. According to Eni, which owns 20% of ADNOC Refining, utilisation rates were at 60% for Q2 2020[11], which indicates throughput of ~730 kb/d. Of this, crude throughput is ~300 kb/d (the rest being condensate), which would leave ~2.1 Mb/d of UAE crude available for exports (FIGURE 3).

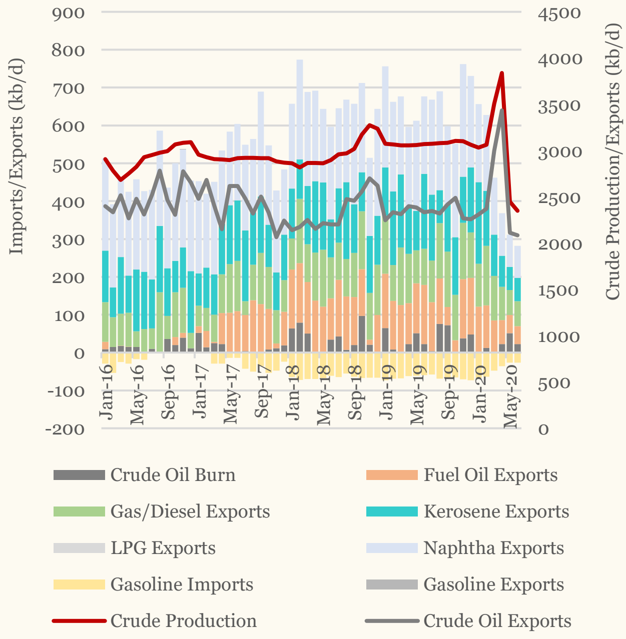


FIGURE 3 UAE's Crude Exports & Refined Products' Exports & Imports till June 2020[12]

Qatar Petroleum may be facing a delayed impact of the oil market collapse in late Q2 and early Q3 2020, as oil-linked LNG prices begin catching up with the historic drops in spot LNG prices. Oil-linkage in Asian LNG pricing often incorporates the average Japanese Customs' Cleared (also known as the Japan Crude Cocktail, JCC) price for ~3 months, prior to an LNG cargo's arrival. The JCC is a weighted-average price of a mix of crude oils imported by Japan, mostly composed of sour Dubai and Oman-linked crudes.

This causes import pricing to be delayed twice, also because crude cargoes can take up to 4 weeks to arrive, and pricing for them is determined based on the loading dates. This is reflected in the relatively modest impact on oil-linked LNG pricing following the oil market collapse of March 06 (Figure 4). Other contracts are linked to Brent crude (at a range from 11%-16% slope) or even the average price of Indonesian oil.

LNG producers such as Qatar, most of whose supply contracts are tied to oil, will face a significant squeeze in margins in the coming months. Assuming a Brent crude price of US$ 35/b, at a 16% slope, oil-linked LNG would cost US$

[9] JODI UAE Statistics for 2018
[10] BP
[11] MEES
[12] JODI; Qamar Energy Research

5.6/MMBtu, well above major global gas benchmarks that have hovered at or well below about US$ 2/MMBtu, but far less that the US$ 12/MMBtu that Brent-linked LNG was fetching at this time last year.

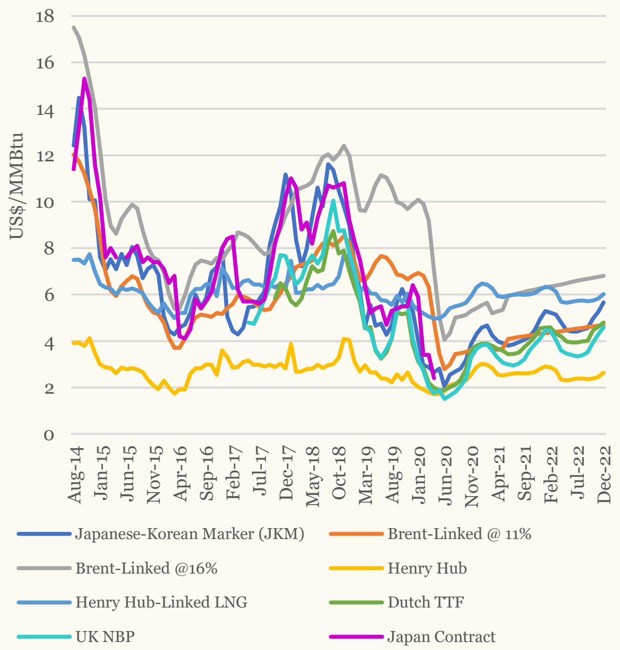


FIGURE 4 Brent-Indexed LNG versus Global Spot Prices' Futures[13]

For example, in March 2020, Brent-linked LNG was selling for US$ 9.2/MMBtu at a time when the Japanese-Korean Marker (JKM) was reeling at US$ 2.5/MMBtu. This spread will tighten in June, causing suppliers like Qatar Petroleum, who has seen its export revenue hold up better than its Gulf neighbours, to feel the pinch of depressed prices. This could result in buyers diversifying from traditional suppliers and seeking exceptionally cheap cargoes on the spot market.

However, oil-linked prices are unlikely to drop below the breakeven levels of LNG producers with more exposure to crude prices, as most oil-linked contracts are insulated by formulas that guard against high prices for consumers and low prices for suppliers. Qatar remained the leading supplier to South Korea in Q1 2020, but volumes were 22% lower year-on-year from Q1 2019, and is facing stiff competition from Australia for the top spot.

Qatar Petroleum's international ventures are continuing nonetheless. It has joined supermajor Total to acquire a 45% participating interest in exploration blocks offshore Côte d'Ivoire in Africa. Offshore Africa remains a key focus of portfolio expansion for Qatar Petroleum, who, since 2017 has signed a flurry of deals in countries like Mozambique, South Africa, Kenya, and in Guyana in South America to boost its international presence. Most of these deals have proved successful. At Guyana, it discovered >100 Mbbl of recoverable reserves at the Orinduik offshore block in August 2019, followed by a second discovery in the Upper Tertiary 6 weeks later. In South Africa, alongside partner Total, it made a significant gas condensate discovery on the Brulpadda prospects, located on Block 11B/12B in the offshore Outeniqua Basin in February last year, while at Cyprus it struck gas with ExxonMobil at the offshore Glaucus prospect. Earlier in May the firm also entered into three farm-in agreements – also with Total – for acquiring ~30% of Total's participating interest in Blocks 15, 33 and 34 located in the Campeche basin, offshore Mexico. This brings the number of blocks Qatar Petroleum holds a stake in in Mexico to 6. It also holds 100% exploration rights in 4 offshore blocks, while holding a 35:65 (Eni) interest in Block 24.

Emerging Producers Supply

UK-based **Iraqi Kurdistan**-focussed Genel Energy has announced force majeure at its Qara Dagh block in the south-east of the region due to border lockdowns and travel restrictions impacting supply chains and the movement of contractor staff, putting an indefinite question mark over the profitability of spudding the QD-2 well, which was initially planned for Q2 2020. Genel holds 40% in the block, alongside partner Chevron (40%), with whom it is also partnered on the Sarta oilfield, and the Kurdish Regional Government (20%). At Sarta, first oil is now expected in Q4 2020 (being pushed back from Q3 2020), but this could be delayed further, following the inability of the Kurdish government to pay IOCs and contractors for crude sales over the past several months.

Genel has maintained that the current environment of low oil prices should have "no impact" on its cashflow generation as it is "built" for low oil prices, and can breakeven at US$ 30/b. However, its partner in the 115 kb/d Tawke licence, Norwegian independent DNO, scaled back development drilling in early March (and reserves by 75 Mbbl), delaying plans for spudding 12 new wells, alongside 3 at Peshkabir, to seek more visibility on its "financial position" under the current crisis. Output from the field should fall accordingly to an estimated 85 kb/d by year-end, but the imminent "start-up" (planned for May) of the US$ 100 M Peshkabir-Tawke gas reinjection programme could offset some 20% of expected declines.

[13] CME; ICE; Platts; Qamar Energy research

HKN, operator of the Sarsang licence, has delayed the Swara Tika expansion (previously planned growth from 24 kb/d to 50 kb/d by end-2020) and halted production from east Swara Tika. Completion of a planned 25 kb/d oil processing facility has also been delayed beyond Q1 2021, but HKN has said that it shall resume its drilling operations at the block in time to commission the facility. The partners in Atrush (Taqa and Shamaran) are looking to cut capital spending, and Gulf Keystone has suspended drilling at the 55 kb/d Shaikan Phase-2 field, without providing any indication of when the project shall resume.

Elsewhere, Canada's Oryx Petroleum has announced a complete shut-in of its 10 kb/d Banan oilfield in the 14 kb/d Hawler licence, dropping April output to a mere 4.3 kb/d. The field produces heavy crude, priced at a massive US$ 16.5/b discount to the Brent crude benchmark, which likely informed the decision. Similarly, Gulf Keystone confirmed on May 28 that it submitted an invoice for US$ 0 for April crude sales of 35 kb/d from its Shaikan heavy oilfield "as the monthly average Dated Brent price in April was below the Shaikan crude discount". Oryx Petroleum has relatively high production costs of US$ 8/b, which, combined with cash reserves of US$ 9 M and a US$ 81 M debt, has caused it to also delay its 2020 drilling programme indefinitely.

Some hopeful developments, however, were announced by DNO recently, who, on May 07, discovered three Triassic reservoirs from its Baeshiqa-2 exploration well at the Baeshiqa licence. The Baeshiqa block lies in an area disputed between the Kurdistan region and the federal government in Baghdad, and is operated by DNO (32%) with ExxonMobil (32%) and state-owned Turkish Energy Company (16%). Reserves were previously estimated at 580 Mbbl. The well which was originally spudded in February last year, was drilled to a depth of 3,204 metres encountering almost a kilometre of fractured carbonates with poor to good oil shows. In November 2019, as part of its Phase-1 testing, DNO stated that hydrocarbons flowed to surface from the upper part of the Triassic Kurra Chine B, with the reservoir producing 40-52° API 900-3,500 b/d crude oil and sour gas of 8.5-15 MMscf/d.

Phase-2 of testing commenced in March, following workover and acid stimulation. During the tests, the lower Triassic Kurra Chine B produced 600-3,500 b/d of 47-55° API crude and sour gas of 4-18 MMscf/d. This indicates that the upper and lower Kurra Chine B have a hydrocarbon-bearing reservoir interval of about 150 metres. The Triassic Kurra Chine A meanwhile tested 950-3,100 b/d of 30-34° API and sour gas of 1.8-3.6 MMscf/d from a 70 metre interval; Triassic Kurra Chine C, a 200 metre thick reservoir, produced 200-1,200 b/d of 52° API gravity and sour gas of 3.8-6 MMscf/d. Light oil and sour gas in the Triassic is a typical feature over the Mosul High in this area of Kurdistan, as in Genel's Bina Bawi field, MOL's Bakrman (Akri-Bijeel block) and HKN's Swara Tika in the Sarsang block. The Baeshiqa results should inform next steps towards further appraisal and commercial assessment. Spud of Zartik-1, an exploration well in a separate prospect 15 kilometres southeast on the Baeshiqa license, was expected on May 15, but there have been no updates from DNO as of May 28.

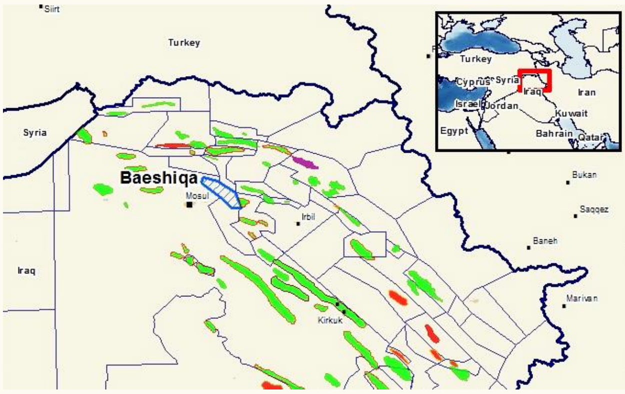


FIGURE 5 DNO'S Baeshiqa Licence[14]

Sharjah's recently-discovered Mahani gas and condensate field has received its first engineering, procurement, installation and commissioning contract (EPIC), awarded to Dubai-based Lamprell Energy by the Sharjah National Oil Company (SNOC) on May 20. Scheduled for completion in early 2021, Lamprell's scope of work (also known as the Mahani Extended Well Test project) includes hook-up and installation at the Mahani-1 well, existing system upgrade, associated tie-ins, and a new 25 kilometre long pipeline. Mahani was discovered in January 2020, becoming the first hydrocarbon discovery for the emirate of Sharjah in 37 years. The well, which was initially drilled to a total measured depth of 4,449 metres, tested flow rates of up to 50 MMscf/d. Eni and SNOC hold a 50% stake in the discovery, located in the Area B concession of Sharjah. Reserves are yet to be established, but according to SNOC CEO Hatem El Mosa, initial production, expected in H2 2021 at a rate of 125 MMscf/d (according to Eni), should be able to give an accurate indication of the reserves.

Sharjah currently produces only 51 MMscf/d of gas (Figure 6), including the offshore Zora gas field (9.7 MMscf/d of output, now decommissioned). Shortages of gas are a routine occurrence in Sharjah (and most of the UAE's northern emirates), resulting in diesel burn to meet demand, which is expensive and polluting. While Mahani could become a reliable source of supply in the near-term, it is likely to enter

[14] Wood Mackenzie

natural decline within 6 years of plateauing, due to a complex geology that made drilling "unprecedently difficult". At 125 MMscf/d of output, Mahani could result in a significant boost to current production, but will be nowhere close to meeting the emirate's demand, which averaged between 400-510 MMscf/d in 2019. Sharjah is likely to continue depending on a basket of readily-available options for gas, such as imports from the Qatari Dolphin (DEL) pipeline, imports of ADNOC gas, and/or intermittent supplies of LNG via Dubai, or its own planned 484 MMscf/d LNG import terminal at Hamriyah.

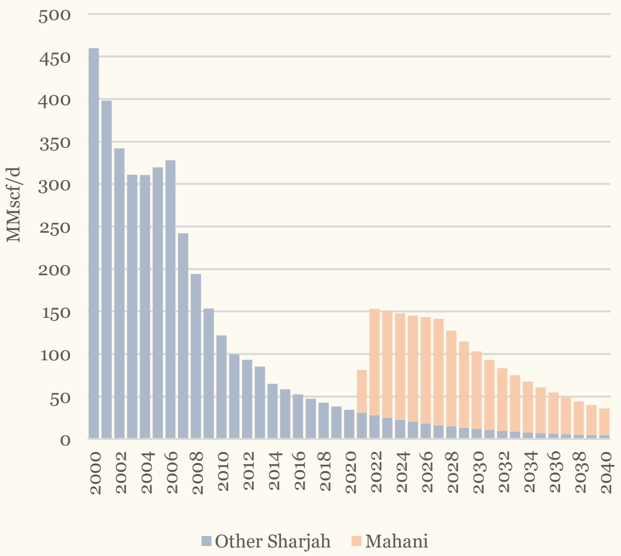


FIGURE 6 Sharjah Natural Gas Production till 2040[15]

Iran has reportedly started operations to install the jacket of the offshore South Pars Phase-11 natural gas field, under development with local company Petropars, after a consortium comprising of Total and CNPC exited the project following the imposition of US sanctions in 2018. Targeted production is 500 MMscf/d under the initial phase of the project, increasing to 1 Bcf/d, and envisages a total capacity of 2 Bcf/d by 2025. The jacket is being installed at the Block-B reservoir, and is the first of 2 jackets which will allow for 12 wells to be drilled at the field. Iran has been targeting significant gas production expansion plans (35 Bcf/d total capacity, about 57% higher than current capacity, but has provided no timeframe for this), and the South Pars phases are key contributors to these plans, even though the current economic climate and the severe outbreak of the coronavirus pandemic has affected contractor staff movement and availability of key personnel.

