

GEOPOLITICAL RISK

East Med: More Gas, More Geopolitics

The major Calypso find looks set to turn Cyprus into a gas producer. But operator Eni's attempts to drill a follow-up well highlighted the region's geopolitical complexity with the Turkish navy moving to block drilling. Lebanon/Israel dispute adds to the dynamic. **Page 11, 12**



OIL & GAS	2
TRANSPORTATION	7
REFINING & PETROCHEMICALS	8
POWER & WATER	9
OPEC	10
CORPORATE	11
GEOPOLITICAL RISK	12
ECONOMY & FINANCE	14
SELECTED DATA	17

OIL & GAS

India Makes A Splash Off Abu Dhabi

This week's award of 10% of Lower Zakum to Indian state firms has reinvigorated the race to secure contracts once Abu Dhabi's offshore Adma concession expires. **Page 4**

OIL & GAS

Can Egypt Keep Up Gas Project Pipeline?

Eni and BP have driven Egypt's gas renaissance over the last two years. The investment climate is much improved. But beyond 2019 the gas project pipeline looks bare. **Page 2**

ECONOMY & FINANCE

Iraq Bags \$30b Reconstruction Pledges

This week's summit in Kuwait clarified the dire state of Iraqi infrastructure given IS damage and years of underinvestment. Baghdad now has access to substantial sums. **Page 16**

REFINING & PETCHEMS

Iraq Reboots Downstream Drive

Rebuilding Baiji refinery is Iraq's "most urgent" need. Baghdad's fundraising drive looks to have injected some much needed rigor into its haphazard plans. **Page 8**

TRANSPORTATION

Total Deepens Algeria Ties

French oil major Total is showing renewed commitment to Algeria in the wake of its recent acquisitions of Maersk and Engie LNG. **Page 7**

OPEC

Russia, Saudi: Opec Must Keep Focused

Saudi Energy Minister Khalid al-Falih says Opec must redouble efforts to reduce global oil inventories as the UAE touts a long-term 'super group'. **Page 10**

GEOPOLITICAL RISK

Border Deal Boost For BP's Tortue

Prospects for prompt FID at the BP/Kosmos 15tcf Tortue deepwater prospect on the Mauritania/Senegal maritime border have been boosted by a bilateral deal. **Page 13**

SELECTED DATA

Libya Roars Back In Euro Import Stats

Libya was the top Mena supplier to both Spain (162,000 b/d) and Germany (204,000 b/d) in the fourth quarter of 2017. **Page 17, 18**



Egypt Gas Turns The Corner, But Can It Maintain Investment?

Eni and BP have been the two drivers of Egypt's gas renaissance over the last two years. Their two key mega-projects are costing \$24bn. But Cairo will need a steady flow of such upstream investments if it is again to become a major gas exporter.

A veritable who's who of energy ministers and IOC executives descended on Cairo this week to attend the 2nd annual Egypt Petroleum Show (EGYPS) as Egypt intensifies efforts to attract investment in its hydrocarbons industry. The country has been reeling since the 2011 Arab Spring revolutions which scared off investors. Petroleum Minister Tariq al-Mulla was keen to highlight the success of Italian firm Eni and the UK's BP which have together brought on 2.5bn cfd of gas over the last 19 months, 45% of current 5.5bn cfd gas output.

"Between November 2013 and December 2017, the country signed 83 E&P agreements, with minimum investments of \$15.5bn, which included massive discoveries that promoted a game change on the Egyptian oil and gas market," the minister says.

Eni in August 2015 made the biggest ever Mediterranean gas discovery: 24tcf Zohr which came online in December (MEES, 15 December 2017).

ZOHR TO SOAR

Eni CEO Claudio Descalzi told reporters on the sidelines of the conference that he expects output from the field to rise to close to 2bn cfd by the end of the year.

"The challenge the president put to us is to reach 1.8-2bn cfd by the end of this year and then we have the additional ramp-up in 2019 to reach 2.9bn cfd," he says. Plateau output was initially planned at 2.7bn cfd (MEES, 3 June 2016). Total investment for the field is estimated at \$12bn, the same as BP's 5tcf West Nile Delta project, an indication that firms have been able to reduce costs over the last two years.

Zohr came online at around 350mn cfd in December and now has ramped up to around 400mn cfd Mr Descalzi says, reaching around 1.2bn cfd by midway through this year. Eni's CEO says the speed with which Zohr was brought online, 27 months after discovery, is a "worldwide record for bringing online a deep offshore discovery" and should serve as encouragement to firms looking to invest in Egypt.

Eni has doubled down on East Mediterranean deepwater exploration. It is the key player offshore Cyprus with six exploration

blocks, five of which it operates. Mr Descalzi this week confirmed that the firm's Calypso discovery on Cyprus Block 6, just 80km northwest of Zohr could rival the latter in size (see p11 and MEES, 2 February).

It was also the key winner – alongside its Cyprus partner Total and Russian LNG experts Novatek – in Lebanon's recent inaugural bidding round, bagging the two most sought-after blocks (MEES, 15 December). But, whilst Eni views the terms on offer in Cyprus and Lebanon as attractive, the geopolitics are complex – its Saipem 12000 drillship was halted by Turkish warships en route to drill Block 3 east of Cyprus, whilst its Lebanese Block 9 is part-claimed by Israel (see p12).

Not surprisingly, Mr Descalzi is positive on his firm's recent experiences in Egypt. Zohr is the "jewel in our crown" he says. "Egypt has changed a lot over the last four years. It has reduced the red tape, made it easier to obtain visas and getting the workforce in... you need the country's collaboration for big projects like Zohr," he says.

The proof according to Mr Descalzi that "Egypt is moving in the correct direction" is that it has brought online 2.5bn cfd of gas over the last two years, during the biggest downturn in the industry since the 1980s. And all of those projects have involved BP or Eni, or both.

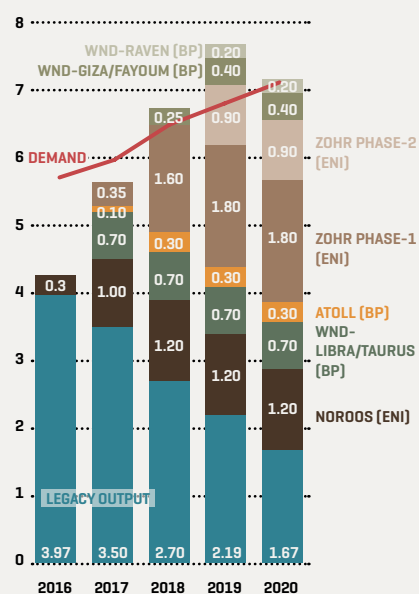
The first increment came in July 2016 when Eni brought the Noroos field online from the nearshore Nile Delta which is currently producing at around 1.2bn cfd. The next increment came in late March last year when BP brought on the first phase, the Libra and Taurus fields, of WND projects, currently contributing 700mn cfd (MEES, 12 May 2017).

The next phase will see the Giza and Fayoum fields come online later this year, adding 400mn cfd once the field ramps up next year. By late 2019 the Raven field is due to come online and add 200mn cfd (see chart).

Initially BP had planned to bring all three fields online in 2019 but decided to fast-track Giza and Fayoum following discussions with Egypt's government "highlighted the deep need for gas in the country," BP says.

In December last year Egypt received a double boost – first when BP

EGYPT'S GAS BALANCE: KEY START-UPS MAY GIVE EGYPT A GAS SURPLUS FROM LATE-2018. BUT WITH A THREADBARE PROJECT PIPELINE POST-2019 THIS MAY NOT LAST (BN CFD, END YEAR)



SOURCE: MEES FORECASTS, COMPANY FILINGS.

began initial output from its 300mn cfd Atoll shallow offshore Mediterranean field, despite only officially announcing start-up this week, and then from Zohr. Once output from Zohr ramps-up and WND Phase-2 begins to come online, Egypt could conceivably be producing 6.75bn cfd by the start of next year.

Mr Mulla was quizzed as to when he believes Egypt will again be able to export gas: "when we reach self-sufficiency," he says. Asked when he believes Egypt will reach that point, he says by the end of this year, but he did not answer how long he believed that self-sufficiency could last.

It is clear that with rising demand decline rates of 20%/year not atypical for many of its fields, Egypt will struggle to maintain self-sufficiency (MEES, 7 July 2017). The minister says one of the floating storage and regasification units (FSRU) moored at Ain Sukhna, initially brought in to import LNG in 2015 when gas shortages were acute, will be kept in place. Mr Mulla says it is still possible that

Continued on – p3

Continued from – p2

Egypt could act as a hub, both importing LNG and exporting via the Shell-operated ELNG liquefaction plant at Idku and the Eni-operated Segas plant at Damietta.

INVESTMENT CLIMATE: MUCH DONE...

Egypt needs more investment but it is clear from what many IOCs' top brass said on stage at EGYPS and on the sidelines that they share the belief that Mr Mulla is moving the industry in the right direction.

Change does not come about easily though and the minister says he is still not satisfied with the level of change that he has driven within the ministry.

"We made a serious commitment to reform and dedication to turn around the problems we were facing before 2013," he says. But that was far from easy, requiring both a cultural and mind-set change. "Our partners are our key to success. We needed to make them believe and see that we are serious about reform, serious about doing things differently," Mr Mulla says.

Grady Ables, US firm Apache's Senior Region Vice President was one of a number of high-ranking officials at the conference keen to praise the minister.

