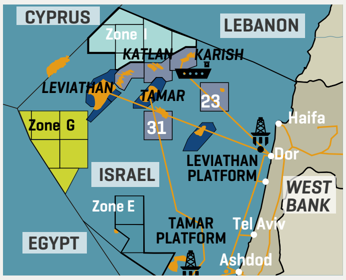
mees

Weekly Energy, Economic & Geopolitical Outlook
Vol. 68. No. 12
21.March.2025.

CORPORATE

Socar Eyes Yet More Israeli Upstream Acreage

Azerbaijan's state energy firm Socar sent its most senior executives to Israel for the signing of new exploration acreage this week. Socar is already eying more Israeli acreage, while Tel Aviv is bullish that the firm will discover oil offshore. ***Page 3***



CORPORATE

BP Mena Oil Output Rises

BP's oil output from the Mena region rose to a six-year high last year. The firm sees the region as central to its renewed plans to grow hydrocarbon output. ***Page 4***

GEOPOLITICAL RISK

Regional Risks Rise After US-Houthi Strikes

The launch of a more aggressive US bombing campaign against the Houthis has raised concerns over a regional escalation and further stymies any Red Sea shipping return. ***Page 8***

POWER & WATER

Kuwait Seeks Chinese Solar Help

Kuwait has watched its neighbors' renewables plans take shape while its own strategy has stalled. Now it hopes to bring in Chinese assistance to kickstart progress. ***Page 14***

OPEC & GLOBAL MARKETS

Opec Sets Out New Comp. Cuts

Opec published updated compensation plans from overproducers this week. If fully implemented, these would fully offset monthly tapers until September. ***Page 15***

DOWNSTREAM

Morocco Eyes $6bn Gas Upgrades

Morocco says it could offer $6bn worth of tenders in the coming months for gas infrastructure as it looks to get stalled LNG import plans up and running. ***Page 10***

GEOPOLITICAL RISK

Qatar Signs Syria Gas Supply Deal

Qatar has signed a deal to supply Syria with gas via Jordan, but, in reality midstream constraints mean any gas entering Syria will likely be from Israel. ***Page 7***

POWER & WATER

Saudi Preps For Oil Displacement

Another year of record power consumption prevented any drop in oil burn for 2024. Key near-term advances in gas and renewables hold the key to addressing this. ***Page 12***

ECONOMY & FINANCE

Kuwait Oil Revenues Drop Back

Kuwait's petroleum export revenues fell by $10bn last year despite refinery upgrades enabling record volumes of higher-value products to be exported. ***Page 14***

EGYPT GAS & OIL OUTPUT CONTINUES DECLINE IN 2025

*After posting historic lows for 2024 (MEES, 21 February), Egypt's gas and oil output are both down again for January.

*January gas output of 4.312bn cfd was the lowest monthly figure since December 2016, that is to say before the start-up of BP's West Nile Delta (WND) project and Eni's Zohr the following year (see chart 1). And, as of the latest data, the losses show no sign of slowing – the January figure is down a whopping 20% or 1.09bn cfd year-on-year and represents a further 109mn cfd fall versus December.

*Could February have seen a rebound? BP on 16 February announced the start-up of two infill wells at the Raven field which accounts for the bulk of current WND output and is also Egypt's largest condensate producer. Egypt's oil ministry expects the two wells to produce 200mn cfd, in theory boosting Raven gas output from 400mn cfd to 600mn cfd, though these figures look optimistic.

*The three 'Phase 10' wells drilled last year at Shell's West Delta Deep Marine are also now online and producing a combined 140-150mn cfd, Egyptian officials say (MEES, 21 February). That said, the first two of the three wells were apparently already online, and producing 86mn cfd, in the first half of January (MEES, 17 January) and that wasn't enough to prevent overall gas output from Egypt's Mediterranean production heartland slumping by a further 3% (98mn cfd) month-on-month to 3.067bn cfd, the lowest since April 2018.

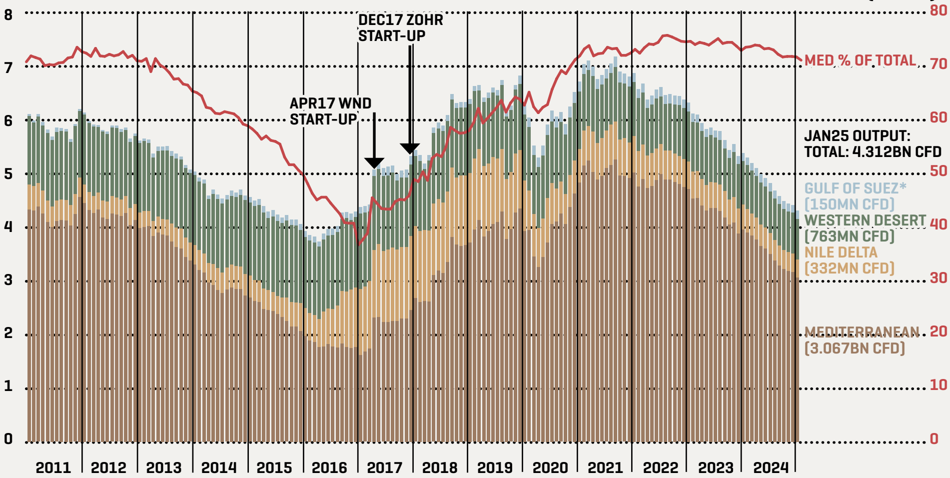
*At least gas output in Egypt's key onshore province, the Western Desert, has stabilized with production flat at 763mn cfd since November, although this remains a multi-decade low. Key regional producer Apache is hopeful of gas output gains over the coming months as it steps up gas-focused drilling having secured higher prices for new output (MEES, 7 March).

*Decline from the country's number three gas province, the onshore Nile Delta, has been severe, falling to just 332mn cfd for January, the lowest since mid-2014 and a far cry from the record 1.378bn cfd posted in August 2017. A key producer here is UAE firm Dana Gas, whose output has halved over the last seven years, to just 80mn cfd and 3,100 b/d for 2024. Dana has long stalled on the investment needed to stem decline (never mind increase output) but says it is now ready to spend $100mn on an 11-well campaign having secured improved terms with Cairo (MEES, 13 December 2024).

*Whilst there are some positive signs for Egypt's gas output trajectory in 2025 – though, given steep underlying decline rates, the smart money is on slower decline rather than overall gains – for oil there are few if any positive signs.

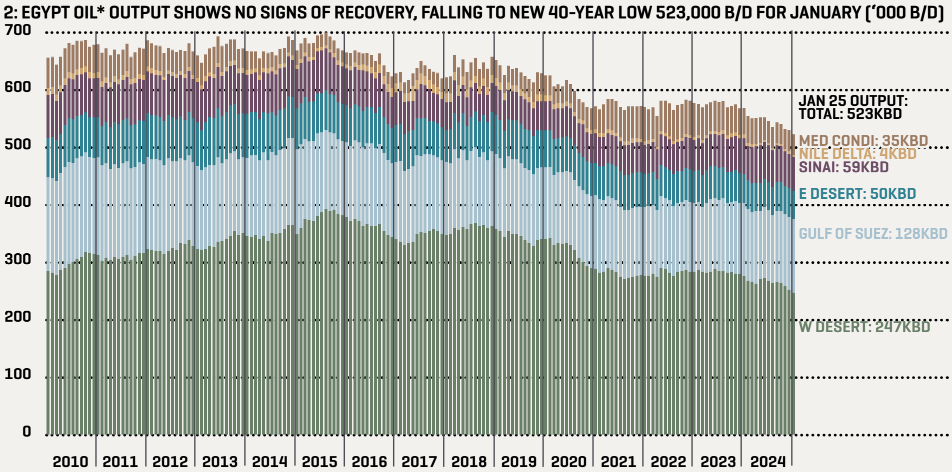
*For the country's top producer, Apache, the increase in gas-focused drilling is at the expense of oil, output of which it expects to decline. Having plumbed a multi-decade annual low 547,000 b/d for 2024, national oil production of 523,000 b/d

1: EGYPT'S GAS OUTPUT SLUMPS TO NEW 8-YEAR LOW 4.31BN CFD FOR JANUARY. WILL THIS MARK THE BOTTTOM? (BN CFD)



*INCLUDES ONSHORE EASTERN DESERT. SOURCE: MINISTRY OF PETROLEUM, JODI, MEES CALCULATIONS.

2: EGYPT OIL* OUTPUT SHOWS NO SIGNS OF RECOVERY, FALLING TO NEW 40-YEAR LOW 523,000 B/D FOR JANUARY ('000 B/D)



*CRUDE & CONDENSATE. SOURCE: EGPC, MEES

for January was the lowest monthly figure in more than forty years. The Western Desert, which makes up nearly half the overall figure, saw a further 2% month-on-month fall to 247,000 b/d, also a multi-decade low (see chart 2).

*Number two Western Desert producer, for both oil and gas, is a JV of Egypt's Cheiron and UK firm Capricorn, whose output of 149mn cfd gas and 20,900 b/d of oil for 2024 was down 17% and 27% respectively. As with Apache and Dana Gas, the firms have linked the potential investment needed to stabilize, and potentially boost, gas output to securing a price substantially higher than the legacy price of $2.65/mn BTU that Cairo pays onshore producers.

*Though a deal has yet to be finalized, Capricorn on 14 March said that "an initial agreement has been reached with EGPC which outlines terms to promote increased investment and production, including an improved gas price for incremental production and new discoveries alongside modernized commercial terms." Speaking last September, Capricorn CEO Randy Neely said "There isn't a long runway of activity in Egypt without improved terms" (MEES, 15 November 2024).

*Mr Neely has some past success in securing improved terms: he headed up Gulf of Suez producer TransGlobe when it inked such a deal in late-2021 (MEES, 24 December 2021). This entered effect during 2022, with TransGlobe taken over by Canada's Vaalco the same year (MEES, 14 October 2022). But after posting a 9% output increase in 2023 to 11,111 b/d, Vaalco's Egypt output fell 7% to 10,357 b/d for 2024. For 2025, Vaalco is guiding 9,750-11,100 b/d Egypt output as it continues a 10-well 2024-25 drilling program.

*The oil output decline has also been impacted by falling offshore gas production as associated condensate production has plummeted. National condensate output peaked at 119,000 b/d in 2010 and again surged with the April 2021 start up of BP's Raven. But, having peaked at 61,000 b/d in September 2021, Mediterranean condensate output has near-halved since. January's 34,570 b/d was only fractionally above October 2024's five-year low 34,200 b/d.

*Having hit 30,000 b/d after its 2021 start-up, Raven condensate output slumped to just half this for 2024. Cairo is hopeful that the Raven infill wells will provide a 10,000 b/d condensate boost.

Socar Eyes Israel Expansion Following Official Entry Alongside BP

Azeri state firm Socar is looking to grow its Israel offshore footprint. Fresh from sealing a deal to take 10% of key producing field Tamar and finalizing its exploration entry alongside BP, it is eying more offshore acreage.

Whilst some foreign firms are shunning Israeli investment as the Gaza conflict stretches on with no end in sight, Azerbaijan's national energy champion Socar is seemingly prepared to go all in. With the ink barely dry on its 17 March award – alongside BP (a country entry) and Israel's NewMed – of offshore exploration Zone I, and its 10% farm-in to 1bn cfd Chevron-operated Tamar awaiting regulatory approval, it is also looking to sign up to a third asset, exploration Zone E, MEES understands.

The three-block Zone E was one of four multi-block offshore areas to be offered up in 2023 bidding (MEES, 21 July 2023). But, though a consortium of Egyptian companies led by private upstream firm Cheiron alongside Israeli businessman Aaron Frenkel tabled a bid, no official award has yet materialized. With Israel making the awards on 29 October 2023, at the onset of its attacks on Gaza in the wake of Hamas' 7 October assault on Israel, MEES understands that the Egyptian companies baulked at the geopolitical optics of Israel entry (MEES, 3 November 2023). UAE state energy giant Adnoc a few months later "suspended" plans to enter Israel via the joint purchase with BP of 50% of NewMed due to the "external environment" (MEES, 15 March).

As part of Socar's $510mn purchase of 10% of Tamar, the Azeri firm will take a 48% stake at Mr Frenkel's Union Energy investment vehicle (MEES, 7 February). This collaboration will give Socar the opportunity to participate in Zone E, if and when it is eventually awarded, an informed source tells MEES.

One company to have already endured significant flak for signing up to enter Israel that day is BP. Despite the move fitting strongly with the UK major's 'return to the upstream' strategy shift (see p4), it is notable that BP failed to send any senior executives to the 17 March signing ceremony for Zone I. The UK major was represented by Michael Denison, 'Head of International Advisory' and VP Subsurface Roshni Moosai. In contrast, Socar President Rovshan Najaf and Azerbaijan economy minister Mikayil Jabbarov were both in attendance.

Socar with 33.34% will operate the six-block Zone I alongside BP and key local upstream player NewMed (33.33% each). NewMed's key asset is a majority 45.34% stake at the country's giant 22.3tcf Leviathan field which, as with the country's other key field Tamar, is operated by US major Chevron.

ISRAEL TOUTS 'STRATEGIC' WIN

With international criticism of Israel showing no sign of subsiding amid its renewed assault on Gaza from 18 March, Israel Energy Minister Eli Cohen celebrated the geostrategic win of securing entry into Israel of the state firm of a Muslim-majority country and the national champion of one of the P5 members of the UN Security Council.

