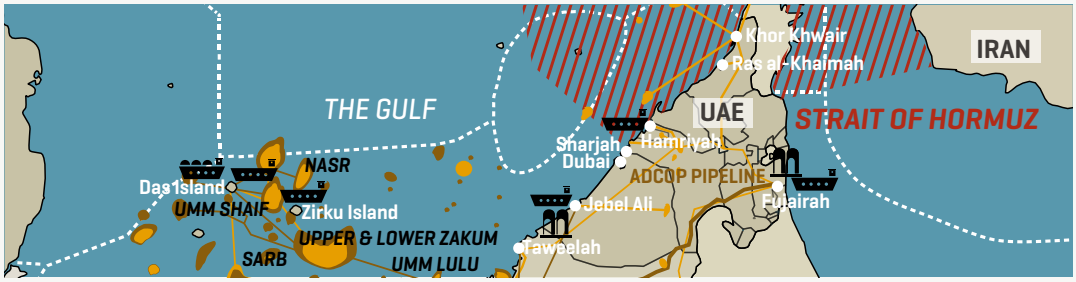
mees

*Weekly Energy, Economic & Geopolitical Outlook*
*Vol. 67. No. 42*
*18.October.2024.*

DOWNSTREAM

# UAE To Ramp Up 'Hormuz Bypass' Crude Capacity

*Adnoc's plans to add 1.5mn b/d pipeline capacity between its Jebel Dhanna terminal in Ruwais and Fujairah by 2027 can facilitate the transfer of crude from offshore fields to the Indian Ocean export terminal without having to cross the Strait of Hormuz. Currently only 1.8mn b/d of onshore output has access to the route.* ***Page 10***




UPSTREAM OIL & GAS 2
CORPORATE 5
OPEC & GLOBAL MARKETS 7
GEOPOLITICAL RISK 8
DOWNSTREAM 10
POWER & WATER 12
ECONOMY & FINANCE 13
NEWS IN BRIEF 14
SELECTED DATA 15

CORPORATE

## Fertiglobe Focus For Adnoc Ammonia Plans

*Adnoc is putting in place the central pillars of its chemical growth strategy. Completion of the Fertiglobe purchase should spearhead Adnoc's low-carbon ammonia push.* ***Page 5***

GEOPOLITICAL RISK

## Iran Exports Stay Firm As US Hikes Sanctions

*The US has sanctioned 23 more vessels for trading in Iranian oil, mostly VLCCs involved in Iran-China flows. But such sanctions are having minimal impact amid lax enforcement.* ***Page 8***

UPSTREAM OIL & GAS

## Eni & Total At Odds Over Cyprus Gas Plans

*Eni and TotalEnergies, 50:50 partners at Cyprus' 2022 Cronos gas discovery, are at odds over how best to develop the field. Eni favors Zohr tieback and Total FLNG.* ***Page 2***

OPEC & GLOBAL MARKETS

## IEA Warns Of Lower Forever Oil Market

*As Opec+ assesses whether to again extend cuts, Opec and the IEA have both lowered demand forecasts with the IEA seeing plentiful supply way into the future.* ***Page 7***

UPSTREAM OIL & GAS

## Algeria Bidding: Big Blocks, Info Lacking

*Algiers this week sought to capitalize on increased interest in its upstream with the launch of the much delayed 'Algeria Bid Round 2024'.*
***Page 4***

SELECTED DATA

## Egypt: Record Gas Deficit As Output Slumps

*Egypt gas output fell to just 4.58bn cfd for August, down 1bn cfd year-on-year, with bumper LNG and Israel imports needed to cover a record 1.85bn cfd deficit.* ***Page 20***

POWER & WATER

## Jordan Looks To Upgrade Power Grid

*Jordan's renewables expansion has stalled but ambitious plans necessitate a power grid upgrade. 2023 saw a tripling of output from the Attarat oil shale plant.* ***Page 12***

SELECTED DATA

## US Output & Exports: New Records

*US oil output continues to hit new record highs, but the gains have slowed markedly in recent months with crude output only topping end-2023 levels in August.* ***Page 16***

# Cyprus' Cronos Gas Find: Eni & Total At Odds Over Development Plan

*Eni and TotalEnergies, 50:50 partners at Cyprus' 2022 Cronos gas discovery, are at odds over how best to develop the field. Operator Eni eyes tieback to its Zohr facilities offshore Egypt, while the French major prefers FLNG. Nicosia hopes for first gas by 2027.*

Eni, operator of the 2.5tcf Cronos gas find on Cyprus' offshore Block 6 and its 50:50 partner TotalEnergies are at loggerheads over the optimal way to develop the 2022 discovery, MEES learns.

Eni's long-stated preference for developing the field is via tieback to its now under-utilized Zohr gas facilities on the other side of the maritime border with Egypt, around 60km away (MEES, 16 February). Throwing a spanner into the works, Total has recently tabled the idea of a floating LNG (FLNG) facility to process the gas directly over the field.

Total's reluctance to send the gas to Egypt stems from both the low (by international standards) price Cairo typically pays for gas, and Cairo's well-earned reputation as a tardy payer even then (MEES, 20 September). Unlike Eni, which is Egypt's top gas producer with 1.21bn cfd net for 1H 2024, Total has only minimal current Egypt output.

Eni itself has had an up-and-down relationship with Cairo in recent times, apparently postponing further development work at Zohr until it received more cash (MEES, 21 June).

But, as part of an improvement in relations since Egypt's new oil minister Karim Badawi took up his post "Eni has been assured... that all the gas produced from Cronos will go to Damietta and be exported as LNG," a well-informed source tells MEES. Eni operates and has a 50% stake at the 5mn t/y Segas LNG export facility at Damietta but exports here were halted in March as Cairo continues to suffer from an acute gas deficit (see p20 & MEES, 20 September).

In any case, Eni operates the Segas plant as a tolling facility (MEES, 14 May 2021): unless this model were to change, it would be Egas not Eni marketing the cargoes and making any profits above Egyptian domestic gas prices.

Whatever pledges Mr Badawi might make, Egypt is highly unlikely to allow LNG exports as long as the country is short of gas. "President Sisi would be the one calling the shots if there isn't enough gas to keep the lights on and not Mr Badawi, so any promises the new minister might make appear empty," the source adds.

## TOTAL TOUTS FLNG

Total believes that it can make an FLNG work, despite modest volumes of around 2.5tcf, with the technology now advanced enough to develop smaller and more complex reservoirs. Indeed, Eni, with its Coral Sul FLNG off Mozambique and Congo LNG, is a world leader.

Whether the economics could work will be a point of contention between the Block 6 partners. While the lease of an FLNG and its operation will not be cheap, current LNG prices of around $12-13/mn BTU are double the $6.20/mn BTU Eni currently receives for Zohr gas – Eni apparently expects similar terms for Cronos. On the other hand, a fixed gas price offers stability, whilst the coming ramp up of US and Qatari LNG exports could well leave LNG prices structurally lower (MEES, 1 March).

Complicating matters further are nearby discoveries that may not suit an FLNG development. Eni and Total's Block 6 also contains 2022's 2-3tcf Zeus discovery and 2018's 1tcf Calypso (see map).

In addition, ExxonMobil (60%op) and QatarEnergy's (40%) nearby c.3tcf Glaucus field could provide an opportunity for a larger facility to process the gas but would completely alter project economics.

However Exxon's current preference is for a stand-alone development, and to this end it is looking to bolster volumes during an upcoming 2025 drilling campaign. Exxon plans to drill Block 5's 'Elektra' prospect early next year using the Valaris DS-9 drillship with drilling to follow on from the Nefertari-1 wildcat on Exxon's North Makaria block in Egypt's underexplored West Med (MEES, 11 October).

Exxon will then follow up Elektra with a further appraisal well at Glaucus, MEES learns. Exxon initially estimated Glaucus gas in place reserves at 5-8tcf when it was discovered in 2019 (MEES, 1 March 2019), but a 2022 appraisal well apparently disappointed – Exxon gave no official reserves update but a Cyprus government source tells MEES that the current best-guess gas in place estimate is just above 3tcf.

## ENI: TOO DEEP

Eni argues that Cronos' location in 2,300ms water depth complicates matters and makes tieback to the Zohr facilities a much simpler and faster option. Output at Zohr has dropped to around 1.8bn cfd due to water breakthrough issues, leaving plentiful ullage at the 3.2bn cfd capacity facilities.

Eni had been hoping to file a Cronos development plan by the end of 2024 but that might be delayed while the partners hash out their differences. Nicosia also expects Eni to file its plan by the end of this year, Cyprus Energy Minister George Papanastasiou tells MEES.

Eni believes that once the field development plan has been filed (with a tieback to Zohr), a final investment decision (FID) could follow very shortly due to the firm's strong relationship with Cairo and its extensive experience of negotiating gas sales deals with Egyptian authorities. Eni receives up to $6.20/mn BTU for Zohr gas when Brent crude trades at $70/B or more, higher than any other firms in Egypt and higher still than the official "maximum" $5.88/mn BTU on state gas firm Egas' official payment scale.

Below $70/B the price falls to a floor of $5.60/mn BTU at $60/B Brent according to documents seen by MEES.

## NICOSIA FAVORS ZOHR TIEBACK

Mr Papanastasiou tells MEES that while Cypriot authorities had previously touted the potential of an FLNG to develop the cluster of discoveries in the country's "southwest corridor", its current preference for Cronos is tieback to Zohr.

"Our priority is early gas and the relatively short tieback to Egyptian facilities provides that scenario," he says. He adds that FLNG is a "technical

Continued on – p3



©Middle East Petroleum and Economic Publications (Cyprus) Ltd
Reproducing MEES Is Strictly Prohibited

Continued from – p2

solution that Cyprus likes" but that it is a time-consuming option with "timing taking precedence in this matter."

He believes that Cronos looks like it could potentially be Cyprus' first gas producer, overtaking US major Chevron's 3.5tcf Aphrodite discovered some 13 years ago, with first gas in 2027 – if the partners settle on tieback to Zohr.

At Aphrodite, Chevron (35%op) and its partners UK major Shell (30%) and Israel's NewMed Energy (30%) filed a revised development plan on 30 August after Nicosia issued them with notice of breach of contract (MEES, 6 September). The two sides have since agreed to freeze the three-month remedy period provided for in the production sharing contract until January to allow more time to go over Chevron's most recent revisions (MEES, 20 September).

"Chevron filed a preliminary development plan which appears to be in the intended direction," Minister Papanastasiou says. "The point is for the plan to be finalized within these fourth months and for no surprises to appear at the end of the road."

Chevron's new $4bn plan envisages a 240km pipeline connecting a floating production unit above Aphrodite, to facilities at Port Said in Egypt.

A gas sales deal may also prove tricky. While Chevron and NewMed have experience selling Israeli gas to Egypt's state-backed Blue Ocean Energy, and Shell has gas sales deals in place with Egas for its WDDM fields, Cairo's precarious finances could see negotiations drag out.

Matters are also somewhat further complicated by the attempts of Chevron and partner Eni to secure improved fiscal terms and a higher gas price before approving development of their 2.8tcf (gas in place) 2023 Nargis discovery off Egypt (MEES, 7 June).

## TIME MATTERS

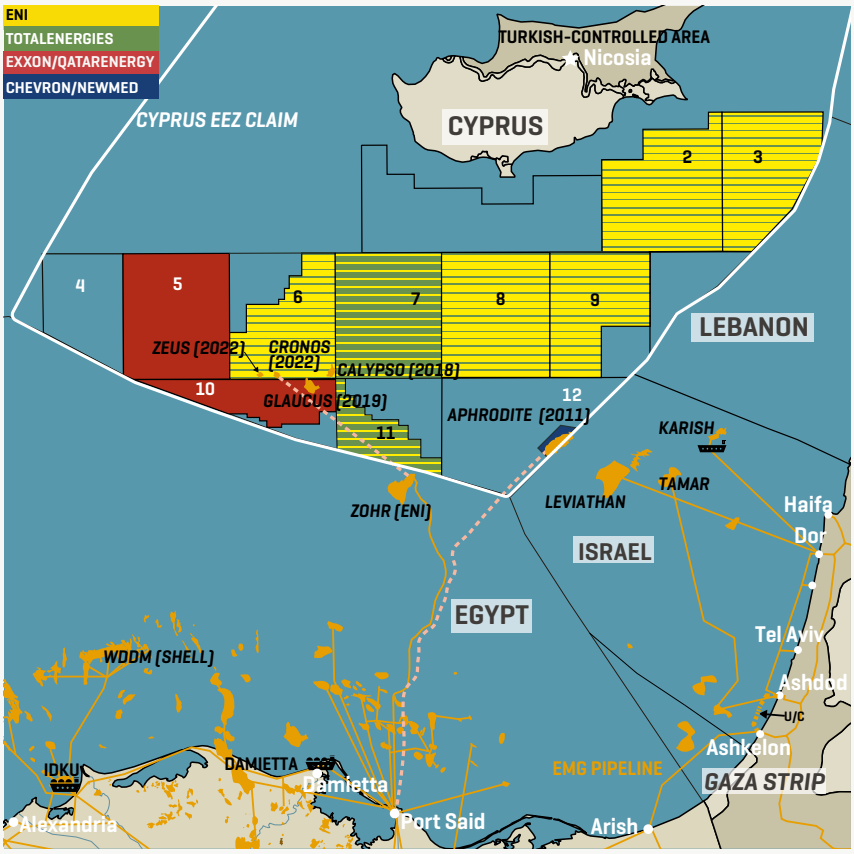
With Eni and Total's license for Cyprus Block 6 due to expire in April next year, Eni will be hoping to make Total bend to its will. Minister Papanastasiou says that it is a matter for the partners to settle but that Nicosia has made clear its preference.

2025 could see Eni relinquish its strong footprint offshore Cyprus with all of its seven (five operated, two non-operated) licenses due to expire next year (see table).

Whilst from a contractual standpoint Eni's licenses expire next year, a presidential decree could change that, MEES understands.

"If President Christodoulides decides that he wants to keep Eni around then he has the authority to change the rules although he will likely be waiting to see if the partners at Block 6 make any progress in developing Cronos before making a decision," a Cyprus government source tells MEES.

**CYPRUS KEY BLOCKS & GAS DISCOVERIES**




**CYPRUS ACTIVE OFFSHORE BLOCKS**

| No. | Award | Firms | Expires | Drilling Activity |
|---|---|---|---|---|
| 2 | Jan13 | Eni 60%op , Total 20%, Kogas 20% | Feb25 | none |
| 3 | Jan13 | Eni 50%op , Total 30%, Kogas 20% | Feb25 | Feb18 Soupia drilling abandoned following Turkish provocation |
| 5 | Nov21 | ExxonMobil 60%op, QaterEnergy 40% | Dec24 | 1Q25 Elektra prospect drilling planned |
| 6 | Mar17 | Eni 50%op, Total 50% | Apr25 | Calypso (2018), Cronos (2022), Zeus (2022) discoveries |
| 7 | Sep19 | Total 50%op, Eni 50% | Sep25 | none |
| 8 | Mar17 | Eni 60%op, Total 40% | Apr25 | none |
| 9 | Jan13 | Eni 60%op , Total 20%, Kogas 20% | Feb25 | Onasagoras (2014), Amathusa (2015) flops |
| 10 | Mar17 | ExxonMobil 60%op, QaterEnergy 40% | Apr25 | Feb19 Glaucus-1, Feb22 Glaucus-2, 1H25 Glaucus-3 planned |
| 11 | Jan13 | Total 50%op, Eni 50% | Feb25 | Onesiphoros (2017) flop |
| 12 | *2008 | Chevron 35%op, Shell 35%, NewMed 30% | Nov44 | Dec11 Aphrodite-1, Jul13 Aphrodite-2, May23 Aphrodite-3 |

*PRODUCTION LEASE, CONTAINS 3.5TCF APHRODITE DISCOVERY

## TOTAL COMMITMENT

The French major's decision to push FLNG has come as a surprise to Cypriot government officials who had assumed Total would quietly exit its two operated blocks, 7 and 11 (both 50:50 with Eni) once they expire in September and February next year, respectively.

"We weren't expecting Total to take such a strong stance on Cronos. They've remained largely inactive since drilling the Onesiphoros flop on Block 11 in 2017," the government source tells MEES.

"Maybe Total is unhappy that Cronos gas would go via Eni-operated facilities, potentially to an Eni-operated LNG export plant at Damietta, where it would have zero control over the gas," the source speculates.

Chevron had no such qualms when it filed a previous modified development plan (that was subsequently rejected) for Aphrodite last year that envisaged tieback to Shell's WDDM and then onto the 7.2mn t/y ELNG at Idku, also operated by the UK major (MEES, 2 June 2023).

Total had been eager to quit Cyprus in 2015, when it held blocks 10 and 11, but Eni's discovery of Zohr the same year and some arm twisting by former Energy Minister Giorgos Lakkotrypis convinced the French major to keep hold of Block 11.

Unfortunately for the French major it was Block 10 where gas was discovered, with Norway's state oil firm Equinor and a consortium of Eni and Total losing out to Exxon and QatarEnergy in 2017 (MEES, 24 March 2017). ◆◆



©Middle East Petroleum and Economic Publications (Cyprus) Ltd
Reproducing MEES Is Strictly Prohibited

# Algeria Launches 'Bid Round 2024': Still Plenty Of Unanswered Questions

Algiers this week sought to capitalize on increased interest in its upstream with the launch of 'Algeria Bid Round 2024'.

But, though the round has been several years in the making – it has been touted ever since the country's oil law was revised in 2019 (MEES, 14 July 2023) – many details remain unclear.

Algeria's state hydrocarbon regulator Alnaft launched the bidding with much fanfare on 14 October with a presentation at the Napec conference in Algeria's second city of Oran. The presentation indicated six large onshore blocks encompassing both gas and oil-prone areas of Algeria. The acreage looks impressive, and with majors and other IOCs already beating a path to Algiers, the country will surely do better than its previous flopped bid round way back in 2014 (MEES, 3 October 2014).

However, interested parties will still have plenty of questions as to what exactly is being offered up. Neither the website of Alnaft nor state oil and gas giant Sonatrach makes any mention of the bid round, still less carries a map, whilst the conference slide showing the blocks included no other oil and gas infrastructure: MEES attempts to overlay the blocks on a map showing existing infrastructure imply that they contain several large producing fields, something that is highly unlikely to be the case (see map).

Adding to the confusion, the write-up of the bidding launch carried by state news agency APS uses different spellings to the Alnaft presentation for four of the six blocks (see table).

However, whilst the exact location of the blocks may be unclear, it would be a mistake to downplay the importance of the offering. Algeria is offering up some prime energy real estate.

And, speaking on 15 October, Mourad Beldjeham, head of Alnaft's executive committee, says there is more to come. He says that Alnaft will henceforth hold annual bid rounds: whilst only six have been offered up in current bidding, some 17 were prepared, he says.

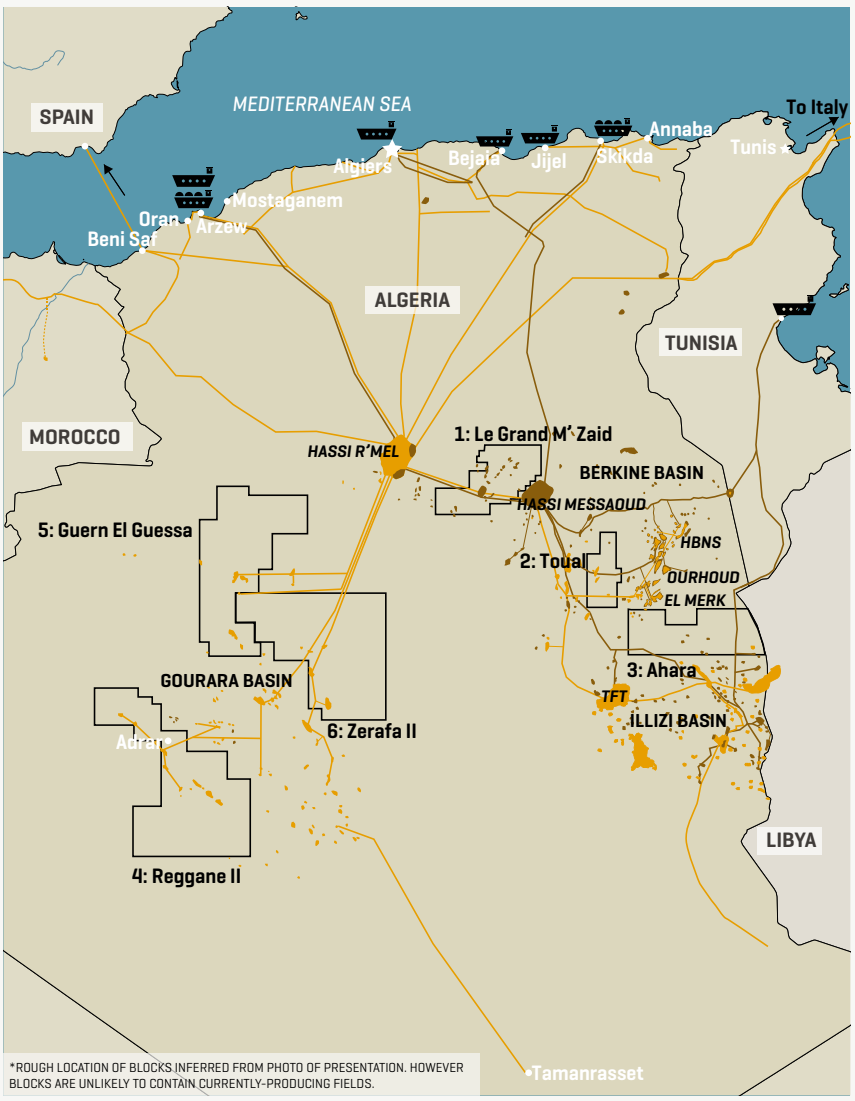
He adds that the bid rounds slated for 2025 and 2026 could well include offshore Mediterranean blocks adding that preliminary studies of this offshore acreage had indicated the presence of oil.