Petropars and other Iranian firms have developed considerable capability in building South Pars phases, so sanctions are unlikely to be a total obstacle once post-virus recovery kicks in. To ease development constraints, NIOC has split off Phase-25 from Phase-11, as well as Phases-26 and 27 from Phases-15 and 21 respectively. Phases 20 and 21 are slated to produce 1.8 Bcf/d by end-Q1 2020, but only Phase-20 is currently operational, producing 1.05 Bcf/d, of which 33% is processed at the Phases 20 and 21 refining facilities, and the rest is sweetened at the Phases 15 and 16 facilities. It is unclear whether the treated gas is then sent for power generation or for industry consumption, but regardless, Iran's currently operating phases at South Pars will continue to be the primary supplier for (waning) industrial and power demand in the country.

Other contributors to planned rise in supply are Phases-13, and 22-24, which became half-operational in March 2019, adding ~2 Bcf/d to production capacity. However, Phases 22 and 24, which were expected to produce 1.8 Bcf/d alone by March 2020 have had to adjust production targets due to the lack of hard foreign currency reserves in Iran currently. The further constraint is Iran's inability to export, store or refine all the associated condensate, which has forced it to cut back gas output. We are told that both phases are operating at 50-55% of their production capacity, meaning output is in the range of 850-950 MMscf/d currently, with the rest being supplied by Phase-13. Phase-13 is to produce 1.93 Bcf/d at full capacity, for which it has launched platforms P13-B and P13-D, which are outputting 990 MMscf/d currently, alongside 75 kbpd of condensate.

TABLE 1 South Pars' Sales Gas Output Targets, 2025, Bcf/d[16]

Gas Project	2019 Output	2025 Output	Production Start
South Pars Phase-1	0.65	1.08	2002
South Pars Phase-2 and 3	1.22	1.48	2003
South Pars Phase-4 and 5	1.81	1.54	2004
South Pars Phase-6, 7, and 8	0.01[17]	0.01	2008
South Pars Phase-9 and 10	1.78	1.98	2009
South Pars Phase-11	0.0	2.00	2021
South Pars Phase-12	2.86	2.00	2015
South Pars Phase-13	0.99	1.02	2019

[15] Qamar Energy Research
[16] NIOC; Media Reports; Qamar Energy Database on Iran Gas Sector
[17] From 2017, we assume all production from South Pars phases 6-7-8 to be used for re-injection at Agha Jari field

South Pars Phase-14	0.0	0.99	2020
South Pars Phase-15 and 16	1.77	2.00	2016
South Pars Phase-17 and 18	1.85	1.40	2017
South Pars Phase-19	1.00	1.00	2017
South Pars Phase-20 and 21	1.05	3.00	2017
South Pars Phase-22, 23 and 24	0.13	3.00	2019
South Pars Phase-25[18] and 26	0.0	N/A	N/A
South Pars Phase-27 and 28	0.0	N/A	N/A
Total	**15.11**	**22.5**	

Ongoing financial constraints are likely to slow down progress, even if Iran manages to effectively contain the pandemic and reopen its economy. Iran needs an additional US$ 90 B to complete the remaining phases of the field as well as expand capacities at existing phases, which it shall struggle to secure.

Exports

Federal Iraq's Ministry of Oil had planned to receive "technical offers" from qualified companies for the long-challenged multibillion dollar Basrah-Aqaba (Iraq-Jordan) crude pipeline project in May 2020, after concluding the pre-qualification process in December last year. However, the current economic climate and the unprecedented impact of the coronavirus pandemic has caused momentum on the project to wane, postponing the bid submission deadline indefinitely, and once again putting a question mark over the future of the project.

The pipeline was first agreed to in April 2013, and was to comprise of two phases; under Phase-1, a 2.25 Mb/d pipeline, based on an EPCF model, would run from Rumaila in southern Iraq to Haditha in the western province of Anbar, while a 1 Mb/d pipeline, based on the BOOT contract model, would run from Haditha to the southern port city of Aqaba in Jordan under Phase-2. Not only was the pipeline intended to improve trade between both countries, but it was to serve as a ready outlet for surging Iraqi production, 90% of which is exported from the country's capacity-constrained southern terminals. These terminals are vulnerable to bad weather, which often interrupts loading, and to any insecurity to shipping through the Gulf.

By late-2018, talks were approaching an "advanced" stage regarding the project, and Iraq at the time was targeting a 5.13 Mb/d production capacity target, a ~450 kb/d increase from current capacity (4.68 Mb/d). ~57% of this expansion was to come from Basrah oilfields, including Majnoon, which was to reach 350 kb/d of capacity (from 240 kb/d), and West Qurna-2, which was planning to reach an overall capacity of 480 kb/d. Combined with the Dhi Qar and Missan Oil Companies, overall production capacity in the south of the country was close to 3.9 Mb/d, and would have crossed 4 Mb/d, urging the finalisation of the pipeline project (also given continuous export constraints at the Basrah and Khor al-Amaya terminals).

However, an agreement by OPEC+ then to cut production by 1.2 Mb/d (0.8 Mb/d from OPEC members and 0.4 Mb/d from non-OPEC), meant that Iraq had to begin curtailing production from its state-run fields in order to maintain compliance. This saw production from Majnoon, Luhais, Tuba, Ratawi, and Nahr bin Omar, combined, fall by >300 kb/d, impacting planned drilling programmes and postponing capacity expansion targets into 2020. Now under the new OPEC+ agreement, Iraq has to cut ~1 Mb/d of output (based on October 2018 production levels). Combined with the current crisis and weak market outlook, drilling programmes have been slashed by half for the remainder of the year. For instance, the Basrah Oil Company (BOC) was targeting a 225-well drilling campaign for 2020, including production wells, but will now drill ~120 or fewer to cut costs.

As such, the Basrah-Aqaba crude pipeline appears an unnecessary luxury, and even if the project was carried forward in earnest (it has been reported that Baghdad has decided to tender the project again this year[19]), investor hesitation would make it unfeasible. The country's production is set to be reduced to ~3.6 Mb/d, with the bulk of cuts coming from southern oilfields. However, May compliance has been shaky, at 49%, though likely to improve in June. State-run fields have already implemented 350 kb/d of cuts, and are unlikely to cut further, due to crucial associated gas required for power generation, especially in the case of fields like Nahr Bin Omar. Under the OPEC+ quota, IOC-operated fields have agreed to a Ministry-led directive to cut their output, apparently on a percentage basis[20], with Lukoil-operated West Qurna-2 cutting 70 kb/d, ExxonMobil-operated West Qurna-1 cutting 50 kb/d, BP-operated Rumaila 90 kb/d, Eni-operated Zubair 40 kb/d, and United Energy

[18] Might be developed as the LNG phase which was originally planned for Phase-11

[19] https://www.forbes.com/sites/noamraydan/2020/05/21/long-sought-iraq-jordan-pipeline-hits-new-roadblock-amid-pandemic/amp/

[20] Qamar Energy Research

Group-operated Faihaa by 20 kb/d. This brings total expected reductions from BOC fields to 650 kb/d, with the rest coming from fields belonging to other operators and the KRG.

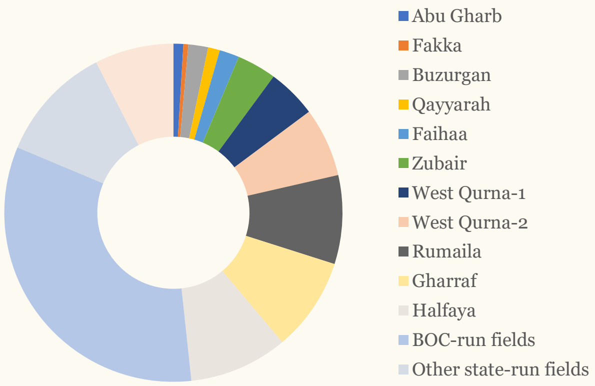


FIGURE 7 OPEC+ Production Cuts from Iraqi Fields[21]

TABLE 2 Table Of OPEC+ Production Cuts from Iraqi Fields

Field	Cuts (b/d)
Abu Gharb	10,000
Fakka	5,000
Buzurgan	2,0000
Qayyarah	12,000
Faihaa	20,000
Zubair	40,000
West Qurna-1	50,000
West Qurna-2	70,000
Rumaila	90,000
Gharraf	95,000
Halfaya	100,000
BOC-run fields	350,000
Other state-run fields	118,000
KRG	80,000

Iraq would benefit from an export terminal away from the tension-prone Strait of Hormuz, and minus 150 kb/d marked for Jordanian consumption, would have ~850 kb/d available to export to Turkey and Europe. According to our analysis, exports to Turkey (236 kb/d from Southern Iraq in April) would arrive two weeks faster than the time it takes currently. However, progress towards an investment decision on the project within the year appears unlikely, if not impossible. Iraq exported a sizeable 3.85 Mb/d, the highest so far this year, but plummeting demand and oil prices – Federal Iraq sold its oil at US$ 13.8/b, half the price of March, and 77% lower than January's selling prices – resulted in earnings of US$ 1.4 B, the lowest since January 2015.

This raises concerns over the 2020 spending budget, which is yet to be decided, but immediately puts significant pressure on just-appointed Prime Minister Mustafa al-Kadhimi. For instance, April's earnings, along with US$ 500 M from non-oil earnings, are US$ 2 B lower than the amount the federal government requires to pay the salaries, pensions, and other benefits of public sector workers. Iraq could somewhat make up for the shortfall by indirectly spending from its own foreign currency reserves as it did in 2014 after Haider al-Abadi was elected Prime Minister, but would prefer to spend as little of its (limited) hard currency reserves as possible. Excluding US$ 1.3 B of additional current spending, and US$ 1 B of oil and non-oil investments, Iraq would still be left with >US$ 4 B of monthly spend for its civil servants.

TABLE 3 Iraqi government monthly spending[22]

Government Finances	US$ Billion
Salaries, pensions, welfare, and benefits for public sector	4.2
Other current spending	1.3
Oil investment	0.7
Non-oil investment	0.3

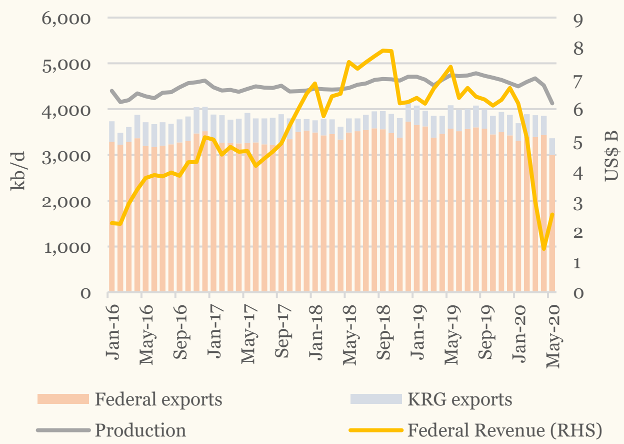


FIGURE 8 Iraq's Production & Exports Forecast to May 2020[23]

[21] Iraq Oil Report; Media Reports; Qamar Energy Research
[22] 2019 figures; Iraq Oil Report; Qamar Energy Research

[23] Ministry of Oil; Iraq Oil Report; OPEC

The slight recovery in oil prices in May 2020 might result in a marginal improvement in oil revenues. For example, crude in May is trading at August DME prices of US$ 38.63/b, meaning if prices average US$ 31, at a US$ 6.55/b discount to DME, Iraq would earn ~ US$ 2.6 B from the 3.3 Mb/d[24] it exported (4.13 Mb/d[25] production minus 760 kb/d refinery runs, assuming maximum utilisation), providing little financial relief, and indefinitely stalling the Basrah-Aqaba, and other strategic national development projects.

Demand

Waning global demand and the OPEC+ agreement of April 12 have caused **Kuwait** and **Saudi Arabia** to shut down the Neutral Zone's recently re-opened Khafji oilfield that had remained offline due to political disagreements since 2014. The field was to contribute to both countries' combined output target of 500 kb/d from the PNZ, alongside the onshore Wafra field. However, local media has reported that the field has been shuttered-in as both countries implement cuts of 2.5 Mb/d (Saudi Arabia) and 640 kb/d (Kuwait) in May, and an additional 1.8 Mb/d in June. Development plans of the 500 MMscf/d Dorra gas field, an integral part of Kuwait's long-term gas ambitions, also face further delay.

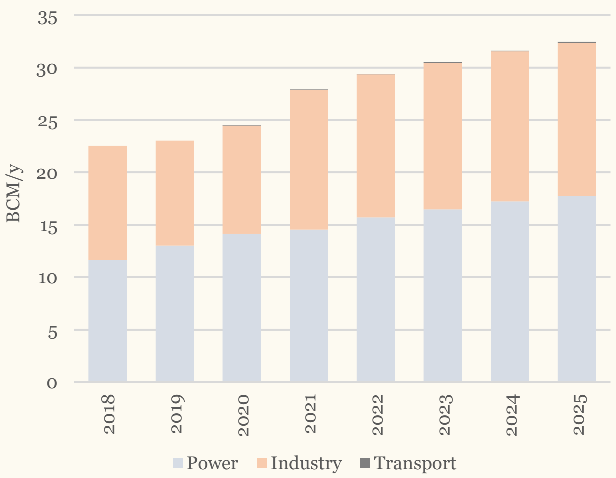


FIGURE 9 Kuwait's Gas Demand Forecast[26]

Kuwait's gas demand has soared in recent years, and is projected to cross 32 BCM by 2025, a 40% increase from 2019's levels of 23 BCM, for which it is targeting increased imports of LNG from the Al Zour Terminal, slated for commissioning in 2022. To this end, it inked a 15-year deal with QatarGas to receive 3 Mtpa of LNG starting in 2022 for the terminal. Separately, it also signed a 1 Mtpa supply deal from QatarGas 4, which shall commence this year, and will supplement the ongoing 5.4 Mtpa imports from the Golar Igloo FSRU.

New Supplies/Discoveries

Oman has exported its first cargo of crude oil from its offshore Yumna oilfield (located offshore to the north of Eni's Block 52, in Block 50), after minnow Masirah Oil began production on February 17[27]. According to tanker tracking services, Oman loaded 325 kb of Yumna crude on the SCF Pechora in late-April, discharging it at storage facilities in Fujairah. Output from the field has an API of 42°, and volumes are stored on a 750 kb/d tanker, the Bull Papua Aframax, from which the SCF Pechora loaded. The Yumna field is currently undergoing appraisal, and the initial export volumes are part of its early production test.