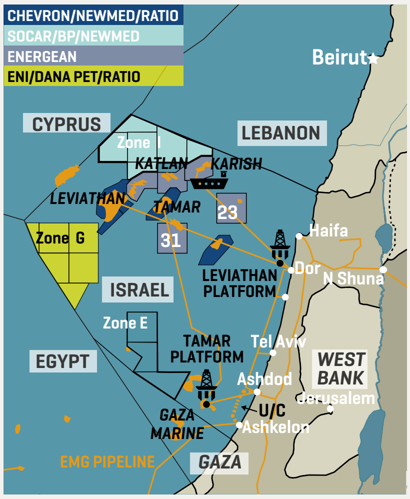
"The entry of Socar and BP is excellent news for the state of Israel. Natural gas is a strategic asset that strengthens our economic and political standing worldwide and particularly in the Middle East. Therefore, especially in these times, we are working to expand natural gas production for the benefit of the local market as well as for export," Mr Cohen says.

The Zone I license agreement is for an initial three years that can be extended twice for up to seven years in total. During the first three years the firms are not on the hook to drill any wells but must shoot seismic, whilst a move into the two-year second phase includes a drilling commitment. Despite no commitment to drill in the first three years, Mr Cohen is bullish that the firms could spud a well. "I'm looking forward that in less than three years you will make a discovery, this is what we are looking for," he told the 17 March signing ceremony.

Mr Cohen also spoke about the possibility of discovering not just gas but oil. "I believe that below the gas there is also oil and the great experience of Azerbaijan and know-how in this field maybe they can even find it before [Leviathan and Tamar-operator] Chevron so we are looking for this as well," Mr Cohen says. BP and Socar are partners at the key ACG oil and Shah Deniz gas fields in the Azeri Caspian.

ISRAEL'S NEW OFFSHORE GAS AWARDS

GAS FIELD/PIPELINE · POTENTIAL PIPELINE



NewMed CEO Yossi Abu told his firm's 10 March earnings call that, pending award "We are really keen to start a 3D [seismic survey] campaign" (MEES, 14 March). NewMed confirms to MEES that this campaign would encompass both Zone I and Leviathan, where 2019 reprocessing of existing seismic indicated potential oil of 368mn barrels (2U/best estimate) in the "Leviathan Deep" prospect (MEES, 31 January 2020). Industry sources canvassed by MEES are highly skeptical of the chances of discovering substantial oil reserves offshore Israel: all of the country's current 18,340 b/d liquids output is an associated by-product of gas production with nearly 80%, some 14,600 b/d for 2024 coming from Energean's Karish project (see p15).

ENI ENTRY INCOMING?

In addition to Zone I going to Socar/BP/NewMed, Israel in late 2023 announced the award of a second multi-block exploration zone after its fourth offshore bid round.

Zone G, on the border with Egypt was awarded to a consortium of Italy's Eni (75%), Korean state firm Dana Petroleum (15%) and Israel's Ratio (10%) and is expected to be finalized before mid-year. ◆◆

BP Seeks To Build On Historic Middle East Foundations In 'Return To Upstream' Strategy

BP sees its long-standing relationships with major Middle Eastern producers as central to its plans to reboot oil and gas output growth. First up is the return to Iraq's Kirkuk field. Symbolic of the new regional political map, BP also this week finalized its entry into a new market – Israel.

BP says that it is back in the oil and gas growth business, with CEO Murray Auchincloss last month consigning his predecessor's radical strategy reset to history. Plans to cut output to 1.5mn boe/d by 2030 and pivot to low-carbon energy have been axed, with the firm planning to build on last year's 2.36mn boe/d and bring output up to as much as 2.5mn boe/d by 2030 and higher still by 2035 (MEES, 28 February).

While a global player, BP sees its future growth resting on two primary regions; the USA and the Middle East. The US is the single largest source of production for BP, providing it with net output of 376,000 b/d of crude and condensates, 107,000 b/d of NGLs and 1.69bn cfd of natural gas last year, but the Middle East as a whole isn't too far behind. Output from the region increased to a seven-year high 294,000 b/d of liquids last year, while natural gas output was a record high 604mn cfd. Add in North Africa, and BP's Mena output was 316,000 b/d and 1.52bn cfd (see charts).

BP's Mena output equated to 27.1% and 21.9% respectively of its global oil and gas output last year. And the firm is planning to build on its current foundations in the region to boost output further. Writing last week in UK daily The Times, Mr Auchincloss said "We are moving fast to grow oil and gas production from some of our most profitable assets in the most important markets. In the US our onshore business is ahead of target...We are also moving ahead in Iraq to boost production from one of the world's giant oilfields and announced two gas discoveries in Egypt recently."

Similarly, during the firm's Capital Markets event earlier this month when asked about how BP stands out against competitors in the industry, Mr Auchincloss said "Look at the [US] Lower 48, [we're] back in the Middle East with strong growth. We have tremendous growth opportunities inside the upstream. Fabulous assets, high-graded after many years of divestment."

As it looks at increasing its regional activities, BP executives believe the firm has two areas of expertise which make it stand out from the pack. Firstly, its experience in developing giant mature fields such as Abu Dhabi's Bab, Iraq's Rumaila and Kuwait's Burgan. Secondly, the firm also touts its expertise in unconventional plays through its US shale subsidiary BPX, having successfully transferred this knowhow to the Middle East via Oman.

KIRKUK KEY TO RENAISSANCE

Mr Auchincloss's reference to Iraq is an allusion to the firm's ongoing plans to sign a landmark deal to develop the giant Kirkuk field in the north of the country. Commercial terms were finalized last month at a ceremony in Baghdad, with the major intending to increase output from current levels of around 300,000 b/d and 300mn cfd (after flaring) to 450,000 b/d and at least 400mn cfd (MEES, 28 February).

CEO Murray Auchincloss labels the deal, which has yet to be finalized, "one of the most important transactions BP has done in twenty years." In the Middle East, it is undoubtedly the firm's biggest deal since it signed up to a 10% stake in Abu Dhabi's giant onshore Adco concession in 2016, replacing its earlier 9.5% stake (MEES, 23 December 2016).

The precise terms on offer have yet to be clarified, but BP is confident that unlike its current operations at Iraq's largest field, Rumaila, it will be entitled to book reserves and production and that operations will be significantly more profitable. At Rumaila "the biggest hamper to making great money out of it was the original terms," says Mr Auchincloss. "It was an auction, it was a bidding round, and everybody bid it to the lowest number, and 'presto' what you got was difficult terms as a contractor...this is a much different commercial arrangement that we start with... Both sides are very, very incentivized to grow this on behalf of the nation."

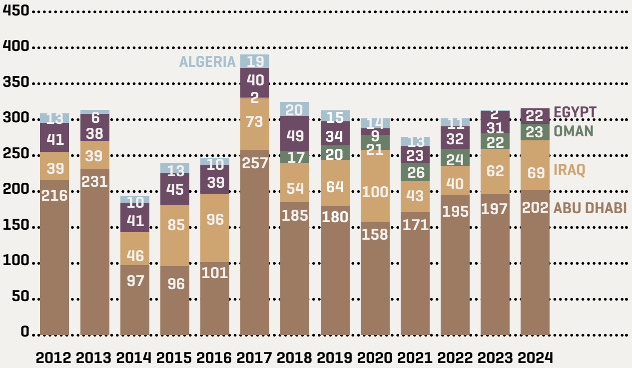
BP has a 47.63% stake in Rumaila, which prior to a fire in January was producing around 1.2mn b/d. It operates at the field through a technical service contract (TSC) and reports net output based on the monetary fees it is entitled to each year. As such its net output typically increases when oil prices fall. BP's net Iraq output therefore increased by 7,000 b/d last year to 69,000 b/d, its highest figure since the Covid pandemic crashed prices in 2020.

ABU DHABI FOUNDATIONS

By far the largest asset in BP's Mena portfolio is its 10% stake in Adnoc Onshore, which operates the onshore Adco concession. This netted BP a record 202,000 b/d of crude and condensate last year, up from 197,000 b/d in 2023. The net figures imply record gross output of 2mn b/d crude and condensate from the concession last year. This underpinned a record year for exports of Abu Dhabi's light Murban crude last year, which is primarily produced from the concession (MEES, 10 January). With Opec+ voluntary cuts limiting crude oil production, Adnoc is maximizing output of exempt-condensate. Condensate

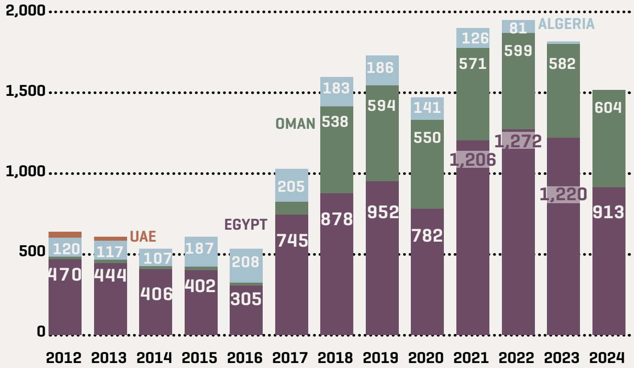
Continued on – p5

1: ABU DHABI AND ITS GIANT ONSHORE CONCESSION DOMINATE BP'S NET MENA OIL* OUTPUT ('000 B/D)...



*INCLUDES NGL. SOURCE: BP, MEES.

2: ...WHILST BP'S NET MENA GAS OUTPUT IS FOCUSED ON EGYPT & OMAN (MN CFD)



Continued from – p4

is refined domestically, with the Ruwais refining complex having capacity to process 280,000 b/d of condensate, as well as blended into the Murban export stream.

BP returned to the remodeled concession in December 2016, after the original concession agreement expired in 2014, and the current agreement runs until end-2054. Return to Adco lifted BP's net Abu Dhabi output to a record 257,000 b/d in 2017, but after the offshore Adma concession expired at the end of that year, BP opted against returning to any of the three successor offshore concessions, leading to its net Abu Dhabi output falling again.

Should BP desire, there remain opportunities for it to expand its presence in Abu Dhabi. Although Adnoc has finalized its main concession areas, it continues to negotiate with firms over exploration acreage. In particular, Adnoc is derisking its unconventional acreage which it says has recoverable resources of 160tcf natural gas, with opportunities here seemingly overlapping with BP's areas of expertise (MEES, 28 February).

OMAN'S UNCONVENTIONAL CENTERPIECE

In seeking to develop its unconventional acreage, Abu Dhabi is following the lead pioneered by BP in Oman. BP brought online the region's first unconventional gas asset in Oman in 2017; Block 61's 1bn cfd Khazzan tight gas project (MEES, 29 September 2017). Block 61 output has increased to 1.5bn cfd following the 2020 startup of the Phase 2 Ghazeer development (MEES, 16 October 2020).

Even though BP agreed to reduce its Block 61 stake to 40% through a sale of 20% to Thailand's PTTEP in 2021 (MEES, 5 February 2021), continued growth at the asset has lifted its net Oman gas output to a record 604mn, up from 582mn cfd in 2023. Oil output meanwhile edged up to 23,000 b/d, but remained below its 2021 peak of 26,000 b/d.

Block 61 has exceeded BP's initial expectations, producing far more successfully than executives initially believed it would, with natural gas flowing far more conventionally than expected. As a result, the partners (BP 40%, OQ 30%, PTTEP 20%, Petronas 10%) are currently updating the block's Field Development Plan with a view to expanding output to supply a planned 3.8mn t/y LNG train at Sur (MEES, 7 March). An LNG train with this capacity would require around 570mn cfd of feed gas.

Despite its successes at Block 61, BP has not developed much of a footprint elsewhere in Oman even as the likes of Shell, TotalEnergies and Eni have all snapped up new acreage in recent years in a bid to replicate the success of Khazzan. The firm has a 50% interest in the Eni-operated Block 77, where BP says in its 2024 annual report "an exploration well was spudded in October 2023. Currently the prospect is under evaluation." Block 77 is located to the east of Block 61.

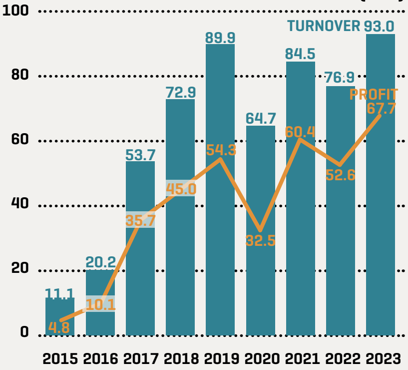
BUILDING ON LONG TERM RELATIONSHIPS

Another strategic advantage BP sees itself as having in the region is the deep relationships it has developed with governments and NOCs through multi-decade partnerships. This is most evident in Iraq, Kuwait and Abu Dhabi. In Iraq, BP's presence dates back to the 1920s when it participated in the original discovery of the Kirkuk field. It returned to the field in 2013, via an MoU to study redevelopment prospects, but work was then disrupted by the rise of the Islamic State, before the firm walked away in 2020.

Although BP can't book any production from Kuwait, it has a prominent upstream role in the emirate through an enhanced technical services agreement (ETSA) signed in 2016 (MEES, 15 July 2016). It first began operating in the country nearly 100 years ago when it was one of the founders of the Kuwait Oil Company (KOC) in 1934, which discovered the giant Burgan field in 1938.