## SHALE TO COME

Meanwhile, Sonatrach remains keen to attract investment to develop what are estimated as massive shale gas reserves in the Ahnet and Berkine basins, with Exxon & Chevron having signed MoUs to this effect earlier this year (MEES, 21 June).

Sonatrach CEO Rachid Hachichi told the Oran conference on 14 October that "Algeria will develop all types of hydrocarbons" to meet the country's energy needs. "There are no differences between the exploitation of conventional and unconventional gas. The same drilling techniques are used in both cases. It's the same gas," he said. ◆◆

**ALGERIA BID ROUND 2024' OFFERS UP SIX LARGE BLOCKS***




*ROUGH LOCATION OF BLOCKS INFERRED FROM PHOTO OF PRESENTATION. HOWEVER BLOCKS ARE UNLIKELY TO CONTAIN CURRENTLY-PRODUCING FIELDS.

**ALGERIA'S SIX BLOCKS ON OFFER IN 2024 BIDDING**

| No. | Name | km² | Basin | oil/gas | Notes |
|---|---|---|---|---|---|
| 1 | Le Grand M'Zaid (aka El Mazayed) | 12,759 | Oued Mya | oil | Adjoins country's largest oilfield Hassi Messaoud. |
| 2 | Toual (Tawal) | 6,424 | Berkine | gas | Near to key Eni & Oxy-operated fields. |
| 3 | Ahara | 17,654 | Illizi | gas/oil | Includes Timissit block awarded to Shell/ Equinor in 2014 bidding. |
| 4 | Reggane II | 40,828 | Gourara | gas | Repsol operates nearby Reggane Nord. |
| 5 | Guerne El Guessa (Qarn El Kassa, Kern El-Kassa) | 36,374 | Gourara | gas | Surrounds* key southwest gas project fields. |
| 6 | Zefara (Zafara) II | 38,698 | Gourara | gas | Adjoins* Eni & Equinor's In Salah fields. |

*OFFICIAL BLOCK PRESENTATION, LIKELY INCORRECTLY, APPEARS TO IMPLY A DEGREE OF OVERLAP WITH THESE ASSETS.



©Middle East Petroleum and Economic Publications (Cyprus) Ltd
Reproducing MEES Is Strictly Prohibited

# Fertiglobe To Become Adnoc's Low Carbon Ammonia Platform

*Adnoc is putting in place the central pillars of its chemical growth strategy. Completion of the Fertiglobe purchase is intended to spearhead Adnoc's low-carbon ammonia push, with the firm seeing marine fuels as a key driver of demand growth.*

Adnoc completed its purchase of Amsterdam-listed OCI Global's 50% stake in fertilizer firm Fertiglobe for $3.62bn on 15 October, lifting its holdings to 86.2%, while the remaining 13.8% trades on the Abu Dhabi Exchange (ADX). It says the transaction "marks a major milestone" in its chemicals growth strategy, and the deal comes just two weeks after Adnoc launched its $13bn takeover bid for German chemicals firm Covestro (MEES, 4 October).

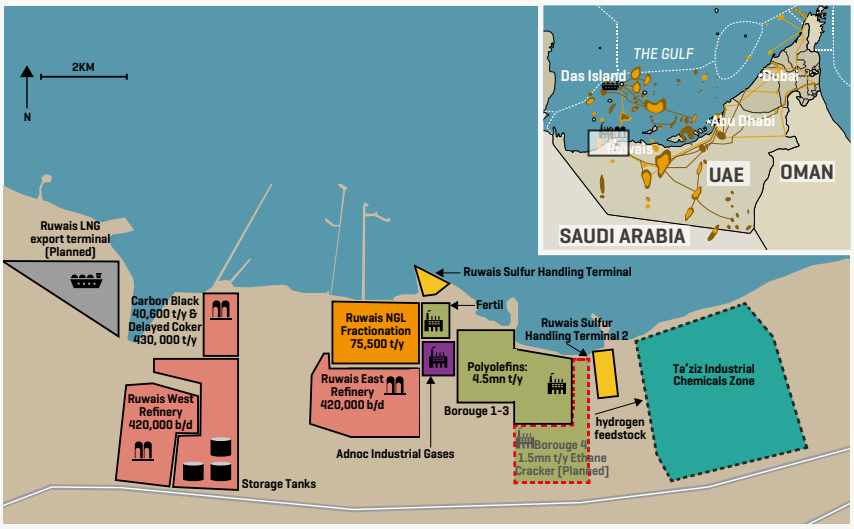
Whereas Adnoc sees Covestro as the foundational platform for Adnoc International's performance materials and specialty chemicals business, it envisions Fertiglobe sitting alongside it as a "a world-class growth platform for low-carbon ammonia" (MEES, 22 December 2023). "Fertiglobe is a world-class company, and it will be the vehicle through which Adnoc advances its low-carbon ammonia business, supporting our efforts to enable a just, orderly, and equitable global energy transition," says Adnoc CEO Sultan al-Jaber, adding that "we see significant growth opportunities for Fertiglobe."

Fertiglobe was only founded in 2019 through the merger of the Egypt-focused Mena business of OCI and Adnoc's fertilizer arm (MEES, 4 October 2019), and subsequent growth in expectations of ammonia demand growth amid the energy transition has made the business more central to Adnoc's strategy.

Adnoc has ambitions to "become a top 5 global chemicals company," and is assembling multiple growth platforms within this sphere to achieve this. It is hoping to merge its Borealis and Borouge joint ventures to form a unified polyolefins platform, but negotiations with Borealis partner OMV (75%) are proceeding slowly, and it also remains on the lookout for further potential acquisitions.

With the purchase complete, Adnoc says that a new Board of Directors will be elected by shareholders during a general assembly on 24 October. Fertiglobe CEO Ahmed el-Hoshy will remain in his position, and is stepping down from his role as CEO of OCI. Fertiglobe says a full strategy update will be announced during the firm's Capital Markets Day in Q1.

**ADNOC'S DOWNSTREAM FACILITIES AT RUWAIS**




## TARGETING GROWTH POTENTIAL

Fertiglobe currently has 6.6mn t/y of net urea and ammonia production capacity across the UAE, Egypt and Algeria – approximately 5.1mn t/y of urea and 1.6mn t/y of ammonia. Adnoc says that it will transfer its stakes in existing and future low-carbon ammonia projects to Fertiglobe at cost and when they are ready for startup, anticipating that this will add around 2mn t/y of ammonia capacity.

In particular, the firms highlight "two lower carbon ammonia projects in Abu Dhabi," as providing a capacity boost for Fertiglobe. The most advanced of these is a 1mn t/y project being developed at the Ta'ziz chemicals park in Abu Dhabi's Ruwais downstream, for which the partners took FID in May (MEES, 31 May). The 1mn t/y Ta'ziz plant is due online in 2027, and Fertiglobe says that pre-Feed studies are currently underway at another 1mn t/y plant in the UAE, although it provides no additional information, just stating that "synergies with the first Ta'ziz project are being evaluated, and more details will be shared in the first half of 2025."

The Ta'ziz plant is being developed by the Ta'ziz joint venture of Adnoc and fellow state firm ADQ, Fertiglobe, Japan's Mitsui, and Korea's GS Energy. Fertiglobe says that its stake in the project will increase from 30% to 60% once Adnoc assigns the firm its stake. The plant will receive its hydrogen feedstock from the under construction neighboring 1.4mn t/y Borouge-4 ethane cracker (see map) which is due online next year.

Adnoc and Fertiglobe see considerable synergies between their existing operations which will help drive the latter's growth. Adnoc is confident that it can support accelerated growth for its low-carbon ammonia platform.

Fertiglobe has an established marketing operation, placing ammonia into markets across the globe, while Adnoc is investing heavily in the carbon capture technology required to decarbonize the production of hydrogen and ammonia from natural gas. Adnoc recently doubled its carbon capture target to 10mn t/y by 2030 and has committed investment for 4mn t/y (MEES, 26 July).

## MARINE FUEL GAINS?

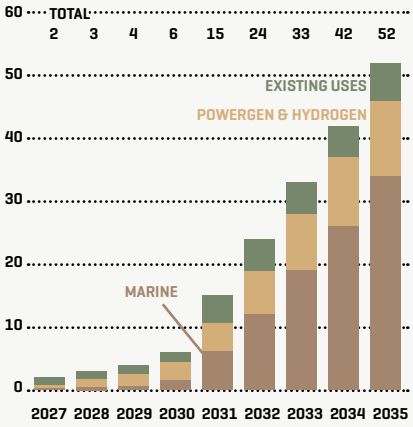
"Positioned as the vehicle of Adnoc's plans to establish a global growth platform for ammonia, Fertiglobe is poised to meet the increasing global demand for low-carbon solutions and

Continued on – p6



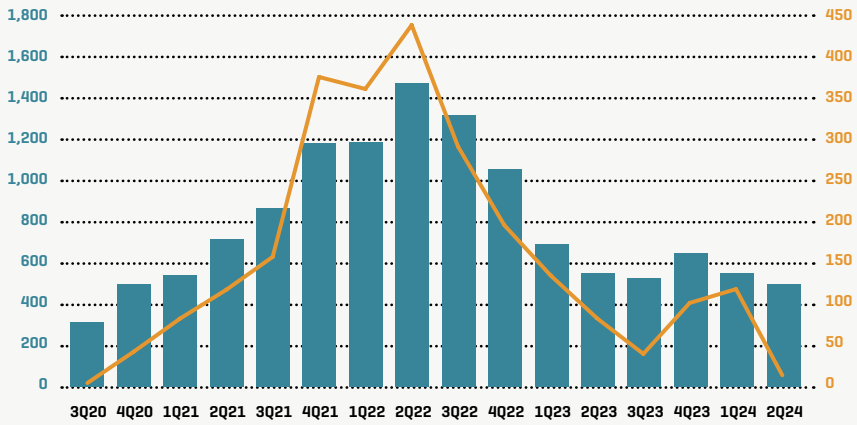
©Middle East Petroleum and Economic Publications (Cyprus) Ltd
Reproducing MEES Is Strictly Prohibited

1: FERTIGLOBE FORECASTS SOARING GLOBAL LOW-CARBON AMMONIA DEMAND FROM 2030 (MN T/Y)




SOURCE: FERTIGLOBE.

2: FERTIGLOBE REVENUES, PROFITS HAVE SLUMPED TO LOWEST LEVEL SINCE 3Q 2020 ($MN)




SOURCE: FERTIGLOBE, MEES.

Continued from – p5

bring us closer to a more sustainable future," says the firm's Mr Hoshy.

Fertiglobe says it sees global demand for low-carbon ammonia increasing from near-zero currently to 52mn t/y by 2035. The firm has already dipped its toes into the sector, with its 'Egypt Green Hydrogen' project at Ain Sukhna on Egypt's Gulf of Suez winning an auction to supply up to 397,000 tons of green ammonia to German-backed H2Global at a delivered price of €1,000 per ton until 2033 (MEES, 19 July). Volumes are intended to start in 2027, although FID, slated for 1H 2025, has yet to be taken.

This deal followed Fertiglobe announcing the export of the world's first "certified" green ammonia cargo – albeit of less than 40 tons – from Ain Sukhna to India in November 2023 (MEES, 24 November 2023). This was used for the production of "near-zero emissions" synthetic soda ash – a key ingredient in laundry powder – for Unilever. Fertiglobe has also delivered a low-carbon ammonia shipment to Mitsui for use in power generation in Japan from its Abu Dhabi facilities where it pilots a modular CycloneCC carbon capture unit with 10 ton/day capacity.

Still, Fertiglobe sees demand for low-carbon ammonia being driven from a very different sector; shipping. "The use of ammonia as a clean marine fuel is one of the key emerging applications due to its clean burning characteristics," says the firm's CEO. In an investor presentation this week, Fertiglobe indicated that it expects the marine sector to become by far the largest source of global demand, dwarfing "power generation and hydrogen" in second place and existing uses (see chart 1). However, the "clean-burning" nature of ammonia is up for debate. Fertiglobe says it can reduce carbon emissions by around 70% against low sulfur fuel oil, but critics point to the risk of emissions of nitrogen oxides (NOx).

Mr Hoshy highlighted the proximity of the firm's Abu Dhabi production sites to the Fujairah bunkering hub, and Ain Sukhna's location on the Suez Canal as strategically advantageous for Fertiglobe. With Adnoc seeking to strengthen Fujairah's role as an energy storage and trading hub it may well facilitate the development of ammonia storage and bunkering facilities there. Certainly, officials at Fujairah are eying a pivot towards low-carbon offerings (MEES, 24 March 2023).

With Fertiglobe eying marine fuels as the most important demand growth area, Adnoc could itself offer a key market. Adnoc is investing heavily in expanding its shipping fleet through its Adnoc L&S subsidiary, and last week placed an order for two Very Large Ammonia Carriers (VLACs) for $250mn. But while the VLACs can help transport Fertiglobe products internationally, as yet Adnoc L&S has yet to purchase any vessels listed as ammonia-fuel ready.

Fertiglobe says that there are currently just 30 ammonia-ready vessels on order/operational globally, with another 265 vessels which could be easily retrofitted with ammonia engines.

## PROFITS, REVENUES SLUMP

Fertiglobe's revenues and profits soared in 2022 amid tight fertilizer markets stemming from Russia's invasion of Ukraine. As fertilizer prices have since fallen back, Fertiglobe's revenues and profits have dropped sharply back to early-2021 levels (see chart 2).

Indeed, revenues and profits in Q2 this year were the lowest since 3Q 2020, driven in large part by gas feedstock supply disruptions in Egypt in June (MEES, 7 June). "Own-produced sales volume fell only marginally by 2% Y-o-Y, despite recent gas supply disruptions in Egypt," says the firm, noting that it calculates they would have been up 8.1% otherwise.

Egypt has prevented further such disruption by ramping up LNG imports, but with domestic gas output continuing to trend down and the risk of further disruption to Israeli pipeline supplies due to the ongoing conflict, further feedstock stoppages cannot be ruled out.

## ALGERIA: GREEN H2 MOUs

Algeria is belatedly looking to join the list of potential suppliers of green hydrogen to Europe with state upstream giant Sonatrach and distribution counterpart Sonelgaz signing two MoUs at this week's Napec conference in Oran.

The first relates to 'SoutH2 Corridor' plans which would see the five parallel Algeria-Tunisia-Italy Trans-Med gas pipelines totaling 33.5bcm/y transformed in whole or in part for hydrogen shipments to Italy, Germany and elsewhere in Europe.

Sonatrach, Sonelgaz, and network firms from Italy (Snam & SeaCorridor), Germany (VNG) and Austria (Verbund) on 14 October signed an MoU "to assess the viability and profitability of an integrated project for the production of green hydrogen in Algeria in order to supply the European market via the 'SoutH2 Corridor'."

Tunisia previously signed up to the plans, with supplies potentially to come from two 200,000 t/y green hydrogen projects proposed by Saudi Arabia's Acwa Power and TotalEnergies (MEES, 28 June). And, whilst Algeria does not yet have firm green hydrogen production plans, also in Oran on 14 October Sonatrach and Sonelgaz signed an MoU with Spanish energy firm Cepsa "for the joint realization of a feasibility study to develop an integrated project to produce green hydrogen and its derivatives in Algeria to supply mainly the European market." Cepsa, which is majority owned by Abu Dhabi state firm Mubadala, is a significant upstream oil producer in Algeria, operating the 60,000 b/d Ourhoud field.

Algeria, which relies on Transmed as its key gas export conduit – at 4.6bcm for 9M 2024 the route accounted for almost half Algeria's total gas exports (MEES, 4 October) – had until now seen the potential appropriation of the route for hydrogen as more of a threat than an opportunity (MEES, 14 July 2023).



©Middle East Petroleum and Economic Publications (Cyprus) Ltd
Reproducing MEES Is Strictly Prohibited

# IEA POINTS TO LOWER FOREVER OIL MARKETS

***As Opec+ producers assess whether to once again extend voluntary cuts, Opec and the IEA have both lowered demand expectations for this year whilst the IEA sees plentiful supply putting a cap on prices way into the future.***

The current softening of oil markets is a harbinger of what is to come in the second half of the decade, says the IEA as it points to an emerging surplus of oil and natural gas in its World Energy Outlook 2024. With the IEA projecting oil demand to peak before the end of the current decade, its outlook couldn't be further removed from that of Opec, which stated last month that global demand will continue rising out to at least 2050 (MEES, 27 September).

Where Opec Secretary General Haitham al-Ghais says "there is no peak oil demand on the horizon," IEA Executive Director Fatih Birol says "in the second half of this decade, the prospect of more ample – or even surplus – supplies of oil and natural gas, depending on how geopolitical tensions evolve, would move us into a very different energy world from the one we have experienced in recent years during the global energy crisis." "It implies downward pressure on prices, providing some relief for consumers that have been hit hard by price spikes," he adds.

The IEA and Opec are now firmly positioned at opposite ends of the spectrum when it comes to the medium-to-longer term outlook for global oil demand. But it warrants noting that while Opec's base Reference Case scenario is based on enacted policies and a "continuous evolution of energy policies going forward," the IEA's base case Stated Policies (STEPS) scenario is based on the assumption of full implementation of official government policies.

In response to the WEO, Opec warned on 18 October that "due regard should be given to consequences of underinvestment in the oil and gas industries, especially those related to energy security."

## TIME TO EXTEND?

If the IEA is correct, it will have profound implications for Opec and the broader Opec+ alliance. The near-term demand picture continues to deteriorate, with Opec this week revising down its 2024 growth projection by 110,000 b/d to 1.93mn b/d, marking the first time it has projected sub-2mn b/d growth for this year (see chart 1).

This still leaves Opec far more bullish than most forecasters, while again the IEA is one of the more bearish, revising down its outlook for this year by 40,000 b/d to just 860,000 b/d. "Chinese oil demand is particularly weak, with consumption dropping by 500,000 b/d y-o-y in August – its fourth consecutive month of declines," says the IEA. This take has a firm foundation in official Chinese stats which show crude imports down 3% year-on-year for the first nine months of 2024 (see p14).

With the Opec+ 'Group of Eight' implementing 2.2mn b/d of voluntary production cuts until end-November, the IEA says that "Opec+ spare production capacity stands at historic highs, barring the exceptional period of the Covid-19 pandemic. Excluding Libya, Iran and Russia, effective spare capacity comfortably exceeded 5mn b/d in September."

Opec+ producers hope that their deep cuts are a temporary measure, and that robust demand growth will enable them to begin bringing volumes back onto the market from December. However, despite Opec forecasting demand growth of 1.64mn b/d for 2025, the consensus is more bearish, and the IEA pegs the figure at 1mn b/d.

With the IEA forecasting a significantly oversupplied market in 2025 (see chart 2) and a build up in Opec+ spare capacity to a huge 8mn b/d by 2030, the group's STEPS scenario points to there being little in the way of a window of opportunity for Opec+ to enjoy a more buoyant market. Time will tell whether or not the IEA is correct.

For now, the Group of Eight has until early November to assess whether or not to begin easing the cuts as planned from 1 December. Amid expectations of a well-supplied market next year, oil prices have been falling this week as concerns over an Israeli strike on Iranian energy assets have eased (see p8). Brent is back below $75/B and could weaken further if the cuts are eased.