In November 2019, Masirah had awarded a contract to Wings Offshore for a floating storage and offloading (FSO) vessel, to store the field's production during the ongoing appraisal phase on the Bull Papua, which is still moored to the drillship (*see also the Arabia Monitor Energy: February 2020 issue*). Yumna's lighter crude yield should feed into demand for LSFO if the IMO 2020 regulations persist, but under the current environment, global demand for light distillates is unlikely to recover to pre-pandemic levels. Oman's crude blends typically have an API of 33-34, which places them on the heavier end of lighter crude grades, and are sour. This makes them more expensive for refiners to process.

Oman's offshore production is modest, with the only other offshore production coming from Block 8 on the western side of the Musandam peninsula, in the Gulf, which is operated by the Musandam Oil & Gas Company. MOGC took over the block in 2019, after DNO and South Korea's LG exited following the expiry of their 30-year EPSA. Block 8 also holds the Bukha and West Bukha gas fields, production from which is imported into the northern UAE emirate of Ras Al Khaimah. However, the Yumna field could open up a new offshore play on the south-eastern coast off Oman.

In **Egypt**, UK-based SDX Energy is expecting a commercial gas and condensate discovery at its SD-12X (Sobhi) well at South Disouq, after drilling to a measured depth of 2,209

[24] Refinitiv
[25] Energy Intelligence
[26] Qamar Energy Research

[27] The field, formerly known as GA South, was initially discovered in February 2014, the first offshore discovery east of Oman, after 30 years of exploration activity in the area

metres (7,245 feet) and encountering the top of the Kafr El-Sheikh sands at 1,983 metres. According to SDX, 33 metres of high-quality, gas-bearing sands were discovered at the base of the Kafr formation, with an average porosity of 20%, indicating about 24 Bcf of gross recoverable gas and condensate, 3 times in excess of the minimum commercial volumes expected by SDX's management. A 5.8 kilometre-long tie-in to the Ibn Yunus-1X shall move Sobhi's production through an existing flow line connected to the South Disouq central processing facility.

FIGURE 10 SDX Energy's Concessions in Egypt[28]

SDX currently produces 50 MMscf/d of natural gas at South Disouq, and maintains that its operations have so far remained unimpacted due to the coronavirus, including in other parts of Egypt, such as at Meseda, where two wells were drilled in 2019, and North West Gemsa, where production has surged to 500 kb/d, over initial estimates. While SD-12X may not be the largest find amongst other world-class discoveries in Egypt, it should expand current South Disouq plateau production through to 2023-24 quite easily, once the tie-in with the South Disouq facility is established. SDX had last year in June discovered oil at its Rabul-7 development well in the West Gharib concession (which includes the Meseda oil field), encountering two formations of Yusr and Bakr with 41 metres of heavy oil play, at an average porosity of 18%, after being drilled to 1,622 metres.

Kuwait Energy (now owned by Chinese group UEG) meanwhile has started transportation of natural gas from the Al Jahraa field in Egypt's Western Desert through a new 10 kilometre-long pipeline connected to the neighbouring Kuwait Petroleum Corporation (KPC) gas processing facility. The pipeline was brought online on March 22, and has increased production from the Abu Sennan concession to 8.4 kboe/d, double of what it was producing the same time last year. This is partly due to the ASH-2 well, which alone produces over 3 kb/d. Kuwait Energy, operator of Abu Sennan, has deferred two of the four planned 2020 infill wells at the concession, but will continue drilling operations at El Salmiyah 5, targeting multiple undrained reservoirs at the El Salmiyah field.

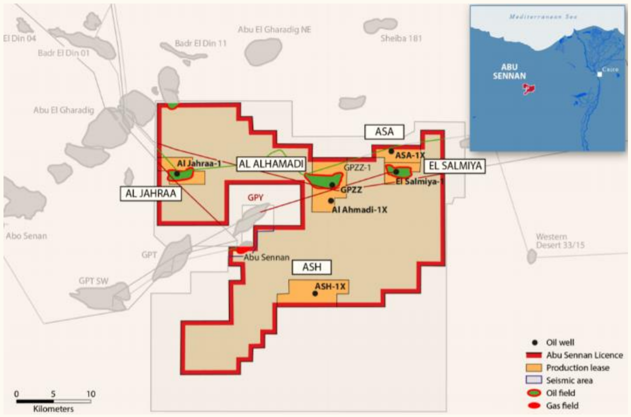


FIGURE 11 Egypt's Abu Sennan Concession[29]

OPEC & World Oil Demand

As the world oil market faces an extreme shock due to CoVid-19's demand destruction and the OPEC+ fallout in March, leading prices to fall to record lows, OPEC producers and allies agreed to make a historic 9.7 Mb/d cut starting May 1 until end-June. This adjustment will be reduced to 7.7 Mb/d from July until end-2020 and to 5.8 Mb/d from January 2021 to April 2022. These new OPEC+ cuts, encouraged by the Trump administration, put an end to the Saudi-Russian oil price war, and are supported by Texas and Alberta as well as the G20 countries. The largest cuts (although from an elevated baseline) are to be made by Saudi Arabia and Russia, with a target output of 8.49 Mb/d each. Production is projected to fall even further as Saudi Arabia, the UAE and Kuwait announced additional voluntary cuts of 1 Mb/d, 100 kb/d and 80 kb/d respectively in June, and non-OPEC Oman said it would cut an extra 10 kb/d.

Whether or not these countries' initiatives will encourage better compliance from other OPEC+ members, remains uncertain. To continue to lift prices, Saudi Arabia has proposed to extend the 9.7 Mb/d cuts until end-2020, which is

[28] Upstream Online

[29] United Oil & Gas; UOG owns 22% of Abu Sennan with Kuwait Energy Egypt 25% (operator), Global Connect Ltd. 25%, and Dover Investments 28%

to be discussed in the 179th Meeting of the OPEC conference on June 4. In the meantime, Russia shows no objection to the meeting, even as it was brought forward from June 9, signifying that the two countries are likely to reach an agreement. A plausible agreement could be to extend the 9.7 Mb/d cuts to September and review at that point. This is especially apparent in the recent talks between President Vladimir Putin and Saudi Crown Prince Mohammed bin Salman, where they pledged close coordination between their countries' energy ministers.

TABLE 4 New OPEC+ Cuts, Mb/d[30]

Country	Phase-1 (May-June 20)	Versus Q1 Allocation	%	Q1 Allocation
Saudi Arabia	8.49	-1.65	-16.3	10.14
Iraq	3.59	-0.87	-19.5	4.46
UAE	2.54	-0.57	-18.8	3.01
Kuwait	2.17	-0.50	-18.8	2.67
Nigeria	1.41	-0.34	-19.5	1.75
Bahrain	0.15	-0.04	-21.05	0.19
Angola	1.18	-0.30	-20.3	1.48
Algeria	0.82	-0.20	-19.4	1.01
Congo	0.25	-0.06	-20.3	0.32
Gabon	0.14	-0.04	-19.6	0.18
Eq Guinea	0.10	-0.02	-19.7	0.12
Brunei	0.07	-0.02	-22.22	0.09
Azerbaijan	0.55	-0.14	-20.28	0.69
Kazakhstan	1.31	-0.32	-19.63	1.63
Malaysia	0.45	-0.091	-16.54	0.55
Oman	0.68	-0.16	-19.04	0.84
Russia	8.94	-1.38	-13.37	10.32
Sudan	0.05	-0.02	-17.14	0.07
South Sudan	0.10	-0.02	-16.66	0.12
Total	**32.99**	**-6.65**	**-14.76**	**39.64**

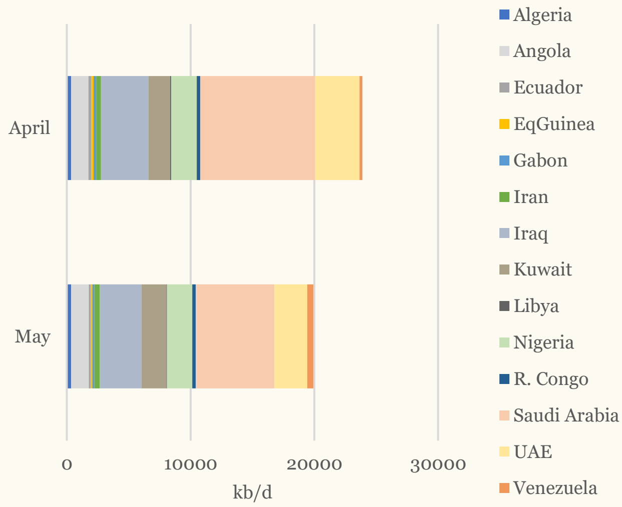


FIGURE 12 OPEC members crude exports (April-May)[31]

Exports of other OPEC members were cut by 16.6% in May from April's levels. (FIGURE 12).

Due to ongoing production shut-ins and curtailments, OPEC further revised world oil supply down by 2.23 Mb/d in 2020. This is still optimistic given the rising storage and low demand expected to drop by 9.07 Mb/d in 2020. Currently, there is more than 200 Mb on floating storage, accounting for 5% of global carrying capacity[32]. Inventory build-up is expected to reduce as lockdowns are being increasingly lifted in a number of countries, with US inventory dropping by 700 kb/d in the first week of May according to the EIA. A 24.8 Mb has also been discharged from floating storage into Asian markets, namely China (13.19 Mb) and India (6.17 Mb). According to Kpler, floating storage volumes came off a peak of 35.4 Mb in Chinese waters on May 23 to 29.4 Mb on May 26. Meanwhile, Middle Eastern and West African oil has been offered at sea with spot prices gaining traction in Asia. Despite weak refining margins, refiners are buying on hopes that demand rebounds as more countries ease the restrictions. Although these numbers indicate a level of demand recovery, it is still in its early days. If the extension of the 9.7 Mb/d till end-2020 is agreed upon and implemented, the 16 Mb/d of supply glut in April could be reversed by end-Q3, supported by a gradual demand take-off as major countries ease their lockdown measures.

Production outages in exempt OPEC countries are likely to continue for the remainder of the year. As storage capacity reaches 97% in Venezuela, PdVSA started slashing production, which totalled 637 kb/d in April. Due to refinery damages and the Amuay explosion, Venezuela imported two

[30] Qamar Energy Research; MEES; Bloomberg
[31] OPEC Secondary Sources; Refinitiv

[32] S&P Platts

Iranian fuel shipments in April to alleviate its fuel shortages. In Libya, the LNA's oil blockade left oil production at a minimal 95 kb/d in April.

Meanwhile, Iran's exports are expected to average just 500 kb/d in 2020, estimated by the IMF, which is still an optimistic figure given the current oil market surplus and price crash. This is set to continue in the long run as Iran plans to halt condensates exports by March 2021 and, instead, refine the previously exported volumes to produce gasoline and naphtha. With a total of 1 Mb/d of gas condensates from South Pars and other fields, Iran will be able to produce 339 kb/d of gasoline, ~126 kb/d of gas oil and 22-25 kb/d of naphtha. This is now enabled as the Persian Gulf Star refinery's capacity is expanded to 480 kb/d. Other petrochemical plants will be able to absorb 130 kb/d of condensates, while 80 kb/d goes to other domestic refineries, leaving 370 kb/d for exports. However, Iran cannot find markets for this surplus, forcing it to reduce gas output.

TABLE 5 World Oil Demand Forecasts (Mb/d), 2020

Agency	Demand Q2 2020[33]	Demand 2020	Supply 2020
OPEC	-11.86	-9.07	-8.56
IEA	-19.9	-8.6	-12[34]
EIA	-18.7	-8.1	-5.62
Vitol	-18	-5	
Trafigura	-30[35]	-10	
Goldman Sachs	-18		
Qamar Energy	-18.7	-9.4	-6

OPEC's Monthly Oil Market Report further revised global oil demand down by 2.23 Mbpd, reaching 90.59 Mbpd in 2020, with April to experience the biggest hit, down 20 Mb/d. Other sources suggest a larger demand contraction to 88.1 Mb/d, down by 11.5% in 2020, with May's demand expected to fall by 20.5% to 78.5 Mbpd. IEA's estimates have been revised upward by 3.2 Mb/d for Q2 2020, with lockdown measures in OECD countries being gradually eased. As for economic growth, OPEC forecasts have been revised to -3.4% from April's -1.5%, while other sources suggest an economic contraction of 3% amounting to -6.5% in 2020, with oil-producing countries taking the biggest hit.

The EIA remains the most optimistic, with demand expected to average 92.6 Mb/d in 2020. In June, demand recovery is likely to gain traction as lockdown measures are gradually lifted in many countries, though still expected at 15 Mb/d lower than 2019's levels.

This will be led mainly by China, where demand is expected to reach 13 Mb/d by Q2 2020, a 16.3% increase from Q1, though still 2.5% lower than 2019's levels. However, we expect the rebound to take place at a slower pace due to the hesitance of travellers to resume long-haul flights and industries to restart operations especially as they fear a potential resurgence of the pandemic. It should be noted that among the fuel sectors, jet fuel is expected to take the hardest hit, declining 31% y-o-y (-2.2 Mb/d). Jet fuel demand dropped from 2019's 7.2 Mb/d to 2.4 Mb/d in May. The rebound is also likely to be impaired by lower economic growth in the MENA region and especially in oil exporting countries.

Our assessment, however, is less optimistic. Due to weakened fiscal reserves in MENA, the US, and other OECD Europe and Asia Pacific, and the huge uncertainty over a CoVid-19 resurgence, it will take longer for the fallout to be fully overcome by Q3. We assess overall demand to drop -18.7 Mb/d in May, and by 9.4 Mb/d for the year from 2019's demand levels of 99.67 Mb/d, depending on the intensity of shutdown measures, the length of the outbreak in different countries before it is properly contained or eliminated, and follow-on effects from job losses, corporate bankruptcies and other economic damage. It is important to mention that the new OPEC+ agreement will not be able to rebalance the market immediately, but as it diminishes the supply overhang and reduces the build-up in stocks, it can help the market absorb one of its worst crises. Still, there is no possible agreement that can offset the near-term losses.

Meanwhile, we expect road transportation, industrial fuels and marine shipping to be the most affected after aviation. Global demand for road fuel is set to fall by 10.5% in 2020 to 42.4 Mb/d, a 5 Mb/d y-o-y drop. In May, road fuel demand has fallen by 20% to 38 Mb/d. In the US, road fuel demand in 2020 is likely to fall by 1.1 Mb/d, down by 9.8% to reach 10.1 Mb/d from last year's levels. The US's May road fuel demand in May is expected at 8.9 Mb/d, 21.9% y-o-y decline. Violent protests in many US cities further clouds the demand outlook, which is also threatened by the possibility of a second wave of CoVid-19 infections and deaths. In Europe, road traffic demand is projected to fall by 0.7 Mb/d in 2020 to 6.3 Mb/d, a decline of 10% from 2019's levels. May's forecasts are expected at 5.4 Mb/d,

[33] Compared to Q2 2019 figures
[34] In May 2020
[35] For April 2020

down by 21.7%. In China, last year's 5.3 Mb/d of road fuel demand is likely to fall by 0.3 Mb/d in 2020 to stand at 5 Mb/d (-5.7% y-o-y). Demand is expected to rebound in China faster than other regions.