BP's current ETSA brought it back to Burgan, where the firm was contracted to assist KOC in maintaining Burgan capacity at 1.7mn b/d. However, capacity dropped to just 1.39mn b/d in 2020/21 and KOC subsequently revised down its ambitions to 1.5mn b/d (MEES, 5 February 2021). BP's Kuwait subsidiary posted record profits and turnover for 2023, the most recent filing (see chart 3). With the ETSA for ten years, each party will soon have to decide whether to extend the arrangement.

3: BP KUWAIT'S* REVENUES, PROFITS ON THE RISE ($MN)



*OVERWHELMINGLY FROM BURGAN ETSA, ALSO INCLUDES SOME DOWNSTREAM SERVICES. SOURCE: BP KUWAIT, MEES.

Meanwhile, BP has been present in Abu Dhabi since 1939, and the emirate is its largest single upstream contributor in the region. The depth of this multi-decade partnership contributed to the agreement reached late last year for BP (51%) and Adnoc's XRG subsidiary (49%) to create the $1.9bn Arcius Energy joint venture in Egypt. BP contributed two of its production licenses and three exploration blocks to Arcius, with XRG injecting cash into the venture. MEES understands that BP will also eventually contribute its remaining Egypt assets such as 82.7% of the 600mn cfd West Nile Delta (WND) project (MEES, 20 December 2024).

Despite net Egypt gas output slumping from 1.22bn cfd to 913mn cfd last year as natural decline at key offshore gas fields took its toll (MEES, 21 February), the country remained BP's largest source of Mena gas, ahead of Oman. With more natural decline likely in 2025 and Arcius reducing BP's stake in key assets, net Egypt output will likely drop further this year.

BP also this week opened up a new Mena play in the East Mediterranean, taking up exploration acreage alongside Azerbaijan's Socar offshore Israel (see p3). The move is indicative of the new geopolitical realities in the region, as BP would never have risked its valuable relationships with the likes of Abu Dhabi a decade ago. With the UAE normalizing relations with Israel in 2020 through the Abraham Accords – and indeed taking a stake in the Tamar gas field through Mubadala Energy (see box) – IOCs are confident that they can operate in Israel and the Gulf.

Further afield, first gas at Mauritania's scaled-back 2.45mn t/y first phase Tortue LNG project was achieved in December, with the first export cargo expected to be shipped imminently (MEES, 28 February). The firm's pivot back to hydrocarbons boosts the prospect for future phases being sanctioned.

ADNOC-MUBADALA ENERGY TIE-UP?

It has long been evident that with Adnoc beginning to pursue international gas acreage, an agreement to take over upstream compatriot Mubadala Energy or its assets would one day take place (MEES, 31 March 2023). Mubadala Energy's portfolio is heavily weighted towards gas, further boosting the alignment with fellow Abu Dhabi state firm Adnoc, while Adnoc's entry into Egypt (see main story) means that both firms hold stakes in the Eni-operated Zohr gas field.

Moreover, parent company Mubadala has been reducing its energy sector exposure in recent years, offloading stakes in Austria's OMV and the Borealis petrochemical JV to Adnoc in 2022. Earlier this month, Mubadala agreed to transfer Nova Chemicals to a newly formed OMV/Adnoc petrochemicals venture (MEES, 7 March).

An eventual acquisition therefore appeared inevitable, with any holdup primarily down to balancing the interests of domestic stakeholders, and last week Bloomberg reported that talks began late last year for Adnoc to acquire Mubadala Energy in a deal worth approximately $10bn. MEES understands that while some discussions on the matter have taken place, there has been nothing substantial as yet. Mubadala Energy produced 369,000 boe/d in 2023 according to its latest results, of which 69% was gas, implying 1.43bn cfd and 114,000 b/d of liquids.

CHINA CRUDE IMPORTS DOWN FOR JAN-FEB 2025, RUSSIA STILL TOP

Imports from Iran rebounded for February but the US this week slapped on a new set of sanctions targeting the trade, with a Chinese refiner directly targeted for the first time.

*China's crude imports began 2025 on the same weak note that persisted through much of 2024. Average imports of 10.42mn b/d for the first two months of 2024 were down 3.4% year-on-year and some 650,000 b/d below the average 2024 figure of 11.07mn b/d, which in turn was down on 2023 (MEES, 24 January).

*Russia remained China's top crude supplier for both January and February, extending its run at the top to 22 straight months, though average volumes of 1.92mn b/d for Jan-Feb were down 11% year-on-year. Russia nevertheless maintained its lead over Saudi Arabia whose volumes were down 12% year-on-year at 1.45mn b/d. Iraq, up 3% at 1.27mn b/d, was just ahead of 'Malaysia', up 14% at 1.24mn b/d, for number three spot.

*'Malaysia' volumes largely consist of transhipped and/or mislabelled Iranian supplies. Such volumes dipped to a 23-month low 848,000 b/d for January as a step-up in US sanctions and enforcement on imports and handlers of Iranian crude led the main ports operator in the independent refining hub of Shandong to say it would no longer accept the US sanctioned vessels that make up the 'shadow fleet' which handles the bulk of trade in Iranian crude (MEES, 10 January). However, with many importers having seemingly since developed workarounds, Chinese imports from 'Malaysia' surged back to a near-record 1.63mn b/d for February amid the partial clearance of Iranian volumes that had been stuck in floating storage limbo for several weeks (MEES, 7 February). This was well ahead of the monthly figure for both Saudi Arabia (1.55mn b/d) and Iraq (1.21mn b/d) and second only to Russia's 2.02mn b/d.

*However, Washington is not finished yet with its sanctions escalation. The US Department of the Treasury's Office of Foreign Assets Control (OFAC) on 20 March slapped sanctions for the first time on one of the Chinese independent refiners that has been taking Iranian crude. "Shandong Shouguang Luqing Petrochemical Co., Ltd (Luqing Petrochemical), a (60,000 b/d capacity)teapot refinery in Shandong Province, has purchased millions of barrels of Iranian oil worth approximately half a billion dollars," the US Treasury says. The same OFAC announcement added a further eight vessels that it says constitute part of Iran's 'shadow fleet' which supply China's "teapot refineries" by means of "deceptive shipping practices, including automatic identification system (AIS) manipulation." China's Huaying Huizhou Daya Bay Petrochemical Terminal Storage was also sanctioned "for buying and storing Iranian crude oil from a sanctioned vessel." Oil prices rose following the announcement, which could yet be a prelude for sanctions being applied to other, larger refineries.

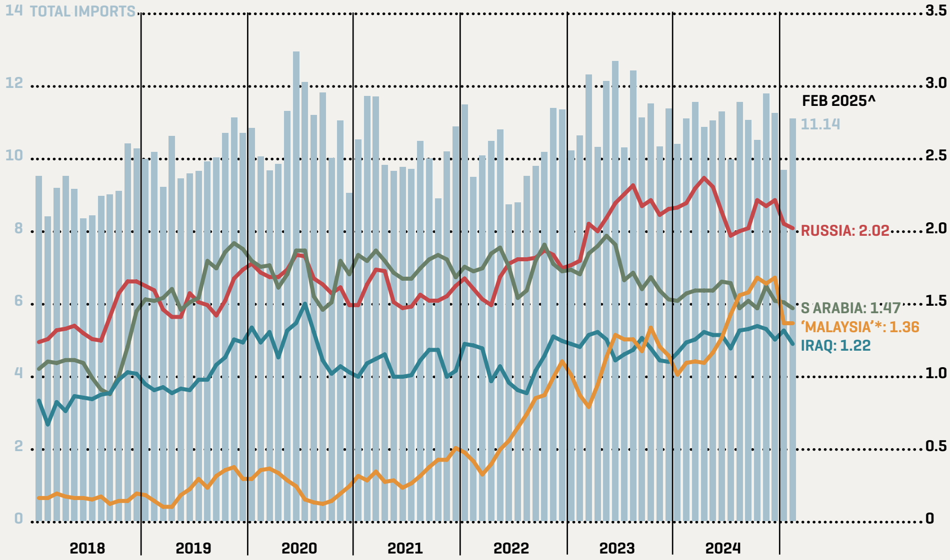
*The effect of US policy, and in particular tariffs on Chinese goods and Beijing's reciprocal 10% tariff on US crude (among other goods), can also be seen in the Chinese stats. Imports of US crude fell to just 71,000 b/d for February, the lowest monthly figure since 2022.

*Notwithstanding the threat of a trade war to the economy of the world's largest manufacturer, the IEA predicts growth of 1.4% or 230,000 b/d in China's oil demand to 16.84mn b/d for 2025, modest by historical standards but up on 2024's anaemic growth of 150,000 b/d (0.9%).

*And growth in refinery runs will likely outpace that of demand as new plants start up. Runs began the year on a strong note, up 3.8% year-on-year at 14.78mn b/d for the highest Jan-Feb figure on record (see chart 2). (The Chinese authorities aggregate the date for the two months to avoid the impact of the extended Chinese New Year holiday which moves between January and February). The near-record runs figures follow the late-2024 start-up of the first 200,000 b/d CDU at the Shandong Yulong Petrochemical refinery. Reuters reports that test runs at the plant's other 200,000 b/d CDU are set to begin later this month.

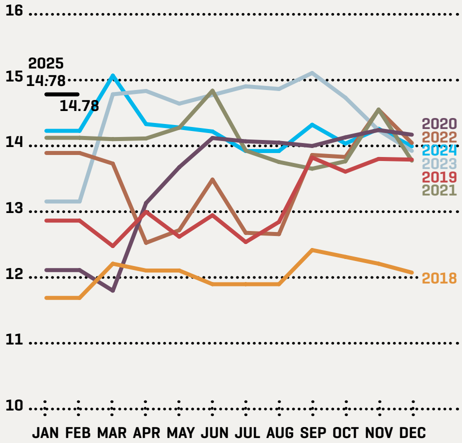
*China's crude output also continues to edge higher, up 1.5% year-on-year at 4.35mn b/d for Jan-Feb, just shy of the high of 4.38mn hit in June last year, which in turn was just shy of the record monthly figure of 4.41mn b/d hit in 2015 (see chart 3).

1: CHINA'S TOP CRUDE SUPPLIERS (MN B/D, 3-MTH MOVING AVG): RUSSIA RETAINS CLEAR LEAD AS SAUDI AND 'MALAYSIA'* VIE FOR SECOND



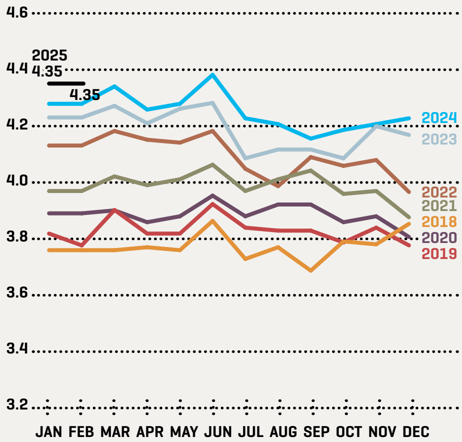
*THOUGHT TO LARGELY CONSIST OF TRANSHIPPED/MISLABELLED IRANIAN VOLUMES. ^BY-COUNTRY NUMBERS ARE THREE-MONTH MOVING AVERAGES. SOURCE: CHINA CUSTOMS, MEES.

2: CHINA'S REFINERY RUNS BEGAN 2025 AT 14.8MN B/D, A RECORD FOR JAN-FEB AND JUST SHY OF ALL-TIME HIGHS (MN B/D)...



SOURCE: OFFICIAL STATISTICS, MEES.

3: ...WITH CRUDE ALSO EDGING HIGHER TO NEAR-RECORD LEVELS (MN B/D)



SOURCE: OFFICIAL STATISTICS, MEES.

Qatar-Jordan-Syria Gas Supply Deal: Just Don't Mention Israel

Doha is attempting to win favor in Damascus by helping the war battered country increase its electricity supply with the help of gas supplied via Jordan. Pipeline logistics mean such molecules will almost certainly be of Israeli origin; indeed some volumes may be already making the trip.

On 13 March the Qatar Fund For Development (QFFD) signed a deal with Jordan's Energy Ministry to supply natural gas to Syria in a bid to boost electricity generation beyond current levels of around four hours a day for the war-ravaged country.

"The State of Qatar's initiative calls for providing natural gas supplies to Syria through Jordanian territory, which will contribute to generating electricity at an initial rate of up to 400MW, gradually increasing it to provide an additional two to four hours of operation," Syrian oil minister Ghiath Diab tells state news agency Sana.

Gas would be used to supply the 1GW Deir Ali power plant south of Damascus, indeed informed sources tell MEES that some gas from Jordan may have already made its way to the plant.