Meanwhile, while the IEA says that observed global crude oil stocks have fallen to their lowest levels since at least 2017, it adds that "global refined product stocks have swelled to three-year highs, pressuring margins across key refining hubs." ◆◆

### IEA SUPPLY & DEMAND FORECASTS, OCTOBER 2024 (MN B/D)

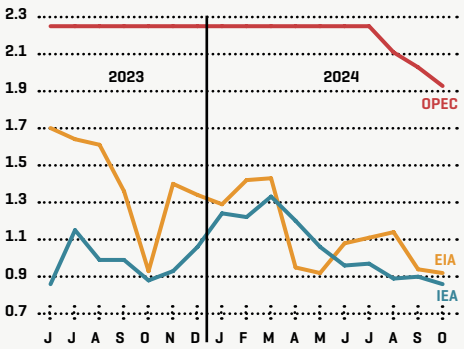
SOURCE: IEA, OPEC, MEES.

| | 2023 | 2024 | vs'23 | 2025 | vs'24 | 1Q24 | 2Q24 | 3Q24 | 4Q24 | 1Q25 | 2Q25 | 3Q25 | 4Q25 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **World Oil Demand** | **101.98** | **102.84** | *+0.86* | **103.84** | *+1.00* | **101.53** | **102.59** | **103.63** | **103.59** | **102.63** | **103.49** | **104.64** | **104.56** |
| *vs Sep 24 report* | *-0.11* | *-0.15* | *-0.04* | *-0.10* | *+0.04* | *+0.14* | *-0.33* | *-0.29* | *-0.11* | *+0.19* | *-0.23* | *-0.19* | *-0.17* |
| Non-Opec Supply | 69.32 | 70.25 | *+0.93* | 72.03 | *+1.78* | 69.39 | 70.18 | 70.46 | 70.95 | 70.87 | 72.04 | 72.44 | 72.73 |
| *vs Sep 24 report* | *-0.00* | *+0.00* | *+0.00* | *-0.00* | *-0.01* | *+0.00* | *+0.02* | *-0.03* | *+0.02* | *+0.01* | *+0.02* | *-0.09* | *+0.04* |
| Opec NGLs | 5.52 | 5.58 | *+0.06* | 5.68 | *+0.10* | 5.54 | 5.55 | 5.61 | 5.62 | 5.65 | 5.68 | 5.68 | 5.72 |
| **Call on Opec** | **27.14** | **27.01** | *-0.13* | **26.13** | *-0.88* | **26.60** | **26.86** | **27.55** | **27.02** | **26.12** | **25.77** | **26.52** | **26.12** |
| *vs Sep 24 report* | *-0.11* | *-0.15* | *-0.04* | *-0.10* | *+0.05* | *+0.14* | *-0.34* | *-0.26* | *-0.13* | *+0.17* | *-0.25* | *-0.10* | *-0.21* |
| Opec Crude Prod | 27.43 | n/a | n/a | n/a | n/a | 26.87 | 27.12 | 27.18 | n/a | n/a | n/a | n/a | n/a |
| **Opec vs Call** | **+0.29** | n/a | n/a | n/a | n/a | **+0.27** | **+0.26** | **-0.37** | n/a | n/a | n/a | n/a | n/a |
| **Call on Opec+** | **42.1** | **41.4** | *-0.7* | **40.8** | *-0.6* | **41.2** | **41.2** | **41.7** | **41.5** | **40.7** | **40.5** | **41.2** | **40.9** |
| World Oil Supply | 102.27 | n/a | n/a | n/a | n/a | 101.80 | 102.85 | 103.26 | n/a | n/a | n/a | n/a | n/a |

### OPEC SUPPLY & DEMAND FORECASTS, OCTOBER 2024 (MN B/D)

| | 2023 | 2024 | vs'23 | 2025 | vs'24 | 1Q24 | 2Q24 | 3Q24 | 4Q24 | 1Q25 | 2Q25 | 3Q25 | 4Q25 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **World Oil Demand** | **102.21** | **104.14** | *+1.93* | **105.78** | *+1.64* | **102.81** | **103.36** | **104.73** | **105.61** | **104.41** | **104.91** | **106.61** | **107.15** |
| *vs Sep 24 report* | *+0.00* | *-0.11* | *-0.11* | *-0.21* | *-0.10* | *-0.09* | *-0.25* | *-0.08* | *+0.00* | *-0.19* | *-0.35* | *-0.19* | *-0.10* |
| Non-Opec+ Supply | 51.84 | 53.07 | *+1.23* | 54.17 | *+1.11* | 52.58 | 53.08 | 53.05 | 53.54 | 53.86 | 53.92 | 54.21 | 54.68 |
| *vs Sep 24 report* | *+0.00* | *+0.00* | *-0.00* | *+0.00* | *+0.00* | *+0.00* | *+0.00* | *-0.07* | *+0.07* | *-0.10* | *+0.02* | *+0.08* | *+0.00* |
| Opec+ NGLs | 8.23 | 8.32 | *+0.08* | 8.39 | *+0.07* | 8.40 | 8.29 | 8.25 | 8.33 | 8.40 | 8.43 | 8.31 | 8.40 |
| **Call on Opec+** | **42.14** | **42.76** | *+0.61* | **43.22** | *+0.47* | **41.83** | **42.00** | **43.42** | **43.74** | **42.14** | **42.55** | **44.08** | **44.07** |
| *vs Sep 24 report* | *-0.00* | *-0.09* | *-0.09* | *-0.21* | *-0.12* | *-0.09* | *-0.22* | *-0.00* | *-0.06* | *-0.09* | *-0.38* | *-0.27* | *-0.10* |
| Opec+ Crude Prod | 41.98 | n/a | n/a | n/a | n/a | 41.22 | 40.88 | 40.58 | n/a | n/a | n/a | n/a | n/a |
| **Opec+ vs Call** | **-0.17** | n/a | n/a | n/a | n/a | **-0.61** | **-1.12** | **-2.84** | n/a | n/a | n/a | n/a | n/a |
| World Oil Supply | 102.04 | n/a | n/a | n/a | n/a | 102.21 | 102.24 | 101.89 | n/a | n/a | n/a | n/a | n/a |

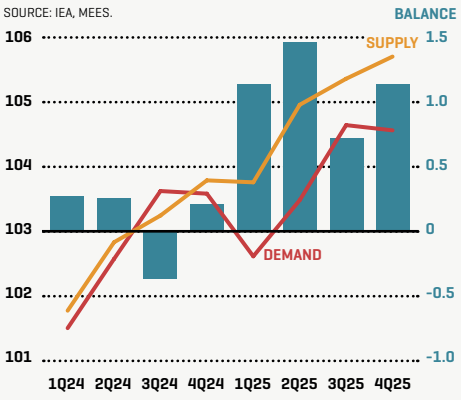
**1: 2024 GLOBAL DEMAND FORECASTS*: IEA AND EIA INCREASINGLY ALIGNED, WHILE OPEC REMAINS OUTLIER DESPITE RECENT DOWNWARDS REVISIONS (MN B/D)**




*BY DATE OF REPORT. SOURCE: OPEC, IEA, EIA, MEES.

**2: IEA SEES 1.1MN B/D OF STOCKBUILDS IN 2025 EVEN IF OPEC+ CUTS ARE NOT UNWOUND (MN B/D)**

SOURCE: IEA, MEES.






©Middle East Petroleum and Economic Publications (Cyprus) Ltd
Reproducing MEES Is Strictly Prohibited

# Iran Oil Exports Remain Firm Despite Latest US Sanctions

*The US has sanctioned 23 more vessels for trading in Iranian oil, mostly VLCCs involved in Iran-China flows. Such sanctions are having minimal impact on Iranian crude exports, with Tehran having mastered the art of clandestine sales.*

The US Departments of Treasury and State on 11 October announced new sanctions on entities and vessels taking part in Iranian crude oil exports. The US is also seeking to clamp down on entities financing Yemen's Iran-backed Houthis through oil sales, announcing additional sanctions here on 17 October (see p9).

US officials sought to place the latest move against Iranian oil exports in the context of responding to Tehran's missile attack on Israel earlier this month, with Treasury Secretary Janet Yellen stating that "in response to Iran's attack on Israel, the United States is taking decisive action to further disrupt the Iranian regime's ability to fund and carry out its destabilizing activity." However, few expect these latest sanctions to have any tangible impact on Iranian exports.

Iranian exports of crude and condensate averaged 1.85mn b/d in September according to Kpler data (see chart), the highest monthly figure since the return of US sanctions in 2018. Volumes are down so far this month falling below 1.3mn b/d due to a brief hiatus amid concerns that an Israeli retaliatory strike could target energy infrastructure (MEES, 4 October), but with exports returning to more normal levels, the monthly average could yet return close to September levels.

Loadings at Iran's key Kharg Island export terminal were suspended for three days says Homayoun Falakshahi, Senior Commodity Analyst at Kpler, noting that departures should pick up pace soon as "the Iranians now feel more confident to go ahead." Around 90% of all exports ultimately go to China.

Iman Nasseri, Middle East Managing Director at energy consultancy FGE, agrees and adds that Iran recently opted to keep large VLCCs away from Kharg "as a measure of risk control." Mr Nasseri expects overall October loadings to see a dent "but not a huge one and it is too early into October to determine the full impact."

Having been under sanctions for years, Tehran has developed a sophisticated trading network and maintains access to many third-party firms which now also carry Russian and Venezuelan oil. "There is an increased integration of these shadow companies used by Iran, Russia and even China as a final buyer and this will minimize the impact," says Mr Falakshahi.

Despite the US sanctioning multiple entities and vessels involved in the trade in recent years, Iranian oil exports have been resurgent thanks to lax enforcement and strong demand for discounted barrels by Chinese independent refiners. Iranian exports have risen by around 200,000 b/d to 1.54mn b/d thus far this year.

Mr Nasseri explains that traders in the Iranian market have become accustomed to seeing more entities added to the sanctions list, "old companies will be dissolved and new ones registered to carry on the trade" he says. The main hurdle to the effectiveness of US sanctions has rather been lax enforcement, especially following the 2022 Russian invasion of Ukraine. "Sanctions lost their efficacy because they were loosened then, and additional designations wouldn't do much to reverse that," Mr Nasseri adds.

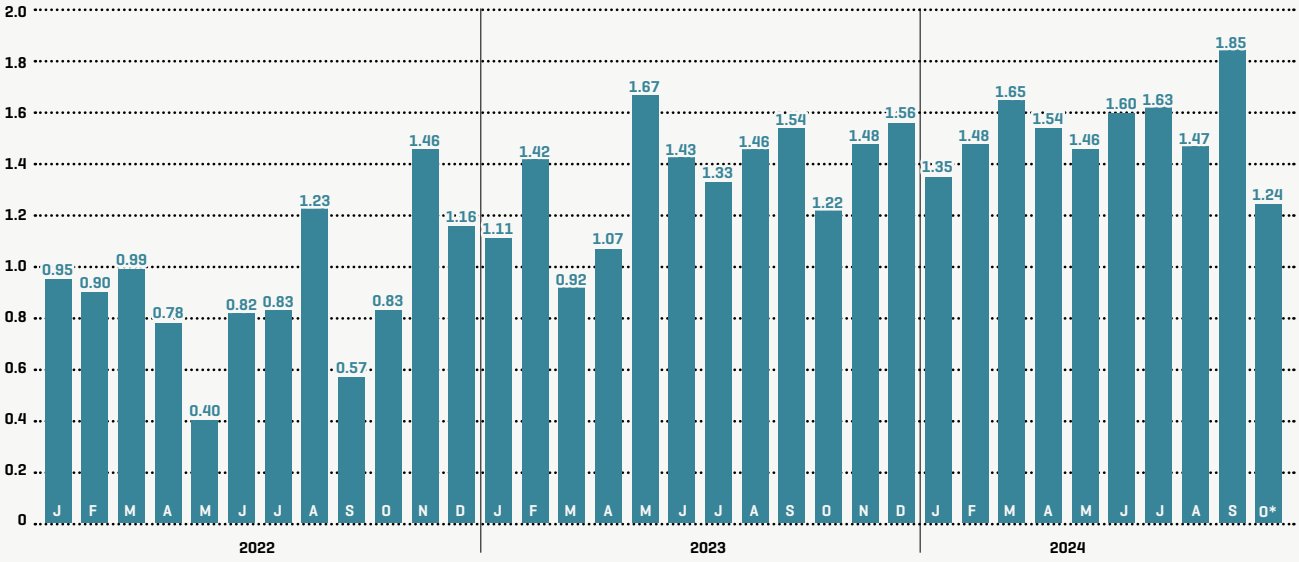
## TARGETING VLCCs

The new measures and increased designations aim, at least in theory, to disrupt flows to Chinese refiners and to force them to consider alternatives. While this is unlikely, increased friction in the trade could result in buyers pushing for higher discounts from Iran, potentially cutting into Tehran's earnings.

Matthew Wright, Lead Freight Analyst

Continued on – p9

**IRANIAN CRUDE AND CONDENSATE EXPORTS HAVE SLOWED THIS MONTH AFTER ISRAELI THREATS TO OIL EXPORT TERMINALS (MN B/D)**




*1-18 OCTOBER. SUBJECT TO REVISION. SOURCE: KPLER, MEES.



©Middle East Petroleum and Economic Publications (Cyprus) Ltd
Reproducing MEES Is Strictly Prohibited

Continued from – p8

at Kpler, says that the 23 newly sanctioned tankers "accounted for between 10-20% of tanker demand from Iran over the last two years," and if they cease handling cargoes, this would "increase the pressure on the NITC [National Iranian Tankers Co] and the dark fleet to maintain Iranian flows." While he says it is "unknown" how this would affect trading behavior, Mr Wright sees the impact as being largely non-prohibitive.

Of the 23 vessels, 14 are VLCCs capable of holding up to 2mn barrels of oil. Five of the vessels delivered Iranian oil to China in September, while four arrived this month. Eleven of the VLCCs were involved in ship-to-ship (STS) transfers in the last three months offshore Malaysia-Singapore EOPL (East Outside Port Limits) lightering area, either bringing Iranian oil in or, as in many cases for the 11 October sanctioned vessels, taking it onwards to China after STS operations.

The EOPL area is notorious for STS transfers of Iranian and Venezuelan cargoes. In official Chinese customs data, many Iranian cargoes originating from EOPL are typically mislabeled 'Malaysia' – China imported a record 1.8mn b/d from 'Malaysia' for August (MEES, 11 October).

Iran's shadow fleet largely depends on VLCCs, both from the US-sanctioned NITC and those from third-party firms, to carry large volumes of crude and condensate to the Far East. Iran also utilizes such vessels as floating storage and to facilitate STS operations in Iranian waters and elsewhere. Of the 1.54mn b/d exported thus far in 2024, almost 90% (1.34mn b/d) were carried by VLCCs, as per Kpler data.

Armen Azizian, Senior Oil Risk Analyst at Vortexa, says that recent activity shows that more than 90% of the approximately 50 VLCCs that had been sanctioned for Iran-related trades, excluding latest designations, are doing 'Iran port calls' while others are either used for STS transfers or are idle.

## AMPLE TONNAGE

Ultimately, US sanctions place restrictions on vessels carrying volumes to end-users, but the tankers are still able to load from Iranian ports. This means that sanctioned VLCCs can be used for conducting covert ship-to-ship transfers with other vessels. Meanwhile, the roster of vessels available to trade Iranian barrels is sizeable. The 'dark fleet' of ships routinely handling oil of sanctioned origin has around 191 VLCCs in total Mr Azizian estimates, only 35% of which are sanctioned, leaving over 120 vessels non-sanctioned.

This is clearly not the case in the commercial fleet, which comprises non-sanctioned and non-dark vessels. Mr Wright says this 'mainstream' market "is not over-supplied but the shadow/dark fleet has grown in recent years and operates at a much lower level of utilization, which creates additional supply capacity for countries such as Iran and Russia."

As such, in the face of new designations, traders could opt to expand STS activities, with sanctioned VLCCs presumably loading cargoes at Iranian ports then non-sanctioned vessels carrying them to China. The new sanctions "will cause some logistical issues as existing dark fleet vessels will be in higher demand but it's unlikely to materially affect Iranian exports," Mr Wright says.

Moreover, more vessels are expected to join the market, adding to available VLCC capacity as aging ships are sold off to participants in the dark fleet rather than being decommissioned. Also, while the re-imposition of sanctions in 2018 had upended Iran's customer base, leaving it reliant on independent refiners in China. These end-buyers, and others in between, generally have a higher risk appetite.

## DARK FLEET MASTER

Mr Wright adds that previous sanctions "have had a limited impact on their willingness to continue trading with Iran. This contrasts with vessels sanctioned in relation to Russian oil exports where once sanctioned, there is a drop in the number that continue to load cargoes from Russia."

But one of the major concerns with the dark fleet is that it includes vessels and entities with high risk profiles. Many of the ships are old, and their ownership and management are shrouded with multiple layers of secrecy. Adding more concern, after price caps and complex documentation requirements for Russian oil sales were imposed by G7 nations, many EU operators have been pushed out and replaced by firms with questionable capacity. The US-sanctioned firms on 11 October were based in the UAE, Malaysia, China, Hong Kong, Panama, the Marshall Islands and Suriname.

Mr Azizian estimates that of the vessels involved in Iran's oil trade and sanctioned this year, 70% remain active. Iran's familiarity with bypassing sanctions has also allowed it to develop various tactics, even disguising identities by taking on names of scrapped ships (MEES, 16 August).

Mr Nasseri notes that loadings from Iran are also non-conventional. While normally vessels load, travel then reach their destination, Iranian volumes typically spend more time on water. "Cargoes are loaded and then sail away and wait in the Gulf, Malaysia and/or China to be sold on and then sail to destination for delivery," he explains. As such, Iran always has a buffer, and "if loadings slow down, they can speed up sales from floating vessels to make it up."

# US Adds Houthi Financiers To Sanctions List

The US on 17 October introduced new sanctions on 18 companies, individuals, and ships involved in a trade network that it says funds Yemen's Houthi movement. At the head of the network is Sa'id al-Jamal, an Iran-based Houthi financier who arranges the sale of commodities, including oil, to fund the group's operations. US sanctions against Mr Jamal date back to 2021, but the most recent sanctions clamp down further on the illicit oil trade he oversees.

The new sanctions target five companies: two registered in the Marshall Islands and three based in the UAE. Under these companies eight vessels are also sanctioned for their part in transferring Iranian crude and oil products in the Houthi-run network. This includes the Kapok, which the US says "transported over a million barrels of crude oil, worth tens of millions of dollars, on behalf of al-Jamal and sanctioned Türkiye-based, Houthi-associated businessman Abdi Nasir Ali Mahamud." Kpler shows the tanker delivering 1mn b/d of Iranian crude to China in November 2023.

The US is tightening its sanctions on tankers that facilitate Iranian oil exports in response to the latter's 1 October missile attack on Israel (see main story). As a member of the 'Axis of Resistance', the Houthis receive support from Iran including small arms, missiles, drones, alongside training and intelligence. This has helped the Houthis solidify their iron grip within Yemen, and more important to the US, aided their violent maritime campaign in the Red Sea (MEES, 30 August).

To try to degrade and deter the Houthis, the US has led a campaign of bombing Houthi targets in Yemen since January (MEES, 12 January). According to the Yemen Data Project this has included 256 air strikes separate from the two raids conducted by the Israeli air force (MEES, 4 October).

However, the US has to date been unable to prevent Houthi attacks in the Red Sea. Instead, the Houthis have widened attacks to directly targeting Israel, mostly unsuccessfully with the exception of a deadly summer strike on Tel Aviv (MEES, 19 July).



©Middle East Petroleum and Economic Publications (Cyprus) Ltd
Reproducing MEES Is Strictly Prohibited

# Adnoc Flexes Crude Export Options With Expansion Of 'Hormuz Bypass' Pipeline

*Plans to add 1.5mn b/d pipeline capacity between Jebel Dhanna and Fujairah can facilitate the transfer of crude from offshore fields to the Indian Ocean export terminal by 2027, without having to cross the Strait of Hormuz.*

Adnoc plans to construct a 1.5mn b/d crude oil pipeline connecting its two primary onshore terminals Jebel Dhanna and Fujairah, via its primary processing facilities at Habshan. The pipeline will essentially double the capacity to transfer crude from Habshan to Fujairah, which currently stands at 1.8mn b/d through the Adcop pipeline. Most importantly, it will be able to carry crude directly to Fujairah from the Jebel Dhanna terminal at Ruwais in the west of Abu Dhabi.

Currently, the Adcop pipeline is used to transfer Murban crude oil (40°API, 0.7%S) from onshore fields to Fujairah for export. Prior to the pipeline's start-up in 2012, all Murban crude was exported from Jebel Dhanna, inside the Strait of Hormuz. Now, 1.07mn b/d of crude is being exported from Fujairah so far this year against just 320,000 b/d from Jebel Dhanna, with volumes traded under the IFAD Murban contract physically deliverable at the Indian Ocean terminal.

The start-up of Adcop was strategically crucial for Adnoc, as the pipeline bypasses the Strait of Hormuz, enabling Adnoc to continue exporting Murban in the event of the chokepoint being closed. However, all exports from offshore fields are still shipped through the Strait, meaning that in the unlikely event of such a closure, they would still be blocked from global markets.

The planned new pipeline is a key component of Adnoc's efforts to address this vulnerability. The firm has already completed the development of three storage caverns at Fujairah which can hold 42mn barrels of crude oil, although there is no indication as yet that they have been put to use (MEES, 26 April). This Mandous storage facility will complement Adnoc's existing 6mn barrel capacity storage facility at Fujairah, giving Adnoc the ability to segregate its four crude export grades at the terminal. Offshore grades are to be delivered to Fujairah through pipeline, confirms an informed source, rather than directly via tanker.

## NEW PIPELINE CONNECTION

In a regulatory filing last month, China Petroleum Engineering Construction Co (CPECC), a subsidiary of state firm CNPC, announced that it has been awarded a contract for sections 2 and 3 of the new West-East pipeline project. The project is being overseen by Adnoc Onshore, with Egyptian state firm ENPPI the Engineering Procurement and Construction Management (EPCM) contractor.

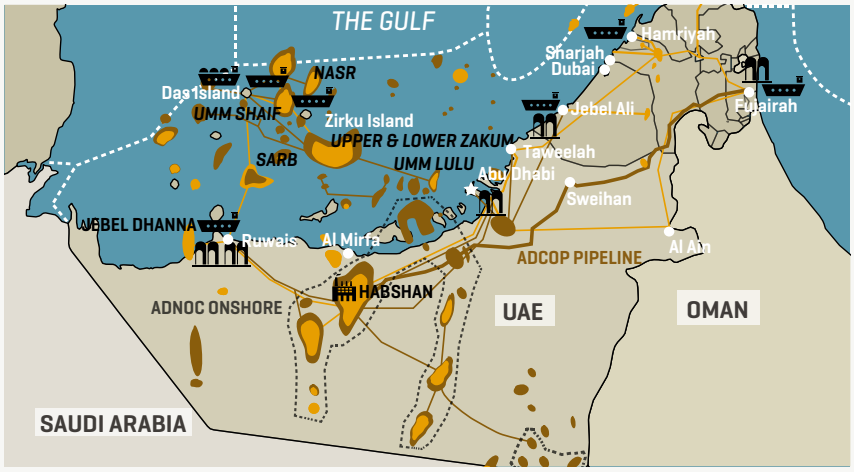
CPECC says that it has yet to finalize the contract, which it values at around $480mn for the two packages. Section 2 covers the area from Habshan to Sweihan, while Section 3 covers Sweihan to Fujairah. The contract period is for 27 months, implying a likely completion date of early-to-mid-2027. There has been no update regarding Section 1, which links Jebel Dhanna with Habshan.