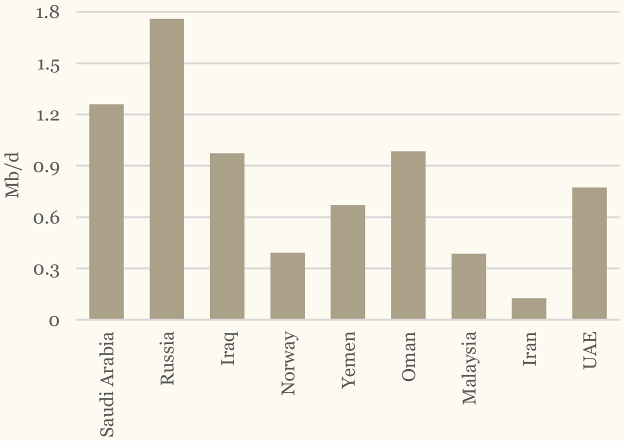


FIGURE 13 China's April crude imports by supplier[36]

We see the effect of the CoVid-19 outbreak to last throughout H2 2020, with post-nCoV recovery picking some pace only towards the end of Q3 2020, as Asian PMIs witness a boost and downstream sectors return to business replenished with feedstock held in storage and ample volumes at exceedingly cheap prices. Meanwhile, Brent crude futures for August rose by a sharp 35% from April's $26 per barrel, while WTI futures for June hit $32 per barrel, in a wave of bullish trading.

The enthusiasm behind this WTI rebound after falling below zero is not to be celebrated, however, as it remains far from profitable for the US oil industry. Even when prices were twice this figure, US oil drillers spent a total of US$1.18 T over the past decade, and only generated US$819 B in revenues. At a US$30 per barrel price, roughly 73 American Exploration and Production companies are likely to go bankrupt in 2020[37]. If the OPEC+ meeting on June 4 ends with an agreement to extend the record cuts until the end of this year, it is likely that WTI prices will be lifted towards US$ 39 per barrel by end-2020, though still significantly lower than the start of the year. However, this depends on the level of compliance that OPEC+ members display, which stands currently at 79% since Nigeria along with Iraq fail to comply fully.

TABLE 6 OPEC Compliance (%), Pledged & Actual Cuts (kb/d)[38]

Country	New Pledged Cuts	March '20 Compliance[39]	May '20 Compliance		Cuts
Algeria	-241	84%	20%	↓	-48
Angola	-348	268%	54%	↓	-188
Congo	-74	310%	31%	↓	-23
Equatorial Guinea	-29	125%	21%	↓	-6
Gabon	-43	-250%	-9%	↑	4
Iraq	-1061	58%	49%	↓	-525
Kuwait	-641	-75%	99%	↑	-632
Nigeria	-417	-32%	31%	↑	-129
Saudi Arabia	-2508	198%	100%	↓	-2508
UAE	-722	-353%	106%	↓	-768
OPEC	-812	124%	79%	↓	-4,823

SPOTLIGHT OF THE MONTH

Is it the End of the Eastern Mediterranean Gas Boom?

The Eastern Mediterranean gas saga that began a decade ago with the discovery of supergiant gas fields Tamar, Leviathan and Aphrodite, seemed set to transform the region's gas business with the subsequent discovery of the massive Eni-operated 850 BCM Zohr in 2015. But some of these finds have struggled to find a way to market, particularly with low international gas prices and complicated regional politics. The Covid-19 pandemic is a further challenge. Is this the end for the promised East Mediterranean gas boom?

Within 3 years of the Zohr discovery, Cyprus struck gold twice with the Calypso and Glaucus discoveries, while Eni announced another gas discovery at Nour in Egypt in March 2019. Minnow Lebanon, not wanting to miss out on finds in its own virgin acreage, also succeeded in awarding blocks under its much delayed Bid Round-1 in late-2017, and launched an additional bid round in 2019 for Blocks 1-2, 5, 8, and 10.

[36] MEES
[37] Rystad Energy
[38] OPEC Secondary Sources; Qamar Energy Research
[39] Based on the December 2018 OPEC cut levels of 1.2 Mb/d

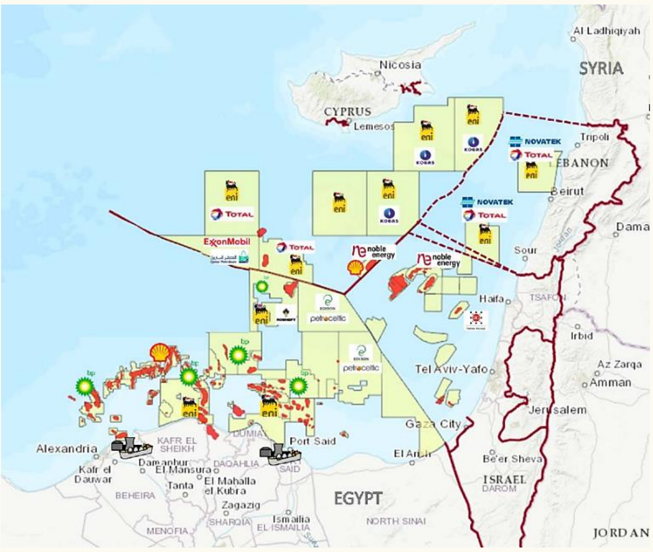


FIGURE 14 Eastern Mediterranean Gas Exploration Activity[40]

A number of export options were proposed for this massive potential, including pipelines traversing through Europe and new liquefaction plants (in Cyprus, Israel and/or Jordan), and the restart of the Damietta LNG export terminal in Egypt. The 7.2 Mtpa Shell-operated ELNG plant at Idku reached capacity in December 2019, buoyed by the surge in Egyptian natural gas production, with Zohr capable of plateau output of 3.5 Bcf/d. A deal to restart Eni-Naturgy's 5 Mtpa Damietta plant was signed in February following the settlement of longstanding disputes with Egas and some M&A transactions, with first exports expected in Q4 2020.

An EastMed pipeline was proposed to transport 10 BCM/y (970 MMscf/d) of natural gas (the same volume as the Trans-Adriatic Pipeline) from Eastern Mediterranean gas fields to Greece, where another pipeline would link the infrastructure to Italy. Almost 2000 kilometres long and 3 kilometres deep, the pipeline would be the world's longest and deepest subsea pipeline. Key parties to the proposed project (Greece, Cyprus, and Israel) quickly signed an inter-governmental agreement anchoring their commitment to the execution of the pipeline. The US was supportive in its desire to help Israel integrate better into its neighbourhood. And with the energy ministers of Cyprus, Egypt, Greece, and Jordon, along with representatives from the Palestinian Authority having established the Eastern Mediterranean Gas Forum (EMGF) early last year to take advantage of the region's massive finds and existing infrastructure, the sky seemed the limit for the region's gas business.

However, not all in the region were as supportive. Turkey's disgruntlement at being excluded from the newly-formed gas association, and disputes with Cyprus over the latter's maritime border (since it does not recognise the Republic of Cyprus and instead supports the Turkish Republic of Northern Cyprus, not recognised by any other state), resulted in it moving to drill in Cypriot blocks (which it claims as part of its maritime border). It also signed an "illegal" deal with the Government of National Accord of Libya, based in Tripoli, in December, to establish its maritime border with that country and create an exclusive economic zone from its southern Mediterranean shore to Libya's north-east coast, an area the EastMed pipeline would cross through. The European Commission imposed sanctions on the Turkish Petroleum Corporation (TPAO) for its illegal drilling activities, but these proved insufficient to deter Turkey, whose modus operandi has involved sending warships to warn off companies drilling in Cypriot waters.

To illustrate, in February 2018, when Italian supermajor Eni advanced its drill ship Saipem 12000 to enter Cyprus' Block 6, which it operates in partnership with French energy giant Total, Erdogan ordered Turkish warships to deter the vessel, saying that the block was a part of the Turkish Republic of Northern Cyprus' (TRNC) economic exclusive zone (EEZ) (where incidentally Eni has drilled two other wells). Each time the Italian vessel would try to change course, a mysterious warship would emerge, complaining of "engine failure" and effectively blocking Eni's advance into the block.

Following the arrival of a US carrier at Limassol once ExxonMobil began drilling operations in Block 10, Turkey somewhat retreated from its offensive. Disagreements over other matters of foreign policy, such as the Iranian sanctions, and the purchase of a Russian S-400 missile system, had already significantly strained relations between both countries. A standoff would not be ideal, as the political risk premium for gas exploration in the region would skyrocket. Moreover ExxonMobil is partnered with Qatar Petroleum for the block – Turkey would think twice before upsetting its close relations with the Qataris, who had signed a US$5.2 B deal in a 50-50 JV for the development of a new integrated petrochemicals complex in the Thrace Basin, and bolstered the Turkish central bank's depleted foreign currency reserves by up to $10 billion in May.

Regional tensions were further exacerbated by the unprecedented impact of the coronavirus pandemic, which has seen economies come to a standstill, and demand enter a freefall. Cyprus's deepwater gas already seemed unlikely to be economic in the European gas market, once including the costs of the EastMed pipeline or an LNG liquefaction plant.

[40] IAI (https://www.iai.it/en/pubblicazioni/east-med-gas-impact-global-gas-markets-and-prices)

The island itself has only a small potential domestic market, not enough to justify field development unless coupled with other buyers.

Egypt announced expansions to its natural gas production from two new wells on April 21: one in Zohr, located in the eastern Mediterranean Shorouk 9 concession block, with a production capacity of 390 MMscf/d; and the second in Baltim South West 7 concession area, with a production capacity of about 140 MMscf/d, with the aim to increase production of gas by 7.4%. The timing of the announcement was key, since that day the Cypriot government also condemned Turkey's activities in its waters, after Turkey sent a surveying ship for gas exploration and drilling. More importantly, the Shorouk concession, which houses Zohr, is located on the Egyptian-Cypriot maritime border that Turkey does not recognise.

Egypt's sudden announcement of production expansion plans is certainly interesting, given the ongoing economic recession in the country, and the disruption of demand (it itself produced just ~6 Bcf/d of natural gas in February, the lowest in 19 months). Moreover, the agreement to have Damietta restarted unravelled a few weeks after it was signed, due to Egas' inability to cover its shares of the partnership dues, "due to the coronavirus outbreak". Shell, meanwhile, had already suspended exports of liquefied gas shipments to its contractors from the 7.2 Mtpa Idku LNG export terminal in March, unwilling to sell for lower than US$ 5/MMBtu[41] as LNG prices worldwide reached record lows (Figure 15), even though the deal between Egas and Eni-Naturgy was still in place during this time.

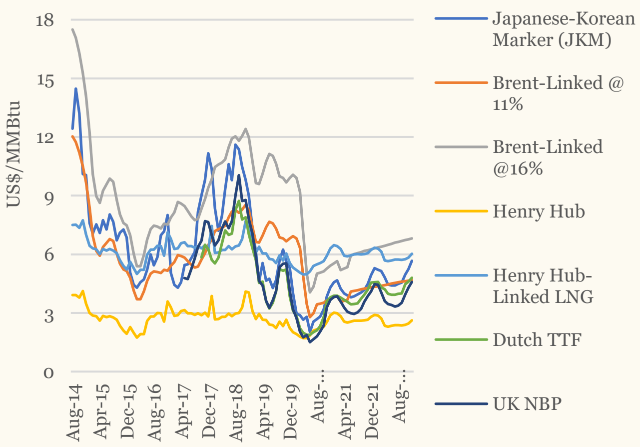


FIGURE 15 Global LNG Prices[42]

According to industry sources, Egypt's sudden intent to expand production in the Eastern Mediterranean was to rival Turkish influence in the region, ever since Turkey took to drilling for gas in Cypriot waters. An agreement signed in December 2013 made Egypt a partner in some hydrocarbon prospects shared with Cyprus[43], seemingly irking Turkey.

But while regional tensions could be allayed, to an extent, if major parties agreed to it (or due to the risk of sanctions from the EU and the US), poor exploration results add to the diminished outlook for East Mediterranean gas development. For example, in April, Shell announced disappointing results at its Montu-1 well on the West Delta Deep Marine in Egypt, initially spudded in August last year. The total depth was 7,000 metres with the key target in the pre-Messinian reservoir.

This followed the negative result posted by the UAE's Dana Gas at its Merak-1 well (drilled to a total depth of 3,890 meters, encountering 46 m of sand but no commercial gas in the Miocene objective interval, despite a pre-drill estimate of 4 Tcf) located in the offshore North El Arish concession, Block 6 (where other world-class discoveries have taken place). Optimism surrounding Eni's Nour discovery was also short-lived, with expected reserves an underwhelming 2 Tcf, even though an official figure is yet to be provided by the Italian firm. Eni also cut short its planned six-well development drilling program at the Baltim Southwest field off Egypt's Nile Delta, to reduce costs and "rationalise spending". The field had reportedly reached its 500 MMscf/d plateau target with the initial four wells drilled.

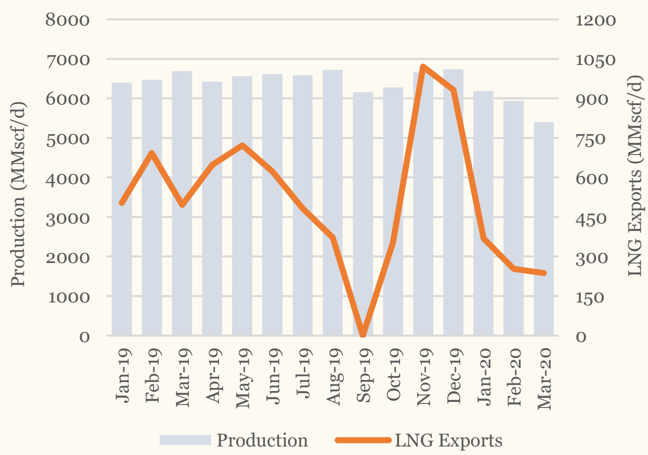


FIGURE 16 Egypt's Sales Gas Production & LNG Exports[44]

[41] Likely at Egas' directive. Egypt currently pays >US$ 5/MMBtu to Eni for Zohr gas, with LNG sales currently priced at US$ 2/MMBtu (or lower), while also having to pay liquefaction and shipping costs, making it uneconomical to continue exports from Idku in the current low-priced environment.

[42] Qamar Energy Research
[43] shorturl.at/hGRW8
[44] JODI

Shell's results at Montu-1 also impacted ExxonMobil's planned drilling of its nearby Northeast El Amriya block, where the US firm too, was targeting the pre-Messinian. Exxon had envisaged combining drilling here with planned wells on Cyprus' Block 10 to the north. A two-well campaign scheduled for Q3 2020 has now been delayed by 12 months amid market uncertainty.