"The minister is a can-do guy. Reducing cycle time issues, I really applaud him on the modernization process. It will benefit us and benefit Egypt," he says.

Mr Mulla says he was fully aware of what the problems were when he took charge in 2015, having served as the head of state oil firm EGPC the previous two years. Amongst the biggest issues was the fiscal regime in place, so the ministry looked at the concession agreements it had signed with IOCs which included the pricing mechanism and the receivables bill EGPC had accrued.

"There was a big delay in repayment and the amounts accumulated to the extent that our partners with good reason couldn't justify to their headquarters to invest in Egypt," he says.

Pressed to provide a figure for what the state's current receivables bill is, the minister only gave last June's figure of \$2.3bn, saying the ministry will announce how much it owes IOCs at the end of the current fiscal year, which ends on 30 June.

...MUCH STILL TO DO

Most IOCs active in Egypt have yet to report end-2017 receivables. However Dana Gas, which produces 200mn cfd from onshore Nile Delta fields, says it was owed \$228mn as of end-2017, down from \$265mn at end-2016 but some 21% higher than the \$189mn mid-2017 figure.

This would suggest that Egypt failed to make any substantial payments in the second half of 2017 after high profile outlays in May and June last year (MEES, 9 June 2017). However, Egypt's Finance

Minister Amr al-Garhy says the country paid \$200mn to IOCs in January, and will make another \$550mn payment before the end of the first quarter.

A payment is due by the end of next month according to Iman Hill, head of Dana's Egypt operations. "I think we anticipate a chunky payment certainly by the end of the quarter," she says, adding "most of the companies believe an industry payment is coming."

Dana says it is reinvesting all the money it gets from Egypt back into the country, making timely payment more important as any delay can affect the firm's capital program.

Mr Mulla says he aims to completely eliminate receivables by mid-2019 but that estimate appears to be optimistic.

Speaking at the conference, EGPC head Abed Ezz el Regal said that the Petroleum Ministry cannot be solely to blame for the large number of receivables. "Once we receive payment from the Electricity Ministry we will be able to make payments to the IOCs. Just like we owe the IOCs, the Electricity Ministry owes us," he says. Such dues were a whopping E£ 70bn (\$4bn) as of last November, according to local business daily Al Mal.

BP BULLISH

Not surprisingly, BP alongside Eni, is the most bullish on Egypt.

"The Egypt government owes us no money," CEO Bob Dudley said in response to a question asked by MEES on the sidelines of the conference. The last official figure BP gave for receivables was at the end of 2015 when it was owed some \$1.5bn; a year later the figure was "vastly reduced" (MEES, 7 April 2017). In truth there has always been something of a political element to companies' calculations of their receivables: Egypt has always been a tardy payer; the extent to which firms want to flag this up as a problem, or classify sums as overdue, often varies with the desire of the company to pick a fight with the authorities.

Two of BP's seven key international 2017 project start-ups were in Egypt (WND-Taurus/Libra in March and Zohr in December), with two of five planned for 2018 also in the country ("stunning" Atoll Phase-1 and "agile" WND-Giza/Fayoum). In total Mr Dudley says BP will spend \$1bn in Egypt this year. BP's CEO spoke glowingly of the changes the minister has instigated but also warned that the age of "easy gas" was gone.

"Egypt is far less bureaucratic, things progress fast which is very rare in the world and there is plenty of potential both onshore and offshore the Nile Delta," he says.

BID ROUND PLANNED

State gas firm EGAS will look to take advantage of that potential. It announced

EGYPT'S GAS PRICE* (\$/MN BTU)

MAXIMUM		5.88
Edison	Med	5.88
BG WDDM (future phases)	Med	5.88
Shale (Shell/Apache)	W Desert	5.65
BP/Dea WND	Med	4.10
Eni (new discoveries)	Med	4.00-5.88
NEW MINIMUM		3.95
Disouq (Dea)	N Delta	3.50
Apache**	W Desert	2.77
STANDARD LEGACY PRICE		2.65

*PAID TO IOCS FOR EGYPT PRODUCTION **PRICE PER '000FT³ FOR 1-3Q17 (\$2.65/MN BTU WITH LIQUIDS ADJUSTMENT).

it will launch a bid round for eight offshore blocks in the shallow offshore Mediterranean and three onshore concessions in the Nile Delta by the end of June.

Dana Gas is among those looking to participate in the upcoming bid round, Ms Hill says. "Our team is definitely looking at it. Egypt is a core country as you know, so if something makes sense we'll definitely take part," she says.

Ms Hill also revealed the firm will drill a first exploratory well in its North el Arish concession, which borders the Palestinian Authority's maritime border, in early 2019.

NOT ALL GOOD NEWS

One firm that was not keen to talk about any of its Egypt operations was Anglo-Dutch major Shell. The firm refused to comment on current production at its West Delta Deep Marine (WDDM) concession, how much money it is owed by Egypt and whether Phase 9B of WDDM has been given the go-ahead. The last official figure Shell gave for the receivables it is owed by Cairo was \$1.35bn at the end of 2016.

Its 50% partner in the field, Malaysian state firm Petronas was more open to answering questions though. WDDM is currently producing 400mn cfd while Phase 9B should add between 250-300mn cfd once online. But when that will be is unclear as the government is in talks with the partners regarding payment of their receivables.

Shell's latest results presentation, released 1 February, lists WDDM 9B as a "project under construction" for "2018-19" start-up that will add peak output of 60,000 boe/d (around 340mn cfd). Oman's Rahab Harweel Integrated Project (35,000 boe/d gross) is the only other Mena project of the 25 listed, whilst none of a further 29 "pre-FID options" are from the region.

The current pricing mechanism, which was revised in 2015 by EGAS, has set the minimum price for gas discoveries to \$3.95/mn BTU, from the previous set legacy price of \$2.65/mn BTU, and the maximum price at \$5.88/mn BTU. Before its takeover by Shell in January 2016, WDDM operator BG had negotiated with the EGPC to receive the maximum \$5.88/mn BTU for any new phases of WDDM (see table). ♦♦





India Makes Splash Offshore Abu Dhabi With First Post-Adma Contract

This week's award of 10% of Lower Zakum to Indian state firms has reinvigorated the race to secure contracts once Abu Dhabi's offshore Adma concession expires next month. Adnoc has confirmed the concession will be divided in three. Asian firms are well placed for more awards. But Adnoc will struggle to retain oil majors.

Abu Dhabi surprised observers when it signed a deal bringing an Indian state-led consortium into its offshore sector on 11 February.

Abu Dhabi's state-owned Adnoc also confirmed that the 675,000 b/d flagship offshore Adma concession will be divided into three sections upon its expiry after 8 March (MEES, 17 November 2017). Current partners are Adnoc (60%), BP (14.66%), Total (13.34%) and Jodco, a subsidiary of Japan's Inpex (12%).

The award came during the visit of Indian Prime Minister Narendra Modi and marks India's entry into the Abu Dhabi upstream. Indian state firms – which typically group up in their overseas forays – previously submitted an ultimately unsuccessful bid in 2016 for a stake in Abu Dhabi's giant onshore concession (formerly known as Adco), which expired

in 2014. The latest consortium is headed by state giant ONGC Videsh, alongside fellow state firms Indian Oil Corporation and Bharat PetroResources.

ONGC says the 'Indian Consortium' paid a \$600mn signing bonus for 10% of the Lower Zakum concession, the largest of the three post-Adma segments. It says current output is around 400,000 b/d, which appears an optimistic rounding up, but that it is targeting 450,000 b/d by 2025. Its 10% stake equates to around 40,000 b/d share of current production, rising eventually to 45,000 b/d.

Adnoc will be taking its customary 60% stake in the three concession areas, and the contracts run for 40 years to 2058. This leaves 30% remaining for international firms at Lower Zakum, along with 40% at the 310,000 b/d Umm Shaif & Nasr concession and 40% at the Satah al-Razboot (Sarab) & Umm Lulu conces-

sion, where MEES pegs current production at 20,000 b/d (see map and chart).

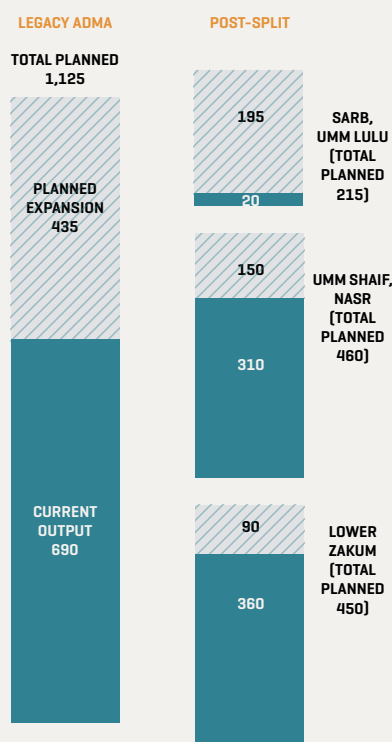
Current output from the legacy Adma fields is around 690,000 b/d. Combined with the other major offshore concession, 700,000 b/d Zadc, Abu Dhabi's offshore output is around 1.4mn b/d. Add Adnoc Onshore's 1.7mn b/d and total capacity is 3.1mn b/d. Plans to reach 3.5mn b/d this year are set to be dashed.

Certainly Adnoc's plans to increase output from the Adma fields by around 435,000 b/d to 1.125mn b/d won't come in time. No timeframe for the expansion has been announced, other than 2025 for Lower Zakum. The target is an increase on the previous ambition of 1mn b/d by 2020 (MEES, 7 October 2016).