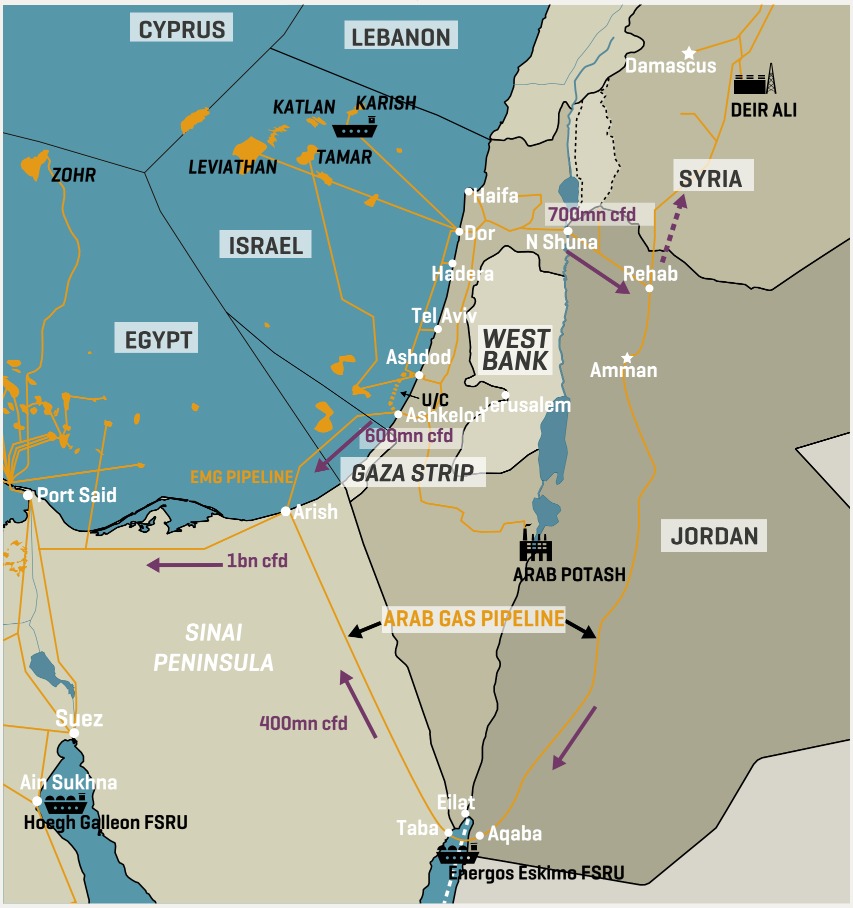
MEES understands that such supplies would not be subject to US sanctions after the US Treasury on 6 January authorized "transactions with governing institutions in Syria and certain transactions related to energy."

The only route to supply Syria with gas is via the Arab Gas Pipeline (AGP) which runs north-south through Jordan. In theory Qatar could supply LNG to Jordan via the Energos Eskimo FSRU moored at Aqaba on the Red Sea, with gas sent north to Syria via the AGP. However, both Jordan and Egypt are heavily reliant on using the route in the opposite direction to import Israeli gas. For Jordan, imports of 250-300mn cfd from Israel's Leviathan field constitute its baseload power generation fuel. And, given Egypt's chronic gas shortage there is no chance of southbound flows of Israeli gas via the AGP halting any time soon (MEES, 21 February).

As such, the only way that gas can feasibly flow north from Jordan to Syria is if part of these Israeli volumes are diverted north from the gas hub of Rehab in northern Jordan. Any imports of LNG at Aqaba could potentially replace these volumes in the Jordanian or Egyptian energy mix but would not actually flow to Syria.

EAST MED GAS FLOWS & KEY ENERGY INFRASTRUCTURE

GAS FIELD/PIPELINE · LNG IMPORT TERMINAL · CURRENT FLOWS



EMPEROR'S NEW CLOTHES

Whilst such an arrangement would appear unlikely, in reality none of the parties involved has an incentive to flag up the actual origin of the gas supplied to Syria.

Given the precarious situation Syria finds itself in, officials there earlier this year signaled their willingness to import gas "from a brotherly neighboring state [Jordan] regardless of the source of this gas [Israel]" (MEES, 17 January).

The deal also shares similarities with one announced in 2022 that envisaged 'Egypt' supplying what would have been Israeli gas to Lebanon via Jordan and Syria (MEES, 24 June 2022). This deal ultimately floundered as Beirut proved unable to give the World Bank the guarantees needed to secure funding.

Further complicating matters, Qatar would need to send its LNG tankers through the Red Sea, a route through which it has halted shipments since January 2024 amid threats to shipping from Yemen's Houthis (see p8).

All four of the LNG cargoes Jordan has imported at Aqaba so far in Q1 have come from the US, that is to say they haven't passed through the Red Sea.

An additional complication with plans that rely on importing LNG at Aqaba is that the FSRU is due to depart Jordan later this year and make its way to Egypt's Ain Sukhna (MEES, 6 December 2024). ◆◆

US Starts New ‘Unrelenting’ Bombing Campaign Against Houthis In Yemen

The Trump administration has kicked off a new and more aggressive bombing campaign against the Houthis in Yemen. The strikes once again open the specter of regional escalation and dash already slim hopes of a return of ships to the Red Sea.

The US kicked off a renewed bombing campaign against Yemen’s Houthis on 16 March, hitting multiple sites in recent days. In the first two days of the new campaign alone, at least ten waves of airstrikes targeted the Houthi’s key oil products import terminal Ras Issa, their capital Sana’a, and their heartland Saada. Further waves of strikes pounded Yemen in the week with President Trump saying the group will be “completely annihilated.”

Representatives of the US president’s administration emphasized that this would be a long and brutal campaign. “This is not a message. This is not a one-off,” says Secretary of State Marco Rubio, “this is an effort to deny them [the Houthis] the ability to continue to constrict and control shipping.” Defense Secretary Peter Hegseth made similar remarks the day after the strikes: “This campaign will end, but until then it will be unrelenting.”

Since the Houthis began their offensive against Red Sea vessels in early 2024 they have forced an unprecedented disruption to global shipping, with most vessels now opting to detour around the southern tip of Africa rather than make for the Suez Canal and risk the Red Sea.

The US has been bombing Houthi targets in rounds of airstrikes since kicking off its campaign with operation “Poseidon Archer” at the beginning of 2024 (see chart 1 & MEES, 12 January 2024). Originally meant to deter and degrade the group’s ability to attack ships in the Red Sea the strikes by the end of the year appeared to have done little of either.

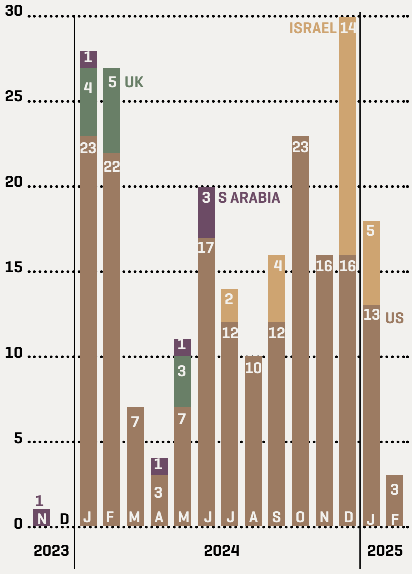
HOUTHIS MEET ‘ESCALATION WITH ESCALATION’

Since the middle of December, the Houthis refrained from attacking ships in the Red Sea (see chart 2), focusing instead on targeting Israel directly. The group later declared a near total halt to attacks in response to the now-collapsing 19 January Israel-Hamas ceasefire (MEES, 24 January).

But the recent US strikes, and Israel’s resumption of its Gaza offensive on 18 March, have put the Houthis back on the offensive. Speaking the day after the US strikes (17 March), Houthi leader Abdulmalik al-Houthi said “we will respond to escalation with escalation” taking aim at “their [US] aircraft carriers, their warships, and their vessels. They will be included in the [Red Sea] blockade decision. And beyond that, we still have additional escalatory options.”

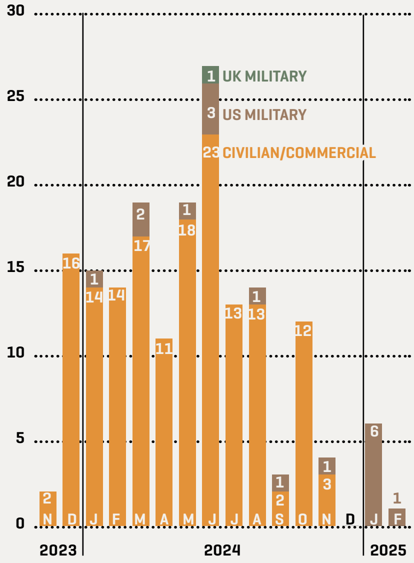
As MEES went to print the Houthis had claimed three attacks on the US carrier strike group stationed in

1: INTERNATIONAL STRIKES ON THE HOUTHIS HAVE BEEN LED BY THE US (NO. OF STRIKES)



AIRSTRIKES, DRONE STRIKES, AND MISSILES. EXCLUDES STRIKES AGAINST AQAP. SOURCE: ACLED, MEES.

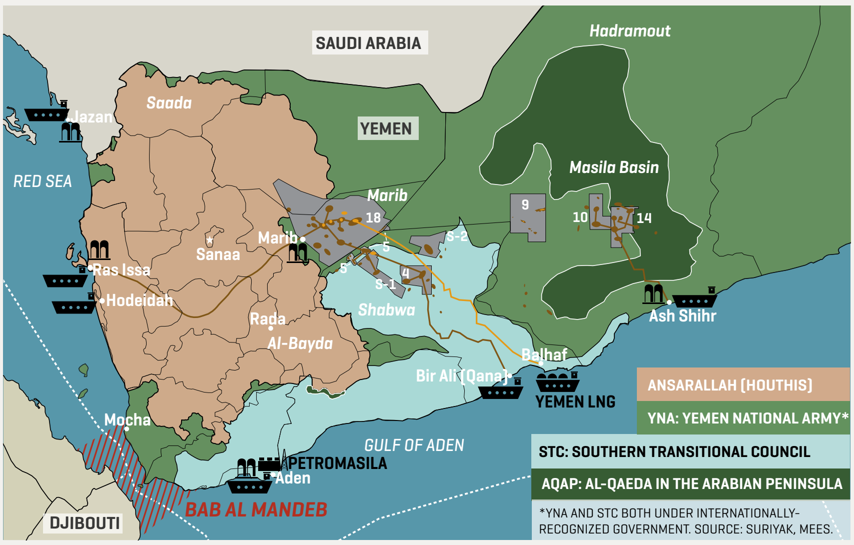
2: HOUTHI ATTACKS* ON COMMERCIAL SHIPS IN THE RED SEA FELL TO ZERO AT THE END OF 2024



*INCLUDES DRONE AND MISSILE ATTACKS. SOURCE: ACLED, MEES.

YEMEN: POLITICAL CONTROL & OIL INFRASTRUCTURE

OIL FIELD/PIPELINE GAS FIELD/PIPELINE REFINERY OIL TERMINAL POWER PLANT



*YNA AND STC BOTH UNDER INTERNATIONALLY-RECOGNIZED GOVERNMENT. SOURCE: SURIYAK, MEES.

Continued on – p9

Continued from – p8

the northern Red Sea. On 18 March the Houthis also fired a missile targeting Israel's Nevatim base in the Negev desert and two days later fired another missile at Tel Aviv.

"This will continue for a long time," says Ahmed Nagi, Senior Analyst on Yemen for International Crisis Group, "as long as the Houthis will not give up, not surrender, we can see this kind of tit-for-tat for a long time because from the Houthi perspective they will attack back when attacked. This is exactly what happened after the first wave of airstrikes."

AVOIDING REGIONAL SPILLOVER

After a relative period of calm the recent blows traded between the Houthis, the US, and Israel threaten a new round of escalation. Like previous bouts this risks drawing in regional players.

March marks ten years since Saudi Arabia led a regional coalition in bombing the Houthis in Yemen under operation "Decisive Storm" (MEES, 27 March 2015). A decade later, Saudi Arabia is keen to disentangle itself from Yemen's intractable civil war. Experts canvassed by MEES broadly agree that Riyadh's open communication with the Houthis make it unlikely to see it attacked in response to the US strikes; but not impossible.

"When it comes to energy threats, the hawks amongst the Houthis believe the most effective way to send a message to the US is to target Aramco infrastructure," says Mohammed al-Basha, founder of US-based Middle East security advisory Basha Report. "If a senior Houthi figure is killed by the US the hawks would likely push to escalate further and may drag Saudi Arabia into war."

The Houthis have previously attacked key energy infrastructure in both Saudi Arabia and the UAE (MEES, 7 October 2022). In early 2024 the Houthis renewed threats against Saudi Arabia from participating in the then-Biden administration airstrikes against them (MEES, 29 March 2024).