The total length of the West-East pipeline will be approximately 500km, and it will lift the capacity for Abu Dhabi to Fujairah crude oil transfer from 1.8mn b/d to 3.3mn b/d.

Murban exports from Fujairah jumped from 850,000 b/d last year to a record 1.07mn b/d so far this year, according to data intelligence firm Kpler. This comes as total Murban exports have surged to a record 1.38mn b/d

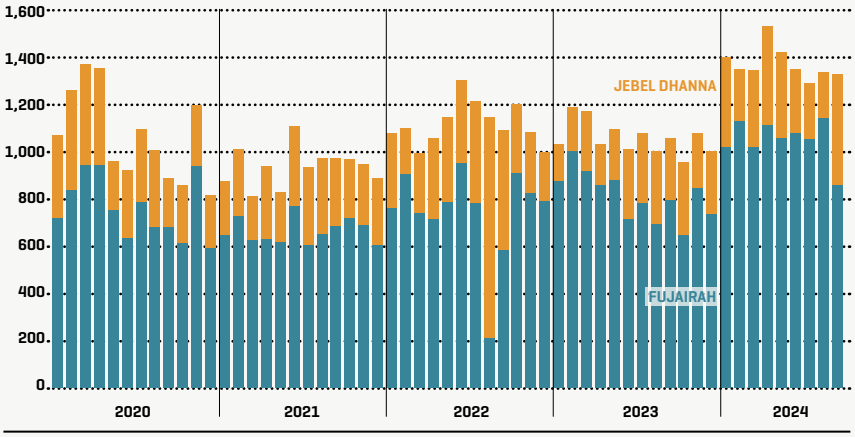
Continued on – p11

ADNOC KEY OIL AND GAS INFRASTRUCTURE




1: ADNOC MURBAN EXPORTS HIT RECORD LEVELS AFTER CFP REFINERY UPGRADES WITH MAJORITY EXPORTED FROM FUJAIRAH ('000 B/D)

SOURCE: KPLER, MEES.




©Middle East Petroleum and Economic Publications (Cyprus) Ltd
Reproducing MEES Is Strictly Prohibited

Continued from – p10

as volumes have been freed up from domestic refining thanks to the completion of the Crude Flexibility Program which has enabled heavier grades to be refined at the Ruwais West refinery (MEES, 17 November 2023) (see chart 1).

To enable the seaborne delivery of alternative crudes to Ruwais West, Adnoc awarded a $110mn contract to local firm Target Engineering in 2020 to upgrade the crude receiving facilities at the Jebel Dhanna Terminal (MEES, 11 September 2020). At the same time, it also awarded China Petroleum Pipeline Engineering (CPPE) – another CNPC subsidiary – a $135mn contract to upgrade two of the three pipelines taking crude oil from Habshan to Jebel Dhanna, which have a combined capacity of 1.5mn b/d. Some of this capacity can potentially be re-purposed to transfer crude from Jebel Dhanna to Habshan.

Given current flows of Murban crude to Fujairah, the existing Adcop pipeline has around 700,000 b/d of spare capacity. This figure is set to drop in the near future given that the UAE's Opec+ quota is due to increase by 463,000 b/d by end-2025, and while much of this is due to an easing of cuts which may be deferred, 300,000 b/d of it is due to a gradual increase of the UAE's baseline which is not contingent on market conditions. Around 50% of any increase will likely come from Murban crude.

Longer term, Murban crude production capacity is intended to reach around 2.5mn b/d by 2027. But even under the most bullish outlook, pipeline throughflows of Murban would be unlikely to exceed 2.3mn b/d given continued domestic refining, especially with Jebel Dhanna exports ongoing. An expansion of pipeline capacity to 3.3mn b/d is therefore far in excess of any conceivable requirements from Adnoc's onshore production requirements, underlining that the project is largely aimed at facilitating the transfer of crude from offshore fields.

## OFFSHORE BYPASS

Adnoc has marketed three offshore grades since the addition of the Umm Lulu (39°API, 0.7%S) grade in 2018. At around 200,000 b/d, Umm Lulu is by far the lowest volume grade, and is exported from Zirku Island, alongside the 1mn b/d Upper Zakum grade (34° API, 1.75%S). The third grade is the 38.8°API, 1.1%S Das crude blend, exports of which from Das Island have been averaging 640,000 b/d this year according to Kpler (see chart 2).

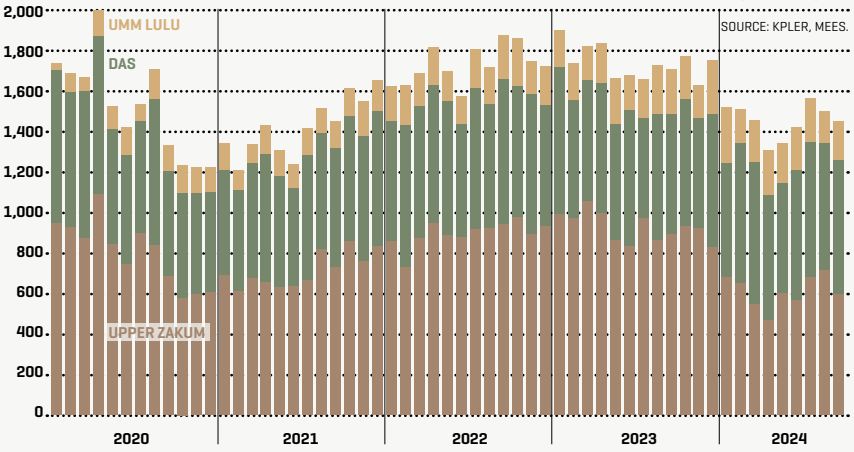
All three grades are exported to international markets on tankers crossing the Strait of Hormuz. However, for the last year, volumes of Upper Zakum have been shipped to Jebel Dhanna for the post-CFP Ruwais West refinery, with shipments averaging around 350,000 b/d in recent months (see chart 3). This shift has reduced Adnoc's reliance on the Strait of Hormuz, as the move has displaced volumes of Murban for export from Fujairah, but Adnoc is still exporting some 1.4mn b/d of offshore crude through the Strait, alongside another 300,000 b/d of Murban from Jebel Dhanna.

The planned new West-East pipeline would be able to handle the vast majority of these barrels, although with Adnoc planning to increase offshore capacity to nearly 2.5mn b/d by 2027 (see chart 4), it will not be able to transport 100% of Adnoc's potential offshore production. Still, in the event of a Strait of Hormuz blockage it would enable Adnoc to continue exporting the majority of its crude oil.

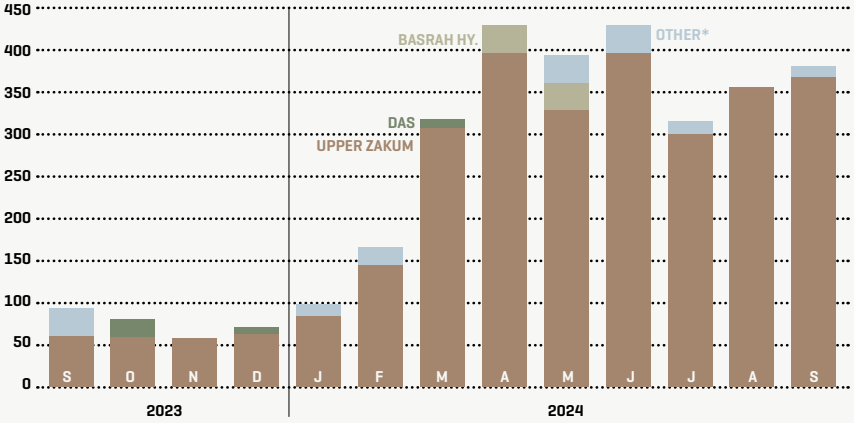
Currently, Adnoc exports Murban crude oil at Fujairah from three offshore SPMs, each with loading capacity of 80,000 barrels of oil per hour. Its storage facilities are also being linked to the Port of Fujairah's VLCC jetty through the Matrix Manifold II, with the delayed link due to be commissioned this month. Any move to shift the export of offshore crude grades to Fujairah would require the addition of new export capacity to avoid bottlenecks and maintain grade-segregation, but the Port of Fujairah says it is ready to add a second VLCC berth, with further expansion feasible.

Adnoc's plans to increase marketing of crude oil from Fujairah will further bolster the emirate's role as a major regional trading hub, an ambition that the firm has made no secret of holding in recent years (MEES, 26 March 2021). When Adnoc signed a $1.2bn contract with Korea's SK Engineering & Construction to construct the Mandous facility in February 2019, it emphasized that the work would support "Fujairah's growth as a global oil and products storage and trading hub... strengthen the UAE's position as a reliable supplier of crude oil as well as give Adnoc greater flexibility, allowing it to manage and optimize its delivery schedule and support its broader move into trading" (MEES, 1 March 2019).

**2: CRUDE EXPORTS FROM ADNOC'S OFFSHORE FIELDS ARE AVERAGING 1.45MN B/D THIS YEAR ('000 B/D)**

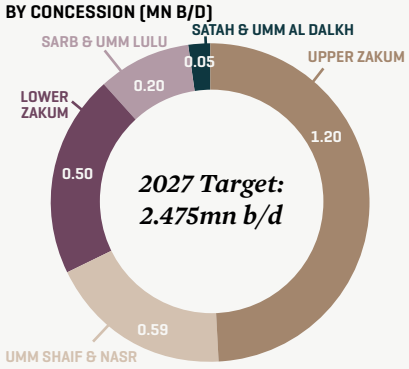



**3: CRUDE* OIL SHIPMENTS TO RUWAIS HAVE SURGED IN 2024, WITH UPPER ZAKUM LEADING THE WAY ('000 B/D)**




*INCLUDES SOME CONDENSATE. SOURCE: KPLER, MEES.

**4: ADNOC OFFSHORE'S 2027 CAPACITY TARGETS BY CONCESSION (MN B/D)**




SOURCE: ADNOC, MEES.



©Middle East Petroleum and Economic Publications (Cyprus) Ltd
Reproducing MEES Is Strictly Prohibited

# Jordan Looks To Upgrade Grid Amid Renewables Expansion Plans

Jordan's state utility Nepco is tapping up the London-based EBRD for $28.25mn to help finance the upgrade of its northern electricity network, with the project estimated to cost $35mn.

"The project is expected to be co-financed with an investment grant made available by other partners that will contribute towards the financing of the overall project costs," the EBRD says. Nepco is drowning in debt with the IMF estimating the firm's debts will reach $6.1bn by the end of 2024.

The loan will help "finance the procurement, construction and operation of a 35km double circuit 400 kV overhead transmission line," the EBRD says. This includes the construction and connection of a new 400/132kV substation in Rehab as well as substations at Samra (400kV), Amman West (400kV), Hasan Industrial zone (132kV) and Jerash (132kV).

"The project will help (i) improve the absorption capacity of existing and planned renewable energy projects, (ii) increase dispatching flexibility, (iii) reinforce the North-Eastern high voltage electricity network; and (iv) facilitate network interconnection to neighboring countries," the EBRD adds.

The latter appears in large part to be a reference to Israel. Rehab is where Israel's gas network joins the Jordan section of the Arab Gas Pipeline (AGP), with US major Chevron and its partners at Israel's Leviathan and Tamar gas fields last month taking FID on a new $330mn gas compression station at Rehab that will hike deliverable Israeli gas capacity from 700mn cfd to 1.1bn cfd from 2H 2026 (MEES, 11 October).

As such, Rehab would make an obvious connection node for the two countries' power grids which are not currently joined. Given the current political climate – the majority of Jordan's population is of Palestinian origin – there has been a strong desire to keep such tie-ups under the radar.

The need for investment in new power grid capacity, comes as Jordan has ambitious plans to hike renewables capacity from 1.62GW as of end-2023 (992MW solar, 621MW wind, 4MW hydro) to hit 50% of the energy mix by 2030.

That said recent gains have been minimal, with renewables capacity gains of less than 200MW since 2020 and renewables' share of total capacity flat at 27% over the same period (see chart).

Indeed, renewables' share of power generated fell to 17.8% (3.81TWh) for 2023, having hit a record 19.3% for 2021. The key boost for 2023, when total power generation rose by 3.4% to a record 21.47TWh was the ramp-up of throughputs at the much-maligned 470MW Attarat Power plant which burns domestically-mined oil shale.

Output from the Attarat plant, where Nepco was involved in a years' long pricing stand-off with the plant's Chinese operator (MEES, 29 January 2021) leapt threefold to 2.99GWh for 2023, some 14% of national power generation.

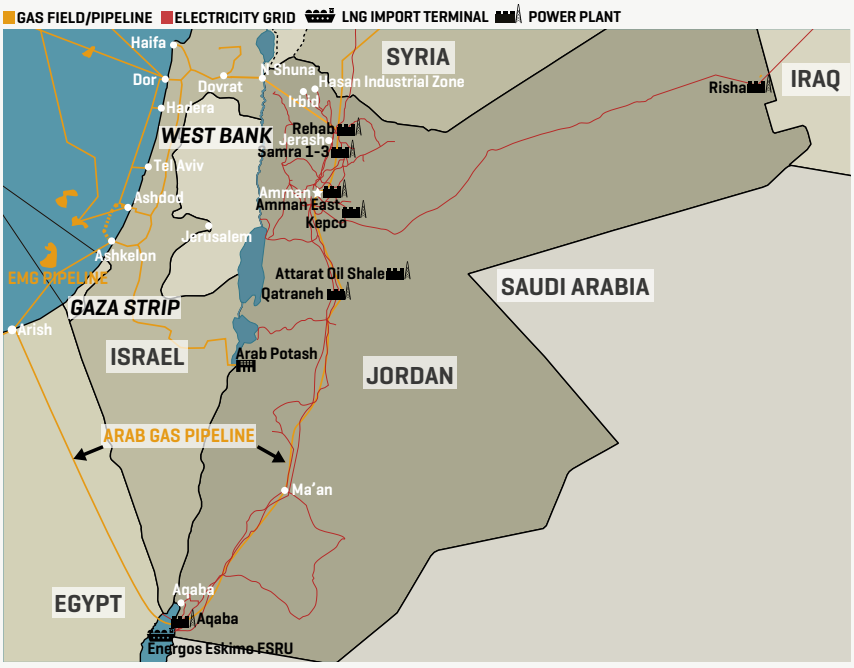
Jordan's predominant power fuel though remains natural gas which contributed 67% or 14.4TWh of the total for 2023. The lion's share of the natural gas Nepco imports comes from Israel's Leviathan, which supplied 230mn cfd last year with volumes remaining flat during 1H24 (MEES, 30 August). Jordan also acts as a conduit for Leviathan gas to head to Egypt via the Arab Gas Pipeline – also via Rehab where Israel's northern gas network connects to the AGP.

Jordan also has the capability of importing LNG via the Energos Eskimo FSRU which is moored at Aqaba on the Red Sea but it only imported two cargoes totaling 130,000 tons last year. The preference for Israeli gas over LNG is largely price-driven with Leviathan gas sold at around $6-6.30/mn BTU, half that of prevailing LNG prices.

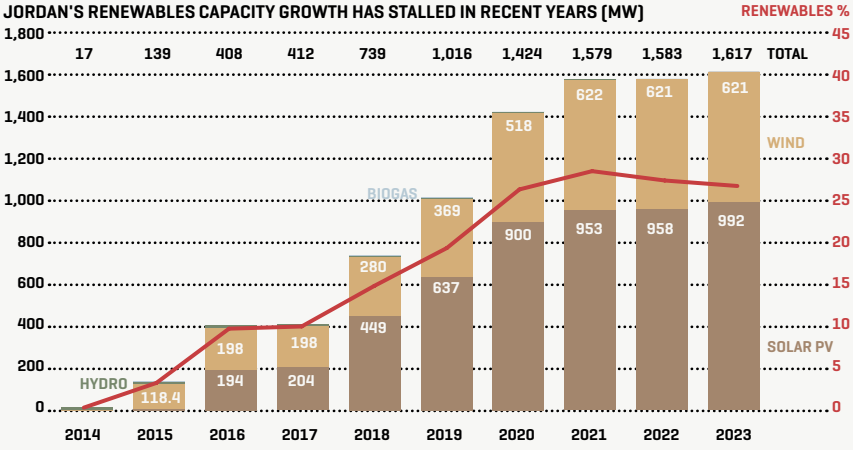
With the lease of the Energos Eskimo set to expire next year Amman has sought to build its own onshore facilities, with Kuwait helping to fund the $125mn project that will also include a floating storage unit (MEES, 13 September).

Jordan also exports electricity. In 2023 Jordan supplied 194GWh to the Palestinian Authority and 6.4GWh to Iraq after the opening of a link via the border town of Risha (MEES, 2 June 2023). ◆◆

**JORDAN POWER INFRASTRUCTURE**




**JORDAN'S RENEWABLES CAPACITY GROWTH HAS STALLED IN RECENT YEARS (MW)**




SOURCE: NEPCO, IEA, MEES.

©Middle East Petroleum and Economic Publications (Cyprus) Ltd
Reproducing MEES Is Strictly Prohibited

# KOREA CRUDE IMPORTS: SAUDI DOMINANT BUT USA CLOSES GAP

*Whilst the world's number one crude importer, China, has seen takings fall this year (see p14), number four South Korea saw imports rise by almost 4% to 2.82mn b/d for the first nine months of 2024 putting this year on pace for the highest annual figure since 2019.

*Saudi Arabia remains far and away Korea's top supplier with 942,000 b/d for 9M 2024, though this is down 2% year-on-year, with the Saudi market share of 33.4% for 9M 2024 on pace for a three-year low.

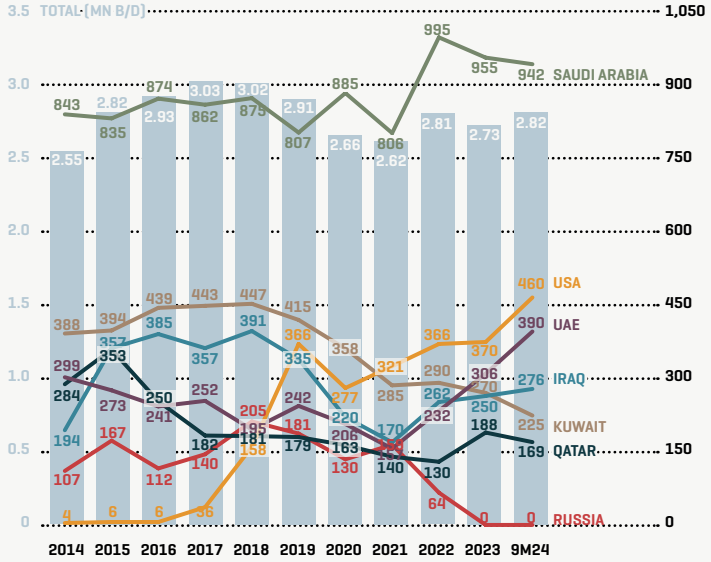
*Number two the USA, with 460,000 b/d, supplied less than half the Saudi figure, though with volumes up 37% year-on-year it is closing the gap and on track to smash 2023's annual record of 370,000 b/d. US volumes hit a quarterly record of 483,000 b/d for Q3 and a monthly record of 620,000 b/d for July.

*Number three supplier the UAE saw a 32% year-on-year leap to 390,000 b/d putting it on track for the highest annual figure since 2008. Number four Iraq posted a 10% year-on-year gain at 276,000 b/d, a five-year high though well down on typical volumes in the second half of last decade (see chart).

*Kuwait, long Korea's number two supplier behind Saudi Arabia, slid to number four for 2023. And it fell by a further 18% year-on-year to 225,000 b/d for 9M 2024 falling behind Iraq for number five spot amid an increased focus on products exports at the expense of crude (MEES, 23 August).

*Overall Mideast volumes at 2.02mn b/d for 9M 2024 were up fractionally in absolute terms but down in terms of market share, whilst the region's Q3 share of 68.7% was the lowest quarterly figure since 2022.

**SOUTH KOREA CRUDE & CONDENSATE IMPORTS ('000 B/D): USA & UAE CLOSE GAP ON DOMINANT SAUDI**




SOURCE: KOREA CUSTOMS, MEES.