Elsewhere, Lebanon's first-ever offshore exploration well has also yielded a negative result. Drilled by Total Liban E&P (Total 40% (operator), Eni 40%, and Russia's Novatek 20%) up to a depth of 4,076 metres by Vantage's Tungsten Explorer drillship 21 kilometres offshore Beirut, the Byblos-1 well in Block 4 turned up dry. It was targeting the prolific Tamar Sands of Oligo-Miocene age (which has seen discoveries like Cyprus' Aphrodite) formation, but the results highlight the lack of extension of the Tamar Sands into the northern Lebanese offshore. In the area of Block 4, reservoir would rely on sands from Mount Lebanon, with likely poorer reservoir quality. In Total Liban's Block 9, further south, the Tamar Sands are still a viable target, but Covid-19, lower gas prices and Lebanon's economic crisis may delay drilling here indefinitely.

Lebanese officials connected to the project had conceded that the likelihood of a commercial discovery on Block 4 was less than 25%, even though the consortium had pressed on with its drilling campaign, likely to assess the contiguity between Cyprus and Lebanon, and help determine the northerly extent of the Tamar reservoir. Total had also planned a 55-day drilling campaign at Block 9 to begin in Q3 2020, but the disappointing result of Block 4, alongside the present crisis, might force it to alter this timeline. For Lebanon's cash-strapped government, who has long sought to join in on the region's hydrocarbon riches, the ill-fated Byblos-1 well might spell otherwise. The Lebanon Petroleum Authority has already delayed the close of the country's second offshore bid round twice, first to April, and now to June.

Clearly the East Mediterranean faces a challenging future in the near-term for its gas business. The European Green Deal has put a question mark over viable financing for the much-hyped EastMed pipeline, while major firms continue to slash discretionary spending on the region's capital-intensive and geopolitically complex hydrocarbon assets. A series of disappointing results in Egypt and Lebanon has further dampened optimism for frontier exploration. Most companies will stick to maximising low cost barrels from their producing assets in the current climate. And with regional tensions showing little signs of abating anytime soon, the East Mediterranean's hopes of becoming a regional gas hub in the near future remain speculative.

SCENARIOS TO WATCH

ERBIL STRUGGLES AS BAGHDAD ENDS BUDGET TRANSFERS

Timing: H2 2020

Event: On April 16, Baghdad ordered the suspension of the monthly $384 M budget transfers to the Kurdish Peshmerga and the recovery of the payments disbursed since beginning-2020. This came as Erbil continued to fail to send the 250 kb/d crude transfers included in the yet-unsigned Iraqi 2020 budget. On May 19, Iraqi Finance Minister Ali Allawi proposed a $338 M payment to cover the KRG's April salaries in return for the 250 kb/d transfer in a course of 30 days. Due to low oil prices and political tensions with Baghdad, the KRG's revenues dropped to $200 M in April (12% of its 2019's average monthly revenue).[45] Because of lack of investment, production is also falling. DNO is to slash capex by 35%, with the Tawke licence dropping from 115.2 kb/d in Q1 to 85 kb/d in Q4. With Covid-19 wreaking carnage on oil demand and prices and lowering exports, this situation is likely to get worse in 2020, with revenues expected at less than half of 2019's $4.52 B. Short of $1.3 B, the KRG has been unable to cover its monthly expenses, including $757 M to public sector salaries and $211 M to IOCs. This has already resulted in protests across the region. In response, the KRG is approaching IOCs to recapitalize or restructure payment plans. For public sector salaries, Erbil is planning an economic reform law.

Opportunity: An agreement between Baghdad and Erbil, to exchange budget transfers for crude exports, could help the KRG meet its financial obligations to fund the public sector and prevent social and political unrest in the region. This would reduce the discount on KRG oil sales and so benefit both Erbil and Baghdad. Progress on selling KRG gas to 'federal' Iraq would also boost revenues, tie the two areas economically closer, and improve Baghdad's budgetary and political position. Although the budget transfers might not directly support the KRG's oil industry, they supplement its oil revenues in a time of crashing oil prices and new OPEC+ cuts (23%) reducing production and exports. Approved budget transfers could also assist the KRG to diversify its economy away from oil and towards agriculture and the industrial sector, hence becoming more resilient to economic shocks.

[45] Iraq Oil Report

Probability: 50%

Alternate Futures:

50%: As negotiations between Baghdad and Erbil over oil and budget transfers fail, the KRG's economy is under severe strain, which instigates civil unrest and heightens political opposition and the KDP-PUK split. Acknowledging that handing over 250 kb/d to Baghdad, while committing to production cuts will leave the government with only 165 kb/d to export has put the KRG in a difficult situation. And, due to the low oil prices straining the Iraqi government's finances, Baghdad's revenues have become insufficient for its own salaries, amounting to $45 B while export revenues are estimated at below $40 B this year. This is especially as Baghdad's obligations to the KRG surpass the revenues it would get from the 250 kb/d crude.

US SHALE PRODUCTION TO REBOUND STEEPLY BY 2022

Timing: 2022

Event: Due to low oil prices, cash losses and lack of demand and storage capacity, US shale production is set to decline to 10.7 Mb/d by June, marking a two-year low. Production is expected to reach not more than 11.1 Mb/d by end-2020 assuming a $30 per barrel oil price, which will gradually increase to 11.7 Mb/d by end-2021 as prices rise to $39 per barrel. US rig count has dropped from 753 in February to 267 in May, a record low. Total production curtailments are likely to peak at 1.75 Mb/d[46] by June while natural decline cuts 520 kb/d throughout Q2 2020. 65% of curtailed volumes are likely to return by Q3 2020, while another 20% might be added to production by Q4 2020,[47] with EOG Resources planning to raise production to 325-365 kb/d by Q3 and 400-420 kb/d by Q4.[48] It is expected that 350 kb/d of curtailed volumes will come from "stripper wells" while 1.4 Mb/d will come from prolific shale wells. This could lead to a $400 B decline in investments in the energy sector, according to the IEA.[49] Still, an approximate 550 kb/d is likely to be left suspended until prices hit $50 per barrel.

Opportunity: As prices follow an upward trend, reactivation of the curtailed volumes is likely to take place at a faster pace. Maintaining a price above $30 per barrel can improve operating margins as well as storage availability. With a strong demand recovery and continuing OPEC+ cuts, prices rise above US$ 50/b and shale drilling rebounds strongly.

Probability: 70%

Alternate Futures:

30%: As countries lift lockdown too soon and violent protests across the US are sparked, a second spike in virus infections occurs, leading to another oil price collapse. Global demand is dragged down as new lockdown measures are imposed. Production cuts in the US continue until end-H1 2021, while storage reaches maximum capacity by Q3 2020. Curtailed wells require significant capital spending to be ready for production as they have been shuttered for long periods. Natural decline in shale continues and OPEC+ countries begin regaining market share, even while prices stay low.

TOP ENERGY DEALS IN THE NEWS

Project	Summary	Client	Contractor	Implications
Gas storage, UAE	Sharjah National Oil Corporation awarded the UAE's second gas storage project worth USD 40M to Petrofac Facilities Management International.	Sharjah National Oil Corporation	Petrofac Facilities Management International.	A gas storage pilot test has been in progress since 2017. SNOC plans to implement the project in phases, with the surface facilities to be commissioned by the end of 2020 and drilling in 2023. Once completed, the facility will allow the emirate to store excess gas in the winter to satisfy the summer peak demand. It will also provide a readily available strategic reserve to respond to unexpected operational or market issues. Dubai's Margham is the only other dedicated gas storage facility in the UAE.
Grid expansion, Egypt	Elsewedy and ABB signed a contract for grid expansion at Egypt's Toshka substation.	Elsewedy	ABB	Under the partnership, ABB Power Grids will provide the second phase of the 300MW electric interconnection project between Egypt and Sudan, with high-voltage gas-insulated switchgear of 500KV and 500 kV shunt reactors. This extends cooperation between

[46] IHS Markit
[47] Rystad Energy
[48] Argus Media
[49] EnergyFuse

				Egypt and Sudan, despite some tension over Sudan's alignment with Ethiopia over construction of the Grand Renaissance Dam on the Blue Nile. It also provides another outlet for some of Egypt's spare power generation capacity.
IPP project, UAE	Abu Dhabi Power Corporation and Marubeni Corporation have formed a consortium to develop the Fujairah F3 independent power producer project, which will be the largest independent thermal power plant in the UAE.	Abu Dhabi Power Corporation	Marubeni Corporation	The construction of the Fujairah F3 IPP project, which is the largest CCGT power plant in the UAE's current fleet (2400 MW), is expected to enable EWEC to procure early power by summer 2022 and full generation by summer 2023. It likely removes the need for FEWA to construct new gas-fired capacity to serve the northern Emirates.
Power plant contract extension, Morocco	TAQA Morocco signed a deal with Morocco's National Office for Electricity and Drinking Water to extend the power purchase agreement of the Jorf Lasfar Units 1-4 for 17 years from 2027 to 2044.	Morocco's National Office for Electricity and Drinking Water	TAQA Morocco	The Jorf Lasfar thermal power plant totals an overall capacity of 2,056MW, helping to meet more than 40% of Morocco's electricity needs.

MACRO DASHBOARD

MENA OIL EXPORTERS				
	REAL GDP GROWTH (%)		FISCAL BALANCE (% OF GDP)	
	2019	2020f	2019	2020f
Algeria	2.6	2.4*	-13.2	-9.9
Bahrain	2.0	2.1	-8.4	-7.7
Iran	-9.5	0.0	-4.5	-5.1
Iraq	3.4	4.7*	-4.1	-3.5
KSA	0.3	1.9*	-6.1	-6.4
Kuwait	0.7	1.5	-13.9	-14.5
Libya	4.3	1.4*	-10.9	-14.9
Oman	0.0	3.7*	-6.7	-8.4
Qatar	2.0	2.8	7.0	6.9
UAE	1.6	3.0*	-0.8	-1.7
Yemen*	2.1	2.0	-6.9	-7.2

MENA OIL IMPORTERS				
	REAL GDP GROWTH (%)		FISCAL BALANCE (% OF GDP)	
	2019	2020f	2019	2020f
Djibouti	6.0	6.0	-1.5	-1.7
Egypt	5.5	5.9*	-8.3	-6.7
Jordan	2.2	2.4*	-3.4	-3.2
Lebanon	0.2	0.9*	-9.8	-11.5
Mauritania	6.9	6.3	2.1	0.3
Morocco	2.7	2.0	-3.7	-3.3
Palestine	-1.6	0.5*	...	...
Somalia	2.9	3.2*	0.1	0.2
Sudan	-2.6	-1.5	-10.8	-15.0
Syria	...	3.0*	...	...
Tunisia	1.5	2.4*	-3.7	-2.8

* Subject to downward revision

	Economic updates	Comments
Inflation	• Egypt's annual core inflation was at a record low of 1.9% in February with the headline rate at 4.9%.	• On 16 March, to support domestic activity, the Monetary Policy Committee at the Central Bank of Egypt cut key interest rates by 300 bps, bringing the overnight deposit rate, overnight lending rate, and the rate of the main operation to 9.25%, 10.25%, and 9.75% respectively. The discount rate was also cut to 9.75%. ○ The inflation outlook will help achieve an inflation target of 9% (±3 percentage points) by Q4 2020. The IMF's pre-COVID-19 forecast was

	• Headline consumer prices rose in February by 1.2% YoY, and by 0.3% MoM.	for inflation to drop to 10% in 2020 from 14.3% in 2019, driven by the CBE's then-cautious monetary measures and currency appreciation. • The rise in February was boosted by food price hikes, while prices dropped for other items as the coronavirus outbreak started to impact consumer spending. o The government forecasts inflation at 2.2% in 2020 with YoY pressures waning.
PMI	• The Saudi Arabia PMI declined for the fourth consecutive month in March to 42.4, the lowest in the 11 years it has been polled, from 52.5, affected by a slowdown in new orders.	• Saudi Arabia's plunge was particularly bad — throwing it deep into contraction territory. o The decline mainly reflected the slowdown in the Chinese and emerging market economies affected by COVID-19. It is expected to continue through Q2 2020. o Developments around COVID-19 will temporarily derail the momentum in year-on-year non-oil growth. The non-oil economy grew by 3.3% last year, the fastest rate since 2014.
	• In the UAE, the PMI fell to a record low of 45.2 (vs 49.1 in February) as the impact of COVID-19 took a toll on exports and supply chains.	• The UAE's expected economic fillip from Dubai Expo 2020 as well as from growth-friendly reforms and government acceleration programmes is now under threat. The pandemic has prompted the postponement of the Expo 2020 by one year. o For now, forecasts for overall growth will need to be revised, meaning three lacklustre years may be followed by a weak 2020. o The IMF had expected growth at 3% for 2020, (and against a downward revision in global growth). That compares with 1.6% growth estimated last year. But 2020 GDP growth will almost certainly be lower.
Policy and Geopolitics	• Iran's conservatives will monopolise the political arena for the foreseeable future after a conservative majority captured the parliament in elections.	• There have been frustrations with President Hassan Rouhani from both the right and the left as Iranians continue to face economic woes under sanctions. o He has more recently been criticised for the downing of Ukrainian Airlines flight 752 and for the mismanagement of the COVID-19 outbreak in Iran where a rivalry between the military (backed by the Ayatollah) and current political establishment has been playing out. o The crisis has become the nail in Rouhani's political coffin and has set the stage for a factional rivalry.