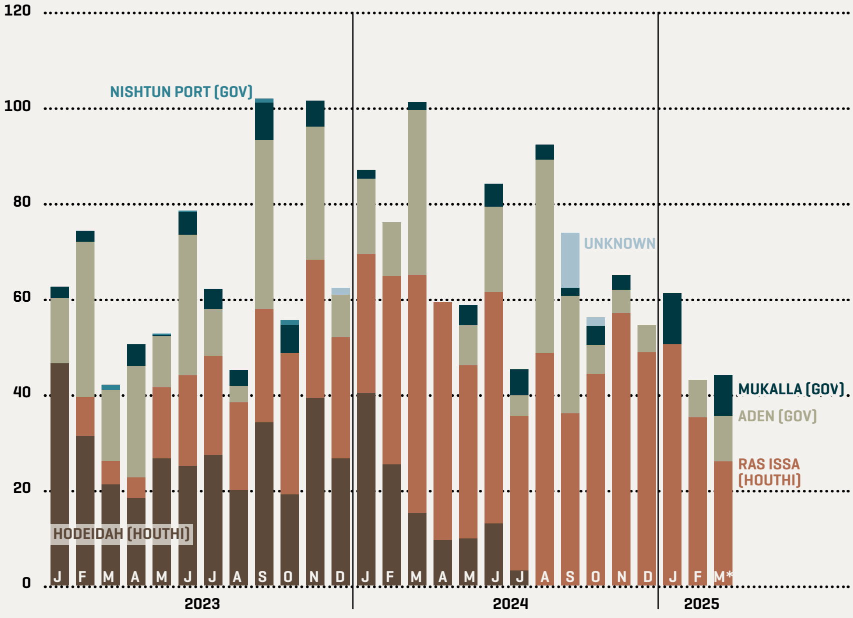
Iran is another possible site for escalation as the US has linked any Houthi response directly to Iran. Posting on his social media platform Truth Social on 17 March, President Trump wrote "every shot fired by the Houthis will be looked upon, from this point forward, as being a shot fired from the weapons and leadership of IRAN, and IRAN will be held responsible, and suffer the consequences." President Trump has taken aim at Iran since taking office with a particular focus on its energy exports.

TRUMP TIGHTENS THE NOOSE

The Trump administration is also increasing financial pressure on the Houthis, introducing tighter sanctions on 4 March by classifying them a Foreign Terrorist Organization (FTO). This includes a ban on the offloading and related transactions "involving imports or exports of refined petroleum products" to Houthi ports. The US Treasury scrapped existing carve outs that allowed refined oil imports into Houthi territories under Counter Terrorism General License 25 and 26. Now, ships loaded before the treasury's decision have until 4 April to discharge.

If enforced, the ban on oil product imports will undercut a key revenue source for the Houthis. Since 2023 the group has been transforming its Ras Issa port into an import hub for oil products (MEES, 3 November 2023). The deep-water port used to be a key export terminal for Yemeni crude piped from the Marib region. Ras Issa is now the Houthi's sole source for imported fuels after Israel repeatedly hit their other main port, Hodeidah, in 2024 (MEES, 26 July 2024). So far this year the Houthis have imported an average of 37,000 b/d of primarily diesel and gasoline into Ras Issa according to Kpler data (see chart 3). Most oil is supplied from storage hubs in the UAE.

3: HOUTHI-CONTROLLED RAS ISSA HAS BECOME THE GROUP'S MAIN OIL PRODUCTS IMPORT HUB AS IMPORTS INTO GOVERNMENT PORTS SLUMP ('000 B/D)



*AS OF 20 MARCH. SOURCE: KPLER, MEES.

In a sign of attempting to cooperate with the new US strategy, oil minister Saeed al-Shamasi told UN representatives during a 14 March meeting that the government-in-exile is willing to supply fuel — road fuels and LPG — to Houthi-controlled territories. Despite the Houthis controlling the most populous regions of Yemen, the government still holds the country's oil and gas producing regions which struggle to supply domestic needs (see map). A decade of conflict has shuttered most of the country's hydrocarbon output and without a ceasefire, restarting exports looks near impossible (MEES, 21 February).

A senior government source tells MEES that President Rashad al-Alimi also met with military officials after the US strikes to discuss possible military cooperation with the Trump administration's new strategy. But, the source says, the Presidential Leadership Council he leads is unlikely to bypass Saudi Arabia (its main backer) and coordinate directly with the US.

NO RED SEA RETURN

A return to fighting in Yemen also rules out a return of ships to the Red Sea. Houthi attacks on commercial shipping since the end of 2023 saw most commercial ships avoid the waterway throughout the following year. An average of around 73 ships passing through the Bab al-Mandeb chokepoint each day in 2023 dropped to only 32 the next year on the back of Houthi attacks and rerouting. By MEES estimates, more than 3mn b/d of oil was redirected away from the Red Sea in 2024 (MEES, 10 January).

Despite attempts from the Suez Canal Authority to highlight individual cases of ships returning to the canal since the beginning of the year, shipowners have been clear they are in no rush to return to the Red Sea (MEES, 28 February). One notable cargo to transit Suez recently was a 65,000 ton cargo of Omani LNG to Turkey in February, but this is unlikely to be a frequent occurrence.

A maritime insurance source tells MEES that rates for insuring vessels travelling through the Red Sea stayed at their elevated level in the first months of the year. "The predominance of Western ships remain averse to the Red Sea," the source says, a position no doubt deepened following the recent escalation.

Morocco Eyes $6bn Gas Infrastructure

Morocco says it could offer $6bn worth of tenders for gas infrastructure in the coming months, finally moving forward with long-stalled plans to import LNG.

Long-stalled plans by Morocco to import LNG and boost the role of gas in its power system could soon move forward, with energy minister Leila Benali announcing that the country is finally launching tenders for gas infrastructure projects "in the next few months."

Speaking at the CERAWeek energy conference in Houston earlier this month, the minister said the projects will require up to $6bn of investment "primarily from the private sector."

The planned projects would include "a couple of entry points for LNG into Morocco, and a number of gas pipelines to link the demand centers to the entry points, to the supply centers," the minister says.

Morocco's ambitions for LNG import terminals are not new (MEES, 16 October 2015). The previous reboot in 2021 envisaged imports from 2025 (MEES, 28 May 2021). Progress stalled amid political deadlock. At the same time hopes that the country could itself produce significant volumes of gas have again been dashed (see box).

Ms Benali described Morocco's energy strategy as a triangle comprising renewable energy, energy efficiency, and connectivity. "For us it's very important to ensure that natural gas is at the center of this triangle," Ms Benali says.

"The point is to... make sure that we have durable and sustainable infrastructure in Morocco with at least two entry points for LNG [and] associated gas pipelines within Moroccan territory," she says.

She gave little away on where LNG import terminals might be sited: anywhere "between Dakhla [in Western Sahara] and Nador" near the Algerian border, essentially the country's whole coastline, has "great potential," she says.

The 2021 plans envisaged imports via FSRUs in one or more of four locations: Nador West Med, Kenitra, Mohammedia, and Jorf Lasfar (see map). Development work at Nador is ongoing with the London-based EBRD development bank on 18 March loaning a further €110mn for development here on top of financing worth €200mn in 2015 and €100mn in 2022.

'TRANSITION FUEL'

Morocco's domestic gas output is a puny 5mn cfd from onshore just north of Rabat which supplies local industrial customers.

The country's two gas fired power plants, 470MW Ain Beni Mathar and 385MW Tahaddart were previously supplied with gas from Algeria before deliveries were halted in late-2021(MEES, 5 November 2021). With no hope of a resumption Morocco the following year began importing regassified LNG via Spain (MEES, 2 December 2022), with imports hitting a record 95mn cfd for 2024 (see chart & MEES, 7 March).

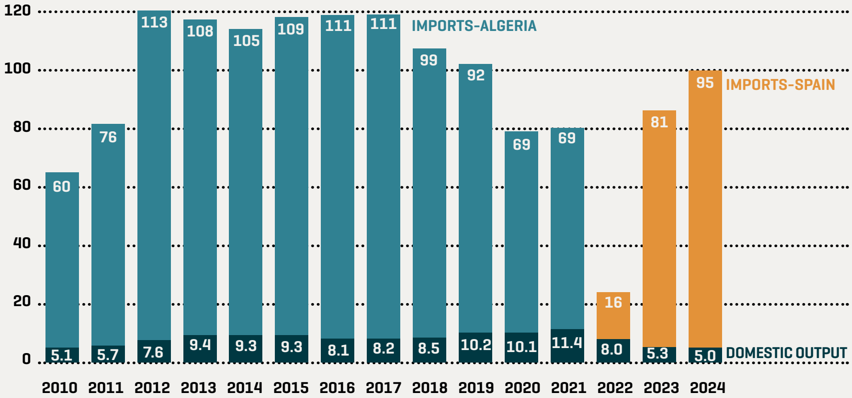
And while Morocco is a regional renewables leader, with a record 24.6% of power generation for 2024, the country also remains the region's number one in terms of coal-fired power.

As such, Ms Benali echoed earlier statements by Morocco's state power firm ONEE that the country envisages gas as a "transition fuel," with the minister adding that the aim is "to deal with intermittencies in renewables." ◆◆

MOROCCO: POTENTIAL LNG INFRASTRUCTURE*

*POTENTIAL FSRU SITES AS PER 2021 PLANS. ^INTEGRATED SOLAR/CCGT PLANT. ^PREVIOUSLY-MOOTED.

MOROCCO GAS DEMAND (MN CFD): IMPORTS FROM SPAIN HIT A RECORD 95MN CFD FOR 2024, MORE THAN EQUAL WITH THE LATTER YEARS OF ALGERIAN SUPPLIES*



*ALGERIA HALTED DELIVERIES FROM NOV 2021. SPAIN VOLUMES ARE RE-EXPORTS OF GAS IMPORTED AS LNG. SOURCE: ENAGAS, JODI, ONHYM, SDX, MEES.

MOROCCO GAS OUTPUT HOPES DASHED

Morocco has long harbored hopes of emulating Mauritania and Senegal to the south with sizable gas discoveries off its Atlantic Coast. But it has little to show from more than a dozen, mostly deepwater, wells over the past 15 or so years (MEES, 15 September 2023).

By last year such ambitions had been downsized to hopes of 100mn cfd output from the 0.64tcf Anchois field in 360metres water depth 40km offshore Morocco's northern Atlantic coast (see map).

But even these hopes have now been dashed. London-listed Energean, which took over as operator last April (MEES, 12 April 2024), confirms in its 2024 results on 20 March that not only was the result of appraisal well drilled in Q3 last year (MEES, 23 August 2024) "unfavorable", but that it is quitting Anchois and the surrounding exploration acreage, fully impairing the $65mn it has spent to date.

KUWAIT SEEKS CHINESE HELP WITH SOLAR EXPANSION

Kuwait is tapping China to kickstart its stalled solar power plans. Failure to bring online solar plants is indicative of the broader malaise in Kuwait's power sector which is now reliant on electricity imports to stave off widespread blackouts during summer.

Kuwait's electricity ministry has signed a technical framework agreement with China's National Energy Administration as it seeks Chinese expertise and investment in adding renewable energy capacity to the country's power system. The 17 March government-to-government agreement was signed by ministry undersecretary Adel al-Zamel and Ren Jingdong, the administration's deputy director.

Mr Zamel says the agreement followed six months of negotiations covering two projects: "phase 3 and 4 expansions" of the country's only current renewables park at Shagaya and the long-stalled Abdaliya plant. Combined these two projects will add 3.5GW of capacity, "expandable to 5GW" Mr Zamel adds in comments carried by state agency Kuna.

Kuwait currently has just 70MW of renewables capacity at Shagaya including a mere 10MW of solar PV as well as 50MW of Concentrated Solar Power (CSP) and 10MW wind. This contributes less than 0.2% of the country's power generation , just 0.16TWh for 2024 (see chart 1). The park's current facilities were commissioned in stages from 2017 to 2019 to serve as a test bed for deploying renewable energy technologies in Kuwait, with the government planning to expand Shagaya to 4.5GW through multiple phases (MEES, 28 July 2023). Shagaya's CSP has been offline since a November fire.

Kuwait's power sector is struggling to cope with demand growth, with total capacity declining as aging units are taken offline and the government has failed to bring significant new capacity online since 2020. Instead, Kuwait is becoming increasingly reliant on the GCC interconnector to meet demand during the peak summer season (MEES, 14 February).

In mid-2023, Kuwait set a target for 15% of its power generation to come from renewables by 2030, implying that around 10GW of installed capacity would be required (MEES, 28 July 2023). But while hopes are that solar capacity can be deployed quickly, project tendering bureaucracy and legislative ambiguity remain major hurdles.

Kuwait first signed an MoU with China's Energy Administration in September 2023 to attract Chinese investment in renewables, and in late 2024 local daily al-Qabas reported that the Shagaya expansions, and "possibly Abdaliya," would require $800mn total investment. Qabas quoted a Kuwait Investment Authority (KIA) study which recommended that the project company, typically a special purpose vehicle (SPV), should be structured so that the Chinese and Kuwaiti governments hold 42.5% each while the remaining 15% would be listed on the Kuwaiti bourse.

The KIA report highlighted that these projects have been exempted from Kuwaiti laws that pre-sets limits on government and developer's shares in public-private partnerships and mandate a 50% listing on the Kuwaiti exchange. It cautions, however, that if the Kuwaiti government opts to own 51% of the project, then it would fall under other laws limiting "operational performance and giving rise to other challenges."

THE KAPP DON'T FIT

Typically, such independent power producer (IPP) projects require an official Power Purchase Agreement (PPA) to be signed with the Kuwait Authority for Partnership Projects (KAPP). But KAPP has been slow to finalize such agreements, frequently re-tendering planned projects. Currently Kuwait's only IPP is the 1.6GW Az-Zour North plant which started up in end 2016, more than four years after the operating consortium was chosen (MEES, 5 March 2012).

In order to avoid similar delays, the government is seeking to bypass KAPP with this agreement, following similar proposals last year focused on expanding the IPP model beyond KAPP's remit in order to fast track small-scale power projects by Kuwaiti private firms (MEES, 5 January 2024).