**KOREA 9M24 CRUDE IMPORTS ('000 B/D): SAUDI LOSES GROUND AS TOP SUPPLIER AHEAD OF USA AND UAE**

| | 9M24 | vs 9M23 | % | 9M23 | 3Q24 | vs 2Q24 | % | vs 3Q23 | % | 2Q24 | 1Q24 | 4Q23 | 3Q23 | 2021 | 2022 | 2023 | Jul24 | Aug24 | Sep24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **MIDDLE EAST** | **2,020** | +17 | +0.8 | **2,003** | **1,938** | -104 | -5.1 | -56 | -2.8 | **2,042** | **2,081** | **1,962** | **1,994** | **1,576** | **1,907** | **1,993** | **1,788** | **2,079** | **1,948** |
| *% of total* | *71.6* | -2.2 | | *73.8* | *68.7* | -5.0 | | -8.6 | | *73.7* | *72.6* | *70.3* | *77.2* | *60.2* | *67.9* | *72.9* | *66.6* | *67.9* | *71.5* |
| Saudi Arabia | 941.6 | -19.4 | -2.0 | 961.0 | 927.6 | -31.3 | -3.3 | -37.2 | -3.9 | 958.9 | 938.3 | 935.6 | 964.9 | 806.3 | 995.2 | 954.7 | 945.8 | 894.3 | 942.7 |
| *% of total* | *33.4* | -2.0 | | *35.4* | *32.9* | -1.7 | | -4.5 | | *34.6* | *32.7* | *33.5* | *37.4* | *30.8* | *35.5* | *34.9* | *35.2* | *29.2* | *34.6* |
| UAE | 389.9 | +95 | +32.1 | 295.2 | 334.5 | -90.2 | -21.2 | +39.4 | +13.4 | 424.7 | 410.3 | 336.7 | 295.1 | 156.8 | 232.5 | 305.6 | 233.7 | 385.4 | 384.4 |
| Iraq | 275.7 | +25 | +9.9 | 250.9 | 259.6 | -6.4 | -2.4 | +46.2 | +21.7 | 266.0 | 301.5 | 293.4 | 213.4 | 170.2 | 249.6 | 261.6 | 235.7 | 301.8 | 241.4 |
| Kuwait | 224.8 | -50 | -18.1 | 274.3 | 225.1 | +37.7 | +20.1 | -71.0 | -24.0 | 187.4 | 261.8 | 255.2 | 296.1 | 284.7 | 289.9 | 269.5 | 184.5 | 276.4 | 214.3 |
| Qatar | 169.4 | -45 | -21.2 | 214.9 | 171.4 | -11.3 | -6.2 | -42.2 | -19.8 | 182.6 | 154.2 | 108.4 | 213.6 | 139.6 | 130.0 | 188.3 | 188.0 | 177.9 | 148.3 |
| Oman | 18.8 | +12 | +166.5 | 7.1 | 20.0 | -2.0 | -9.3 | +9.3 | +86.7 | 22.0 | 14.5 | 32.5 | 10.7 | 17.9 | 9.5 | 13.4 | 0.0 | 43.3 | 16.6 |
| **AFRICA** | **43.8** | +9 | +24.4 | **35.2** | **46.9** | +10.4 | +28.6 | +19.8 | +72.9 | **36.5** | **48.1** | **64.4** | **27.1** | **84.8** | **73.4** | **42.5** | **34.6** | **46.9** | **59.1** |
| Algeria | 36.7 | +15 | +69.3 | 21.7 | 34.0 | +1.8 | +5.6 | +15.2 | +80.9 | 32.2 | 43.7 | 30.1 | 18.8 | 24.0 | 21.7 | 23.8 | 34.6 | 33.1 | 34.3 |
| Nigeria | 5.6 | -5 | -45.0 | 10.2 | 8.2 | +4.0 | +95.5 | -0.0 | -0.5 | 4.2 | 4.4 | 20.3 | 8.3 | 18.2 | 24.7 | 12.7 | 0.0 | 0.0 | 24.7 |
| Mozambique | 2.5 | +2 | - | 0.0 | 2.5 | +0.1 | +3.0 | +2.5 | - | 2.4 | 2.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 7.4 | 0.0 |
| Equatorial Guinea | 1.5 | +2 | - | 0.0 | 4.6 | +4.6 | - | +4.6 | - | 0.0 | 0.0 | 0.0 | 0.0 | 9.1 | 7.4 | 0.0 | 0.0 | 13.8 | 0.0 |
| **AMERICAS** | **608.4** | +129 | +26.9 | **479.6** | **672.2** | +81.1 | +13.7 | +232.7 | +52.9 | **591.1** | **561.8** | **583.3** | **439.5** | **558.3** | **550.2** | **505.5** | **820.5** | **680.4** | **515.6** |
| United States | 459.7 | +124 | +36.9 | 335.8 | 483.3 | +13.1 | +2.8 | +186.7 | +62.9 | 470.2 | 425.6 | 470.6 | 296.6 | 321.5 | 365.6 | 369.5 | 620.4 | 491.3 | 338.2 |
| Mexico | 74.6 | -6 | -7.6 | 80.7 | 99.1 | +38.8 | +64.3 | +12.1 | +13.9 | 60.3 | 64.3 | 84.7 | 87.0 | 146.5 | 108.3 | 81.7 | 110.8 | 105.1 | 81.5 |
| Brazil | 60.1 | +3 | +5.7 | 56.9 | 62.4 | +1.8 | +3.0 | +16.4 | +35.7 | 60.6 | 57.4 | 28.0 | 46.0 | 64.1 | 62.9 | 49.7 | 89.4 | 31.9 | 66.0 |
| Ecuador | 7.8 | +2 | +28.2 | 6.1 | 11.1 | +11.1 | - | +1.2 | +11.7 | 0.0 | 12.3 | 0.0 | 9.9 | 2.9 | 2.7 | 4.6 | 0.0 | 33.3 | 0.0 |
| Canada | 5.4 | +5 | - | 0.0 | 16.3 | +16.3 | - | +16.3 | - | 0.0 | 0.0 | 0.0 | 0.0 | 14.0 | 6.8 | 0.0 | 0.0 | 18.8 | 30.0 |
| **FSU/EUROPE** | **66.3** | -53 | -44.5 | **119.6** | **61.1** | +28.1 | +85.0 | -3.6 | -5.5 | **33.1** | **104.8** | **99.0** | **64.7** | **325.0** | **213.1** | **114.4** | **0.0** | **101.3** | **82.2** |
| Kazakhstan | 39.8 | -77 | -66.1 | 117.3 | 31.8 | -1.3 | -3.9 | -32.9 | -50.9 | 33.1 | 54.6 | 54.4 | 64.7 | 69.6 | 116.6 | 101.6 | 0.0 | 79.1 | 16.2 |
| United Kingdom | 21.9 | +22 | - | 0.0 | 22.0 | +22.0 | - | +22.0 | - | 0.0 | 43.7 | 44.6 | 0.0 | 49.3 | 25.2 | 11.1 | 0.0 | 0.0 | 65.9 |
| Norway | 4.6 | +2 | +100.7 | 2.3 | 7.4 | +7.4 | - | +7.4 | - | 0.0 | 6.5 | 0.0 | 0.0 | 47.4 | 7.7 | 1.7 | 0.0 | 22.2 | 0.0 |
| **ASIA/OCEANIA** | **81.3** | +6 | +8.2 | **75.2** | **104.5** | +35.1 | +50.6 | +47.3 | +82.9 | **69.4** | **70.2** | **82.2** | **57.1** | **72.5** | **62.8** | **76.9** | **41.0** | **152.5** | **119.8** |
| Australia | 68.9 | +8 | +13.7 | 60.6 | 94.8 | +36.5 | +62.5 | +56.6 | +148.0 | 58.3 | 53.7 | 66.5 | 38.2 | 55.6 | 51.4 | 62.1 | 32.1 | 152.5 | 99.7 |
| New Zealand | 5.9 | +4 | +209.4 | 1.9 | 3.0 | -5.5 | -65.0 | -2.7 | -47.6 | 8.5 | 6.1 | 5.8 | 5.7 | 0.4 | 0.4 | 2.9 | 8.9 | 0.0 | 0.0 |
| Indonesia | 2.3 | +0 | +16.9 | 2.0 | 0.0 | -2.5 | -100.0 | -3.3 | -100.0 | 2.5 | 4.4 | 4.8 | 3.3 | 1.7 | 0.0 | 2.7 | 0.0 | 0.0 | 0.0 |
| Papua New Guinea | 2.2 | -2 | -48.0 | 4.3 | 6.7 | +6.7 | - | +6.7 | - | 0.0 | 0.0 | 0.0 | 0.0 | 8.1 | 1.6 | 3.2 | 0.0 | 0.0 | 20.0 |
| **TOTAL** | **2,820** | +107 | +3.9 | **2,713** | **2,823** | +51.1 | +1.8 | +240.6 | +9.3 | **2,772** | **2,866** | **2,791** | **2,582** | **2,616** | **2,806** | **2,732** | **2,684** | **3,060** | **2,724** |
| *of which Opec* | *1,876* | +59 | +3.3 | *1,817* | *1,794* | -79.8 | -4.3 | -2.9 | -0.2 | *1,874* | *1,960* | *1,875* | *1,797* | *1,498* | *1,839* | *1,831* | *1,634* | *1,905* | *1,842* |
| *% of total* | *66.5* | -0.4 | | *67.0* | *63.5* | -4.1 | | -6.0 | | *67.6* | *68.4* | *67.2* | *69.6* | *57.3* | *65.5* | *67.1* | *60.9* | *62.2* | *67.6* |

SOURCE: KOREA CUSTOMS, MEES CALCULATIONS.



©Middle East Petroleum and Economic Publications (Cyprus) Ltd
Reproducing MEES Is Strictly Prohibited

# NEWS IN BRIEF

## LIBYA: CRUDE OUTPUT RECORD?

Latest figures from Libya's NOC imply that crude output has not only rebounded from August and September's near-nationwide shut-ins (MEES, 4 October) but is running at the highest level in over a decade. NOC on 17 October reported crude and condensate output of 1.327mn b/d. This implies production of around 1.28mn b/d for crude alone, above July's 11-year monthly high figure of 1.24mn b/d.

NOC has made a series of recent bullish upstream announcements in regard to expanding capacity across several concessions with drilling and workover activity – activity which apparently continued throughout the shut-ins (MEES, 11 October). Most recently on 14 October NOC said that three recently-drilled wells at the Repsol-operated Akakus/Sharara concessions in Libya's far southwest were ready to be placed on production adding 8,000 b/d.

## SAUDI ARABIA TAPS STOCKS TO MEET RISING CRUDE BURN

Saudi crude burn increased 88,000 b/d year-on-year, and 45,000 b/d sequentially to a nine-year high 814,000 b/d for August. The latest Jodi statistics show that Saudi Arabia withdrew 3mn barrels (101,000 b/d) from crude oil inventories to help meet this, with refining runs up 324,000 b/d at 2.72mn b/d. At 136.5mn barrels, crude stocks are now down 12.7mn barrels from end-2023 (see p15 for full data).

Total oil burn (including fuel oil) dipped slightly from July to 1.43mn b/d, but was still 35,000 b/d more than the same period last year, and this is the first three-month period in which oil burn has averaged more than 1.4mn b/d. After averaging below 2023-levels through the first six months of the year (MEES, 24 August), the eight-month average of 1.12mn b/d is now notably higher than the equivalent figure of 1.09mn b/d last year. Oil burn typically, but not always, begins to fall from September onwards as electricity demand falls along with temperatures, and so the annual peak may now have been passed.

With power plants relying on record amounts of fuel oil feedstock, Saudi Arabia is increasingly turning to imports. Net fuel imports over the first eight months of the year have averaged 69,000 b/d, up from 45,000 b/d over 8M 2023.

## UAE 140MW WIND TENDER

Abu Dhabi state offtaker Ewec has invited firms to submit an Expression of Interest (EOI) for the development of the 140MW Al Sila wind farm in western Abu Dhabi near the border with Saudi Arabia. The deadline for submissions is 5 November. Al Sila will bring installed wind capacity up to 240MW alongside the operational 103MW Masdar Wind Program which is spread across four separate locations.

2024 is shaping up to be a busy one for Ewec, which earlier this month invited EOIs for the 1.5GW Zarraf solar PV plant (MEES, 4 October). This followed the July issuances of Request for Proposals for a 2.5GW gas-fired CCGT plant at Taweelah and a 1.5GW gas-fired OCGT plant at Madinat Zayed (MEES, 2 August).

## OMAN'S OQEP VALUED AT $8BN IN IPO

Oman state upstream firm OQ Exploration and Production (OQEP) on 17 October completed the bookbuilding process for its 25% flotation on the Muscat Stock Exchange. The offering was 2.7 times oversubscribed and raised $2.025bn (OMR 780mn). When listed at the end of this month, the company will be the largest on the bourse with a market capitalization of $8.1bn (OMR 3.12bn).

The firm set the final price at the respective maximums for each category of investor: OMR 0.390 for Category I institutional investors and Category II non-Omani retail investors, while Omani retail investors got a 10% discount at OMR 0.351 per share.

OQEP is one of the key players in Oman's upstream and it is typically nominated by the government to farm into assets that reach commerciality. The firm is eying a recent gas discovery on Block 11 (Shell 67.5%, Total 22.5%, OQEP 10%) according to its prospectus (MEES, 27 September).

## KURDISTAN OUTPUT UP

Iraqi Kurdistan's leading foreign operator, Norway's DNO, said on 14 October that production at the firm's Tawke license (DNO 75%op, Genel 25%) averaged 84,212 b/d in Q3. This is the highest quarterly figure since the closure of the region's export pipeline in March 2023 and is above guidance of 80,000 b/d provided by partner Genel this summer.

Further details will be provided in DNO's Q3 results on 7 November, but there is no indication that the firm plans to throttle back production despite Kurdistan's Ministry of Natural Resources (MNR) telling Baghdad that the region will participate in the country's Opec+ cuts (MEES, 27 September). Likewise, London-listed Gulf Keystone stated on 8 October that its Shaikan field produced 48,500 b/d in September and 45,900 b/d in early October, both well above the year-to-date average of 42,300 b/d.

## GE UPGRADES IRAQ'S BESMAYA PLANT

GE Vernova, the power arm of the US giant, on 10 October announced the completion of the first phase of upgrades to gas-fired turbine units at Iraq's 4.5GW Besmaya power plant owned by the Iraqi-Kurdish Mass Group conglomerate. The CCGT plant has been developed in three phases, with the Advanced Gas Path (AGP) program aimed at modernizing each phase's four turbines. The AGP upgrade aims at improving operational flexibility, turbine availability and fuel consumption for each 288MW GE 9F.04 gas turbine.

GE says that upgrades for the first phase were delivered ahead of schedule, adding 6% to the plant's overall output. The second phase is slated for 1Q25 completion, and the two firms have signed an eight-year service agreement to provide operations and maintenance for phase 3 turbines. The service contracts were signed in 2Q24, GE says. Besmaya's phases 1 and 2 include eight gas turbines, four steam turbines and 12 generators, while phase 3 includes four turbines and four generators. In 2019, Mass received a 20-year PPA contract extension for its phase 3 expansion. In total, the firm owns 9GW of power capacity including Besmaya and plants in Iraqi Kurdistan.

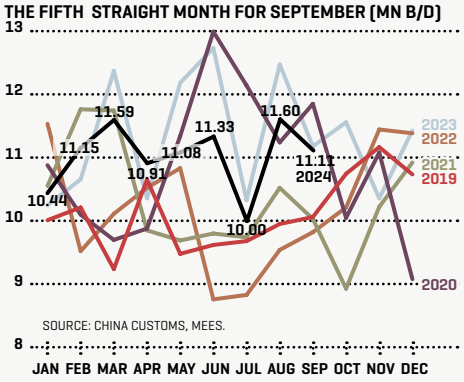
## CHINESE CRUDE IMPORTS: STILL WEAK

China's crude imports were again down year-on-year at 11.11mn b/d for September versus 11.18mn b/d for September 2023. Volumes have been down on 2023 for each of the past five months (see chart), with China's lacklustre demand the key reason both the IEA and Opec again downgraded their 2024 global oil demand growth forecasts this week (see p7). For 9M 2024 the world's top crude importer took 11.03mn b/d, down 3.2% on the year-ago figure of 11.39mn b/d.

Refinery throughputs of 14.33mn b/d for September were also down year-on-year versus last September's record 15.11mn b/d though fractionally above the 9M 2024 average of 14.19mn b/d which is down 2% year-on-year.

Crude output of 4.17mn b/d for September was the lowest this year though the 9M 2024 average of 4.27mn b/d is up 1.6%. Natural gas output, at 19.3bcm for September, was likewise the lowest this year but up on a year earlier, with the 9M 2024 output figure of 183bcm up 6.6% year-on-year.

**CHINA CRUDE IMPORTS WERE DOWN YEAR-ON-YEAR FOR THE FIFTH STRAIGHT MONTH FOR SEPTEMBER (MN B/D)**




SOURCE: CHINA CUSTOMS, MEES.

## ISRAEL ADDS SOLAR/STORAGE

Israeli renewables firm Enlight says that as of 14 October it had achieved full commercial operations at 12 integrated solar and storage facilities across the country for a total capacity of 254MW/594MWh.

With its new additions focused on integrated storage (MEES, 12 July), Enlight now operates 717MW of renewables across Israel (254MW solar/storage, 147MW stand-alone solar PV, 316MW wind) according to MEES calculations. Work on the first 12 solar/storage sites began last year with capacity reaching 113MW of solar and 211MWh of storage as of end-2023.

"Today we completed the commencement of full commercial operations at the largest group of renewable energy facilities operating in Israel's deregulated power market," Enlight's Mena chief Gilad Peled says, adding that despite ongoing conflict seven of the 12 projects are close to Gaza.

Whilst Enlight says it is continuing to add capacity despite conflict, compatriot Energix has been forced to put a 104MW wind farm in the contested Golan Heights on hold (MEES, 31 May), whilst key gas expansion projects have also been impacted (MEES, 11 October).


©Middle East Petroleum and Economic Publications (Cyprus) Ltd
Reproducing MEES Is Strictly Prohibited