	• In Lebanon, the pandemic is amplifying the economic crisis and postponing chances of recovery. The demand for USD is growing along with that for imports of medical supplies. This is leading to further deterioration of Lebanese pound's value.	• Businesses (already suffering from the economic crisis) now have to deal with the government's order to close all private commercial activity except banks and food suppliers. o The virus is putting more pressure on the budget deficit and postponing any efforts toward an economic recovery plan. o After months of unrest, protests have cooled down with the spread of COVID-19. If the virus is not contained, however, we expect an even worse economic crisis and demonstrations to come back stronger. o Foreign aid is becoming increasingly unlikely as traditional donor countries are also struggling with the spread of COVID-19.
	• Finding a government for Iraq is in its fourth month of stalemate. President Barham Salih has named Adnan Al-Zurfi as the latest prime minister-designate, but it is unlikely that a government will be approved by the parliamentary Council of Representatives.	• The newest contender, Al-Zurfi, is a choice who is likely to appeal to some protesters as he is known for his secular positions and his opposition to Iranian influence. But he is far from the fresh face the demonstrators have been seeking. o Previously, he held a high position at the Iraqi Ministry of Interior and has most recently been governor in Najaf province for two terms (a position to which he was previously appointed by the then-US administration in Iraq). o Al-Zurfi has received US support, however, Iranian-back Shia parties have been vocal about their discontent. He has already been opposed by Fatah -- the largest Shi'a faction in the Council and Iran's main political proxy. o In a reversal of his usual anti-Iran positioning Al-Zurfi tweeted in support of Iran's appeal for sanctions relief this week – also indicating an appeal for endorsement from Iranian-backed parties. o Although Al-Zurfi could potentially get an opposition coalition to accept his government, it still remains unlikely without the support of the country's Shia parties. Any PM designate will continue to face a Catch-22 split between appealing to the demands of protesters, Iran-backed Shia parties and the political opposition. o Under the Iraqi Constitution, Al-Zurfi has 10 of his initial 30 days left to form a Cabinet and submit it for confirmation by the Council. Former Prime Minister-designate Adil Abdul-Mahdi

		remains as formal caretaker although he has delegated all executive duties to his deputies.
	• In Syria, as we forecasted, Turkey and Russia have come to a resolution reaching a ceasefire agreement in Idlib. However, the situation still remains fragile and the humanitarian crisis is far from over with COVID-19 adding additional pressure to Syria's barely functioning health infrastructure.	• The ceasefire was agreed upon by Ankara and Moscow in March after three months of fighting. o The agreement outlines how the M4 highway, which runs across the lower part of Idlib Province connecting Syria's east and west, is to be a demilitarized zone, patrolled jointly by Russian and Turkish forces. o The deal's fragility is underscored by Erdogan's concessions, which also highlight an unequal power balance weighed in Russia and Syria's favour. Ankara is intent on securing the ceasefire and showing that it abides by the agreement with Moscow to deter further military operations. o Moscow's upper hand suggests Assad could recapture the province and then have virtual control of all of Syria again -- a far cry from his vulnerable position before Russia backed him militarily in 2015. o As for COVID 19, Syrian doctors believe the virus has already swept into the camps, with deaths and illness that bear a striking resemblance to the outbreak. Officially there are 9 confirmed cases of the virus in the country with 1 confirmed death. We believe that reality is a much higher case count.
	• Algerian President Abdelmadjid Tebboune announced a ban on all marches to combat the spread of COVID-19. The decision has divided Hirak militants who see it as an attempt to put an end to the protest movement. And yet despite the President's announcement, hundreds of people were still meeting in the streets that same day. The stalemate between the military-backed government and Hirak is likely to continue for the foreseeable future. The continuing unrest poses a risk to the country's economy and to Algeria's ambitions to attract new foreign investment.	• Although the virus is a threat to the Hirak, opposition to the movement's continued presence suggests it might even pick up if the government issues a lockdown. o Our baseline for the Hirak is that the movement will continue for the foreseeable future. The army could make some concessions -- which could even go as far as removing Tebboune from office prematurely. However, they are unlikely to meet the demands of protesters, who want democratic civilian rule and an end to the dominance of the old guard (known as Le Pouvoir). o The best-case scenario is that the regime allows and honours Hirak demands and establishes channels for negotiations and civilian-led rule. But it is unlikely that the army would concede this power.

		○ The worst-case scenario is that the generals declare a state of emergency and martial law as they did in the 1990s. This is unlikely too, however, as they would probably have already done so if they felt it necessary and it would generate significant resistance from Algerians and the international community.

OUTLOOK FOR 2020

	Oil	Gas	Alternative energy	Politics / Geopolitics
Algeria	Oil production to remain around 1.03 Mb/d as the country struggles to increase oil capacity from maturing fields. The long-awaited new fiscal regime has been drafted and is awaiting approval from the upper house of Parliament. The 51/49 foreign ownership rule remains, but new contracts are introduced in an effort to attract IOCs back to the country. Sonatrach contracted four rigs from KCA Deutag, the largest of which is a three-year deal for two rigs and the other two are for short drilling programmes. Sonatrach had planned its first offshore drilling programme to start in the H2 of 2019 by ENI and Total, but this is yet to get underway. Chevron signed an MoU with Sonatrach to discuss the exploration, development and exploitation of hydrocarbons in the	To boost its downstream diversification strategy, Sonatrach and Turkish Ronesans Holdings signed a contract to build a petrochemical complex at Ceyhan. Turkey is Algeria's biggest importer of LNG exports, but its exports to Europe are dwindling due to high competition. To find a market for its gas, Sonatrach wants to hold discussions with ExxonMobil and Chevron to develop its domestic petrochemical industry. Eni renewed its gas import agreement with Sonatrach and extended it to 2027. However, LNG contracts with Total for 10 BCM/y and Edison for 2 BCM/y expiring by 2020 have not yet been renewed. Algeria is carrying out two pilot projects to assess the commercial viability of its shale gas assets. The projects are part of Algeria's broader plan to bring in foreign companies to create joint ventures to explore not just the country's	Algeria opens its 150 MW solar tender to be developed on a build-own-operate basis and will award 20-year power purchase agreements and is also planning tenders to produce 2,000 MW before the end of 2020. The Algerian Electricity and Gas Regulation Commission (CREG) has selected only one 50 MW solar project from the tender at a final price of $0.069/kWh submitted by the Power Generation consortium, of which Algerian module manufacturer Condor is the largest shareholder. *Algeria has announced plans for a giant, 4 GW solar project costing US$ 3.2-3.6 B, which will be developed through five annual tenders up to 2024, Tafouk 1 solar field. Total renewables capacity in the country is 673 MW.*	So far, the political unrest has not impacted oil and gas production and exports, but hydrocarbon sector reforms, such as the Renewable Energy and Energy Efficiency Development Plan, could be at risk if political turmoil continues. In November 2019, interim president Abdelkader Bensalah replaced the CEO of Sonatrach, Hachichi Rachid, with Chikhi Kamel Eddine, who was ousted on February 06 in favour of Toufik Hakkar, head of the task force charged with implementing Algeria's New Hydrocarbons Law. This marks the 9th CEO since 2010, indicating to IOCs already operating in the country, and those contemplating entrance, the capriciousness of the sector. On December 19, Algeria swore in former prime minister Abdelmadjid Tebboune as president, who on December 28, appointed former diplomat Abdelaziz Djerad as the country's new prime minister.

	country as the new Algerian Hydrocarbons Law was promulgated. Algeria's chronic inability to meet domestic oil products' demand is likely to continue into 2020, even with the announcement of a new, US$ 3.7 B, 100 kb/d refinery, to be developed by a consortium of Spain's Tecnicas Reunidas and Korea's Samsung Engineering.	onshore shale gas potential in southwestern Algeria, but also offshore for conventional plays. To date only 3 wells have been drilled off Algeria's Mediterranean coast. Sonatrach and ENI completed Berkine Nord gas pipeline construction connecting Bir Rebaa Nord and Menzel Ledjmet Est fields, likely to bring production to 6.5 MCM/d and 10 kbbl of associated liquids. *Neptune Energy is deferring tendering for the second phase of its 450 MMscf/d Touat gas project to 2021 due to the unprecedented impact of the coronavirus.*		Whether both together can inject some momentum into the country's declining energy sector (Algeria's energy exports fell 12.5% in 2019) remains to be seen. Meanwhile, an Algerian court rejected appeals from ex-prime ministers, Ahmed Ouyahia and Abdelmalek Sellal, who were linked to corruption scandals (costing the treasury an estimated $890 million). The ex-prime ministers will become the first to face trial since Algeria won its independence in 1962, with Ouyahia to serve 15 years and Sellal 12.
Egypt	*SDX Energy announced that the SD-6X (Salah) exploration well has been drilled to 3,167 metres, encountering 1.7 metres of net gas bearing sand and 1 metre of net gas bearing sand in the Kafr El Sheikh Formation and Abu-Madi Formation respectively (both sub-economic). Drilling operations have commenced in SD-12X (Sobhi) well, expected to reach a depth of 2,300 metres by end-April.* *SDX is also expecting a commercial gas and condensate discovery at its SD-12X (Sobhi) well at South Disouq, after drilling to a measured depth of 2,209 metres and encountering the top of the Kafr El-Sheikh sands at 1,983 metres. According to SDX, 33 metres of high-quality, gas-bearing sands were discovered at the base of the Kafr formation, with an average porosity of 20%, indicating about 24*	Egypt awarded US oil major Chevron, Anglo-Dutch Shell and Abu Dhabi's Mubadala rights to explore for oil and gas in the Red Sea. Chevron and Shell won one block each, and the third went jointly to the Anglo-Dutch firm and Mubadala. The concessions cover a total acreage of 10,000 km², with a minimum investment of $326 M. The little-explored area may be prospective for gas, based on results in neighbouring waters of Sudan and Saudi Arabia. *Shell has suspended exports of liquefied gas shipments to its contractors from the 7.2 Mtpa Idku LNG export terminal in March, unwilling to sell for lower than US$ 5/MMBtu as LNG prices worldwide reach record lows.* *Egypt announced expansions to its natural gas production from two new wells on April 21: one in*	The consultancy and supervision services for the Zaafarana 50 MW solar PV project was awarded to German company INTEC Engineering. The German Development Bank (KfW) is funding the project through a USD 55M loan and the plant is expected to come online in the last quarter of 2020. Egypt signed an MoU with Saudi ACWA Power to conduct a feasibility study for solar generation capacity at the Benban Complex for an unspecified volume of solar and wind-powered desalination projects. This goes in line with the Ministry of Electricity's target to produce 20% of the total electrical grid from renewable energy by 2022. *Egypt's New and Renewable Energy Authority (NREA) is considering solar and wind energy projects with a total capacity of 3,170 MW, in a bid to increase by 20% the share of*	Egyptian Members of Parliament (MPs) have demanded a boycott of Turkish imports and annul all free trade agreements between Cairo and Ankara in response to the "flagrant violations" of Turkish President Recep Tayyip Erdogan, who has approved the deployment of troops to Libya in support of the GNA's advances against Khalifa Haftar. This brings Egypt-Turkey relations to their lowest since 2013, when Erdogan voiced his support for president Mohammed Morsi, of the Muslim Brotherhood, and described him as a "martyr". Egypt, along with the UAE, have long supported Haftar and his stronghold in the east of Libya.

	Bcf of gross recoverable gas and condensate.	*Zohr, located in the eastern Mediterranean Shorouk 9 concession block, with a production capacity of 390 MMscf/d; and the second in Baltim South West 7 concession area, with a production capacity of about 140 MMscf/d, with the aim to increase daily production of gas by 7.4%.*	*renewable energy in the country's energy generation mix by 2022, with the possibility of doubling it by 2035. Egypt's current renewables capacity is ~6 GW, including 2.9 GW of hydropower.*	
Kuwait	Kuwait Petroleum Corporation (KPC) will reduce its 2020 goal to 3.125 Mb/d due to political bottlenecks resulting in slow progress. Its long-term goal of 4.75 Mb/d by 2040 will also be reduced to 4 Mb/d. *Now with the new OPEC+ agreement, Kuwait's target of 3.125 Mb/d output in 2020 might be delayed.* Start-up of the Lower Fars heavy oil project by end-2019, will add 75 kb/d once full capacity is reached. If full capacity is reached in 2020, it will increase production capacity from the current 2.88 Mb/d to 2.955 Mb/d. Mechanical completion for the upgrade of the 270 kb/d Mina Abdullah and 466 kb/d Mina al Ahmadi refineries by 100 kb/d is expected at the end of this year, but start-up by 2020. Kuwait has started operations at a heavy oil project in the north of the country (the Lower Fars reservoir of the South Ratqa oilfield) as part of its plans to increase overall oil production capacity to 4 Mb/d by 2040. New output is expected to be supplied to Al Zour. *Kuwait Petroleum Corporation has reportedly shut-in its Khafji oilfield, part of the Neutral Zone (NZ), from which it offered*	In July KOC awarded Halliburton a three-year contract that will start in mid-2020 to look for offshore oil and gas in the Arabian Gulf. Kuwait has inked a 15-year deal with QatarGas to receive 3 Mtpa of LNG starting in 2022 for the Al-Zour Terminal. Separately, it also signed a 1 Mtpa supply deal from QatarGas 4, which shall commence this year, and will supplement the ongoing 5.4 Mtpa imports from the Golar Igloo FSRU.	Operations of the Clean Fuels Project are moving to start up in late 2020. Bids submission for the 1.5 GW KNPC construction tender for PV Dabdaba project delayed. Some contenders include SNC-Lavalin, Acwa Power, Metallurgical Corporation of China, and Masdar. The solar plant will be constructed on a design-build-operate-maintain basis within the Al-Shagaya Renewable Energy Park.	Anti-corruption protests and corruption spats between ministers has resulted in the replacement of the prime minister (PM) Jaber Al-Mubarak by the Emir, Sabah al-Sabah. The new PM Sheikh Sabah al-Khaled al-Sabah (previously foreign minister from October 2011 to 19 November 2019), is a senior member of the ruling family. Other ministers have resigned over corruption rumours. Next parliamentary elections are due in November 2020. Recently appointed Minister of Electricity and Water, Mohammad Bushehri, resigned two weeks after his appointment, as he was found guilty of leaking official documents from the ministry when he was a senior employee. Currently, he is replaced by acting minister Khaled Ali El Fadhel. Reshuffles at the top of the oil ministry are not a far-off concept, as seen in the past. The current oil minister, Khaled al-Fadhel, could either be seen as a strong collaborator for the success of the OPEC deal, as it has strongly complied with Saudi Arabia, or as the minister under which the oil production and refinery targets were again not met, and even reduced.

	its first crude oil cargo for export in April, following the end of a 5-year dispute with Saudi Arabia. The field has been shut-in as Kuwait works to comply with its OPEC+ quota.			Fitch Ratings has labelled Kuwait the slowest reformer among the GCC countries, and has said that the recent resignation of the government and subsequent cabinet reshuffle could delay new debt issuance and weigh on broader fiscal and economic reforms. Kuwait's central government gross financing need is estimated at about US $23 B (17% of GDP) for FY19/20.
Iran	*National Iranian South Oil Company has awarded $1.3 billion contract to Mapna Group, a local company, for improved oil recovery at 2 onshore oilfields. The gross income from the project is at $6 billion and an oil price at $50. The 10-year contract targets the Parsi and Paranj fields in the southwest Khuzestan province which now produce 52 kb/d. This will be increased to 85 kb/d under this contract, with production over the next 10 years to reach around 121 Mbbl.* *Iran plans the expansion of its oil export infrastructure through the construction of a $1.8 billion oil pipeline connected to its Jask port, which goes in line with its plans to boost shipments of Caspian oil and mitigate against potential problems in the region. This project is considered vital for Iran as it bypasses the Strait of Hormuz and sits in the Gulf of Oman. However, though some oil storage is being built at Jask, the pipeline is likely to take substantially longer.* *Iran will stop exporting gas condensates and instead refine the volumes domestically to produce gasoline and naphtha at the 420 kb/d Persian Gulf*	CNPC has exited the South Pars Phase-11 gas project, which has now been awarded to local company Petropars, who is also managing development of other phases of the South Pars fields. Iran has also awarded the development of the Farzad-B offshore gas field to Petropars, after talks with India's ONGC reached a stalemate. While Iran has shown optimism for rapid development at both fields, we don't think this likely in the near-term. Petropars shall also be unable to develop the LNG phase planned for later at the South Pars Phase-11. Earlier in October 2019, Iran had announced the discovery the Eram gas field in the Fars province. Estimated to hold 19 Tcf (538 BCM) of gas and 385 Mbbl of condensates, the field can allegedly supply Tehran's current gas demand (22 BCM) for 16 years, provided that reserves are developed in a timely manner. However, Iran's gas demand is forecast to remain flat over the next 5-6 years, rising only minimally from the current 220 BCM (to 223 BCM by 2025), and a continuing economic recession will affect new industry and power capacity. Eram's onshore, apparently sweet gas, with a depth of 3900	Non-hydro renewable energy capacity of 650 MW (253 MW in solar). The government plans for it to go above 1 GW by end-2019 (445 MW under construction - mostly wind and solar). Iran is planning to build a 1 GW solar park in the central province of Markazi by 2022 but delays are likely due to access to finance. *Iran's Renewable Energy and Energy Efficiency Organisation (known as SABTA) has reported that renewable sources prevented the emission of GHGs in Iran by 3.05 million tonnes during the first nine months of the current Iranian calendar year (March 22-December 21). It also reported that that electricity generation from renewables during the same period prevented the consumption of 1.3 BCM of natural gas and other fossil fuels in thermal power plants. Iran's current renewables capacity is 841 MW, while hydropower capacity is 16 GW.*	The government will keep recent protests over fuel hikes under control with violent crackdowns if necessary, allowing it to stay in strong control until US elections. Holding tight control will also allow the current government to avoid having to make any compromises to the US. The civil unrest, however, will not impact Iran's regional affairs. It will continue ramping up its nuclear program as well as targeting oil exports on the Strait of Hormuz to pressure US into negotiations, especially in light of recent events. On February 22, Iran held its 11th parliamentary elections since the 1979 Islamic Revolution and the first since the US Administration imposed sanctions. Voter turnout was the lowest since 1979, exacerbated by the coronavirus outbreak, at 42.5%, resulting in easy wins for conservative hardliners once again, most of whom are loyal to supreme leader, Ayatollah Khamenei. *Iranian Oil Minister Bijan Zanganeh introduced a new export program targeting specific oil refineries and covering all Iranian exports. In particular, crude oil and gas condensate will be exclusively*