The 10% Lower Zakum award has set

Continued on - p5

ABU DHABI TO SPLIT ADMA CONCESSION IN THREE, PLANS OUTPUT HIKE TO 1.125MN B/D, UP FROM 1MN B/D ('000 B/D)



KEY ABU DHABI OFFSHORE OIL AND GAS ASSETS

OIL PIPELINE/FIELD GAS PIPELINE/FIELD LNG REFINERY OIL TERMINAL OFFSHORE PLATFORMS



LEGACY ADMA	
1	Lower Zakum
2	Umm Shaif
3	Nasr
4	Umm Lulu
5	Satah al Razboot (SARB)
ZADCO	
6	Upper Zakum
7	Satah
8	Umm al-Dalkh

Continued from – p4

a benchmark for awarding the remaining legacy Adma fields. The outstanding 30% at Lower Zakum will require \$1.8bn signing fees, for a total of \$2.4bn. Umm Shaif & Nasr will be on a similar magnitude, while Sarb & Umm Lulu looks set to be closer to \$1bn, bringing up a total in excess of \$5bn.

This looks slightly cheaper than the signing bonuses which were required to join the renewed onshore concession, where Total and BP each paid \$2.2bn for 10% stakes in the then-1.6mn b/d asset. Legacy partners Shell and ExxonMobil opted against renewing there in large part because of the price, and while BP eventually signed up, it was after two years and it paid in shares rather than cash (MEES, 23 December 2016).

With the offshore concessions being priced similarly, Adnoc may again struggle to secure contracts with the international majors which are continuing to preach financial discipline (MEES, 9 February). Discussions have been held with more than a dozen firms, including the legacy Adma partners, but the price may still be seen as exorbitant.

In terms of securing partners, Adnoc has two primary goals. Firstly, it aims to bring back international majors, in particular those with “expertise at enhanced recovery” according to its CEO Sultan Ahmed al-Jabir in October. Secondly, Adnoc wants to strengthen ties with key Asian buyers, which account for more than 90% of its crude exports.

BP SEES DELAYS

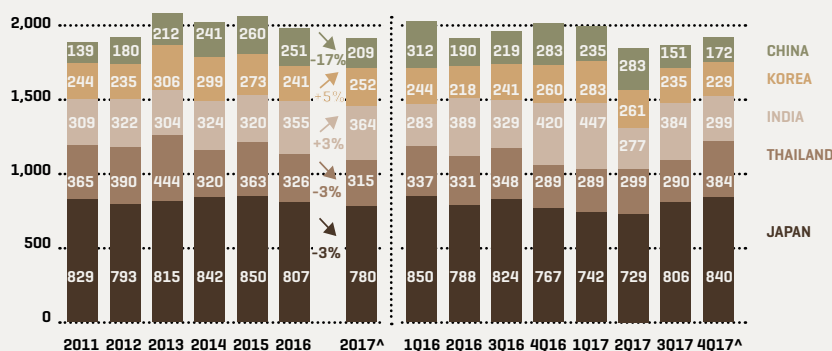
The Indian Consortium has sparked life into the repackaging of the legacy Adma concession, but with less than a month until the 8 March expiry, when will the next contract be signed?

BP certainly doesn't seem to be expecting a finalized contract by 8 March. CFO Brian Gilvary said on the firm's Q4 earnings call last week that “Looking ahead, we expect first quarter 2018 reported production to be broadly flat with the fourth quarter, reflecting continued ramp-up from 2017 major project start-ups, offset by the expiration of the Adma concession and other divestment and portfolio impacts.”

Adding to the perception that BP doesn't expect to be signing any deal soon, CEO Bob Dudley said “we would like to work there, and ultimately it'll be a decision by Abu Dhabi itself on which companies they want to join that. We're in the Adco concession, of course, and that goes out for another 40 years. But we'll wait and see.”

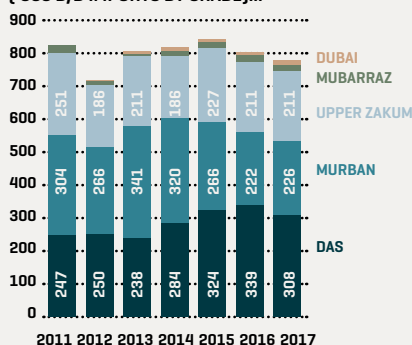
Total meanwhile remains publicly coy, but it looks a better bet to sign up in the next few weeks. CEO Patrick Pouyanné has reiterated the importance it places on Abu Dhabi's low cost

INDIAN IMPORTS OF UAE OIL RISE IN 2017, BUCKING THE REGIONAL TREND ('000 B/D)



* RESPONSIBLE FOR TAKING AROUND 80% OF UAE CRUDE EXPORTS IN 2016. ^ INDIA JAN-OCT DATA. SOURCE: IMPORT STATISTICS, OPEC, MEES.

JAPAN IS THE UAE'S KEY MARKET FOR CRUDE ('000 B/D IMPORTS BY GRADE)...



barrels (MEES, 25 November 2016) and the company proved the premium it places on these when it was the first mover in renewing the onshore concession in 2015 (MEES, 30 January 2015).

MEES estimates Total's Abu Dhabi output edged down to around 270,000 b/d last year, accounting for 64% of its 419,000 b/d MENA volumes, and 20% of its 1.35mn b/d global production. BP hasn't yet published its 2017 liquids volumes, but with its slightly higher Adma stake, MEES estimates it equated to some 21% of global output of approximately 1.2mn b/d.

ExxonMobil has often been linked to Lower Zakum given its 28% stake in the 690,000 b/d capacity Upper Zakum field. But it never considered renewing its stake in the Abu Dhabi Onshore fields (MEES, 7 February 2014), and may balk at the similar price tag here.

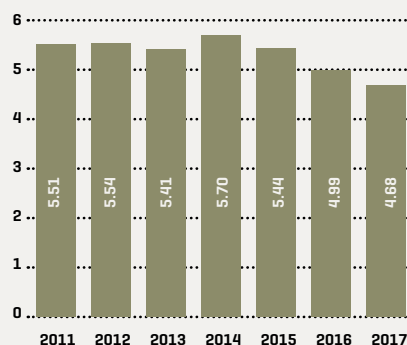
ASIAN FIRMS WELL PLACED

Adnoc's plans to use concession awards to strengthen relations with key buyers ought to help Asian upstream firms. UAE stats show that 98% of the 2.4mn b/d oil exported in 2016 was shipped to Asia-Pacific in 2016.

More than 80% alone went to just five countries, which received 1.98mn b/d in 2016, and around 1.92mn b/d last year (see chart).

Of these five, China (via state firms CNPC and CEFC), South Korea (GS Energy) and number one buyer Japan (Inpex) all have stakes in Adnoc Onshore. India was the second largest buyer of Emirati oil last year and, alongside

...AND LNG (MN T, ALL FROM ABU DHABI)



South Korea, was one of just two of the big five buyers to increase liftings in 2017 (see chart). Indian imports averaged around 365,000 b/d in 2017.

Adnoc emphasized the commercial benefits of the Lower Zakum award in its press release following this week's deal, flagging up the IEA's expectation that Indian energy demand is expected “to grow by more than any other country in the period to 2040.”

Meanwhile Adnoc's CEO Sultan al-Jabir emphasized that “this mutually beneficial partnership will help India meet its growing demand for energy and refined products, create opportunities for Adnoc to increase its market share in a key growth market, and build a solid foundation as Adnoc explores potential international investments, particularly focused on downstream opportunities.”

The contract came a few days after India's parliament approved 2017's agreement between the state-owned Indian Strategic Petroleum Reserve (ISPRL) and Adnoc. Under the agreement, Adnoc will put 5.8mn barrels of crude oil into the ISPRL's 11mn barrel Mangalore facility on the Arabian Sea coast.

On a broader scale, India announced last week that it plans to increase refining capacity by 77% from 5.0mn b/d currently to around 8.8mn b/d by 2030. Adnoc is seeking to secure equity in overseas refineries as part of its plans to increase refining capacity by 540,000 b/d from 900,000 b/d to 1.44mn b/d by 2025, and clearly India offers a golden opportunity

Continued on – p6





Continued from – p5

for this (MEES, 1 December 2017).

JODCO A FRONTRUNNER

Jodco remains a frontrunner to snag a stake in the rearranged concessions given that Japan is by far the largest buyer of Emirati oil, taking 740,000 b/d last year. The firm's 12% stake in the legacy fields hands it a further advantage, and it also has a 12% stake at Upper Zakum, 40% at Satrah and 12% at Umm al-Dalkh, alongside 5% of the Adnoc Onshore concession.

Parent company Inpex says it has been "implementing full field development plans for Umm Lulu and Nasr oil fields." This implies that Inpex would be most likely to secure a stake at one of the two fully-vacant concessions rather than join the Indian Consortium at Lower Zakum.

Chinese firms are also prime suspects given their major expansion in Abu Dhabi in February 2017. State giant CNPC grabbed 8% at Adnoc Onshore, with fellow state firm CEFC taking another 4%, for a combined 12% – larger than BP and Total's stakes. CNPC brings the dual attributes of hailing from a key buyer and having technical expertise and certainly doesn't lack cash.