## SAUDI ARABIA 8M24 KEY OIL DATA ('000 B/D): OIL BURN REMAINS HIGH FOR AUGUST

SELECTED DATA

| | Aug24 | vs Jul24 | % | vs Aug23 | % | Jul24 | Jun24 | 8M24 | vs 8M24 | % | 8M23 | 2021 | 2022 | 2023 | 4Q23 | 1Q24 | 2Q24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Crude Output** | **8,992** | +51 | +0.6 | +74 | +0.8 | **8,941** | **8,930** | **8,973** | -987 | -9.9 | **9,959** | **9,117** | **10,589** | **9,613** | **8,901** | **8,980** | **8,970** |
| **Crude Stocks (mn bl)** | **136.5** | -3.0 | -2.2 | -14.4 | -9.5 | **139.6** | **134.2** | **136.5** | -14.4 | -9.5 | **150.9** | **134.7** | **148.6** | **149.2** | **149.2** | **139.3** | **134.2** |
| *crude stock change (mn bl)* | -3.0 | -8.4 | n/a | -7.2 | n/a | +5.4 | -1.8 | -12.7 | -15.0 | n/a | +2.3 | -5.4 | +13.9 | +0.6 | +3.0 | -9.9 | -5.1 |
| *('000 b/d)* | -101.2 | -274.1 | n/a | -235.3 | n/a | +172.9 | -58.4 | -52.2 | -61.7 | n/a | +9.5 | -14.7 | +38.1 | +1.7 | +32.2 | -110.3 | -56.0 |
| **Crude Supply to Market** | **9,208** | +301 | +3.4 | +368 | +4.2 | **8,907** | **9,128** | **9,160** | -800 | -8.0 | **9,961** | **9,132** | **10,549** | **9,651** | **8,965** | **9,221** | **9,168** |
| **Crude Exports** | **5,671** | -70 | -1.2 | +87 | +1.6 | **5,741** | **6,047** | **6,072** | -839 | -12.1 | **6,910** | **6,222** | **7,364** | **6,665** | **6,314** | **6,342** | **6,044** |
| *% of crude output* | 63.1 | -1.1 | | +0.5 | | 64.2 | 67.7 | 67.7 | -1.7 | | 69.4 | 68.2 | 69.5 | 69.3 | 70.9 | 70.6 | 67.4 |
| **Direct Burn Crude** | **814** | +45 | +5.9 | +88 | +12.1 | **769** | **558** | **489** | +24 | +5.1 | **465** | **437** | **486** | **472** | **445** | **325** | **452** |
| *% of crude output* | 9.1 | +0.5 | | +0.9 | | 8.6 | 6.2 | 5.5 | +0.8 | | 4.7 | 4.8 | 4.6 | 4.9 | 5.0 | 3.6 | 5.0 |
| **Total Oil Burn**** | **1,432** | -37 | -2.5 | +37 | +2.7 | **1,469** | **1,419** | **1,117** | +26 | +2.4 | **1,091** | **1,004** | **1,093** | **1,104** | **1,040** | **864** | **1,148** |
| *% of crude output* | 15.9 | -0.5 | | +0.3 | | 16.4 | 15.9 | 12.5 | +1.5 | | 11.0 | 11.0 | 10.3 | 11.5 | 11.7 | 9.6 | 12.8 |
| **Refinery Crude Intake** | **2,721** | +324 | +13.5 | +191 | +7.5 | **2,397** | **2,423** | **2,587** | +1 | +0.0 | **2,585** | **2,474** | **2,701** | **2,514** | **2,207** | **2,553** | **2,638** |
| *% of crude production* | 30.3 | +3.5 | | +1.9 | | 26.8 | 27.1 | 28.8 | +2.9 | | 26.0 | 27.1 | 25.5 | 26.2 | 24.8 | 28.4 | 29.4 |
| *Run rate (% of capacity)* | 82.9 | +9.9 | | +5.8 | | 73.0 | 73.8 | 78.8 | +0.0 | | 78.7 | 75.3 | 82.2 | 76.6 | 67.2 | 77.8 | 80.3 |
| **Refinery Output** | **2,767** | +303 | +12.3 | +197 | +7.7 | **2,464** | **2,502** | **2,627** | +23 | +0.9 | **2,604** | **2,547** | **2,769** | **2,529** | **2,213** | **2,554** | **2,708** |
| LPG | 33 | +7 | +26.9 | -2 | -5.7 | 26 | 25 | 29 | +2 | +5.9 | 28 | 39 | 46 | 25 | 16 | 27 | 31 |
| Naphtha | 23 | -10 | -30.3 | +3 | +15.0 | 33 | 40 | 28 | -4 | -13.3 | 32 | 174 | 88 | 25 | 13 | 20 | 35 |
| Gasoline | 700 | +22 | +3.2 | +9 | +1.3 | 678 | 666 | 647 | +13 | +2.1 | 634 | 544 | 631 | 615 | 534 | 589 | 677 |
| Jet-Kero | 198 | +44 | +28.6 | +39 | +24.5 | 154 | 135 | 186 | +26 | +16.0 | 161 | 126 | 153 | 158 | 144 | 209 | 170 |
| Diesel/Gasoil | 1,205 | +118 | +10.9 | +27 | +2.3 | 1,087 | 1,140 | 1,122 | +3 | +0.2 | 1,119 | 1,114 | 1,209 | 1,093 | 987 | 1,046 | 1,182 |
| Fuel Oil | 445 | +29 | +7.0 | -13 | -2.8 | 416 | 460 | 438 | -3 | -0.8 | 442 | 422 | 482 | 440 | 420 | 447 | 435 |
| other products | 163 | +93 | +132.9 | +134 | +462.1 | 70 | 36 | 185 | -4 | -2.0 | 189 | 128 | 161 | 175 | 99 | 239 | 177 |
| **Oil Product stocks (mn bl)** | **90.3** | +3.5 | +4.1 | +6.3 | +7.5 | **86.8** | **93.1** | **90.3** | +6.3 | +7.5 | **84.1** | **98.8** | **86.9** | **80.3** | **80.3** | **91.1** | **93.1** |
| **Total Oil Stocks (mn bl)** | **226.9** | +0.5 | +0.2 | -8.1 | -3.4 | **226.4** | **227.2** | **226.9** | -8.1 | -3.4 | **235.0** | **233.4** | **235.5** | **229.5** | **229.5** | **230.3** | **227.2** |
| *oil stock change (mn bl)* | +0.5 | +1.4 | -155.8 | +2.3 | -127.1 | -0.9 | -4.4 | -2.6 | -2.1 | +394.9 | -0.5 | -1.2 | +2.0 | -6.0 | -5.9 | +0.9 | -3.1 |
| *('000 b/d)* | +16.2 | +44.4 | -157.7 | +74.3 | -128.0 | -28.1 | -145.9 | -10.7 | -8.5 | +394.9 | -2.2 | -3.3 | +5.6 | -16.5 | -64.4 | +9.8 | -34.0 |
| **Refined Products Consumption** | **2,077** | +21 | +1.0 | +29 | +1.4 | **2,056** | **2,188** | **1,964** | +11 | +0.5 | **1,953** | **1,729** | **1,886** | **1,976** | **1,972** | **1,850** | **2,008** |
| LPG* | 73 | +21 | +40.4 | +21 | +40.4 | 52 | 51 | 67 | +13 | +23.0 | 54 | 47 | 50 | 55 | 57 | 71 | 65 |
| Gasoline | 558 | +69 | +14.1 | +57 | +11.4 | 489 | 490 | 507 | +3 | +0.6 | 504 | 480 | 500 | 509 | 522 | 505 | 498 |
| Jet-Kero | 106 | +1 | +1.0 | +8 | +8.2 | 105 | 109 | 98 | -2 | -1.5 | 99 | 47 | 72 | 96 | 86 | 100 | 91 |
| Diesel/Gasoil | 641 | -1 | -0.2 | +2 | +0.3 | 642 | 614 | 600 | +2 | +0.4 | 598 | 503 | 574 | 609 | 629 | 579 | 593 |
| Fuel Oil | 618 | -82 | -11.7 | -51 | -7.6 | 700 | 861 | 628 | +2 | +0.4 | 626 | 567 | 608 | 632 | 595 | 539 | 696 |
| **Refined Products Exports*** | **1,254** | +126 | +11.2 | -72 | -5.4 | **1,128** | **1,366** | **1,283** | -87 | -6.4 | **1,370** | **1,343** | **1,470** | **1,274** | **1,007** | **1,295** | **1,331** |
| *% oil exports* | 18.1 | +1.7 | | -1.1 | | 16.4 | 18.4 | 17.4 | +0.9 | | 16.5 | 17.8 | 16.6 | 16.0 | 13.8 | 17.0 | 18.0 |
| Naphtha | 96 | +33 | +52.4 | -6 | -5.9 | 63 | 96 | 87 | -24 | -21.9 | 111 | 169 | 145 | 109 | 101 | 102 | 77 |
| Gasoline | 310 | -33 | -9.6 | +31 | +11.1 | 343 | 285 | 279 | +5 | +1.8 | 274 | 182 | 271 | 257 | 193 | 234 | 291 |
| Jet-Kero | 135 | +70 | +107.7 | +1 | +0.7 | 65 | 89 | 106 | +17 | +18.8 | 89 | 77 | 97 | 89 | 91 | 135 | 81 |
| Diesel/Gasoil | 537 | +48 | +9.8 | -50 | -8.5 | 489 | 691 | 584 | -44 | -7.0 | 627 | 682 | 671 | 566 | 408 | 562 | 652 |
| Fuel Oil | 92 | -1 | -1.1 | -49 | -34.8 | 93 | 111 | 138 | -52 | -27.3 | 190 | 156 | 204 | 183 | 162 | 168 | 138 |
| **Crude & Products Exports*** | **6,925** | +56 | +0.8 | +15 | +0.2 | **6,869** | **7,413** | **7,354** | -926 | -11.2 | **8,280** | **7,565** | **8,833** | **7,939** | **7,321** | **7,637** | **7,375** |
| *% of crude output* | 77.0 | +0.2 | | -0.5 | | 76.8 | 83.0 | 82.0 | -1.2 | | 83.1 | 83.0 | 83.4 | 82.6 | 82.2 | 85.0 | 82.2 |
| **Oil Products Imports** | **367** | +90 | +32.5 | +31 | +9.2 | **277** | **421** | **328** | -107 | -24.5 | **435** | **361** | **360** | **433** | **390** | **348** | **312** |
| Gasoline | 62 | -5 | -7.5 | +28 | +82.4 | 67 | 53 | 78 | +3 | +3.5 | 75 | 83 | 92 | 87 | 113 | 114 | 50 |
| Diesel/Gasoil | 0 | +0 | - | -73 | -100.0 | 0 | 17 | 31 | -79 | -71.7 | 110 | 91 | 64 | 91 | 52 | 77 | 6 |
| Fuel Oil | 305 | +116 | +61.4 | +85 | +38.6 | 189 | 341 | 207 | -27 | -11.7 | 235 | 177 | 191 | 241 | 218 | 148 | 239 |
| **Total Net Crude & Products Exports*** | **6,443** | -10 | -0.2 | -75 | -1.2 | **6,453** | **6,852** | **6,891** | -940 | -12.0 | **7,831** | **7,204** | **8,473** | **7,464** | **6,834** | **7,160** | **6,918** |
| **NET PRODUCTS EXPORTS*** | **887** | +36 | +4.2 | -103 | -10.4 | **851** | **945** | **954** | +19 | +2.1 | **935** | **982** | **1,110** | **841** | **617** | **947** | **1,019** |
| Naphtha | 96 | +54 | +128.6 | +3 | +3.2 | 42 | 86 | 80.5 | -19 | -18.7 | 99 | 163 | 137 | 97 | 94 | 102 | 66 |
| Gasoline | 248 | -28 | -10.1 | +3 | +1.2 | 276 | 232 | 201 | +2 | +1.1 | 199 | 99 | 179 | 171 | 80 | 120 | 242 |
| Jet-Kero | 135 | +70 | +107.7 | +1 | +0.7 | 65 | 89 | 100 | +14 | +16.6 | 86 | 73 | 92 | 86 | 91 | 127 | 73 |
| Diesel | 537 | +48 | +9.8 | +23 | +4.5 | 489 | 674 | 553 | +35 | +6.7 | 518 | 592 | 607 | 474 | 356 | 485 | 646 |
| Fuel Oil | -213 | -117 | +121.9 | -134 | +169.6 | -96 | -230 | -69 | -24 | +54.3 | -45 | -21 | 13 | -58 | -56 | 20 | -101 |
| *Net Products %* | 13.8 | +0.6 | | -1.4 | | 13.2 | 13.8 | 13.1 | -0.3 | | 13.4 | 13.6 | 13.1 | 11.3 | 9.0 | 13.2 | 14.7 |

*REFINED PRODUCTS ONLY. EXCLUDES FIELD LPG (AROUND 850,000 B/D OUTPUT), OTHER NGLS AND CONDENSATE. **PRESUMES ALL DOMESTICALLY-CONSUMED FUEL OIL IS BURNT IN POWER PLANTS. SEE ANALYSIS P14. SOURCE: JODI, MEES.


©Middle East Petroleum and Economic Publications (Cyprus) Ltd
Reproducing MEES Is Strictly Prohibited

## US OIL OUTPUT & EXPORTS: NEW RECORDS, MODEST GAINS

SELECTED DATA

*US oil output continues to hit new record highs, but the gains have slowed markedly in recent months with crude output only topping December 2023's 13.31mn b/d in August (13.36mn b/d) and output projected to flatline at around this level for the remainder of 2024 (see charts & p17 for full data).

*Average crude output of 13.15mn b/d for the first nine months of 2024 puts this year on pace for a new record high. But, in comparison to recent years, the year-on-year gains of 2.5% are modest. The EIA's latest forecasts, in its October Short Term Energy Outlook (STEO), are of output of 13.22mn b/d for 2024 as a whole, up 290,000 b/d on 2023, with similar gains of 320,000 b/d to 13.54mn b/d for 2025. These figures are nevertheless new all-time highs – not only for the USA but for any single country.

*And add in NGLs and the gains are substantially higher. With NGLs output up 370,000 b/d at 6.78mn b/d for the first nine months of 2024, total liquids gains of 690,000 b/d to 19.92mn b/d for 9M24 are twice those for crude alone. Output rose above 20mn b/d for the first time in March and has remained above this level every month since.

*On a more granular basis the picture is also one of growth, but only modest growth. As with the monthly stats, following severe storms in Q1 this year it took until Q3 (13.27mn b/d) for crude output to edge above the quarterly record set in Q4 last year, though add in NGLs, output of which soared above 7mn b/d for the first time in May, and Q2 this year saw new record highs.

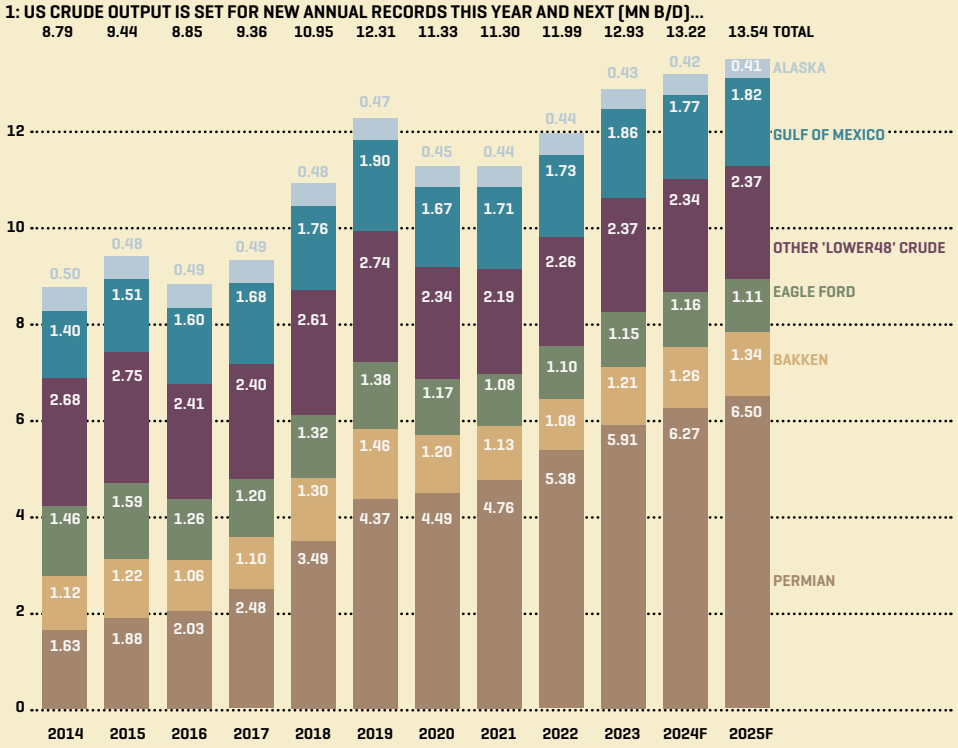
### MORE WITH LESS

*Continued, albeit halting, output gains have come despite continued falls in the country's rig count: the average oil rig count of 494 for 9M 2024 is down 72 on a year earlier, whilst Q3's 483 is the lowest since the 2020-21 Covid activity collapse. Gas drilling is down even more: the 9M 2024 average is down 25% year-on-year with Q3 lower still at just 98.

### GAS OUTPUT: STILL BELOW 4Q23 RECORDS

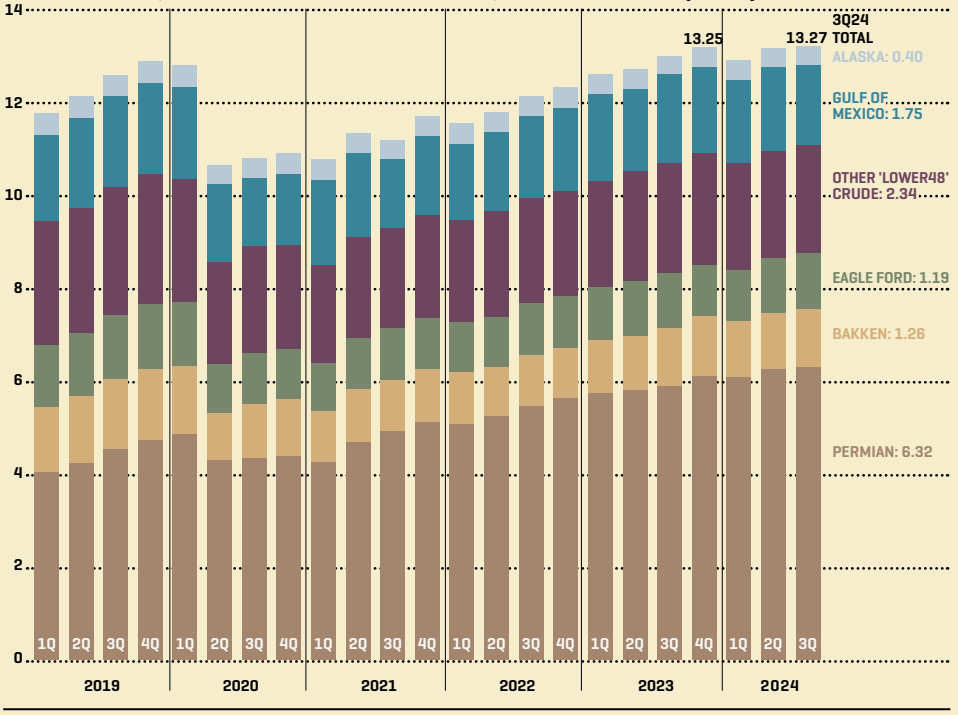
*In contrast to oil, the reduced gas-focused drilling has been with the express intention of curbing new output. Both national output and that from the key Marcellus shale gas region – though not from the Permian where gas output is largely associated with that of oil – remains below the record levels set in Q4 last year.

**1: US CRUDE OUTPUT IS SET FOR NEW ANNUAL RECORDS THIS YEAR AND NEXT (MN B/D)...**




F=EIA FORECAST FOR FUTURE PERIOD . SOURCE, EIA, MEES.

**2: ... THOUGH ON A QUARTERLY BASIS OVERALL GAINS SINCE 4Q23 HAVE BEEN MINIMAL (MN B/D)**




*The hope of upstream operators is that they will save incremental gas output for when new takeaway pipelines and LNG gas export capacity comes onstream and (they hope) domestic US gas prices rise above the sub-$3/mn BTU levels seen for much of this year. The next LNG export start up will be the 13.3mn t/y Phase-1 of Venture Global Plaquemines LNG which is set to export its first cargo on 31 October, according to Kpler data.

*With US oil demand essentially flat and output continuing to rise, exports also continue to set new records on both a gross and a net basis. Both gross oil exports and those of products/NGLs set new records for Q3 – of 10.73mn b/d and 6.77mn b/d respectively, whilst overall net US oil exports, up 39% at 2.08mn b/d for 9M 2024, are on pace to top 2mn b/d for the first time this year.


©Middle East Petroleum and Economic Publications (Cyprus) Ltd
Reproducing MEES Is Strictly Prohibited