	Star Refinery and the yet-to-be built 360 kb/d Siraf Refinery. It is unlikely that the Siraf refinery would be ready for several years. South Pars & nearby fields can produce up to 1 Mb/d condensate; 420 kb/d goes to Persian Gulf Star, 130 kb/d to petrochemical plants and 80 kb/d to other refineries, leaving 370 kbpd for export, but difficulties in selling condensate and lack of storage have forced Iran to cut back gas output	metres should be relatively easy to extract, but financial constraints and the limited capacity of Iran's gas market raises questions about its development timeline. We are told that the field shall begin development in "2-3 years".		*exported through the National Oil Company (NIOC) along with its subsidiaries, as a means to combat smuggling Iranian products.*
Iraq	*The Ministry of Oil (MoO) has delayed the bid deadline for the long-delayed export pipeline to Jordan (to August 02, according to MEED). The project will ultimately include a spur connecting Basra to Turkey. Now that ISIS has largely been defeated in the Western Desert and Anbar province, the route will be based on old plans – from Rumaila to Haditha (2.25 Mb/d – part of the capacity to go north to Turkey) and then to Aqaba, Jordan (1 Mb/d).* Iraq set an all-time record for annual oil sales in 2019, as the federal government and KRG combined for an average 3.968 Mb/d of exports. More than 11% of nationwide crude exports came from fields developed by the KRG, whose exports increased from 355 kb/d in 2018 to 441 kb/d in 2019.	The MoO is seeking international partners for its Mansuriyah gas field which will plateau at 300 MMscf/d according to official data. The ministry has already prepared the tender packages and reported that many companies are interested (Gazprom and Chinese entities mostly). Gas supply from the field will be sent to the 750 MW Mansuriyah power station, and potentially the new Bismaya plant in Baghdad (4,500 MW). Iraq has finalised the contracts awarded during 2018's Bid Round-5 and hopes to attain 750 MMscf/d from the Crescent Petroleum-awarded concessions of Gilabat-Qamar and Khashm al-Ahmar-Injana by 2023, an ambitious target, in order to meet rising demand and reduce reliance on imports of Iranian gas and power. *China CPECC has been awarded a $203.5 million contract to build a sour gas treatment facility at Majnoon oilfield, expected to be completed in 29 months, and treat 4.39 MCM of sour gas per day.*	The Ministry of Electricity kicked off a 755 MW solar tender mapped across the provinces of Wasit, Karbala, Al-Muthanna, Babel and Diwaniyah. The awards are expected to be completed by the end of 2020 but delays likely.	Current protests in Federal Iraq, mostly around Baghdad, and now expanding in the south, will slow progress on next year's budget as the protests show little signs of dying out. Regularly, annual budgets are delayed due parliamentary disagreements and political paralysis, and now with the current situation, it will undoubtfully be delayed this year too. Mohammad Tawfiq Allawi, who had previously served as Communications Minister, was appointed Prime Minister by President Barham Salih after weeks of squabbling between Iraq's political parties to replace Adel Abdul Mahdi, who stepped down at the end of November. Allawi was tasked with forming a new cabinet, but on March 01 withdrew his candidacy for Prime Minister, further delaying cabinet formation. President Salih had already begun search for a new Prime Minister, who must form a new cabinet and lead the country until fresh elections can be held. Both the oil and electricity ministers were expected to be replaced, which raised concerns over much needed reforms in the energy sector.

		Saudi Arabia has expressed interest in Iraq's Ratawi Gas Hub after Bechtel exited the project following disagreements over the joint venture leadership with Honeywell. The project's first phase will process up to 300 MMscf/d of associated gas from the Majnoon, West Qurna 2, Luhais, Tuba and Subba oil fields in the Basrah and Dhi Qar provinces. Iraq is under pressure from the US to diversify its gas supplies from Iran, for which the US granted it another 90-day waiver earlier this month. Iraq has allegedly agreed to allow Aramco to invest in its 400 MMscf/d Akkas gas field in Anbar, but this is yet to be officially confirmed. The field is Iraq's largest non-associated gas field outside the Kurdistan region, but is technically challenging, geographically remote and has a problematic security situation, so Aramco is unlikely to move fast.		By early March 2020, Allawi stepped down from his position as prime minister, as he failed to gain the support of the Sunni and Kurdish forces, which made room for a new prime minister candidate, Adnan al-Zurfi. The new possible PM was a former governor of Najaf who helped take over the country after the removal of Saddam Hussein by the US invasion in 2003. He faced opposition from Iran-backed forces, and had only 30 days to form a cabinet which then needed to be approved by Iraq's parliament. *However on April 09, Zurfi withdrew his candidacy for Prime Minister, compelling President Barham Salih to nominate a new replacement, Mustafa Kadhimi, head of the Iraqi National Intelligence Service. On May 06, Kadhimi was sworn in. His credentials as a US ally have reportedly caused disgruntlement among pro-Iranian political elements.*
Iraqi Kurdistan	*UK-based Iraqi Kurdistan-focussed Genel Energy has announced force majeure at its Qara Dagh block due to border lockdowns and travel restrictions impacting supply chains and the movement of contractor staff, putting an indefinite question mark over the profitability of spudding the QD-2 well, which was initially planned for Q2 2020. Genel holds 40% in the block, alongside partner Chevron (40%), with whom it is also partnered on the nearby Sarta oilfield, and the Kurdish Regional Government (20%). At Sarta, first oil is now expected in Q4 2020*	The Pearl Petroleum consortium produces 400 MMscf/d and expects to reach 900 MMscf/d by 2022 (possibility of exports to Federal Iraq or Turkey if Rosneft's pipeline is ready by then). Pearl will also commence drilling at Block-19, which is located southeast of Khor Mor, and was awarded alongside Block-20 to the consortium as settlement for a dispute with the KRG over non-payment of US$ 2.2 B due to accumulation of debt (by the KRG) due to rising diesel and fuel oil imports. Drilling at Block-19 will be	Limited investment in renewables (priority would be given to thermal power stations), but some interest in small-scale solar (including a new EU-funded 2 MW solar plant in Duhok). Slow progress in construction and rehabilitation of new dams.	*The unprecedented impact of the coronavirus pandemic and the oil price crash of March 2020, alongside a delayed budget due to protests in Iraq and the resignation of 3 PM candidates this year will put further strain on the KRG's finances, after Baghdad halted monthly transfers in April.* *However, Baghdad has allegedly agreed to cover the KRG's public-sector salary payments for April, in exchange for finalising a longer-term oil and budget deal within a 30-day window. Terms of such a deal will probably*

	(being pushed back from Q3 2020), but this could be delayed further, following the inability of the Kurdish government to pay IOCs and contractors for crude sales over the past several months. *HKN, operator of the Sarsang licence, has delayed the Swara Tika expansion (previously planned growth from 24 kb/d to 50 kb/d by end-2020) and halted production from east Swara Tika. Completion of a planned 25 kb/d oil processing facility has also been delayed beyond Q1 2021, but HKN has said that it shall resume its drilling operations at the block in time to commission the facility.*	the first activity at the block since it was awarded in 2017.		*include the 250 kb/d Kurdish crude transfer to SOMO each month to receive monthly payments. Baghdad has said that until the oil transfer issue is resolved it shall transfer no more payments.* KRG delays oil payments due to financial crisis in Lebanon causing liquidity issues. Over $1 billion has been stuck in the bank account, which the KRG put there "for a rainy day." Norway's DNO and UK's Genel Energy stressed that production and OPEX in the region will be affected by the delayed payments. This is likely to be further exacerbated by the fall in oil prices.
Lebanon	*Lebanon has announced preliminary results from the country's first ever offshore exploration in Block 4 stating that no commercial discoveries have been made. Total E&P Liban completed the drilling of Byblos well 16 1 on Block 4 to a depth of 4 076 meters, yielding a negative result. Traces of gas do suggest an active petroleum system. The Tamar sands (proto Nile Delta), that Total was targeting, do not extend as far north into Lebanon's offshore as initially hoped. In the area of Block 4 they would be relying on sands from Mount Lebanon, with likely poorer reservoir quality. Block 9 is further south, so it could potentially have some Tamar sands plays. Blocks 4 and 9 were signed by a consortium of Total, Eni and Novatek. The 55 day drilling campaign at Block 9 which had been planned for September and October this year (by Total's Tungsten Explorer*	Lebanon will continue to use fuel oil power ships for electricity supplies to at least 2021/2022 until the two planned LNG FSRUs are ready. The electricity ministry wants to add a third temporary power ship of 1,450 MW capacity by 2020 to ease the power supply-demand gap estimated at 1 GW. This strategy could delay the LNG imports even further.	The Lebanese Center for Energy Conservation (LCEC) is currently engaged in three renewable energy tenders, two solar projects, and one wind project. The most progressed project did not get past the Expressions of Interest (EoIs) phase despite objectives to have them completed by 2020. Given the current political/financial situation and the government's longwinded pace, we do not expect awards until mid-2020, if even then.	On 19 December, Hasan Diab, a professor and former education minister, secured a majority from MPs and has been tasked with forming the next Lebanese government. All votes for Diab came from Hezbollah and its allies. Echoing protester demands, Diab promised to form a government of independent experts within six weeks -- in a country where appointing a cabinet can take months.

	drillship), might face delays.			
Libya	Wintershall has signed two EPSAs with the NOC on Areas 91 and 107 (formerly 96 and 97, and will transfer operatorship of the onshore Sirte Basin fields to a joint operating company, Sarir Oil Operations, by mid-2020. The new operator will be 51% owned by NOC and 49% by Wintershall. The EPSAs will be retroactive, dated to January 2008. The EPSA for Area 91 will expire in 2036 and on Area 107 in 2037. The agreements conform to the EPSA IV standard, representing a major concession from Wintershall, which had previously resisted these terms. Wintershall shall cover exploration costs on both areas and half of the development cost, and will also contribute $150 M for social responsibility projects. Total has also resolved its dispute with the NOC over the Waha concession, and will contribute $650 M to its development. Total will assist NOC on Waha through providing its technology and expertise, and develop the North Gialo and NC 98 fields. NOC will oversee the social responsibility work, with Total financing $70 M at the beginning, with another $30 M when North Gialo starts up and another $30 M with NC 98. The development of the Wintershall and Total concessions should add about 340 kb/d to Libya's output. Oil output fell to 82 kb/d in April due to blockades enforced by the Libyan National Army at the country's key export terminals and major producing fields, such as Sharara and	Waha Oil Company (WOC) announced the start of Phase 2 of the Faregh field development project to boost daily production capacity to 250 MMscf/d (from 75 MMscf/d) and 15 kb/d of gas condensates. Initially the gas will be injected into the Intisar 103 oilfield to enhance production and secondarily be used for supplying power plants in the eastern region and the Libyan Norwegian Fertilizer Company (LifeCo) in Marsa El Brega. Eni's completion of the 400 MMscf/d Phase 2 of Bahr Essalam offshore gas project will raise gas exports to Italy close to 2013 levels of 600 MMscf/d. The NOC aims to increase gas production to 3.5 bcf/d by 2020 from an estimated 1.5 bcf/d (considering the two expansions above). This means in 2020, production will need to rise by ~2 bcf/d, which seems quite optimistic given budget constraints, particularly under the current crisis. The NOC said that an agreement was struck with Egyptian Minister of Petroleum Tarek El Mulla for Egyptian companies to resume work in Libya. Projects to be resumed include a Petrojet contract to build a gas transmission pipeline from Intisar oil field to Sarir power plant.	Libya's Misurata Free Zone (MFZ) has signed a MoU with consultancy iQ Power in March 2018 to develop integrated CSP and PV projects with up to 300 MW total capacity, but no new progress since then. In September 2019, GE signed an MoU with the Libyan government to implement new power production capacity of 6,000 MW by raising the efficiency of existing power plants, and the establishment of new renewable power projects. Progress on both projects will be slow due to highly subsidised energy prices and insecurity. *Libya has inaugurated the construction of a 100 MWp solar PV power plant in Kufra by a Chinese company, southeast Libya. This plant should help secure electricity supply for the town's population, which is currently supplied by a 75 MW thermal power plant. The thermal plant has been out of service for several months because of a fuel supply issue caused by the country's instability.*	The country's factions are unlikely to resolve its divisions and foster unity this year. If the Haftar led LNA takes Tripoli, the GNA will collapse completely. *However, since April 25, the GNA has gathered significant supplies of Turkish weapons which it is using to push back Haftar and recapture a string of towns west of Tripoli, and advance to Tarhuna, the LNA's main operations base some 60 kilometres south-east of the capital.* Militant factions will continue using oil infrastructure to gain leverage and power; Oil production around Mellitah and Zawiya could be cut off. Protestors in Tripoli continue demanding the UAE, Egypt, and France to "take their hands off Libya" after field marshal Khalifa Haftar announced a decisive battle to capture the capital. On January 06 Haftar's LNA forces seized control of the coastal city of Sirte (370 kilometres ease of Tripoli), which had been ruled by forces allied with the UN-recognised GNA since 2016. Production from the Sirte Basin remains affected, and is facing continuing outages due to the stand-off between militant factions allied with Haftar and the GNA.