As for the other major buyers, Korea's GS Energy has a 3% stake at Adnoc Onshore and 10% in the much smaller Al-Dhafra Petroleum alongside Korea National Oil Corporation (30%) which is due to start producing next year (see box). Thai firms have no UAE assets and state-owned PTT withdrew from neighboring Oman last year.

UMM LULU LAUNCH IMMINENT

With Adnoc targeting major buyers

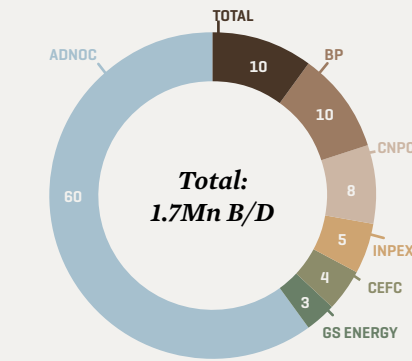
ABU DHABI GETS SMALL PRODUCER BOOST

Japan's Cosmo Energy, the largest shareholder in the Abu Dhabi Oil Company (Adoc) confirmed last week that its offshore Hail field has reached full production, after starting up in November. The field produces just over 20,000 b/d, boosting total Adoc output to around 45,000 b/d. This is all exported to Japan from a Single Point Mooring (SPM) system connected to Adoc's 1.4mn barrels storage facility on Mubarratz island via a 16km pipeline.

Vessel tracker Marine Traffic shows that the Vega Trader tanker arrived at Mubarratz Island from Japan on 15 February. After loading up on crude, the tanker left on 16 February and as MEES went to press appeared to be heading towards Qatar's Halul Island, further highlighting the failings of the Saudi and UAE led trade embargo of Qatar.

Halul Island is the export terminal for the benchmark Qatar Marine (32-

ADNOC ONSHORE STAKEHOLDERS (%)



SOURCE: MEES.

as offshore partners, it's worth considering the crude that will be produced. As it stands, all of the Adma concession's crude is exported as Das blend (39.2°API, 1.12% sulfur) from the Das Island terminal.

Japan imported 308,000 b/d of Das crude last year, nearly 50% of the total, lending further weight to Jodco's case for a stake.

However, Adnoc announced in November that a planned new offshore grade from the fields is to be launched this quarter. The new Umm Lulu grade (39°API, 0.74% sulfur) is less sour and will be a mix of crude from Umm Lulu and Sarb. No detail has been given on planned volumes, but Adnoc aims to eventually reach 215,000 b/d from the two fields.

The new blend will be exported from Zirku Island, the terminal for exports of the 34°API 1.74% sulfur Upper Zakum grade. France's Technip and Emirati contractor National Petroleum Construction Company (NPCC) were awarded an EPC contract to construct processing facilities for the new grade in 2013, with a target of H1 2018 completion (MEES, 6 December 2013).

Aramco, Total Firming Plan For Satorp Refining/Petchems Integration

State petroleum firm Saudi Aramco and France's Total are firming up their plans for an expansion of their Satorp joint venture refinery and integration of the plant with a petrochemicals complex.

Total chief executive Patrick Pouyanné told his firm's 2017 earnings call on 8 February that the two firms hope to formally announce the project "in the coming months."

Mr Pouyanné says the two companies "have the same strategy" of seeking "additional synergies in refining and petrochemicals." Aramco and Total are "working together" on plans for the project, at Jubail on Saudi Arabia's Red Sea coast, and are seeking "access to the feedstock we need to develop this large platform."

In a September 2017 presentation, Total's president of refining and petrochemicals Bernard Pinatel said that the companies are looking into debottlenecking the refinery, which currently has capacity to process 400,000 b/d of crude and deliver 1mn tons/year of paraxylene, benzene and propylene. The project would raise crude distillation capacity to 440,000 b/d and add 800,000 t/y of aromatics capacity.

Mr Pinatel says that the companies are also evaluating the construction of a 1mn t/y integrated cracker, whose feedstock would comprise 75% off-gas from the refinery – typically a mixture of methane, ethane, ethylene, propane, propylene and butane that is used as a fuel within refineries – plus ethane and LPG.

The Satorp refinery is owned 62.5% by Aramco and 37.5% by Total. The plant has two 200,000 b/d crude distillation units, which were brought online in turn during 2013-14 and is particularly configured to maximize diesel output for export to Europe.

Mr Pinatel says that Qatar's state-led petrochemicals firm Qapco, in which Total holds 20%, is considering expanding its 1.2mn t/y ethane cracker at Ras Laffan, while the French firm has also signed memorandums of understanding for studies into cracker-based petchems projects in Iran and Algeria.

Total Deepens Algeria Ties

French oil major Total is showing renewed commitment to Algeria in the wake of its recent acquisitions of Maersk and Engie LNG.

France's Total is in talks with Algiers over upstream gas projects and a petrochemicals plant, according to the firm's chairman and CEO, Patrick Pouyanné. "We are discussing with them... gas development projects in direct negotiation," as well as an unspecified "petrochemical project," said Mr Pouyanné in the firm's Q4 and FY2017 results earnings call on 8 February.

Total has enjoyed an up and down relationship with Algiers over the past decade. In 2007 it agreed a headline deal for a grassroots petrochemicals plant that was never built, and five years later it signed up to develop a major gas field only for Algerian state energy firm Sonatrach to decide to develop the field on its own. It was only in April last year that Total and Sonatrach signed a deal ending legal action brought by the French firm against Sonatrach in 2016 for changes made 10 years earlier to profit-sharing terms on its oil and gas contracts in the country (MEES, 21 April 2017).

April's Total-Sonatrach deal not only allowed the partners to "amicably" resolve the dispute, it also paved the way for joint development of a new upstream project which "is confidential for the moment," a Total spokesperson told MEES. Sonatrach president Abdelmoumen Ould Kaddour said that after the December deal "our relationship with Total is good," and that the state firm "definitely need[s] its expertise and knowledge." According to the Total spokesperson, the agreement created "new momentum" with Sonatrach, a claim that has been borne out by subsequent events.

Algeria has been talking about building new petrochemicals plants for many years. A 2005 program envisaged six grassroots facilities – among them the Arzew ethane cracker for which Total signed up. But these never saw the light of day. Pet-chemicals remain on the agenda, although Algeria's current downstream focus is on the construction of two new refineries (MEES, 24 February 2017). After a succession of disappointing licensing rounds, Sonatrach flits between promising another one (that may or may not include offshore acreage) and saying it is focusing its upstream efforts on the development of established gas discoveries (MEES, 22 December 2017).

Either way, Total is positioning for further involvement. The French firm has "rebuilt" its relationship with the

SONATRACH LNG SALES AND PURCHASE AGREEMENTS

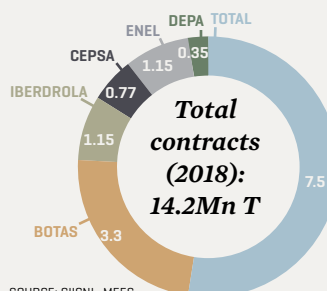
Buyer	Country	mn t/y	From	To	Comments
Total	France	1.3	1992	2019	extended in 2013; was EngieLNG
Total	France	3.7	1982	2019	extended in 2013; was EngieLNG
Total	France	2.5	1972	2019	extended in 2013; was EngieLNG
Botas	Turkey	3.3	2015	2025	extension of previous 3.02 mn t/y deal
Iberdrola	Spain	1.15	2002	2021	
Cepsa	Spain	0.77	2002	2022	
Enel	Italy	1.15	1999	2022	Gaz de France/Enel swap for Nigerian LNG
DEPA	Greece	0.35	1999	2020	

state operator in the past year and is now benefiting from a "virtuous circle" of engagement with the country, said Mr Pouyanné in the Q4 earnings call.

In December, Total and Sonatrach signed a deal in which the terms of contracts for the Total-led Timimoun and Tin Fouye Tabankort (TFT) gas developments were updated and improved. The firms also agreed to collaborate on offshore and shale exploration, solar power and petrochemicals (MEES, 22 December 2017). The 1.8bcm/y Timimoun project, part of phase one of Algeria's flagship South West Gas Project (SWGP), is due to come onstream in April. A year ago Total's only Algerian output came from 35% of the 700mn cfd TFT wet gas field to the south of the Berkine Basin. One element of last year's deal saw the renewal of the TFT production sharing agreement, scheduled to end in 2019, for another 20 years.

But Total's August 2017 agreement to purchase the oil unit of Denmark's Maersk, and November's deal to acquire the LNG assets of fellow French energy company Engie will substantially increase its footprint in Algeria when finalized – even before the start-up of Timimoun. The \$7.5bn Maersk acquisition gave Total an average share of around 10% in three giant fields in Algeria's Berkine Basin: Anadarko-operated El Merk and HBNS, and Cepsa-operated Ourhoud (MEES, 25 August 2017). Gross output from the three fields was 338,000 b/d in 2017, although maintenance work on El Merk saw Q4 production fall to 275,000 b/d. The \$1.49bn acquisition of Engie's LNG business gives Total offtake deals for 7.5mn t/y of Algerian LNG, more than half the total covered by long term sales deals (see table and chart). The transaction is due to close by mid-2018, with an effective date of 1 January 2018, says Total. ♦♦

ALGERIA'S LNG EXPORT CONTRACTS (MN T/Y): TOTAL WILL HAVE 53% OF TOTAL POST-ENGIE LNG TAKEOVER



SOURCE: GIGNL, MEES.