## US KEY OIL & GAS DATA: MORE NEW RECORDS FOR Q3 & 9M 2024 BUT OUTPUT GAINS SLOW ('000 B/D)

SELECTED DATA

| | 9M24 | vs 9M23 | % chg | 9M23 | 3Q24 | vs 2Q24 | % chg | 2Q24 | 1Q24 | 4Q23 | Jul24 | *Aug24 | *Sep24 | 2023 | 2024F | 2025F |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PRODUCTION: CRUDE OIL** | **13,146** | *+318* | *+2.5* | **12,828** | **13,270** | *+44* | *+0.3* | **13,227** | **12,942** | **13,246** | **13,205** | **13,359** | **13,247** | **12,932** | **13,222** | **13,541** |
| **Lower 48 Onshore** | **10,951** | *+408* | *+3.9* | **10,543** | **11,115** | *+106* | *+1.0* | **11,009** | **10,729** | **10,936** | **10,991** | **11,145** | **11,209** | **10,641** | **11,031** | **11,316** |
| **Permian** | **6,230** | *+391* | *+6.7* | **5,839** | **6,320** | *+49* | *+0.8* | **6,271** | **6,097** | **6,123** | **6,315** | **6,302** | **6,344** | **5,910** | **6,269** | **6,497** |
| Bakken | 1,238 | *+54* | *+4.6* | 1,183 | 1,260 | *+28* | *+2.3* | 1,233 | 1,220 | 1,298 | 1,194 | 1,282 | 1,305 | 1,212 | 1,261 | 1,340 |
| Eagle Ford | 1,149 | *-15* | *-1.3* | 1,164 | 1,191 | *+20* | *+1.7* | 1,171 | 1,085 | 1,111 | 1,174 | 1,202 | 1,197 | 1,151 | 1,157 | 1,111 |
| other Lower 48 | 2,334 | *-22* | *-1.0* | 2,357 | 2,343 | *+10* | *+0.4* | 2,334 | 2,327 | 2,405 | 2,308 | 2,359 | 2,363 | 2,369 | 2,344 | 2,368 |
| Gulf Of Mexico | 1,778 | *-81* | *-4.4* | 1,860 | 1,751 | *-51* | *-2.8* | 1,802 | 1,782 | 1,881 | 1,805 | 1,814 | 1,633 | 1,865 | 1,775 | 1,821 |
| Alaska | 417 | *-9* | *-2.0* | 425 | 404 | *-12* | *-2.8* | 415 | 431 | 429 | 408 | 399 | 405 | 426 | 416 | 405 |
| **NGLs** | **6,776** | *+370* | *+5.8* | **6,406** | **6,805** | *-208* | *-3.0* | **7,012** | **6,510** | **6,745** | **6,895** | **6,764** | **6,755** | **6,497** | **6,757** | **6,803** |
| o/w Ethane | 2,759 | *+136* | *+5.2* | 2,623 | 2,728 | *-190* | *-6.5* | 2,918 | 2,633 | 2,738 | 2,732 | 2,728 | 2,723 | 2,652 | 2,744 | 2,738 |
| Propane | 2,110 | *+122* | *+6.1* | 1,988 | 2,141 | *+5* | *+0.2* | 2,136 | 2,053 | 2,108 | 2,143 | 2,144 | 2,136 | 2,021 | 2,118 | 2,174 |
| Butane | 1,109 | *+61* | *+5.8* | 1,049 | 1,137 | *+15* | *+1.3* | 1,122 | 1,070 | 1,103 | 1,138 | 1,137 | 1,135 | 1,062 | 1,117 | 1,157 |
| C5+ ('natural gasoline') | 797 | *+49* | *+6.6* | 748 | 799 | *-38* | *-4.5* | 837 | 755 | 796 | 882 | 755 | 761 | 762 | 778 | 733 |
| **TOTAL LIQUIDS OUTPUT** | **19,922** | *+688* | *+3.6* | **19,234** | **20,075** | *-164* | *-0.8* | **20,239** | **19,452** | **19,991** | **20,100** | **20,123** | **20,002** | **19,429** | **19,979** | **20,345** |
| Fuel Ethanol | 1,040 | *+36* | *+3.6* | 1,004 | 1,065 | *+52* | *+5.1* | 1,013 | 1,041 | 1,054 | 1,091 | 1,076 | 1,029 | 1,016 | 1,042 | 1,038 |
| Biodiesel, other renewble fuels | 316 | *+39* | *+14.1* | 277 | 334 | *+14* | *+4.3* | 320 | 295 | 298 | 334 | 342 | 325 | 282 | 318 | 355 |
| **Total inc renewables** | **21,278** | *+764* | *+3.7* | **20,514** | **21,474** | *-98* | *-0.5* | **21,572** | **20,788** | **21,344** | **21,525** | **21,540** | **21,356** | **20,728** | **21,340** | **21,738** |
| Rig Count: Oil | 494 | *-72* | *-12.8* | 566 | 483 | *-14* | *-2.9* | 497 | 502 | 500 | 479 | 483 | 486 | 550 | | |
| Gas | 106 | *-35* | *-24.7* | 141 | 98 | *-4* | *-3.9* | 102 | 118 | 118 | 101 | 97 | 97 | 135 | | |
| Refinery Crude Throughputs | 16,120 | *+148* | *+0.9* | 15,971 | 16,506 | *+34* | *+0.2* | 16,472 | 15,382 | 15,932 | 16,568 | 16,721 | 16,227 | 15,962 | 16,005 | 15,693 |
| **Domestic Oil Demand^** | **20,194** | *+25* | *+0.1* | **20,169** | **20,424** | *+72* | *+0.4* | **20,352** | **19,804** | **20,589** | **20,482** | **20,421** | **20,369** | **20,274** | **20,280** | **20,486** |
| of which gasoline^ | 8,937 | *-10* | *-0.1* | 8,947 | 9,119 | *+4* | *+0.0* | 9,116 | 8,575 | 8,935 | 9,297 | 9,174 | 8,886 | 8,944 | 8,911 | 8,903 |
| **Crude stocks (mn bls, end period)** | **800** | *+32* | *+4.1* | **769** | **800** | *-13* | *-1.6* | **813** | **811** | **781** | **803** | **798** | **800** | **781** | | |
| o/w SPR | 384 | *+32* | *+9.2* | 351 | 384 | *+10* | *+2.8* | 373 | 364 | 355 | 375 | 380 | 384 | 355 | | |
| **CRUDE OIL IMPORTS** | **6,627** | *+136* | *+2.1* | **6,490** | **6,661** | *-105* | *-1.6* | **6,766** | **6,453** | **6,493** | **7,123** | **6,333** | **6,525** | **6,491** | | |
| *% of US demand* | *32.8* | | | *32.2* | *32.6* | | | *33.2* | *32.6* | *31.5* | *34.8* | *31.0* | *32.0* | *32.0* | | |
| Canada | 4,059 | *+223* | *+5.8* | 3,836 | 4,032 | *-55* | *-1.3* | 4,087 | 4,057 | 3,997 | 4,373 | 3,800 | 3,924 | 3,876 | | |
| Mexico | 475 | *-257* | *-35.1* | 732 | 442 | *-54* | *-10.9* | 496 | 488 | 736 | 413 | 454 | 459 | 733 | | |
| Saudi Arabia | 293 | *-91* | *-23.7* | 384 | 254 | *-71* | *-21.8* | 325 | 300 | 244 | 280 | 238 | 244 | 349 | | |
| Brazil | 212 | *+45* | *+26.7* | 167 | 224 | *+17* | *+8.2* | 207 | 205 | 239 | 254 | 266 | 151 | 185 | | |
| Colombia | 208 | *+5* | *+2.4* | 203 | 207 | *-6* | *-2.9* | 213 | 202 | 202 | 209 | 174 | 239 | 203 | | |
| Venezuela | 205 | *+81* | *+65.2* | 124 | 308 | *+88* | *+40.2* | 220 | 157 | 158 | 308 | | | 133 | | |
| Iraq | 191 | *-36* | *-16.0* | 228 | 194 | *-31* | *-13.7* | 225 | 155 | 172 | 202 | 178 | 202 | 214 | | |
| **PRODUCTS/NGLs IMPORTS** | **1,887** | *-218* | *-10.4* | **2,105** | **1,777** | *-289* | *-14.0* | **2,065** | **1,818** | **1,843** | **1,942** | **1,777** | **1,611** | **2040** | | |
| **TOTAL OIL IMPORTS** | **8,513** | *-82* | *-1.0* | **8,596** | **8,437** | *-394* | *-4.5* | **8,831** | **8,271** | **8,336** | **9,065** | **8,110** | **8,136** | **8,531** | | |
| **OIL EXPORTS** | **10,679** | *+593* | *+5.9* | **10,086** | **10,731** | *+112* | *+1.1* | **10,619** | **10,686** | **10,661** | **10,562** | **10,775** | **10,857** | **10,229** | | |
| Crude | 4,152 | *+119* | *+2.9* | 4,033 | 3,966 | *-183* | *-4.4* | 4,149 | 4,340 | 4,226 | 4,193 | 3,780 | 3,925 | 4,081 | | |
| Products/NGLs/other | 6,527 | *+474* | *+7.8* | 6,053 | 6,765 | *+295* | *+4.6* | 6,470 | 6,346 | 6,434 | 6,369 | 6,995 | 6,932 | 6,148 | | |
| **NET OIL IMPORTS** | **-2,077** | *-587* | *+39.4* | **-1,490** | **-2,030** | *-242* | *+13.6* | **-1,788** | **-2,414** | **-2,324** | **-1,497** | **-2,372** | **-2,221** | **-1,699** | **-2,217** | **-2,673** |
| Crude | 2,465 | *+8* | *+0.3* | 2,457 | 2,666 | *+49* | *+1.9* | 2,617 | 2,113 | 2,266 | 2,930 | 2,585 | 2,482 | 2,410 | 2,271 | 1,462 |
| NGLs | -2,663 | *-180* | *+7.2* | -2,483 | -2,717 | *-40* | *+1.5* | -2,677 | -2,595 | -2,594 | -2,640 | -2,761 | -2,749 | -2,511 | -2,643 | -2,799 |
| Products, other liquids | -1,880 | *-415* | *+28.4* | -1,464 | -1,979 | *-251* | *+14.6* | -1,728 | -1,933 | -1,997 | -1,787 | -2,196 | -1,954 | -1,598 | -1,845 | -1,336 |
| **GAS (BN CFD): MARKETED OUTPUT** | **113.1** | *+0.6* | *+0.6* | **112.4** | **113.7** | *+1.5* | *+1.4* | **112.1** | **113.4** | **115.2** | **114.2** | **113.6** | **113.2** | **113.1** | **113.2** | **114.4** |
| Lower 48 states | 110.2 | *+0.8* | *+0.7* | 109.4 | 110.9 | *+1.6* | *+1.5* | 109.3 | 110.5 | 112.2 | 111.4 | 110.8 | 110.6 | 110.1 | 110.4 | 111.7 |
| Appalachia (inc Marcellus) | 35.5 | *-0.2* | *-0.6* | 35.7 | 35.5 | *+0.5* | *+1.5* | 35.0 | 36.0 | 36.7 | 36.0 | 35.4 | 35.1 | 35.9 | 35.4 | 35.4 |
| Permian | 24.3 | *+2.0* | *+8.7* | 22.3 | 24.5 | *-0.1* | *-0.3* | 24.6 | 23.9 | 23.9 | 23.8 | 24.8 | 24.8 | 22.7 | 24.5 | 25.8 |
| Haynesville | 14.9 | *-1.7* | *-10.4* | 16.6 | 14.8 | *+0.4* | *+2.7* | 14.4 | 15.4 | 15.9 | 14.8 | 14.8 | 14.8 | 16.4 | 14.9 | 15.1 |
| Eagle Ford | 6.8 | *+0.2* | *+3.7* | 6.6 | 7.1 | *+0.4* | *+5.2* | 6.7 | 6.6 | 6.6 | 7.1 | 7.2 | 7.0 | 6.6 | 6.9 | 7.1 |
| **Dry Gas (post processing)** | **103.3** | *+0.2* | *+0.2* | **103.2** | **103.9** | *+1.8* | *+1.8* | **102.0** | **104.1** | **105.5** | **104.3** | **103.8** | **103.5** | **103.7** | **103.5** | **104.6** |
| LNG exports (bn cfd) | 11.71 | *+0.2* | *+1.5* | 11.54 | 11.48 | *+0.2* | *+1.7* | 11.29 | 12.37 | 12.97 | 10.45 | 11.90 | 12.10 | 11.90 | 12.09 | 13.75 |
| LNG exports (mn t, Kpler) | 7.11 | *+0.2* | *+2.9* | 6.91 | 7.01 | *-13.3* | *-65.6* | 20.34 | 22.60 | 23.77 | 6.66 | 7.22 | 7.14 | 85.9 | | |

*PRELIMINARY. ^DEMAND INCLUDES BLENDED ETHANOL & BIOFUELS.



©Middle East Petroleum and Economic Publications (Cyprus) Ltd
Reproducing MEES Is Strictly Prohibited

## CRUDE OFFICIAL SELLING PRICES ($/B): IRAQ RAISES NOV PRICES VS SAUDI

SELECTED DATA

| | Jul23 | Aug23 | Sep23 | Oct23 | Nov23 | Dec23 | Jan24 | Feb24 | Mar24 | Apr24 | May24 | Jun24 | Jul24 | Aug24 | Sep24 | Oct24 | Nov24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **SAUDI ARABIA** | | | | | | | | | | | | | | | | | |
| **to Asia (FOB Ras Tanura, vs Oman/Dubai average)** | | | | | | | | | | | | | | | | | |
| Arab Super Light (>40°) | +4.75 | +4.35 | +4.95 | +5.45 | +5.45 | +5.45 | +4.95 | +2.95 | +2.95 | +2.95 | +2.95 | +3.45 | +2.95 | +2.75 | +2.95 | +2.45 | +2.95 |
| Arab Extra Light (36-40°) | +2.55 | +2.55 | +2.55 | +2.85 | +3.35 | +4.05 | +3.55 | +1.55 | +1.50 | +1.70 | +2.10 | +2.80 | +2.20 | +1.60 | +1.70 | +1.10 | +2.00 |
| Arab Light (32-36°) | +3.00 | +3.20 | +3.50 | +3.60 | +4.00 | +4.00 | +3.50 | +1.50 | +1.50 | +1.70 | +2.00 | +2.90 | +2.40 | +1.80 | +2.00 | +1.30 | +2.20 |
| Arab Medium (29-32°) | +2.45 | +2.65 | +3.35 | +3.45 | +3.45 | +3.35 | +2.75 | +0.75 | +0.55 | +0.85 | +1.35 | +2.35 | +1.95 | +1.25 | +1.25 | +0.45 | +1.35 |
| Arab Heavy (<29°) | +0.80 | +1.00 | +1.60 | +1.70 | +1.70 | +2.00 | +1.70 | -0.30 | -0.30 | +0.00 | +0.50 | +1.60 | +1.20 | +0.50 | +0.50 | -0.50 | +0.20 |
| **to Northwest Europe (FOB Ras Tanura, vs ICE Brent)** | | | | | | | | | | | | | | | | | |
| Arab Extra Light (36-40°) | +3.60 | +4.40 | +7.40 | +7.30 | +8.50 | +6.20 | +4.20 | +2.70 | +2.70 | +2.00 | +2.00 | +3.70 | +4.70 | +5.60 | +2.85 | +2.05 | +1.15 |
| Arab Light (32-36°) | +3.00 | +3.80 | +5.80 | +5.70 | +7.20 | +4.90 | +2.90 | +0.90 | +0.90 | +0.30 | +0.30 | +2.10 | +3.10 | +4.00 | +1.25 | +0.45 | -0.45 |
| Arab Medium (29-32°) | +2.50 | +3.30 | +4.60 | +4.50 | +6.00 | +3.70 | +1.70 | +0.20 | +0.20 | -0.40 | -0.40 | +1.30 | +2.30 | +3.20 | +0.45 | -0.35 | -1.25 |
| Arab Heavy (<29°) | +0.10 | +0.90 | +1.90 | +1.80 | +3.30 | +1.00 | -1.00 | -2.50 | -2.50 | -3.10 | -2.80 | -1.10 | -0.10 | +0.80 | -1.95 | -2.75 | -3.65 |
| **to Mediterranean (FOB Ras Tanura, vs ICE Brent)** | | | | | | | | | | | | | | | | | |
| Arab Extra Light (36-40°) | +3.80 | +4.80 | +6.30 | +6.20 | +7.70 | +5.80 | +3.80 | +2.30 | +2.30 | +1.60 | +1.70 | +3.70 | +4.70 | +5.60 | +2.85 | +2.05 | +1.15 |
| Arab Light (32-36°) | +2.50 | +3.50 | +4.50 | +4.40 | +6.30 | +4.40 | +2.40 | +0.40 | +0.40 | -0.20 | -0.10 | +2.00 | +3.00 | +3.90 | +1.15 | +0.35 | -0.55 |
| Arab Medium (29-32°) | +2.20 | +3.20 | +3.50 | +3.40 | +5.30 | +3.40 | +1.40 | -0.10 | -0.10 | -0.70 | -0.60 | +1.40 | +2.40 | +3.30 | +0.55 | -0.25 | -1.15 |
| Arab Heavy (<29°) | -0.70 | +0.40 | +0.50 | +0.40 | +2.30 | +0.40 | -1.60 | -3.10 | -3.10 | -3.70 | -3.30 | -1.30 | -0.30 | +0.60 | -2.15 | -2.95 | -3.85 |
| **to US (FOB Ras Tanura, vs ASCI)** | | | | | | | | | | | | | | | | | |
| Arab Extra Light (36-40°) | +9.30 | +9.40 | +9.40 | +9.60 | +9.60 | +9.60 | +9.30 | +7.30 | +7.10 | +7.00 | +7.00 | +7.00 | +7.00 | +7.10 | +6.35 | +6.25 | +6.15 |
| Arab Light (32-36°) | +7.15 | +7.25 | +7.25 | +7.45 | +7.45 | +7.45 | +7.15 | +5.15 | +4.85 | +4.75 | +4.75 | +4.75 | +4.75 | +4.85 | +4.10 | +4.00 | +3.90 |
| Arab Medium (29-32°) | +7.85 | +7.95 | +7.95 | +8.15 | +8.15 | +8.15 | +7.85 | +5.85 | +5.85 | +5.65 | +5.65 | +5.45 | +5.45 | +5.45 | +4.70 | +4.60 | +4.40 |
| Arab Heavy (<29°) | +7.40 | +7.50 | +7.50 | +7.70 | +7.70 | +7.70 | +7.40 | +5.40 | +5.40 | +5.30 | +5.30 | +5.10 | +5.10 | +5.10 | +4.35 | +4.25 | +4.05 |
| **delivered US Gulf (vs ASCI)** | | | | | | | | | | | | | | | | | |
| Arab Light (32-36°) | +8.45 | +8.55 | +8.55 | +8.75 | +8.75 | +8.75 | +8.45 | +6.45 | +6.15 | +6.05 | +6.05 | +6.05 | +6.05 | +6.15 | +5.40 | +5.40 | +5.20 |
| Arab Medium (29-32°) | +9.15 | +9.25 | +9.25 | +9.45 | +9.45 | +9.45 | +9.15 | +7.15 | +7.15 | +6.95 | +6.95 | +6.75 | +6.75 | +6.75 | +6.00 | +6.00 | +5.70 |
| Arab Heavy (<29°) | +8.70 | +8.80 | +8.80 | +9.00 | +9.00 | +9.00 | +8.70 | +6.70 | +6.70 | +6.60 | +6.60 | +6.40 | +6.40 | +6.40 | +5.65 | +5.65 | +5.35 |
| **IRAQ** | | | | | | | | | | | | | | | | | |
| **to Asia (vs Oman/Dubai average)** | | | | | | | | | | | | | | | | | |
| Basrah Medium (FOB) | -0.10 | +0.40 | +1.40 | +1.80 | +2.10 | +1.80 | +1.00 | -0.80 | -0.80 | -0.60 | +0.00 | +1.00 | +0.60 | -0.10 | +0.00 | -0.50 | +0.40 |
| *vs Saudi Arab Heavy* | *-0.90* | *-0.60* | *-0.20* | *+0.10* | *+0.40* | *-0.20* | *-0.70* | *-0.50* | *-0.50* | *-0.60* | *-0.50* | *-0.60* | *-0.60* | *-0.60* | *-0.50* | *+0.00* | *+0.20* |
| Basrah Heavy (FOB) | -3.25 | -2.65 | -1.90 | -1.60 | -1.40 | -1.60 | -1.90 | -3.80 | -4.10 | -4.00 | -3.20 | -1.95 | -2.25 | -3.00 | -3.00 | -3.50 | -2.75 |
| **to Europe (vs Dated Brent)** | | | | | | | | | | | | | | | | | |
| Basrah Medium (FOB) | -4.35 | -3.15 | -2.05 | -2.55 | -1.15 | -2.15 | -4.35 | -5.15 | -5.45 | -5.85 | -5.15 | -3.35 | -2.85 | -2.40 | -3.90 | -4.70 | -5.00 |
| *vs Saudi Arab Heavy* | *-3.65* | *-3.55* | *-2.55* | *-2.95* | *-3.45* | *-2.55* | *-2.75* | *-2.05* | *-2.35* | *-2.15* | *-1.85* | *-2.05* | *-2.55* | *-3.00* | *-1.75* | *-1.75* | *-1.15* |
| Basrah Heavy (FOB) | -6.95 | -5.80 | -4.80 | -5.20 | -3.75 | -4.95 | -7.35 | -8.15 | -8.65 | -8.95 | -8.15 | -6.15 | -5.55 | -4.95 | -6.45 | -7.25 | -7.55 |
| Kirkuk (FOB Ceyhan) | -0.30 | +0.45 | +0.85 | +0.75 | +1.75 | +0.75 | -1.25 | -1.25 | -1.25 | -1.25 | -1.15 | -1.15 | -1.15 | -0.90 | -1.00 | -1.00 | -1.00 |
| **to US (vs ASCI)** | | | | | | | | | | | | | | | | | |
| Basrah Medium (FOB) | -1.00 | -0.80 | -0.55 | -0.35 | -0.25 | -0.40 | -0.70 | -1.00 | -1.00 | -0.95 | -0.90 | -0.65 | -0.65 | -0.65 | -1.10 | -1.10 | -1.10 |
| Basrah Heavy (FOB) | -5.45 | -4.70 | -4.60 | -4.40 | -4.40 | -4.70 | -5.20 | -5.50 | -5.35 | -5.25 | -5.15 | -4.80 | -4.85 | -4.95 | -5.45 | -5.45 | -5.45 |
| Kirkuk (FOB Ceyhan) | +1.25 | +1.35 | +1.35 | +1.35 | +1.35 | +1.35 | +1.35 | +1.35 | +1.35 | +1.45 | +1.50 | +1.65 | +1.65 | +1.65 | +1.25 | +1.25 | +1.25 |
| **KUWAIT** | | | | | | | | | | | | | | | | | |
| **to Asia (FOB, vs Oman/Dubai)** | | | | | | | | | | | | | | | | | |
| Kuwait Export Blend (31°) | +1.95 | +2.25 | +2.85 | +3.05 | +3.05 | +2.85 | +2.10 | +0.25 | +0.25 | +0.55 | +1.15 | +2.35 | +1.95 | +1.25 | +1.25 | +0.15 | +1.00 |
| *vs Saudi Arab Medium* | *-0.50* | *-0.40* | *-0.50* | *-0.40* | *-0.40* | *-0.50* | *-0.65* | *-0.50* | *-0.30* | *-0.30* | *-0.20* | *+0.00* | *+0.00* | *+0.00* | *+0.00* | *-0.30* | *-0.35* |
| Kuwait Super Light (48°) | +2.15 | +2.25 | +2.15 | +2.45 | +2.95 | +3.35 | +2.45 | +0.65 | +0.70 | +0.90 | +1.40 | +2.35 | +1.95 | +1.35 | +1.25 | +0.25 | +1.00 |
| Khafji (28.5°) | +0.80 | +1.00 | +1.60 | +1.70 | +1.70 | +2.00 | +1.70 | -0.30 | -0.30 | +0.00 | +0.50 | +1.60 | +1.20 | +0.50 | +0.50 | -0.50 | +0.20 |
| Hout (33°) | +2.71 | +2.91 | +3.42 | +3.52 | +3.71 | +3.66 | +3.10 | +1.10 | +1.00 | +1.25 | +1.66 | +2.61 | +2.16 | +1.51 | +1.60 | +0.85 | +1.75 |
| **Kuwait Export Blend to other destinations:** | | | | | | | | | | | | | | | | | |
| to Mediterranean (FOB, vs Dated Brent) | +0.60 | +1.70 | +2.10 | +1.10 | +2.50 | +0.10 | -1.10 | -2.95 | -2.95 | -4.55 | -4.35 | -2.45 | -0.70 | +0.30 | -2.50 | -3.60 | -4.10 |
| to North West Europe (FOB, vs Dated Brent) | +0.95 | +1.85 | +3.25 | +2.25 | +3.25 | +0.45 | -0.70 | -2.55 | -2.55 | -4.15 | -4.05 | -2.45 | -0.70 | +0.30 | -2.50 | -3.60 | -4.10 |
| FOB Sidi Kerir (vs Dated Brent) | +0.90 | +2.00 | +2.40 | +1.40 | +2.80 | +0.40 | -0.80 | -2.65 | -2.65 | -4.25 | -4.05 | -2.15 | -0.40 | +0.60 | -2.20 | -3.20 | -3.60 |
| to US (FOB, vs ASCI) | +7.85 | +7.95 | +7.95 | +8.15 | +8.15 | +8.15 | +7.85 | +5.85 | +5.85 | +5.65 | +5.65 | +5.45 | +5.45 | +5.45 | +4.70 | +4.60 | +4.40 |
| delivered US Gulf (vs ASCI) | +9.15 | +9.25 | +9.25 | +9.45 | +9.45 | +9.45 | +9.15 | +7.15 | +7.15 | +6.95 | +6.95 | +6.75 | +6.75 | +6.75 | +6.00 | +5.90 | +5.70 |