	El-Feel, which are secured by LNA rival and GNA-supporter Petroleum Facilities Guard (PFG), even though the GNA reclaimed some territory from Khalifa Haftar's forces. *Benghazi-based Arabian Gulf Oil Company announced the discovery of a new oilfield in concession 47. This came as part of drilling an exploratory well (Z1-47), 50 km north-west of the Bayda oilfield. From December till March, test production achieved up to 400 bbl/d and 68 Mscf/d of gas.* *The bidding on five separate oil facility project contracts, all tendered by the country's NOC, had a deadline of April 2020, but is likely delayed as no updates have been made public about its progress.*			
Oman	The Rabab Harweel integrated project for PDO in the southern Omani desert is expected to be completed in 2019, adding 6 MMscf/d of sweet gas, and another 60 kb/d of oil. Oman struck 42° API oil from minnow Masirah Oil's Yumna discovery in Block 50, located offshore to the north of Eni's Block 52, on February 17. Masirah has said that the Yumna 1 well has tested at a production rate of 11,843 stock tank b/d through a 1 inch choke, and further appraisal shall be conducted before new wells are drilled and the early production facilities come online.	Mabrouk gas field (4.5 TCF) development advancing with PDO award of pipeline construction to Petrofac. PDO carrying out exploration & appraisal. ENI and BP signed a gas deal for the acquisition of the onshore exploration Block 77 onshore, east of the BP-operated Khazzan Field, which could offer synergies.	Petroleum Development Oman (PDO) awarded 105 MW solar PV project (Amin Solar PV IPP) to a consortium led by Japan's Marubeni Corp. The project was slated to begin early generation in December 2019 and operate at full capacity in May 2020, but has now been delayed to early start-up in May 2020. It will produce power for PDO. Qatar-based energy company Nebras Power QPSC has bought a 9.9% stake in Amin Renewable Energy Company SAOC (AREC)[50] which is responsible for the project under construction in Oman. *ACWA Power, GIC and AEPC announced the financial closure for a $400*	Oman's new Sultan Haitham al-Tariq has announced plans for a comprehensive national framework to reduce the country's public debt and oil-to-debt ratio, which rose to nearly 60% in 2019, compared to 15% in 2015, and could go as high as 70% by 2022. *Oman is considering oil sector's restructuring, eyeing several options including creating a new national oil company, restructuring semi-state owned Petroleum Development Oman, or listing a portion of state-owned OQ in order to raise cash. However, it is unlikely that the country will pursue a deal soon under current market conditions.*

[50] Amin Renewable Energy Company SAOC is a Japanese-Omani consortium consisting of Marubeni Corporation, Oman Gas Company SAOC and Bahwan Renewable Energy Company LLC.

			million 500 MW solar PV power plant in Ibri. This deal represents the first renewable energy financing in Oman and the GCC funded by the Asian Infrastructure Investment Bank. *Deme Concessions to develop a 500 MW large-scale green hydrogen plant, HYPORT. The FID for the other stages will be announced by 2021.*	
Qatar	QP's Mexico Area 1 asset (35%) with Eni is expected to start initial production this year before reaching plateau of 91 kb/d in 2021. Qatar Petroleum's (QP) crude pricing for cargoes loading will be set on a forward pricing basis starting March to give buyers the chance to compare the value of its oil with that of other Middle Eastern producers. The official selling prices for Qatar Land and Qatar Marine, will be announced on February on a future pricing basis, similar to other Middle Eastern producers whose next year March-loading crudes are traded in February. *Qatar has joined supermajor Total to acquire a 45% participating interest in exploration blocks offshore Côte d'Ivoire in Africa. Offshore Africa remains a key focus of portfolio expansion for Qatar Petroleum, who, since 2017 has signed a flurry of deals in countries like Mozambique, South Africa, Kenya, and, in South America, Guyana to boost its international presence. Earlier in May the firm also entered into three farm-in agreements – also with Total – for acquiring ~30% of Total's participating interest in Blocks*	QP and Qatargas are not sure if they would need IOC experience for the North Field Expansion Project; To cement relations, majors are transferring international assets to QP mostly in Africa and South America. However, QP will require IOCs' trading portfolios to access new geographies. Qatargas increasing energy links with Turkey, delivering the largest single cargo of LNG to the Marmara LNG terminal. Qatargas and Shell have signed an agreement to supply 1 Mtpa to Kuwait under a long-term sale and purchase agreement (SPA) from the 7.8 Mtpa QatarGas 4 Project in which Qatar Petroleum (QP) holds a 70% stake, and Shell holds the remaining 30%. Separately, it also signed an SPA to supply Kuwait with 3 Mtpa starting in 2022 for the Al-Zour Terminal, over a 15-year period.	Qatar's 800 MW solar tender (Kharsaah) was awarded to a consortium of Total and Marubeni for US¢ 1.6/kWh.	Qatar has reportedly restricted trade with Iran to only include food and medicine to comply with US sanctions. Qatar's foreign minister has made a trip to Riyadh to discuss the GCC rift, offering to cut links with the Muslim Brotherhood. Saudi Arabia will try to get Qatar to agree on other terms, but the start of negotiations, mostly mediated by Kuwait, are positive signs, especially that it started off with a key issue: cutting ties with an organisation labelled as a terrorist group by the US and Saudi Arabia.

	15, 33 and 34 located in the Campeche basin, offshore Mexico. This brings the number of blocks Qatar Petroleum holds a stake in in Mexico to 6.			
Saudi Arabia	The PrefChem refinery, a JV with Malaysian Petronas, will commission in H2 2020, after a technical setback during testing. Aramco will supply 210 kb/d of crude to the refinery (70% of required crude). *Saudi Aramco produced a record 11.55 Mb/d in April, still below its March 06 target of 12.3 Mb/d, following the new OPEC+ agreement. As per the agreement, Saudi Arabia shall cut 2.5 Mb/d of output in May and June, but Aramco has said that it shall voluntarily cut another 1 Mb/d in June.*	Saudi Aramco has received regulatory approval on February 22 to develop the Jafurah non-associated unconventional gas field east of the supergiant Ghawar oilfield, with first production expected to come online in 2024. The Jafurah Gas Processing Facility is expected to be commissioned in 2023, and shall be able to produce 2.5 Bcf/d of sales gas, most of which shall be directed to Saudi Arabia's power and industrial sectors, which are forecast to rise in demand by 3.1% and 3.2% respectively on an annual average basis. *The 2.5 Bcf/d Fadhili gas processing plant has begun partial operations, supplying power plants and desalination plants in Saudi Arabia with gas. Fadhili will help displace liquids from power plants and boost Riyadh's flexibility in managing its crude oil reserves.*	The 400 MW Dumat Al Jandal wind project, which will supply electricity for USD¢ 2.3/kWh, will be completed by 2021. Saudi Arabia changed plans repeatedly on nuclear power but has now short-listed two sites and begun design of a 2800 MW, 2-reactor plant. Saudi Arabia's Renewable Energy Project Development Office (REPDO) has issued RFQs for 1.2 GW of solar projects, under Round-3 REPDO's National Renewable Energy Programme, with a deadline for February 06, but this has been delayed as expected. Under Round-2, REPDO received two bids for the Category A projects. These include the 50 MW Medina solar PV project, and the 20 MW Rafha solar PV project. The bidders are local companies Alfana and Al-Blagha for Medina, and First Solar (US) for Rafha. REPDO also received bids for the larger schemes of Bid Round-2 on January 2020, which includes four solar PV projects with a combined capacity of 1.4 GW. Bidders included Marubeni, Total, EDF, Masdar, and ACWA Power among a handful of local companies. *Saudi Arabia has shortlisted 49 companies and consortia to bid in a*	Aramco shares fell to their lowest level (US$7.62) since the IPO began trading in December 2019, due to the oil market collapse amid worries about the coronavirus. This marks a drop below the IPO price of US$ 8.53. Increased tensions between Saudi Arabia and Iran means Aramco's oil assets will continue to be vulnerable by strikes from Iranian-backed Houthi rebels in Yemen, or Iranian backed PMU militia in Iraq. It is also at risk of cyber-attacks by Iran which were attempted in the past, targeting energy infrastructure. Riyadh has shown approval for the US drone strikes that killed Iranian top general Soleimani on January 03, with media outlets announcing "Khamene'i is shedding tears because of Trump!", and defence minister Prince Khalid bin Salman meeting with Trump on January 06 in a meeting undisclosed to the US public to discuss "trade, military, oil prices, security, and stability in the Middle East." For Saudi Arabia, the attack reaffirms US credibility that had waned after its lack of action following the Abqaiq attacks, and can further boost US-Saudi military cooperation that has been under constant pressure from Congress.

			tender targeting 1.2 GW of solar PV capacity. The National Renewable Energy Programme will allow bidding in two categories, 80 MW Layla along with the 120 MW Wadi Al Dawaser for smaller companies while Saad's 300 MW and Ar Rass's 700 MW will be offered for the other category.	
Syria	To continue to receive clandestine oil imports from Iran. The country is suffering a fuel shortage with the government introducing rationing for gasoline and cooking gas. Though the UN and the US are applying stringent actions on fuel tanker ships heading to Syria. Syria's parliament approved contracts for oil exploration with Russia's Mercury LLC and Velada LLC. The deals cover exploration and production in three blocks, including an oilfield in north-eastern Syria, scene of Turkey's recent offensive and also desired by Ankara, and a gas field north of the capital Damascus.	Palmyra gas fields under government control.	The Syrian Ministry of Electricity Transmission Establishment has issued two tenders for the construction of solar power plants with a combined generation capacity of 63 MW. The first tender is for a 40 MW solar plant near the Jandar natural gas power plant in the Homs province, and the second tender is for a 23 MW solar plant near Damascus. Bid deadline is set for March 20. However the continuing war and sanctions will likely exclude most serious bidders.	The Syrian Democratic Forces (SDF) have initiated withdrawal of troops from the Turkish border as part of a Russian-Turkish cease-fire deal, after which Syrian government troops will take control of the border. However Russian-Turkish tensions have intensified after Turkey shot down two Syrian fighter jets (backed by Russia) over Idlib on March 01. Two Russian warships armed with cruise missiles have transited from Sevastopol, Crimea, through the Bosporus Strait in Istanbul to Mediterranean waters.
UAE	ADNOC will buy a 10% stake in global storage terminal owner VTTI as the NOC intends to increase oil trade and access to Asian markets. To further strengthen downstream capacity ADNOC, along with IOCs, will establish Murban as a global benchmark end-2020 to complement Dubai-Oman, Brent and WTI. This focus led to the important project award to Archirodon to maintain long-term output at the Bab field, which produces Murban crude, at 485 kb/d by about 2022.	*Blackrock along with KKR stepped down from their race to become investors in ADNOC's natural gas pipeline assets. The remaining competitors now are Australian fund manager IFM Investors, Ontario Teachers Pension Plan, Global Infrastructure partners and Singapore sovereign fund GIC Pte. As travel restrictions due to nCoV made in-person meetings and due diligence difficult, ADNOC is yet to decide on a timeline for the next rounds of offers.*	Abu Dhabi's Sweihan solar PV expanded to 1177 MW is now fully operational, and is selling power to the Emirates Water and Electricity Company (EWEC) at US$ 0.0242/kWh under a 25-year power purchase agreement (PPA). The fourth phase of Mohammed bin Rashid Al Maktoum (MBR) Solar Park (900 MW, developed by ACWA Power)– Noor Energy 1 – is the first project in the GCC region to receive Climate Bonds Initiative (CBI) certification for Renewable Energy	Real GDP growth, which was expected to pick-up in 2020 from the World Expo 2020, growing by 2.5% (IMF) from a modest 1.6% growth in 2019, is braced for a slowdown due to the coronavirus outbreak. Economic diversification efforts will be the major governmental fiscal priorities. One way the Abu Dhabi government is trying to diversify away from hydrocarbon revenue is through the establishment of Edge. Edge is Abu Dhabi Crown Prince Mohammed bin Zayed Al Nahyan's

	ADNOC signed a framework agreement with Indian refining and chemicals conglomerate, Reliance Industries Limited (RIL), to develop an ethylene dichloride (EDC) facility in Ruwais. *ADNOC terminated two EPC contracts worth US$ 1.65 B (awarded initially to a consortium of Petrofac and Malaysia's Sapura Energy for Phase A, and to Petrofac for Phase B) for the 440 Mcf/d Dalma sour gas field development project, after Petrofac refused to implement a 30% discount on the contract value. objectives". Also, ADNOC has pushed back the bid deadline for four packages for the US$ 20 B Hail & Ghasha development project until end May.*	*ADNOC has commenced a gradual restart of its 835 kb/d Ruwais Oil Refinery Complex after a scheduled maintenance shutdown, which took place early this year. The plant's East and West refineries had been shut down in Q 1 2020 and are currently operating at 46% capacity, expected to increase to 60% in Q2 2020 and ramp up to full capacity by H2 2020.*	Project Financing. This will drive down the capex for renewable energy further in the region. The fourth phase already achieved 20% progress. DEWA awarded the 900 MW tender for the fifth phase of the MBR Solar Park to ACWA Power. DEWA will pay ACWA Power USD¢ 1.6953/kWh for power generated and the plant will become operational in stages, starting with Q2 of 2021. The UAE has become the first peaceful nuclear energy operator in the Arab World following fuel assembly loading into unit 1 on March 3. *DEWA has published new regulations blocking ground-mounted commercial and industrial solar projects and capping rooftop installations at 2 MW, in what appears to be an attempt to regain control over power generation in Dubai.*	ambition to streamline the domestic defence industry trusting it will lead to in better military equipment and spur exports to regional partners. The UAE completed a full withdrawal from the Yemeni port city of Aden and from southern Yemen and handed over control to Yemeni and Saudi forces.
Yemen	OMV is resuming production at 13 kb/d and could increase to 20 kb/d (the level it was producing before the unrest). Calvalley was the operator of Malik Block 9 (but the company is now defunct). Hood Oil, its local partner, to restart production around 1.2-1.5 kb/d. Oil pipeline, used by OMV among others, blown up in Shabwa province by unknown attackers.	Possible restart of LNG exports from Yemen LNG at low levels (operated by Total), under Saudi's control/influence. State firm Safer restarted operations at Block 18 which is crucial to providing gas feedstock for Yemen LNG.	Yemen Ministry of Electricity 60 MW solar power plant on hold. Unlikely to be revived in the short-term. However, local installation of distributed solar, estimated 400 MW, has been a success to mitigate wartime power shortages.	The Yemeni government and the separatist forces of the Southern Transitional Council (STC) signed a reconciliation agreement in Riyadh as tensions soared between the northern and southern regions. The deal also calls for increased Saudi presence after the UAE's withdrawal from Yemen. Despite the Houthis' recent hijacking of South Korean vessels near Yemen, one of which was carrying a drilling rig, they are unlikely to drastically disrupt most major commercial traffic through the Red Sea.

ABOUT US

Arabia Monitor is an independent research firm specialised in economic and market analysis, and strategy advisory on the Middle East and North African region, which it views as the new emerging market. Arabia Monitor's in-depth, locally informed analysis by Arab, Persian and Chinese speakers has placed it consistently ahead of the curve in identifying new trends within and around the region, and understanding its geopolitics.

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