SAIPEM & SONATRACH BURY HATCHET

Sonatrach and Italian contractor Saipem have agreed to end a legal dispute over four contracts in Algeria, Saipem announced 14 February. The firm will pay Sonatrach \$150-200mn, Sonatrach president Abdelmoumen Ould Kaddour says. The deal is the result of "constructive dialogue" and is an "important step forward" in the relationship between the two companies, said Saipem. The firms plan to work together on an offshore project, said Mr Ould Kaddour.

The four contracts in dispute were for construction of a gas liquefaction plant in Arzew; three LPG trains, an oil separation unit and condensate production units at Hassi Messaoud; the 24" LZ2 LPG pipeline and pumping station at Hassi R'Mel; and a gas production unit in the Menzel Ladjmet field. The International Court of Arbitration ruled in December that Saipem should pay \$135mn in compensation to Sonatrach for the loss of production stemming from the LPG pipeline project.

Saipem has previously been investigated over allegations that it paid close to €200mn in bribes to middlemen to secure seven Sonatrach contracts between 2007-09 worth €8bn (MEES, 16 August 2013).



Iraq Reboots Downstream Development Drive

Rebuilding Baiji refinery is Iraq's "most urgent" need. Baghdad's fundraising drive looks to have injected some much needed rigor into its haphazard plans to rejuvenate its derelict downstream sector, but it will still struggle to entice investors.

Iraq's oil ministry has adopted an erratic approach to its downstream rehabilitation plans over the past year, announcing and re-announcing planned refineries of various capacity seemingly at random.

This week's donor conference on Iraqi reconstruction in Kuwait (see p16) has brought a measure of clarity to the picture, cutting down the list of proposals to three clearly defined greenfield projects and two rehabilitations. Baghdad estimates that \$7.2bn needs to be spent on rehabilitating the Iraqi oil sector over the next five years, and Minister of Oil Jabbar al-Luaibi says that \$4bn of this would need to be spent in the downstream sector.

Federal Iraq's nameplate refining capacity is currently around 600,000 b/d after it brought a number of smaller refineries such as 10,000 b/d Haditha and 14,000 b/d Qayara online last year (MEES, 2 February). In reality, Iraq's ageing refineries would struggle to reach such rates: the conference document put capacity at "over 500,000 b/d."

The three newbuild refineries would add 600,000 b/d, while Iraq offered the 210,000 b/d Basra and 140,000 b/d Daura refineries as rehabilitation projects. Although not listed as a project for investment, the conference emphasized the primacy of rehabilitating the Baiji refinery, formerly Iraq's largest at 310,000 b/d but now offline after being gutted by the Islamic State in 2014.

Achieving "some level of operations" at the Baiji refinery is "the most urgent requirement within the petroleum sector," the document says, adding that "it may be possible to restore operations at one of the least damaged trains fairly quickly (under 24 months)." This contradicts Mr Luaibi's statements earlier this month that the ministry is "confident that 50% of Baiji's capacity will be operating by the end of 2018."

Excluded from the conference document were the planned 140,000 b/d Karbala refinery and a planned 70,000 b/d refinery at Kirkuk as both have been contracted out. But Karbala has been beset by delays as the Korean consortium constructing it have periodically halted work due to non-payment. Meanwhile the Kirkuk project awarded last week looks decidedly shaky (MEES, 9 February).

Overall these plans would bring Baghdad's refining capacity to some 1.7mn b/d, comfortably above its target of 1.5mn b/d by 2021 if fully implemented. But prospects of this being achieved are slim.

NEW PROJECTS, ANY TAKERS?

Of the three new refineries offered at the conference, Fao, the largest at 300,000 b/d, has the most potential to attract international investors. Its proximity to the Basra export terminals holds the potential for more lucrative export sales. Mr Luaibi has signed a preliminary deal with Chinese state firm PowerChina and supposed compatriot Nerco. However, as the former is a hydropower construction firm and the latter has no online presence, there has got to be doubt that the project will proceed with these partners.

Situated inland, the other two projects are unlikely to entice many, indeed this has stymied previous efforts to launch refinery projects.

The 150,000 b/d Nasiriya project was originally intended to be a 300,000 b/d plant offered in a package with upstream development of the Nasiriya oil field. Meanwhile the 150,000 b/d Anbar project also has the problem of its location in one of Iraq's more unstable provinces. As such they may need to be offered as EPC contracts funded by the ministry if they are to proceed, like Karbala. The potential for this to happen may have improved due to funding pledges at the Kuwait conference.

New funding for the oil ministry may also enable it to make regular payments to the Korean contractors led by Hyundai E&C working at Karbala under the \$6bn EPC contract awarded in 2014.

CUTTING IMPORTS ESSENTIAL

Iraq's modest progress in rehabilitating refineries enabled it to boost refining runs to around 535,000 b/d in 2017 – the highest since 2013 when Baiji was still operational. This has also been helped by an agreement in February 2017 to send around 40,000-60,000 b/d for refining at the "Nineveh" refinery in Kurdistan (MEES, 23 June 2017).

Despite this, imports of gasoline

FEDERAL IRAQI REFINERIES ('000 B/D)

Refinery, Province	Capacity
Basra, Basra*	210
Daura, Baghdad*	140
Kirkuk, Kirkuk	56
Misan, Misan	30
Najaf, Najaf	30
Samawah, Muthanna	30
Nasiriya, Dhi Qar	30
Diwaniya, Qadisiyyah	20
Sininya, Salahuddin	20
Qayara, Nineveh	14
Haditha, Anbar	10
Kasak, Nineveh	10
TOTAL OPERATING	600
War Damaged	310
Baiji, Salahuddin*	310
Under Construction	140
Karbala, Karbala	140
Planned	670
Fao, Basra	300
Nasiriya, Dhi Qar	150
Anbar	150
Kirkuk, Kirkuk	70
Total Operating & Planned	1,720

*REHABILITATION PLANNED. SOURCE: MINISTRY OF OIL, MEES.

edged up in 2017 and further gains are likely in 2018, while diesel imports are also set to rise. For 2017, Opec's second largest crude producer (4.43mn b/d output) was reliant on imports for 32% of 114,000 b/d diesel demand and 43% of 124,000 b/d gasoline consumption. Mr Luaibi says Iraq spends around \$2.3-2.5bn/year on products imports.

Iraq's refining capability is relatively unsophisticated and unable to produce sizeable quantities of either. And with large areas of Iraq, and its populace, liberated from the Islamic State last year, demand (or at least demand as captured by official statistics) is set to grow.

But longer term, Mr Luaibi plans for Iraq to become a net products exporter, selling some 500,000 b/d by 2021. Ever the optimist, this looks likely to remain a pipedream within this time-frame. But if Iraq can end its reliance on imports it will be a major benefit. ♦♦

UAE Nuclear Plans: More Delays Likely

The UAE's Federal Authority for Nuclear Regulation (FANR) is not yet ready to award an operating license for the first reactor of the country's first nuclear power plant, threatening to further retard a scheduled start-up which has already been delayed by a year to 2018.

Although Korean contractor Kepco E&C has almost completed the construction of the first 1.4GW reactor at Barakah on the Gulf coast 50km west of Ruwais, FANR has still to approve the handover of the first unit to Nawah Energy, a joint venture of Kepco and state firm Emirates Nuclear Energy Corporation (Enec) formed to operate the plant.

FANR director general Christer Viktorsen told reporters "it is hard to say when they (Nawah) will be ready. It is a very complex process. The organizational aspect is more important than the technical aspect."

A key factor behind FANR's readiness to award Nawah an operating license is the amount of experience the company's trained plant operators have of observing operations at Kepco's first APR1400 reactor, the model which is being installed in the four plants at Barakah. Korea's Shin Kori-3 is the first plant in the world operating this model, but its start-up – and hence the practical part of the training of Nawah's plant operators – was delayed from the intended 2013 to December 2016.

While Enec as a result announced a revised start-up schedule for the four reactors, which are now due online one at a time during 2018-20, Kepco did not agree to the revised start-up schedule. A Kepco executive said at the time that "it's very difficult

for us to predict the possible compensation that may be involved and our future plans for our manpower dispatched to the project" (MEES, 12 May 2017). Kepco has not issued an update on the situation since.

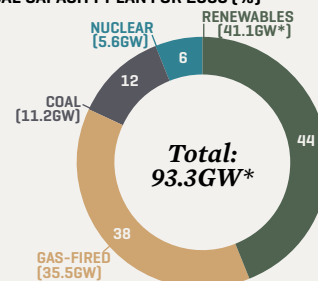
FANR's operational plan for 2018, which was approved by the authority's board last week, does not give a target date for the award of the operating license for the Barakah-1 unit. The regulator says only that it conducted over 40 inspections related to Barakah in 2017, including Nawah's operator training and "organizational readiness for unit 1 operations", and that Barakah is "a key priority for FANR."

The 5.6GW Barakah nuclear plant is the largest among the power projects under development in the UAE. The emirates currently have just over 30GW of power generating capacity, with Barakah accounting for almost 44% of the 12.7GW of capacity currently under development (see table).

While almost all of the UAE's existing power plants mainly burn gas, the development of nuclear capacity at Barakah, solar in both Abu Dhabi and Dubai and also a large coal-fired plant in Dubai are all intended to reduce the country's reliance on gas, an increasing amount of which must be imported for power generation (see box).