©Middle East Petroleum and Economic Publications (Cyprus) Ltd
Reproducing MEES Is Strictly Prohibited

## CRUDE OFFICIAL SELLING PRICES ($/B): (CONTINUED)

| | Jun23 | Jul23 | Aug23 | Sep23 | Oct23 | Nov23 | Dec23 | Jan24 | Feb24 | Mar24 | Apr24 | May24 | Jun24 | Jul24 | Aug24 | Sep24 | Oct24 | Nov24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **IRAN to Asia (FOB Kharg Island, vs Oman/Dubai average)** | | | | | | | | | | | | | | | | | | |
| Iranian Light (33-34°) | +2.60 | +3.00 | +3.15 | +3.45 | +3.50 | +3.85 | +4.00 | +3.60 | +1.75 | +1.75 | +1.95 | +2.25 | +3.10 | +2.60 | +2.10 | +2.35 | +1.70 | |
| *vs Saudi Arab Light* | *+0.05* | *+0.00* | *-0.05* | *-0.05* | *-0.10* | *-0.15* | *+0.00* | *+0.10* | *+0.25* | *+0.25* | *+0.25* | *+0.25* | *+0.20* | *+0.20* | *+0.30* | *+0.35* | *+0.40* | |
| Iranian Heavy (30-31°) | +0.65 | +1.05 | +1.10 | +1.80 | +1.75 | +1.75 | +1.80 | +1.40 | -0.50 | -0.70 | -0.45 | +0.05 | +1.10 | +0.80 | +0.10 | +0.15 | -0.65 | |
| *vs Saudi Arab Medium* | *-1.35* | *-1.40* | *-1.55* | *-1.55* | *-1.70* | *-1.70* | *-1.55* | *-1.35* | *-1.25* | *-1.25* | *-1.30* | *-1.30* | *-1.25* | *-1.15* | *-1.15* | *-1.10* | *-1.10* | |
| Foroozan (31°) | +0.55 | +0.95 | +1.05 | +1.75 | +1.75 | +1.85 | +1.85 | +1.50 | -0.35 | -0.50 | -0.25 | +0.25 | +1.25 | +0.90 | +0.25 | +0.30 | -0.40 | |
| South Pars Condensate | -0.95 | -0.65 | -0.50 | +0.10 | +0.15 | +0.25 | +0.45 | +0.20 | -1.75 | -1.80 | -1.50 | -1.00 | +0.10 | -0.25 | -0.95 | -0.95 | -1.95 | |
| Soroosh (18.6°) vs Iran Heavy | -3.60 | -3.60 | -3.50 | -3.60 | -3.50 | -3.50 | -3.25 | -3.10 | -3.05 | -2.85 | -2.80 | -2.80 | -2.65 | -2.70 | -2.70 | -2.75 | -2.95 | |
| **to Northwest Europe/South Africa (FOB Kharg Island, vs ICE Brent)** | | | | | | | | | | | | | | | | | | |
| Iranian Light (33-34°) | +0.45 | +1.35 | +2.10 | +4.15 | +4.00 | +5.40 | +3.15 | +1.15 | -0.80 | -0.75 | -1.25 | -1.15 | +0.65 | +1.65 | +2.50 | -0.20 | -1.00 | |
| *vs Saudi Arab Light* | *-1.65* | *-1.65* | *-1.70* | *-1.65* | *-1.70* | *-1.80* | *-1.75* | *-1.75* | *-1.70* | *-1.65* | *-1.55* | *-1.45* | *-1.45* | *-1.45* | *-1.50* | *-1.45* | *-1.45* | |
| Iranian Heavy (30.7°) | -1.10 | -0.20 | +0.60 | +1.90 | +1.75 | +3.15 | +0.90 | -1.10 | -2.55 | -2.50 | -3.00 | -2.90 | -1.20 | -0.20 | +0.70 | -2.00 | -2.80 | |
| *vs Saudi Arab Medium* | *-2.70* | *-2.70* | *-2.70* | *-2.70* | *-2.75* | *-2.85* | *-2.80* | *-2.80* | *-2.75* | *-2.70* | *-2.60* | *-2.50* | *-2.50* | *-2.50* | *-2.50* | *-2.45* | *-2.45* | |
| Foroozan (31°) | -1.20 | -0.30 | +0.50 | +1.95 | +1.80 | +3.15 | +0.90 | -1.00 | -2.40 | -2.20 | -2.70 | -2.60 | -0.80 | +0.20 | +0.90 | -1.80 | -2.60 | |
| **to Mediterranean (FOB Kharg Island, vs ICE Brent)** | | | | | | | | | | | | | | | | | | |
| Iranian Light (33-34°) | +0.00 | +0.60 | +1.60 | +2.65 | +2.55 | +4.45 | +2.55 | +0.70 | -1.20 | -1.10 | -1.70 | -1.50 | +0.60 | +1.60 | +2.50 | -0.25 | -1.00 | |
| *vs Saudi Arab Light* | *-1.90* | *-1.90* | *-1.90* | *-1.85* | *-1.85* | *-1.85* | *-1.85* | *-1.70* | *-1.60* | *-1.50* | *-1.50* | *-1.40* | *-1.40* | *-1.40* | *-1.40* | *-1.40* | *-1.35* | |
| Iranian Heavy (30-31°) | -1.60 | -1.10 | -0.10 | +0.20 | +0.05 | +1.95 | +0.10 | -1.75 | -2.55 | -3.10 | -3.70 | -3.50 | -1.50 | -0.50 | +0.40 | -2.35 | -3.10 | |
| Foroozan (31°) | -1.70 | -1.20 | -0.05 | +0.25 | +0.15 | +1.95 | +0.00 | -1.65 | -2.40 | -2.85 | -3.50 | -3.25 | -1.20 | -0.20 | +0.60 | -1.80 | -2.90 | |
| **ABU DHABI** | | | | | | | | | | | | | | | | | | |
| Murban (40.3°) | 84.11 | 75.59 | 75.61 | 80.78 | 87.28 | 93.92 | 91.00 | 83.32 | 77.69 | 79.06 | 80.99 | 84.52 | 89.14 | 83.93 | 82.52 | 83.80 | 77.94 | 73.41 |
| Das (38.8°) | 83.11 | 74.89 | 74.91 | 80.18 | 86.68 | 93.32 | 90.40 | 82.72 | 76.99 | 78.31 | 80.19 | 83.82 | 88.39 | 83.28 | 81.77 | 83.00 | 77.19 | 72.71 |
| Das-vs Murban | -1.00 | -0.70 | -0.70 | -0.60 | -0.60 | -0.60 | -0.60 | -0.60 | -0.70 | -0.75 | -0.80 | -0.70 | -0.75 | -0.65 | -0.75 | -0.80 | -0.75 | -0.70 |
| Umm Lulu (38.7°) | 84.31 | 75.79 | 75.76 | 80.93 | 87.48 | 94.17 | 91.25 | 83.57 | 77.94 | 79.31 | 81.14 | 84.67 | 89.34 | 84.13 | 82.67 | 84.00 | 78.19 | 73.66 |
| Umm Lulu-vs Murban | +0.20 | +0.20 | +0.15 | +0.15 | +0.20 | +0.25 | +0.25 | +0.25 | +0.25 | +0.25 | +0.15 | +0.15 | +0.20 | +0.20 | +0.15 | +0.20 | +0.25 | +0.25 |
| Upper Zakum (34.1°) | 83.41 | 75.09 | 75.01 | 80.78 | 86.68 | 93.42 | 90.50 | 83.82 | 77.49 | 78.91 | 80.99 | 84.42 | 89.74 | 84.23 | 82.52 | 83.85 | 77.49 | 73.46 |
| Upper Zakum-vs Murban | -0.70 | -0.50 | -0.60 | +0.00 | -0.60 | -0.50 | -0.50 | +0.50 | -0.20 | -0.15 | +0.00 | -0.10 | +0.60 | +0.30 | +0.00 | +0.05 | -0.45 | +0.05 |
| **QATAR** | | | | | | | | | | | | | | | | | | |
| Qatar Land (40°)-vs Dubai^ | +0.95 | -0.10 | +0.20 | +0.25 | +1.00 | +1.70 | +2.35 | +0.10 | -0.75 | -0.10 | +0.05 | +0.40 | +0.85 | +0.35 | -0.40 | +0.35 | +0.30 | +0.85 |
| Qatar Marine (36°)-vs Dubai^ | +0.95 | +0.10 | +0.10 | +0.65 | +1.30 | +1.80 | +2.00 | +0.90 | -0.75 | +0.20 | +0.25 | +0.65 | +1.75 | +1.10 | +0.15 | +0.60 | +0.25 | +1.00 |
| **DUBAI** | | | | | | | | | | | | | | | | | | |
| Dubai (31°, vs Oman) | -0.10 | -0.10 | +0.00 | +0.00 | +0.00 | +0.00 | +0.05 | +0.05 | +0.05 | +0.10 | +0.00 | +0.00 | +0.00 | -0.10 | +0.00 | +0.00 | +0.10 | +0.00 |
| outright price | 83.18 | 74.84 | 74.78 | 80.54 | 86.57 | 92.77 | 89.84 | 83.22 | 77.26 | 78.85 | 80.85 | 84.14 | 89.30 | 83.79 | 82.50 | 83.85 | 77.64 | 73.49 |
| **OMAN** | | | | | | | | | | | | | | | | | | |
| Oman (34°) | 83.28 | 74.94 | 74.78 | 80.54 | 86.57 | 92.77 | 89.79 | 83.17 | 77.21 | 78.75 | 80.85 | 84.14 | 89.30 | 83.89 | 82.50 | 83.85 | 77.54 | 73.49 |
| **ALGERIA** (vs Dated Brent) | | | | | | | | | | | | | | | | | | |
| Saharan Blend (45.7°) | +0.50 | +0.20 | +0.55 | +1.25 | +2.15 | +1.75 | +0.85 | +1.10 | +2.10 | +2.10 | +0.90 | +0.25 | +0.15 | +0.15 | +1.00 | +1.95 | +1.95 | |
| **LIBYA** (vs Dated Brent) | | | | | | | | | | | | | | | | | | |
| Zueitina (41°) | -0.30 | -0.20 | -0.05 | +0.10 | +0.40 | +0.20 | +0.00 | -0.20 | +0.20 | +0.30 | +0.00 | -0.10 | -0.65 | -0.45 | +0.05 | -0.50 | -0.70 | |
| Brega (40°) | -1.15 | -1.15 | -0.85 | -0.70 | -0.30 | -0.50 | -0.70 | -0.90 | -0.50 | -0.35 | -0.70 | -0.80 | -1.55 | -1.45 | -1.05 | -1.70 | -2.00 | |
| Sirtica (41°) | -0.45 | -0.45 | -0.10 | +0.00 | +0.40 | -0.25 | -0.45 | -0.75 | -0.40 | -0.55 | -0.85 | -0.95 | -1.55 | -1.45 | -1.15 | -1.55 | -1.75 | |
| Es Sider (37°) | -0.50 | -0.40 | +0.25 | +0.35 | +1.00 | +0.30 | -0.20 | -0.60 | +0.05 | -0.10 | -0.55 | -0.55 | -1.25 | -0.90 | -0.50 | -1.05 | -1.55 | |
| Bu Attifel (36°) | -0.15 | +0.00 | +0.65 | +0.80 | +1.20 | +0.70 | +0.35 | -0.05 | +0.25 | +0.00 | +0.00 | -0.15 | -0.70 | -0.50 | -0.10 | -0.65 | -1.25 | |
| Sarir (36°) | -2.60 | -2.45 | -1.80 | -1.70 | -1.20 | -1.90 | -2.30 | -2.90 | -2.90 | -3.05 | -3.35 | -3.35 | -3.95 | -3.60 | -3.10 | -3.65 | -3.95 | |
| Amna (36°) | +0.25 | +0.25 | +0.85 | +0.95 | +1.55 | +0.90 | +0.40 | +0.00 | +0.65 | +0.50 | +0.25 | +0.10 | -0.50 | -0.15 | +0.25 | -0.30 | -0.70 | |
| Sharara (43°) | -0.05 | -0.05 | +0.20 | +0.30 | +0.70 | +0.50 | +0.30 | +0.30 | +0.40 | +0.55 | +0.20 | +0.05 | -0.70 | -0.45 | -0.05 | -0.65 | -0.95 | |
| Mellitah (41.6°) | -1.15 | -1.15 | -0.80 | -0.65 | -0.35 | -0.55 | -0.75 | -0.75 | -0.35 | -0.20 | -0.55 | -0.70 | -1.45 | -0.45 | -0.95 | -1.55 | -1.75 | |
| Bouri (26°) | -3.40 | -2.70 | -2.05 | -1.95 | -1.65 | -1.65 | -1.85 | -1.85 | -1.85 | -1.95 | -1.95 | -1.65 | -1.65 | -1.55 | -1.55 | -1.85 | -2.05 | |
| Al Jurf (30°) | -1.90 | -1.20 | -0.55 | -0.45 | -0.15 | -0.15 | -0.35 | -0.35 | -0.35 | -0.45 | -0.45 | -0.25 | -0.25 | -0.15 | -0.15 | -0.45 | -0.65 | |

## SAUDI LPG OFFICIAL CONTRACT PRICES ($/T)

| | Jun23 | Jul23 | Aug23 | Sep23 | Oct23 | Nov23 | Dec23 | Jan24 | Feb24 | Mar24 | Apr24 | May24 | Jun24 | Jul24 | Aug24 | Sep24 | Oct24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Propane | 450 | 400 | 470 | 550 | 600 | 610 | 610 | 620 | 630 | 630 | 615 | 580 | 580 | 580 | 590 | 605 | 625 |
| Butane | 440 | 375 | 460 | 560 | 615 | 620 | 620 | 630 | 640 | 640 | 620 | 585 | 565 | 565 | 570 | 595 | 620 |
| *propane vs butane* | *+10* | *+25* | *+10* | *-10* | *-15* | *-10* | *-10* | *-10* | *-10* | *-10* | *-5* | *-5* | *+15* | *+15* | *+20* | *+10* | *+5* |



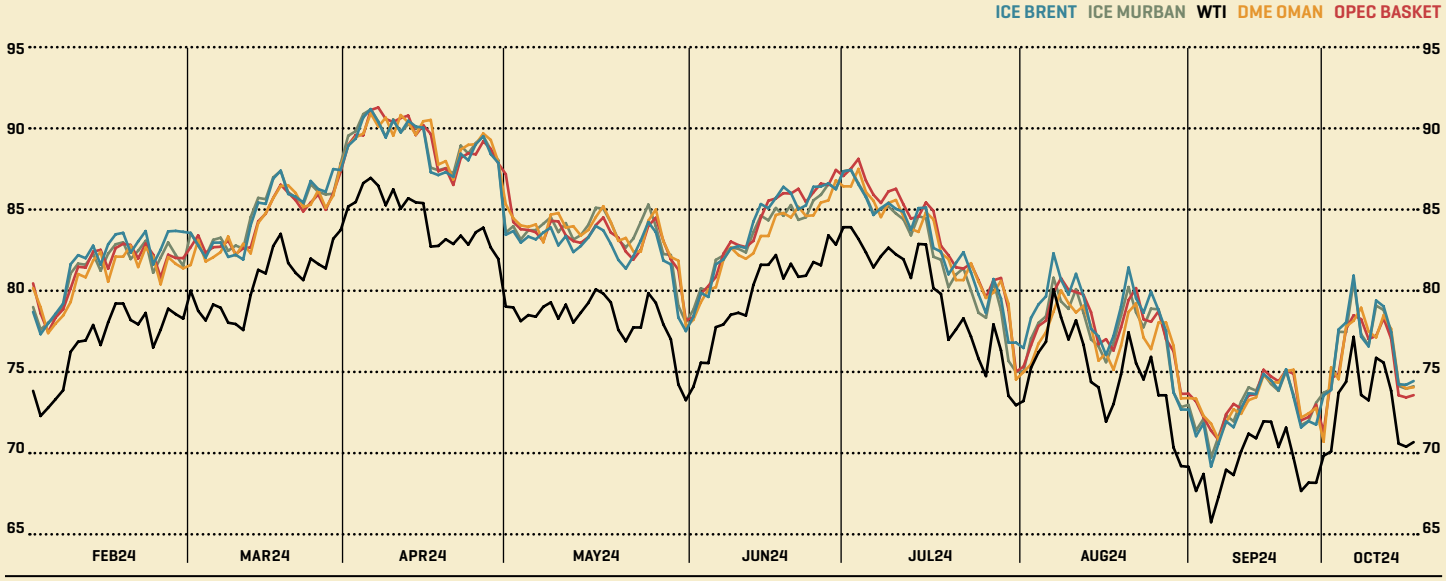
©Middle East Petroleum and Economic Publications (Cyprus) Ltd
Reproducing MEES Is Strictly Prohibited

## SELECTED DATA

### BENCHMARK CRUDE PRICES ($/B)

| | 17Oct | 7-11Oct | 30Sep-4Oct | Sep24 | Aug24 | Jul24 | Q3 2024 | Q2 2024 | Q1 2024 | 2024 (17Oct) | 2023 | 2022 | 2021 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WTI | 70.67 | 75.07 | 71.24 | 69.57 | 75.43 | 80.63 | 75.38 | 80.61 | 76.99 | 77.33 | 77.58 | 94.37 | 68.09 |
| ICE Brent | 74.45 | 78.63 | 74.98 | 72.87 | 78.90 | 83.88 | 78.72 | 85.02 | 81.84 | 81.50 | 82.18 | 99.02 | 70.97 |
| ICE Murban | 74.13 | 78.50 | 75.15 | 73.09 | 77.94 | 83.51 | 78.34 | 85.24 | 81.71 | 81.41 | 82.80 | 98.84 | 72.92 |
| GME Oman | 74.07 | 78.05 | 74.24 | 73.57 | 77.54 | 83.84 | 78.47 | 85.20 | 81.25 | 81.27 | 82.02 | 94.42 | 69.00 |
| OPEC Basket | 73.59 | 77.87 | 74.30 | 73.59 | 78.38 | 84.44 | 78.97 | 85.33 | 81.83 | 81.63 | 82.90 | 100.01 | 69.82 |
| JCC | na | na | na | na | 86.87 | 87.93 | na | 87.48 | 84.09 | na | 86.56 | 102.70 | 69.11 |

AVERAGE SETTLEMENT PRICES FOR PERIOD IN QUESTION.




### EGYPT: RECORD GAS DEFICIT WITH OUTPUT AT 7-YEAR LOW

*August saw Egypt post a new gas deficit (output minus consumption) record of 1.85bn cfd, surpassing the previous month's record of 1.74bn cfd (MEES, 20 September). Gas output continues to slump, dropping to 4.58bn cfd, the lowest since March 2017 and down over 1bn cfd year on year according to the latest Jodi data.

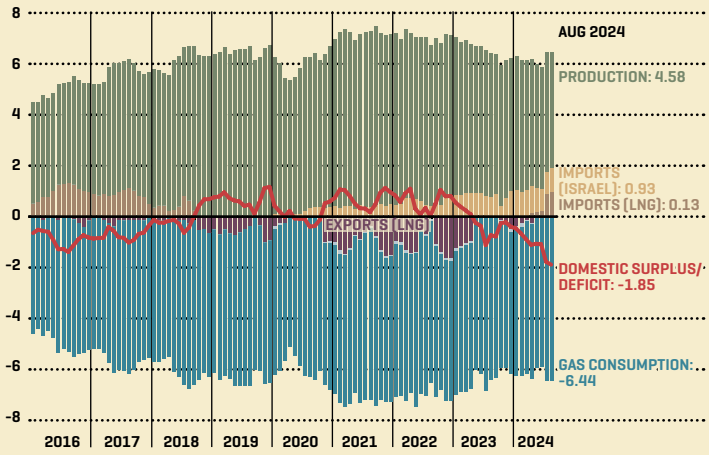
*It would have been worse, but Egypt was able to reduce gas consumption, albeit by just 9mn cfd month on month to 6.44bn cfd (see chart). Gas used in power generation also saw a modest month on month dip by 52mn cfd to 4.08bn cfd.

*Gas and power demand typically peak in August. However Cairo sought to cope with the gas shortfall by cranking up fuel oil burn with record net fuel oil imports of 200,000 b/d for August according to Kpler data.

*Gas imports from Israel and as LNG were also key to keeping the lights on. Israel volumes rebounded to 930mn cfd for August and have risen further to 990mn cfd for September, MEES learns. July LNG imports of 973mn cfd (regassified) were the highest since Q3 2017.

*With gas output set to remain on a downward trajectory, Egypt hopes to maintain Israeli and LNG imports at elevated levels for the coming month even with demand set to ease with normal seasonal trends (MEES, 13 September).

EGYPT GAS DEFICIT HITS RECORD 1.85BN FOR AUGUST AS OUTPUT SLUMPS TO NEW 7-YEAR LOW (BN CFD)




SOURCE: JODI, PETROLEUM MINISTRY, MEES.


### MEES EDITORIAL STAFF

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




©Middle East Petroleum and Economic Publications (Cyprus) Ltd
Reproducing MEES Is Strictly Prohibited