Mr Zamel's comments indicate that the bulk of the Shagaya expansion could be offered to Chinese companies. The 4.5GW additions have been divided by KAPP into four zones and last August four consortia and two firms were shortlisted for the 1.1GW 'Dibdibah Power and Shagaya Phase 3 (Zone 1)' project (MEES, 23 August 2024). Ministry officials say this week's agreement will add 3.2GW of capacity in apparent reference to Phase 3's third and fourth zones which are for 1.5GW and 1.7GW of solar PV capacity respectively. This would leave the 200MW Zone 2 outstanding. Currently intended to consist of CSP, this may yet be switched to PV.

The remaining 300MW of the 3.5GW covered by the MoU will come from the Abdaliya project. Original plans for Abdaliya envisioned a 280MW integrated solar combined cycle plant (MEES, 27 September 2013), with the solar component just 60MW. In 2023, the electricity ministry planned to re-tender the project by end 2024 but this fell apart.

DEMAND SET TO RISE AGAIN

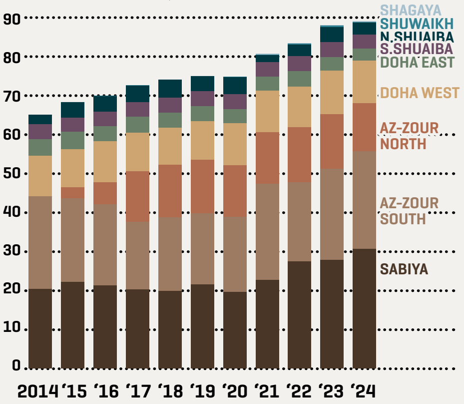
Amid this, Kuwait's electricity demand is set to rise again this year. Peak load of 8GW in January was the highest ever for the month, with total generation of 5.11TWh also a January record (see charts). Whilst February's figures are nominally lower, that for generation is actually up on both January 2025 and February 2024 when adjusting for the number of days in the month.

Last year's peak load of 17.64GW was hit in August and outages at key plants resulted in blackouts. The ministry's latest forecasts peak demand of 18.57GW this year, and while this remains below installed capacity of 19.38GW, available capacity peaked at just 17.99GW last year.

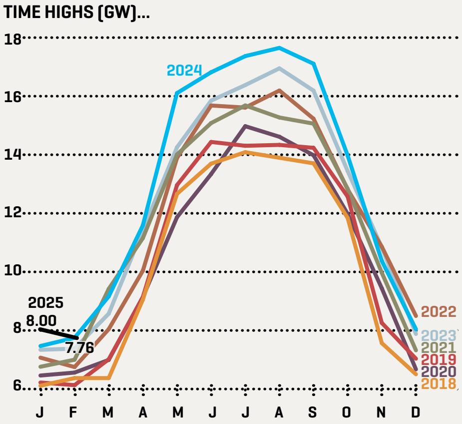
Even if Kuwait imports 1GW of electricity through the GCC interconnector during the peak demand period as planned, this will still leave only a minimal safety margin: even small outages could potentially trigger blackouts. This could prompt Kuwait to re-look plans to hire power generation ships.

With demand set to continue rising – the ministry predicts 19.44GW peak load for 2026 – new capacity is urgently needed. Some gains could come in time for summer 2026 with the 250MW stage-2 CCGT conversion at the 7GW Sabiya power complex, but the more substantial 900MW stage-4 Sabiya CCGT expansion remains tied to approval from the Central Agency for Public Tenders. ◆◆

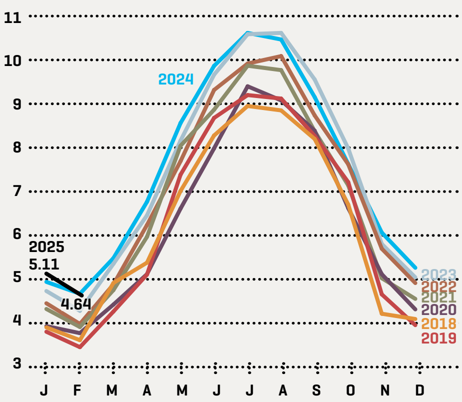
1: KUWAIT GENERATION (TWH): SHAGAYA, THE SOLE RENEWABLES FACILITY, PROVIDED LESS THAN 0.2% FOR 2024



2: KUWAIT'S PEAK LOAD BEGAN THE YEAR AT MONTHLY ALL TIME HIGHS (GW)...



3: ...WITH GENERATION RAMPED UP AS A RESULT (TWH)



SOURCE: MEW, MEES.

Saudi Power Revamp Progresses Apace Amid Record Electricity Demand

Saudi electricity consumption rose almost 3% last year, but the increased role of gas and renewables kept oil burn flat. Oil burn could finally take a decisive downward turn this year with renewables set to displace up to 165,000 b/d by end-year when a key oil-to-gas power plant upgrade will have also taken effect.

Fresh off another year of record electricity demand, Saudi Arabia is advancing its strategy of expanding and upgrading its power sector. The Saudi Electricity Company (SEC) this week awarded a $610mn contract to expand Riyadh's 2.2GW PP12 power plant as part of its strategy to bring online 42GW of new thermal power capacity by the end of the decade.

As the largest producer of electricity in the kingdom, and operator of the national grid, SEC plays a key role in enabling Saudi Arabia's ambitious economic growth agenda. "[Last year] we continued progressing our journey in capturing the rapid expansion opportunities ahead of us, as the kingdom is pursuing an energy transformation at scale and speed," Khalid bin Salim al-Ghamdi, CEO of SEC, told his firm's recent Q4 earnings call.

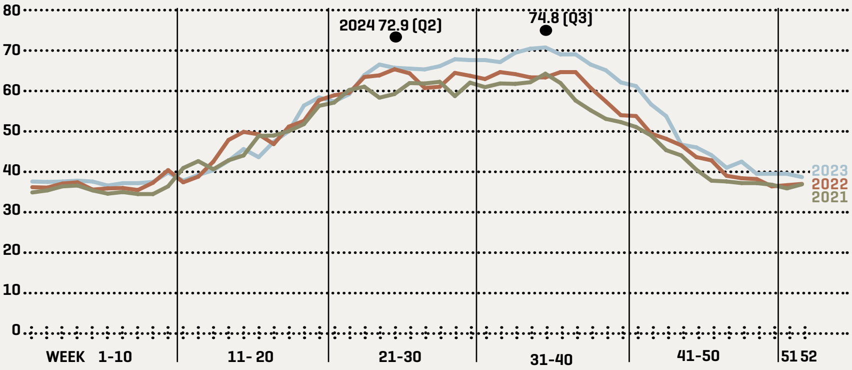
A total of 324TWh was supplied to consumers through the SEC grid last year, up nearly 3% from 2023's record 315TWh (MEES, 22 March 2024). This accounts for the vast majority of electricity supplies in Saudi Arabia, with another approximately 10TWh supplied to the Yanbu Industrial City by state-owned Marafiq. Meanwhile total generation, including transmission losses, increased by 5.8% to a record 403TWh.

As well as total electricity supplies rising further, peak demand on the SEC grid also increased substantially last year. SEC figures show that peak demand jumped by 5.9% to a new record of 74.8GW during the third quarter of the year (see chart 1). Despite the significant increase in power demand, Saudi oil burn stayed broadly flat at 1.1mn b/d for the third consecutive year thanks to higher gas availability and an accelerating rollout of renewables (MEES, 21 February).

LIQUIDS DISPLACEMENT

Saudi Arabia aims to bring an end to liquids burn by 2030, freeing up this 1mn b/d of oil which is currently burned domestically for export onto global markets or refining domestically. The

1: SAUDI ARABIA ELECTRICITY DEMAND SURGES IN THE SUMMER, AND LAST YEAR'S PEAK LOAD SMASHED PREVIOUS RECORDS (GW)



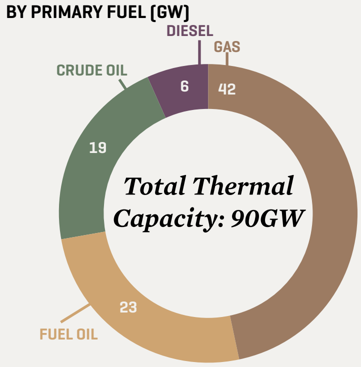
kingdom targets a 50:50 mix of gas and renewables by 2030, and Saudi Aramco is investing heavily in developing its gas reserves to provide the necessary feedstock (MEES, 7 March).

The liquids displacement program also requires a massive upgrading of Saudi Arabia's thermal power fleet, and SEC's CEO says "During 2024 we progressed our liquid displacement program, with targets to transition from liquid fuels to natural gas of 22.3GW capacity across eight strategic projects." This is a reference to work underway to upgrade eight existing facilities currently running on oil feedstock to utilize gas instead. Currently, approximately 48GW of installed power capacity runs on liquids as its primary fuel, of which fuel oil is the largest component on 23GW (see chart 2).

Work began last year on upgrading the 3.6GW PP10 power plant at Riyadh to run on natural gas, with SEC saying that the first of two phases will be completed later this year. Under the project, 20 GE Vernova 7E gas turbines will be converted from liquid to gas fuel operation, with SEC expecting this to reduce CO_2 emissions by 1.7mn t/y.

While PP10 is located centrally, the other units (see table 1) are all on Saudi Arabia's western Red Sea coast such as the 6GW Rabigh and 5.6GW Shuaibah plants, far removed from Saudi Arabia's oil and gas fields. Work on upgrading these plants is due to be completed by 2030.

2: SAUDI ARABIA THERMAL GENERATION CAPACITY BY PRIMARY FUEL (GW)



SOURCE: SEC, SERA, MEES.

Saudi Arabia also plans to install 42GW of new thermal capacity through a combination of expanding existing plants and the development of brand new facilities. Much of this new capacity will replace existing aging plants, with total installed thermal capacity set to rise from around 90GW to 110GW by 2030.

SEC says that of the new capacity, it will be responsible for adding 23.4GW across 11 projects, equating to 56% of the total figure. As well as wholly-owned plants, this includes a number of IPP projects in which SEC holds a stake (MEES, 6 December 2024).

One of the new SEC projects is the 1.8GW expansion to the 2.2GW PP12 plant, which is situated around

Continued on – p13

Continued from – p12

100km west of Riyadh. PP12 is a modern CCGT power plant running on gas feedstock, which started up in 2014 and is operated by SEC. In a 14 March announcement, Korea's Doosan stated that SEC has awarded a consortium of it and China's Sepco3 a $610mn contract to construct the new unit.

"Saudi Arabia is seeing a steady increase in electricity demand, to the extent that power plants with a capacity of 6GW will be built every year for the next five years," says Hyunho Lee, head of Doosan's Plant EPC division.

RENEWABLES READY TO CURB BURN?

In the near-term, gas holds the key to displacing large volumes of oil from the utilities sector, but renewables are now set to begin making an impact. Saudi Arabia's installed renewables capacity currently stands at 6.55GW and is on track to increase to 12.71GW by year-end (MEES, 28 February).

The latest full year figures for renewables' contribution show that they generated a record 4.7TWh in 2023. Currently installed renewables plants have capacity to generate around 19.2TWh on an annual basis, and this is set to hit 36TWh by year end, equivalent to around 9% of recent annual generation levels, and 11% of consumption.

MEES calculates that at current capacity, Saudi Arabia's renewables plants generate power equivalent to burning 90,000 b/d of oil, with this figure set to rise to more than 165,000 b/d by the end of 2025. Given the high likelihood that most of the capacity expected online this year will have started operations by summer's peak electricity demand season, this points to renewables making a noticeable dent in Saudi oil burn this year, even when accounting for further electricity demand growth in 2025. Still, with oil burn averaging 1.1mn b/d in 2024 and peaking at 1.47mn b/d in July, there remains a long way to go before it is fully displaced. ◆◆