The UAE's latest energy strategy, announced last year, calls for Dh600bn (\$164.3bn) of investment to 2050 in new generating and supply capacity and energy efficiency (MEES, 13 January 2017). By that time renewables would outstrip gas to provide 44% of the UAE's electricity, while "clean energy" – renewables plus nuclear – would provide 50% (see chart). ♦♦

UAE CAPACITY PLAN FOR 2050 [%]



*GW FIGURES ARE IMPLIED. SOURCE: MINISTRY OF ENERGY, MEES.

UAE POWER GENERATION CAPACITY

Operating:	Plants	GW
Adwea	10 Gas-Fired, 1 Solar*	15.50
Dewa	10 Gas-Fired, 1 Solar^	9.66
Sewa	6 Gas/Diesel	2.77
Fewa	3 Gas/Diesel	0.70
End-2016 Capacity		28.63
Online 2017 (Total):		30.07
Dewa - Mar 17	Solar Park 2 [PV]	0.20
Adwea - Nov 17	Al-Mirfa CCGT [Gas]**	1.24
Projects Awarded:		
Enec [2018-20]	Barakah 1-4 [Nuclear]	5.60
Dewa [2018]	Jebel Ali M Exp CCGT [Gas]	0.70
Adwea [2019]	Sweihan [Solar PV]	1.18
Dewa [2019]	Jebel Ali K Ph 3 [Gas]	0.59
Dewa [2020]	Solar Park 3 [PV]	0.80
Dewa [2020]	Aweer H Ph 4 [Gas]	0.82
Dewa [2021]	Solar Park 4 [CSP]	0.70
Dewa [2020-23]	Hassyan 1 [Coal]	2.40
Total Awarded		12.78

*100MW CSP. ^13MW PV. **PROJECT TOTAL 1.66GW INCLUDING 360MW REFURBISHMENT. SOURCE: MEES.

DEWA AWARDS GAS-FIRED POWER PROJECT

Dubai Electricity and Water Authority (Dewa) has awarded Germany's Siemens and Egypt's Elsewedy a Dh1.1bn (\$299.5mn) contract to build the fourth phase of the H-Station power plant at Al Aweer, east of Dubai city.

The project involves the supply, installation and commissioning of three gas turbines with a combined capacity of 815MW. Operating in open cycle mode, the project will require up to 160mn cfd of gas.

The award takes to 2.1GW combined gas fired capacity under development in the UAE. The UAE's total of 12.8GW power capacity under development is dominated by 5.6GW of nuclear capacity being built at Barakah in Abu Dhabi (see table above).

The three gas turbines are scheduled to be brought online in March-April 2020, says Dewa CEO Muhammad

al-Tayir. They will take total H-Station capacity to 2.8GW. Dewa's total generating capacity is currently 9.9GW – gas fired except for two solar plants with 213MW capacity combined.

H-Station phase four will add to the pressure on UAE gas supplies. Almost all domestic production, around 6bn cfd, comes from Abu Dhabi, which also plans to add 1.2bn cfd of sour gas production. But Abu Dhabi also has extensive LNG export commitments – around 90% goes to Japan, which took 4.68mn tons in 2017 down from 4.99mn t in 2016 and a record 5.70mn t in 2014 (see chart, p5).

This means that the UAE only achieves gas balance by importing 1.7bn cfd via the Dolphin pipeline from Qatar to Abu Dhabi as well as LNG imports through a 960mn cfd (7.2mn t/y) capacity floating

storage and regasification unit moored off Dubai (see map p4 and MEES, 1 December 2017). The price Abu Dhabi pays for Qatari gas is far below that it receives from Japan for LNG exports, so Abu Dhabi has been happy to continue the trade despite otherwise blockading Qatar.

Although the reliance on gas for power generation will rise as new capacity is added, the Ministry of Energy has set a target of producing 44% of the country's electricity from renewable sources by 2050 (MEES, 13 January 2017). Energy Minister Suhail al-Mazrouei says the Emirates will need to tender at least 1GW of new renewables capacity each year if they are to achieve this target. Between them Abu Dhabi and Dubai have three solar projects amounting to almost 2.7GW under development.



Saudi Energy Minister Khalid al-Falih is relaxed about the possibility of overshooting in Opec's bid to reduce global oil inventories, seeing the greater threat as posed by exiting the production agreement too early. "If we err on the side of overbalancing then so be it" he said at an industry event in Riyadh this week.

Mr Falih's stance is perhaps not too much of a sacrifice given that erring in this way would tighten the market, potentially boosting prices. Yes, price gains give succor to rival producers, in particular the US, but that genie has already escaped the bottle. The IEA's February Oil Market Report (OMR) released this week says "US producers are enjoying a second wave of growth so extraordinary that in 2018 their increase in liquids production could equal global demand growth."

Given that the IEA expects global demand to grow 1.39mn b/d this year, that would certainly be "extraordinary." US crude and condensate production grew 467,000 b/d in 2017, but the latest production forecasts from the US government's EIA are for a massive 1.27mn b/d increase this year. That's still 120,000 b/d shy of the IEA's expected global demand growth. But then the EIA also predicts an additional 470,000 b/d growth to 4.20mn b/d in US output of plant NGLs as the country's gas output hits a record 80bn cfd.

MIND THE EXIT

With inventories being wound down and growing debate over whether global demand growth means they could already be overdrawn (MEES, 19 January), attention is increasingly focusing on how participants will exit the Opec+ production agreement. For now, the focus of Opec+ is firmly on maintaining discipline and developing a better metric for assessing market conditions than the current five-year average of inventories in the OECD group of mostly rich countries.

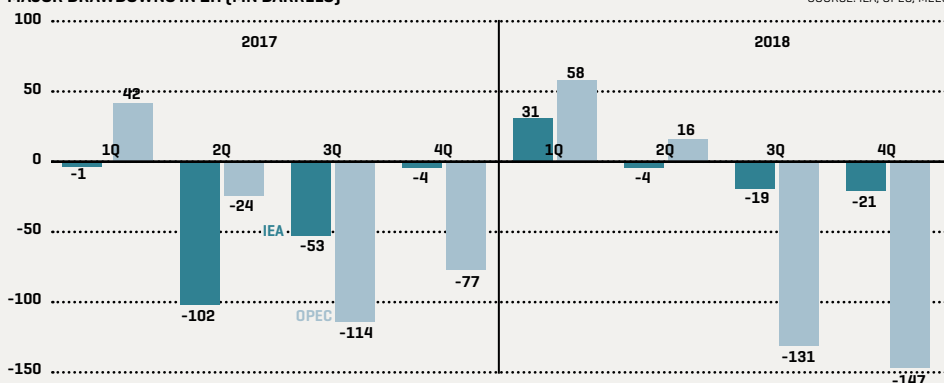
This will be center-stage at the next meeting of the Joint Ministerial Monitoring Committee (JMMC) when it meets in Riyadh on 14-15 April. It will also be a focal point for discussions at the next Opec meeting in Vienna on 22 June.

The current metric is certainly insufficient. For one thing, it is based solely on OECD inventories thanks to the dearth of information on non-OECD stocks. There is also a sizeable lag, with December data only released this week. Furthermore, the nature of a rolling average means that Opec could just sit and wait for the average to rise. Crucially, it also fails to account for the impact of demand growth on how much of a cushion inventories provide.

One potential replacement that has been touted is days of forward coverage – essentially how many days demand can be met through current inventory levels. This has the advantage of factoring in demand growth, but also suffers severe limitations – namely the

IEA, OPEC BOTH SEE OECD INVENTORIES RETURNING TO GROWTH THIS QUARTER. THE DIFFERENCE IS OPEC EXPECTS MAJOR DRAWDOWNS IN 2H (MN BARRELS)

SOURCE: IEA, OPEC, MEES.



lack of non-OECD data and the time-lag.

The biggest problem in assessing the state of the market is the lack of data.

MARKET REBALANCING

What is undeniable is that oil markets are rebalancing. Supply and demand data from the IEA and Opec imply that global inventories fell by around 160-170mn barrels over the course of 2017. However, both the IEA and Opec say OECD inventories fell by some 200mn barrels. Despite being on the same page regarding the extent of the fall, they have greater variation on the size of the five-year average. So, while the IEA reckons OECD inventories ended 2017 just 52mn barrels above the mark, Opec pegs them at 109mn barrels over.

Clearly inventory levels may have changed substantially since end-December, but seasonal demand trends mean they are more likely to have grown than shrunk. IEA figures imply that stocks will rise around 30mn barrels over the course of the first quarter of 2018, while Opec's numbers point to a gain of nearly 60mn (see chart).

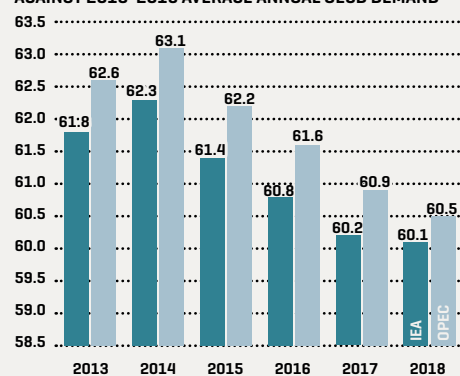
How do December's inventory levels stand in terms of forward cover? Using their respective 2018 average OECD demand figures, the IEA data shows 60.1 days coverage and Opec 60.5 days, and December's stocks represented 62-63 days cover at 2014 demand levels.

HOW CAN I RESIST YOU?

Abu Dhabi newspaper The National reports that UAE Energy Minister and Opec President Suhail al-Mazrouei wants to create a "super group." In a 15 February interview, Mr Mazrouei said Opec Secretary General Mohammad Barkindo has drawn up a draft agreement to institutionalize the 24-member Opec+.