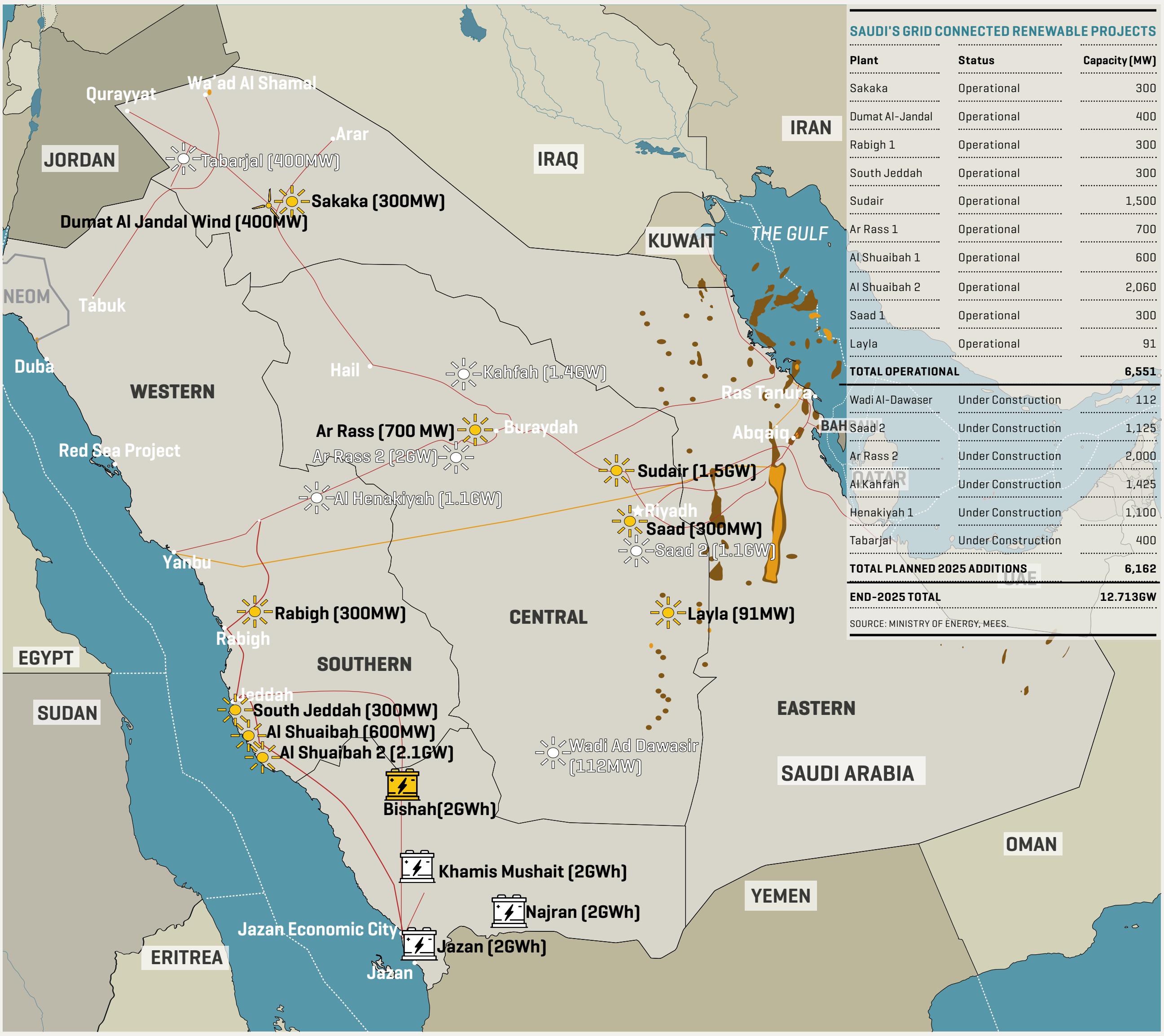
ARAMCO LAUNCHES DIRECT AIR CAPTURE

Saudi Aramco has launched a pilot direct air capture (DAC) project alongside Siemens Energy with capacity to remove 12 t/y of CO_2 from the atmosphere. Aramco says the facility will serve as a testing platform for next-generation CO_2 capture materials and for achieving cost reductions to help accelerate the deployment of DAC technologies in the region. This follows a shareholders' agreement with Linde and SLB in December for development of a 9mn t/y carbon capture and storage (CCS) hub at Jubail (MEES, 6 December 2024).

As Aramco targets net zero by 2050, it is also contributing to the kingdom's ambitious solar power rollout (see p12) and last year reached financial close on three projects with capacity of 5.5GW (MEES, 6 September 2024). Aramco participates in three currently operational solar PV plants with a combined capacity of 4.16GW, including the kingdom's largest plant, the 2.06GW Shuaibah-2.

SAUDI ARABIA RENEWABLE ENERGY PROJECTS

OIL FIELD | GAS FIELD/PIPELINE | ELECTRICITY GRID | OPERATING | END-2025 COMPLETION | BESS



SAUDI'S GRID CONNECTED RENEWABLE PROJECTS

Plant	Status	Capacity (MW)
Sakaka	Operational	300
Dumat Al-Jandal	Operational	400
Rabigh 1	Operational	300
South Jeddah	Operational	300
Sudair	Operational	1,500
Ar Rass 1	Operational	700
Al Shuaibah 1	Operational	600
Al Shuaibah 2	Operational	2,060
Saad 1	Operational	300
Layla	Operational	91
TOTAL OPERATIONAL		6,551
Wadi Al-Dawaser	Under Construction	112
Saad 2	Under Construction	1,125
Ar Rass 2	Under Construction	2,000
Al Kahfah	Under Construction	1,425
Henakiyah 1	Under Construction	1,100
Tabarjal	Under Construction	400
TOTAL PLANNED 2025 ADDITIONS		6,162
END-2025 TOTAL		12.713GW

SOURCE: MINISTRY OF ENERGY, MEES.

◆◆

KUWAIT'S OIL REVENUES DOWN DESPITE PRODUCTS RECORDS

Kuwait has greatly diversified its oil export markets by shifting from primarily crude oil to a 50:50 crude and products mix. But while exports of middle distillates and fuel oil are at records, rising domestic gasoline demand is driving Kuwait towards imports.

Kuwaiti oil revenues fell by around $10bn to $69.8bn last year as the impact of lower oil prices and Opec+ cuts offset increased exports of higher-value refined products (see chart 1).

The completion of a decade-long $30bn refining upgrade program in 2023, lifted refining runs to a second consecutive annual record last year. Refining runs increased by 200,000 b/d to 1.235mn b/d, accounting for 51% of crude oil production, marking the first time on record in which more than half of crude oil output has been refined. Exports of refined products also nudged ahead of those of crude oil for the first time.

With crude exports falling by 392,000 b/d to a 22-year low of 1.18mn b/d as a result of the refining runs and production cuts, crude oil export revenues dropped by a massive $14.5bn to a post-Covid low of $36bn. This far outstripped the $4.5bn increase in refined products revenues, which hit a record $30.2bn, ensuring that total petroleum export revenues hit their three-year low $69.8bn when including another $3.6bn from LPG.

While weakening global refining margins meant that the shift didn't yield the revenue boost KPC would have hoped for, last year was nevertheless transformational for Kuwait's oil exports mix. The 615,000 b/d Al Zour was commissioned in 2023, hot on the heels of the late-2022 'Clean Fuels Project' (CFP) upgrade to the now-800,000 b/d capacity legacy Mina Abdullah and Mina Al Ahmadi refineries.

While Al Zour's scale is vast, it is a basic refinery with a fuel oil yield of 45%. Crucially, the refinery does not produce gasoline, and so last year's refining boom didn't translate into increased volumes of the fuel. Instead, it enabled Kuwait to boost production and exports of naphtha, jet/kerosene, gasoil/diesel and fuel oil all to record highs (see chart 3).

STRENGTHENED TRADING POSITION

While crude exports largely head to Asia, soaring product volumes have expanded the geographical footprint of Kuwait's export destinations.

With Kuwait having significantly upgraded its refining system, KPC moved quickly to market fuels meeting stringent emissions standards into Europe from 2022 onwards, capitalizing on the displacement of Russian products following the Ukraine invasion. According to Kpler data, Kuwait was the third largest middle distillate supplier to the continent behind the US and Saudi Arabia last year.

Of Kuwait's 560,000 b/d of total gasoil/diesel and jet/kerosene exports as per Kpler, more than half (298,000 b/d) was shipped to European buyers in the UK, France and the Netherlands amongst others. European exports are dominated by jet/kerosene at 190,000 b/d, and KPC is also now capable of supplying Euro-V compliant diesel to its Q8-branded stations in Europe (MEES, 15 March 2024). Q8 provides aviation refueling services at major European airports too.

That supply route came under pressure last year as Yemen's Houthi attacks intensified around the Bab al-Mandab Strait preventing Suez Canal crossings (see p8). Of Kuwait's total Europe-bound product exports of more than 300,000 b/d, only 20,000 b/d transited the Suez Canal, with the rest taking the longer Cape of Good Hope route.

For 2025, Kuwait can expect to consolidate its position in European markets further.

The second-largest market for Kuwaiti middle distillates exports was Africa last year, with 143,000 b/d. KPC has launched a new trading arm in Dubai and the firm is expected to swiftly become an active player in regional products trading. In addition to Kuwaiti products, KPC Trading will also market Duqm equity barrels with the Omani refinery increasingly focused on Africa (MEES, 14 February).

Still, as with crude, Asia was the largest market for Kuwaiti refined products last year, receiving more than 620,000 b/d per Kpler. Aside from LPG, the largest components of this were naphtha and fuel oil at 232,000 b/d and 108,000 b/d respectively. While Asian naphtha demand has been bolstered by Chinese petchems expansion, Kuwait exported less than 20,000 b/d there, with most naphtha going instead to Japan and South Korea. KPC maintains a petchems presence in the latter through stakes held by its subsidiary PIC.

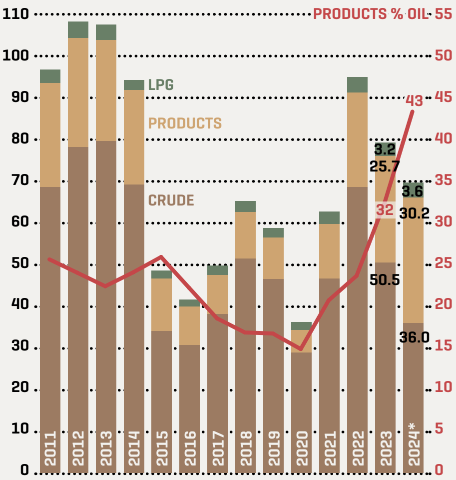
Fuel oil exports to Asia were at a record high with 90,000 b/d of volumes being 0.5% very low sulfur fuel oil (VLSFO). Asia received all of Kuwait's VLSFO volumes, with these mostly staying in the region to be used primarily for bunkering in the UAE (51,000 b/d) and Qatar (18,000 b/d), with other volumes sent to Singapore (14,000 b/d) and Malaysia (7,000 b/d).

GASOLINE IMPORTS

While Kuwait broke output and export records for almost every refined product, gasoline output and exports remained below their 2023 peak. According to its Jodi submissions, these were at 73,000 b/d and 4,000 b/d respectively. Kuwait's subsidized domestic gasoline demand outstripped its output last year marking an 87,000 b/d record.

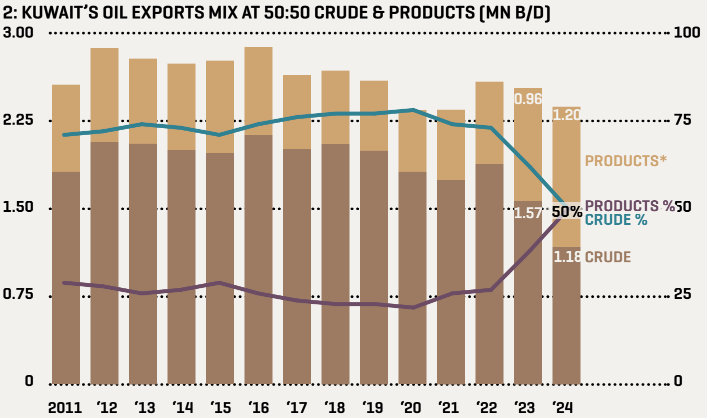
Kpler data indicate increased gasoline imports this year. Kuwait imported just 580,000 barrels last year, but has already taken delivery of 2.15mn barrels so far in 2025. Volumes have primarily been delivered from the Advario storage terminal in Oman. ◆◆

1: KUWAIT MARKED THREE YEAR-LOW PETROLEUM REVENUES IN 2024 DESPITE RECORD PRODUCTS REVENUES ($BN)



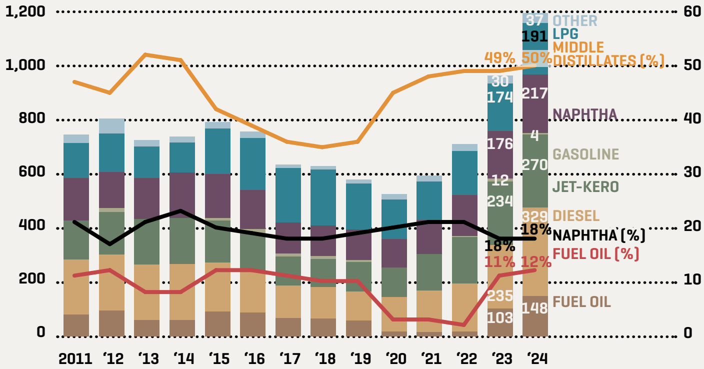
*PRELIMINARY DATA. SOURCE: CSB, MEES.

2: KUWAIT'S OIL EXPORTS MIX AT 50:50 CRUDE & PRODUCTS (MN B/D)



*INCLUDES LPG. SOURCE: JODI, MEES.

3: KUWAIT'S PRODUCT EXPORTS BROKE ABOVE 1MN B/D IN 2024 FOR THE FIRST TIME ON AN ANNUAL BASIS (000 B/D)



SOURCE: JODI, MEES.

NEWS IN BRIEF

EGYPT SIGNS UP SIEMENS FOR 500MW GULF OF SUEZ WIND

The Egyptian Electricity Transmission Company (EETC) on 19 March signed-up Siemens Gamesa to build, finance and operate a 500MW wind farm on Egypt's Gulf of Suez.

Egypt currently has 4.44GW of "new renewables" capacity (excluding hydropower) in operation, split between 2.25GW of solar and 2.19GW of wind. All of Egypt's current wind capacity is situated in the Gulf of Suez with additions to increase that capacity to 3.03GW by the end of this year and to 4.33GW by the end of 2027 also planned for the region (MEES, 16 August 2024).

Beyond this, Saudi Arabia's Acwa Power last month signed a 25-year Power Purchase Agreement (PPA) with EETC to build, finance, own and operate "up to 2.0GW" of wind capacity further down the Red Sea coast at Hurghada (MEES, 21 February).