Despite Opec officials' self-congratulatory statements in recent weeks that the production agreement proves the continued importance of Opec, the most important element of the pact was Russia's involvement. With Opec recognizing it can't sway the markets alone, it is keen to move forward in tandem with Russia.

DAYS OF FORWARD COVER: DECEMBER OECD STOCKS AGAINST 2013-2018 AVERAGE ANNUAL OECD DEMAND*



*CALCULATES DAYS OF FORWARD COVER PROVIDED BY OECD DECEMBER INVENTORIES AGAINST AVERAGE ANNUAL DEMAND FROM 2013-2018. SOURCE: OPEC, IEA, MEES.

Saudi Arabia therefore rolled out the red carpet to welcome Russian Oil Minister Alexander Novak to Riyadh for this week's meetings. Mr Novak and Mr Falih again put on a great show of bonhomie and reiterated their intention to continue cooperating beyond the planned end-2018 expiry of the Opec+ deal (MEES, 2 February). Or in Mr Barkindo's words, the two ministers plan to continue as "our apostles to the value of cooperation."

But Opec may become increasingly incidental for how this cooperation continues. Russia and Saudi Arabia are edging closer towards signing multi-billion-dollar contracts, with a particular focus on the energy sector. MoUs were signed during King Salman's historic trip to Moscow in October (MEES, 6 October 2017) and speculation abounded that this week's talks would result in an agreement for Saudi Aramco to invest in Russian state-firm Novatek's 18mn t/y Arctic-2 LNG plant.

No deal was finalized, nor was there any agreement on Saudi Arabia moving towards buying Russian LNG. But Kirill Dmitriev, the head of the Russian Direct Investment Fund (RDIF), says his \$10bn sovereign wealth fund is looking to establish a group of Russian and potentially Chinese investors for Aramco's planned 5% IPO (see p14). Mr Falih labelled RDIF "an important bridge between Russia and Saudi Arabia." ♦♦

Eni Cyprus Discovery: ‘Good-Good-Good, Or Just Good’?

Eni's Calypso Cyprus discovery could be bigger than Zohr. Complex geology means more drilling is needed. But CEO Claudio Descalzi says at a minimum the field will be a Zohr tie-in, with a stand-alone Cyprus LNG project a real possibility. This would also boost development prospects for the 2011 Aphrodite discovery.

The Calypso gas discovery made by Eni last month on Block 6, 180km southwest of Cyprus could be even bigger than the firm's 24tcf 2015 Zohr find offshore Egypt, informed sources tell MEES.

Eni CEO Claudio Descalzi officially urges caution. With only one well so far, further appraisal drilling is needed to fully determine the size of the discovery, he says. But, when quizzed by MEES on initial reports of a 6-8tcf find (MEES, 2 February), he says "it could be more... for sure it cannot be less."

COMPLEX GEOLOGY

Part of Mr Descalzi's caution is down to Calypso geology being more complex than that of Zohr.

"For Zohr I was sure, after the first well I told everybody the figure. This one is good but we have to understand if it is good-good-good, or just good," he told reporters on the sidelines of the Egypt Petroleum Show in Cairo on 13 February.

"The thickness of the well is very good... we have clastic and carbonate, the same kind of lithology that we had in Zohr so that is the very good news so we can extrapolate," he says.

But "the reservoir is not as clear and simple [as Zohr]. From a structural and a geological point of view Zohr is pure carbonate, very easy to handle. But this [Calypso gas] is more difficult. Clearly it is a very good well. The gas is very, very, good gas, 99.9% methane but we have to understand the extrapolation and we have to understand the geological model," he says.

Eni (50% and operator) and partner Total (50%) will analyse the geophysical data further to fully understand the geology before deciding on the timing of further appraisal drilling.

ZOHR TIE-IN AN OPTION...

Mr Descalzi believes that Calypso will be large enough to justify development even if reserves are at the low end of current estimates. "It is a good find that has merit to go ahead... It is

good news for Cyprus that is clear."

Eni will have to weigh up two development options, Mr Descalzi says. If the field proves to be on the low side of current estimates, ie around 6-8tcf, "we have to use Egyptian facilities," meaning a tie-back to Zohr 80km to the southeast (see map, p12).

Zohr, the Mediterranean's largest ever gas find, started up in December 2017; current output is 400mn cfd. Phase-2, slated to raise output to 2.9bn cfd next year, is intentionally being developed with sufficient spare capacity to allow the tie-in of other nearby discoveries.

...BUT CYPRUS PREFERRED

But "if it is big I prefer to build in Cyprus new facilities," he says in reference to the construction of an LNG liquefaction plant on the south coast of the island.

This has long been Nicosia's preferred option – the favored site is Vassilikos, 25km east of Limassol. But the 5tcf 2011 Aphrodite discovery – in 1,700ms water depth, 200km south of Cyprus – has proved insufficient to justify such plans. The field remains undeveloped (MEES, 10 April 2015).

Plans for a Cyprus-based LNG plant are now being dusted off. Demetris Fessas, executive director of Cyprus Hydrocarbons Company says he believes more than 10tcf of gas could justify the construction of such a plant, though this would appear a push if such reserves were split evenly between two geographically distinct locations.

THE RE-BIRTH OF APHRODITE

That said, the latest find is no doubt good news for Texas-based Noble Energy, which operates Aphrodite. Until now the most realistic (or least unrealistic) development plan envisaged a 200km pipeline to Egypt's 5mn t/y Segas LNG plant in Damietta. (Whilst Zohr is just 45km from Aphrodite, a tie-back to the Egyptian field has been ruled out due to differences in gas quality).

Eni will be wary that once any gas is

pipled to Egypt the company loses a degree of control over what happens to the gas. The company has already got burnt once with Egypt in 2012-13 unilaterally calling a halt to Eni and Shell's exports of LNG from their respective Segas (in Damietta) and ELNG (Idku) liquefaction plants. Eni's relations with state firm EGPC recovered with 2015's Zohr discovery, but Shell's relations remain strained with the firm refusing to commit to further offshore investment (see p2).

Eni's drilling offshore Cyprus has not been all plain sailing. This week Turkish warships prevented Eni's contracted drillship, the Saipem 12000 from approaching the Cuttlefish prospect on Block 3 (see p12). These threats could be the reason Mr Descalzi is remaining cautious, knowing that a large gas discovery announcement could escalate any tensions in the region. Part of Block 6 lies within Turkey's claimed continental shelf.

Turkey is unlikely to mount a serious challenge to the next planned drilling off Cyprus. ExxonMobil plans to spud the first of two wells in its Block 10 acreage, just south of Calypso and even closer to Zohr, in Q4 this year.

Furthermore, ExxonMobil is partnered with state-firm Qatar Petroleum (QP) at Block 10. With Qatar a rare regional friend for Turkey, QP's presence at the block ought to further dissuade Ankara from attempting to disrupt the planned drilling.

"Offshore Cyprus, plans are progressing for Block 10. Acquisition of a 3D seismic survey was completed in 2017. The first well on the block in this promising gas-prone region is planned to spud later this year," IR chief Jeff Woodbury told Exxon's 2 February earnings call.

And, unlike some observers, Exxon evidently does not see the East Med as a pricey region for potential gas developments. "In Cyprus, we're looking at resources that could be very much on the low side of the cost of supply curve." Cypriot gas could potentially "compete" even based on the premise that the world may be "long on [gas] supply for a period of time," he says. ♦♦





East Med Gas: Troubled Waters

Despite a sizable gas find offshore Cyprus and Lebanon finally awarding exploration blocks after years of delay, not all is well under the Eastern Med sun.

The discovery of significant gas reserves off Israel in 2009-10 sparked suggestions the Eastern Mediterranean could be the next big natural gas hub. For a region closely associated with seemingly intractable conflicts and territorial disputes, the energy conversation never strayed far from the underlying geopolitics. With development creeping forward offshore Cyprus, and majors signing up to drill off Lebanon, the primacy of politics is again rearing its ugly head.

Just days after striking significant volumes of gas on Cyprus' offshore Block 6 (see p11), the Eni-commissioned Saipem 12000 drill ship was blocked by Turkish warships as it sailed east to drill the Cuttlefish prospect on Block 3 (see map). Turkish President Recep Tayyip Erdogan denounced Cypriot exploration in supposedly contested waters as "unserious and childish," while also citing supposed naval exercises in the area. The Saipem 12000 is currently cooling its heels 50km off the Cyprus party hotspot of Agia Napa, with its Q1 drilling plan now in disarray. Claudio Descalzi, CEO of block operator Eni (80%; Korean state firm Kogas has 20%) called the standoff "a matter between countries."