ALGERIA BREAKS GROUND ON 80MW SOLAR

Algeria on 17 March broke ground on an 80MW solar power plant in the town of Abadla in the Bechar province in the remote far west of the country, the energy ministry says. Energy minister Mohamed Arkab "laid the foundation stone" at the 1.6 km^2 site during an official visit to launch several development projects across Bechar.

The first phase of the plant, to be carried out and connected to the national grid by state firm Sonelgaz in partnership with China's CWE, is set to start up between December 2025 and January 2026, the ministry says.

The project is one of 15 solar power plants the country aims to build with a total capacity of 3.2GW across 12 provinces (MEES, 11 October 2024), all as part of an ambitious strategy to hit 15GW of renewables capacity by 2035.

ADQ TO POWER US AI

Abu Dhabi's ADQ sovereign wealth fund is partnering with investment firm Energy Capital Partners to launch a $5bn 50:50 venture to invest in power generation for data centers and artificial intelligence projects, primarily in the US. The venture will ultimately make more than $25bn investments across 25GW worth of projects and was announced shortly after Chairman Sheikh Tahnoon bin Zayed Al Nahyan was hosted in the White House by US President Donald Trump. The Trump administration is planning a huge roll out of power-hungry AI data centers in the coming years. ADQ notes that the focus will be on newbuild gas-fired power plants, enabling it to tap into the US' abundant low-cost gas resources and capitalize on its sectoral prowess through its 90% stake in Abu Dhabi utilities firm Taqa.

CARLYLE-ENERGEAN DEAL TERMINATED

London and Tel-Aviv listed Greek firm Energean has terminated a deal to sell its Egypt, Italy and Croatia assets to Carlyle after the UK-based equity firm failed to meet the 20 March deadline to obtain all regulatory approvals.

Energean announced on 21 March that it has "terminated the SPA and will no longer proceed with the Transaction." The deal which was estimated to cost up to $945mn, was announced in June last year (MEES, 21 June 2024).

The main bone of contention MEES understands was a letter of patronage required by Italian authorities that Carlyle has not been able to provide.

"They [Carlyle] knew the Italian government position - that they had to provide a letter of patronage from a capitalized vehicle that would demonstrate Carlyle's institutional commitment to the Italian oil and gas sector," a source with intimate knowledge of the deal tells MEES.

The source adds Carlyle's structure and policy is likely why the London-based firm is unable to produce a letter of patronage but had proceeded under the assumption that Rome would greenlight the deal regardless.

For 2024 the for-sale assets produced 168mn cfd of gas and 10,000 b/d of oil, mainly from Egypt, an 18% year-on-year increase. Energean's focus will remain offshore Israel where both oil and gas output increased to record highs as its 2.6tcf Karish project continues to ramp up following its late 2022 start-up (MEES, 28 October 2022). Gas was up 36% to 5.96bcm (575mn cfd) while oil increased 53% year on year to 14,600 b/d, a not insignificant 6% of Israel's oil demand.

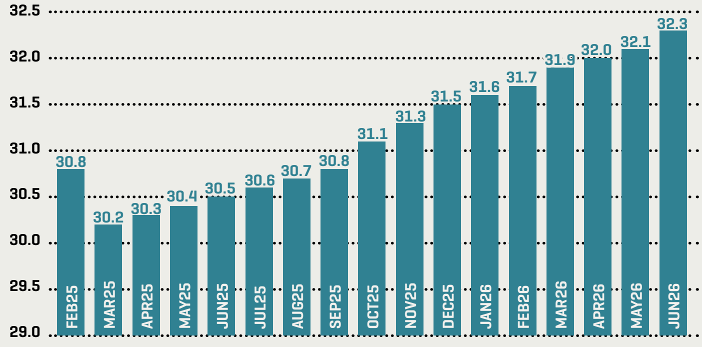
OPEC PUBLISHES UPDATED COMPENSATION PLANS

Opec published the updated compensation plans from overproducers on 20 March, with seven members of the 'Group of Eight' voluntary cut countries committing to additional cuts (see table). For the first time, Saudi Arabia, the UAE and Kuwait submitted compensation plans, seemingly in a move to demonstrate that all members are subject to the same conditions if they fail to fully comply with their commitments.

Doubts remain over the probability of compensation cuts being fully implemented, especially after serial overproducer Kazakhstan replaced its energy minister this week. However, if fully implemented the compensation cuts would more than offset planned production increases in April. Indeed, output from the Group of Eight would remain below February levels until September (see chart) under the latest roadmap (MEES, 7 March).

Even assuming full compensation is not achieved, the announcement appears intended to demonstrate to the market that the unwinding of voluntary cuts will not flood the market with additional supply.

OPEC+ 'GROUP OF EIGHT' IMPLIED PRODUCTION ROADMAP IF COMPENSATION CUTS ARE IMPLEMENTED AND CUTS ARE EASED EACH MONTH. COMBINED OUTPUT TO REMAIN BELOW FEBRUARY LEVELS* UNTIL SEPTEMBER (MN B/D)



*FEBRUARY PRODUCTION ACCORDING TO OPEC SECONDARY SOURCES. SOURCE: OPEC, MEES.

MARCH 2025 COMPENSATION SUBMISSIONS ('000 B/D)

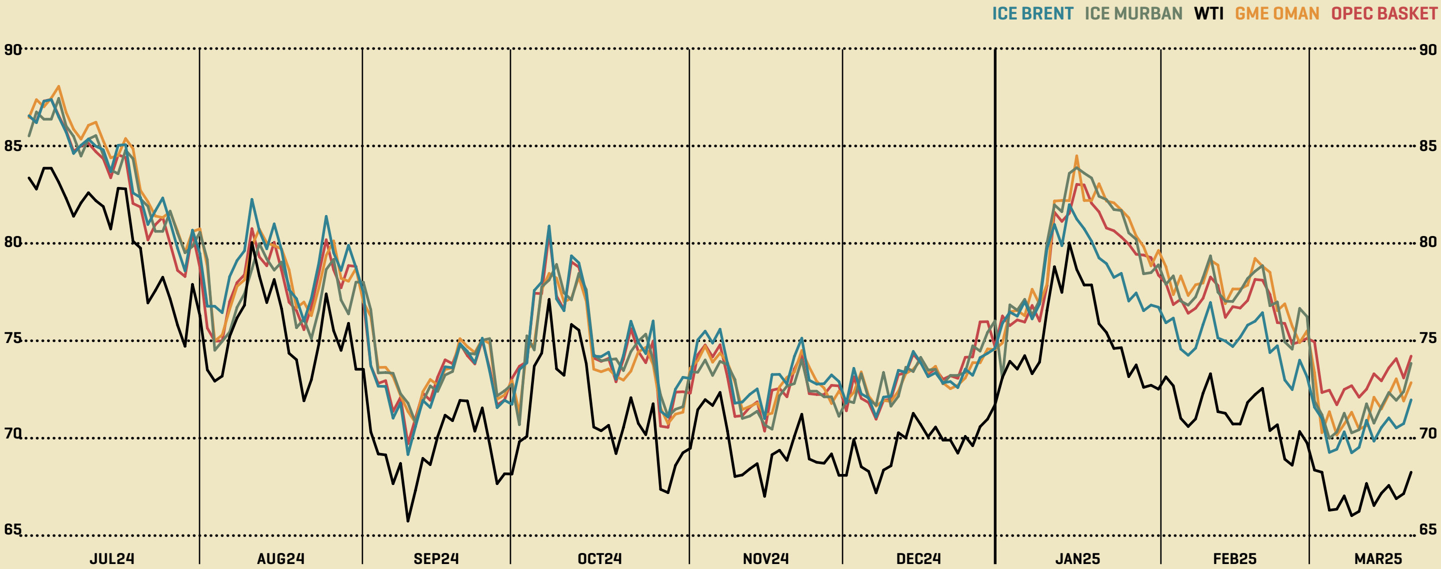
	Mar25	Apr25	May25	Jun25	Jul25	Aug25	Sep25	Oct25	Nov25	Dec25	Jan26	Feb26	Mar26	Apr26	May26	Jun26	Average
Algeria	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Iraq	116	116	135	130	120	115	120	120	120	120	123	123	123	123	125	125	122
Kuwait	0	8	15	23	30	38	27	0	0	0	0	0	0	0	0	0	9
Saudi Arabia	15	9	6	0	0	0	0	0	0	0	0	0	0	0	0	0	2
UAE	0	5	10	10	10	10	10	10	20	20	33	33	33	50	55	56	23
Kazakhstan	38	53	57	72	66	81	85	90	84	49	39	38	40	38	42	36	57
Oman	5	7	10	12	14	18	20	13	0	0	0	0	0	0	0	0	6
Russia	25	51	76	102	127	152	173	0	0	0	0	0	0	0	0	0	44
Total	**199**	**249**	**309**	**349**	**367**	**414**	**435**	**233**	**224**	**189**	**195**	**194**	**196**	**211**	**222**	**217**	**263**

SELECTED DATA

BENCHMARK CRUDE PRICES ($/B)

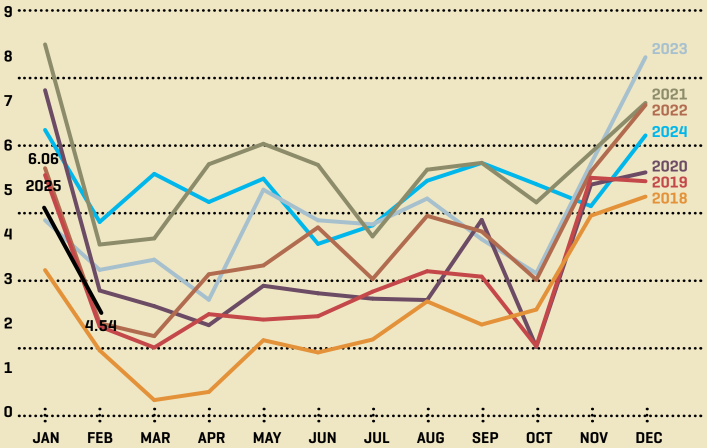
	20Mar	10-14Mar	3-7Mar	Feb25	Jan25	Dec24	4Q 2024	3Q 2024	2Q 2024	2025 (20Mar)	2024	2023	2022
WTI	68.26	66.74	67.27	71.19	75.22	69.87	70.31	75.38	80.61	71.76	75.79	77.58	94.37
ICE Brent	72.00	70.05	70.36	74.95	78.35	73.26	74.01	78.72	85.02	75.16	79.86	82.18	99.02
ICE Murban	73.88	71.01	70.98	77.34	80.18	73.47	73.76	78.34	85.24	76.99	79.74	82.80	98.84
GME Oman	72.89	71.25	71.22	77.64	80.02	73.34	73.60	78.47	85.20	77.07	79.61	82.02	94.42
OPEC Basket	74.25	72.75	72.83	76.81	79.38	73.07	73.54	78.97	85.31	76.89	79.89	82.95	100.08
JCC	na	na	na	na	76.57	76.50	78.24	85.86	87.48	na	83.92	86.56	102.70

AVERAGE SETTLEMENT PRICES FOR PERIOD IN QUESTION.

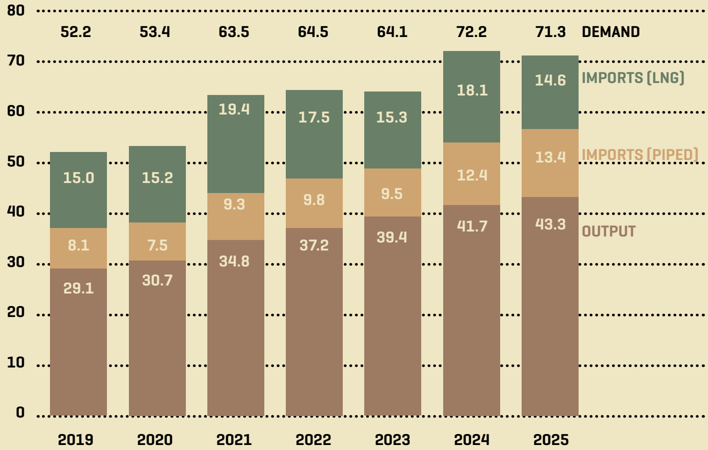


CHINA GAS: RECORD OUTPUT & RUSSIA SUPPLIES CRIMP NEED FOR LNG

CHINA'S LNG IMPORTS OF 10.6MN TONS FOR JAN-FEB 2025 WERE THE LOWEST SINCE 2018 (MN TONS)...



...CRIMPED BY RECORD OUTPUT AND IMPORTS OF RUSSIAN PIPELINE GAS (BCM)



SOURCE: CHINA CUSTOMS, MEES.

MEES EDITORIAL STAFF

Publisher:	Dr.Saleh S Jallad	sjallad@mees.com
Managing Director:	Fadi Aboualfa	faboualfa@mees.com
Managing Editor:	James Cockayne	jcockayne@mees.com
Senior Editor:	Jamie Ingram	jingram@mees.com
Advisor:	Basim Itayim	bitayim@mees.com
Consultant:	Walid Khadduri	wkhadduri@mees.com
Editors:	Nada Ahmed	nahmed@mees.com
	Yesar Al-Maleki	yalmaleki@mees.com
	James Marriott	jmarriott@mees.com
	Peter Stevenson	pstevenson@mees.com
Production:	Christian Jocson	cjocson@mees.com
	Ledha Socratous	lsocratous@mees.com