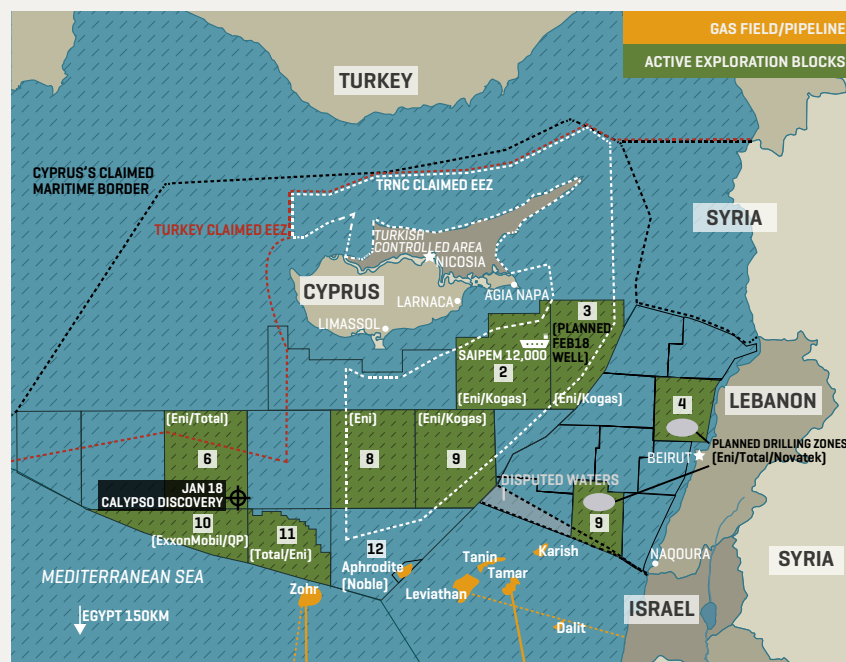
MEES understands Eni may now postpone its drilling campaign on Block 3, a clear sign it does not foresee diplomatic efforts yielding any results.

Although the drillship is still in Cypriot waters awaiting instructions from Eni, MEES learns that Eni may skip Block 3 and advance the Saipem 12000's next planned well off Morocco (see p13).

On 9 February, the same day as the episode off Cyprus, Lebanon scored a victory for its nascent energy sector when a consortium grouping Eni (40%), Total (40% and operator) and Russia's Novatek (20%) formally signed exploration and production agreements for two blocks. But, because part of Block 9 lies in waters disputed by Israel, the ceremony also reignited tensions over the contested boundary. That Israel announced plans a couple days prior to build a border wall, alleged to be planned partially on Lebanese land, only served to stoke the maritime dispute further.

Recent events suggest a troubling trend for offshore development in the East Med: if geopolitical standoffs accompany every small step toward production, will

EAST MEDITERRANEAN GAS EXPLORATION & MARITIME CLAIMS



the region's potential ever be met?

NEW DISPUTES OF OLD

These recent spats are entangled in deep-seated political disputes dating back decades. Turkey invaded Cyprus in 1974 citing its obligation to protect Cyprus's Turkish Cypriot minority, de facto partitioning the island. From the Turkish government's perspective, the Republic of Cyprus does not represent all of the island's inhabitants and as such does not have a right to the privileges (including offshore exploration) that sovereign states enjoy. Turkey maintains a strong military presence in Northern Cyprus and is the only state that recognizes the governing entity, the Turkish Republic of Northern Cyprus (TRNC).

On this basis Ankara considers all Cyprus exploration a violation of Turkish Cypriots' rights—a violation Turkey takes upon itself to defend. Turkey also claims for itself a sizable exclusive economic zone (EEZ) that overlaps with that claimed by the Republic of Cyprus. No diplomatic ties mean no EEZ agreement, thus entangling offshore exploration in the 'Cyprus Problem.'

Turkey shows no signs of backing down. "Our rights in the Aegean and Cyprus mean the same thing to us as Afrin does,"

Mr Erdogan says, referring to ongoing Turkish operations in northern Syria.

The president is clearly conflating Turkey's sovereign geopolitical interests, regional ambitions, and role as protector in a way that justifies provocative behavior. Cyprus lacks the weight to confront Turkish belligerence.

CUTTLEFISH, SCUTTLEFISH?

So when Turkish warships confronted the Saipem 12000 en route to the Cuttlefish prospect, Cyprus and the European Union could counter with little more than hot air. Italian media reported a frigate was to be sent to Cyprus's EEZ, but the Italian Navy quickly dismissed the report on Twitter.

An Eni spokesman confirms that the Saipem 12000 "prudently executed the orders and will remain in position pending an evolution of the situation" – a major blow to Cyprus as it looks to build momentum following the Calypso discovery.

If Eni indeed turns away from Block 3 it sets a damaging precedent of Cypriot inability to prevent Turkish interference that could deter other IOCs. Turkey's

Continued on – p13

Continued from – p12

endgame is difficult to ascertain. Ankara could be building leverage for future peace talks, but Cyprus is small beer for Mr Erdogan and the status quo suits Turkey just fine. The brash Mr Erdogan is not one for backing down, and his supporters can't get enough of it. Given Mr Erdogan's evolving power grab, Nicosia will likely have to deal with him for years to come.

Calypso was ultimately drilled without Turkish interference, but Turkey's foreign ministry did not let it proceed quietly (MEES, 5 January).

BAD BLOOD

Just to the east, nascent Lebanese exploration hasn't escaped its geopolitical shackles. Lebanon sided with the Arab states in the 1948 war and has refused to recognize Israel (and its territorial claims) ever since. Israel invaded Lebanon twice during the latter's 1975-1990 civil war, and occupied southern Lebanon from 1982 until 2000 when Hizbollah's insurgency led the Israelis to unconditionally withdraw.

Following the withdrawal, the United Nations produced the so-called Blue Line – a border demarcation to test whether Israel had fully left Lebanese territory.

The UN Interim Force in Lebanon (UNIFIL) maintains border security on the demilitarized terrestrial frontier, but the maritime issue is more ambiguous. The two states agree on the coastal boundary, but the exact point at which that boundary meets Cyprus's EEZ is contested. Non-existent diplomatic relations make resolution nearly impossible, especially when political elites on each side profit from tough talking the enemy.

The dispute erupted after Noble Energy struck big off Israel with Tamar (10tcf in 2009) and Leviathan (22tcf, 2010). This prompted Lebanese officials to warn Israel against exploration in Lebanese waters (MEES, 20 June 2010). Then Israeli Minister of National Infrastructure Uzi Landau shot back that "Our very existence here is a matter of occupation for them."

The discourse has changed little since. Israeli theft of Lebanese resources remains an excellent applause line, while Israel is no stranger to holding its Arab neighbors hostage through territorial acquisition. The important question is whether Beirut's recent awarding of an exploration contract for Block 9 changes the incentives for Lebanon's government.

Whilst any sort of comprehensive peace agreement remains as far away as ever, the US has attempted to mediate a de facto agreement on their maritime boundary. In 2011 it sent diplomat Frederick Hoff to Lebanon in hopes of resolving the dispute. The so-called "Hoff line" awarded the Lebanese 530km² (62%) of the total disputed wedge of 854km². This was resoundingly rejected (MEES, 18 June 2012) only to

be resurrected ahead of US Secretary of State Rex Tillerson's visit to Beirut this week. The plan is unlikely to have received a better reception this time around.

MEES understands that UNIFIL organizes and mediates monthly trilateral talks near Naqoura on the Lebanese side of the border involving one Lebanese and one Israeli official (and the UN). The likelihood of these talks producing anything, however, is minimal. Even if the Lebanese leadership wanted to quietly bury the hatchet, the political risk of colluding with Israel would prove insurmountable. Unlike most of the elites, Hizbollah's Secretary-General Hasan Nasrallah is widely seen as incorruptible and virulent in his opposition to Israel, and he would likely play the spoiler on any attempts at accommodation.

RISKY BUSINESS

IOCs have thus far shown the greatest deference toward the Eastern Mediterranean's precarious geopolitical scene, and these firms are crucial to ensuring smooth operations. When Total issued its 9 February press release on the Lebanon contract signing, the French firm clearly indicated that Block 9 operations will take place "more than 25km from the disputed area" – hoping to avoid any confrontation.

"Total and its partners are fully aware of the Israeli-Lebanese border dispute in the southern part of the block that covers only a very limited area (less than 8% of the block's surface). Given that the main prospects are located more than 25km from the disputed area, the consortium confirms that the exploration well on Block 9 will have no interference at all with any fields or prospects located south of the border area," Total says. It adds that, in any case "The consortium's priority will be to drill a first exploration well on Block 4 [to the north] in 2019."

Lebanon's Oil Minister Cesar Abi Khalil affirmed that Block 9 "is located within the Lebanese maritime waters and is fully subject to the sovereignty of the Lebanese state," but ultimately the consortium will choose where to drill its one obligatory well, Mr Abi Khalil.

Eni, partner in Lebanon but also stakeholder in four Cypriot blocks, has demonstrated equal patience. On the recent Saipem 12000 incident, Mr Descalzi noted "we did not expect this would happen, because we are absolutely well within the economic zone of Cyprus ... we are waiting. I know this is something that involves us, but not directly." With Lebanon's Block 4 located less than 50km from Cyprus Block 3, in both of which Eni has stakes, the Italians could potentially benefit from the region's advantageous proximity.

As independent entities, IOCs can navigate such troubled waters with greater ease, lubricating the pent-up friction that pervades the region. Whether national leaders can maintain bellicose rhetoric and immovable stances without eventually spooking these firms is anyone's guess. ♦♦

Mauritania: Tortue Deal

The prospects for a prompt final investment decision at the BP/Kosmos 15tcf

Tortue deepwater prospect on the Mauritania/Senegal maritime border have taken a major step forward with the 9 February signing of an Inter-Government Cooperation Agreement.

US firm Kosmos says the project remains on track for FID by end-2018 and first gas by late 2021. FEED is ongoing.

Tortue (or Ahmeyim as Senegal calls it) was discovered by Kosmos in 2015 (MEES, 8 May 2015). The discovery, in 2,700ms water depth and 100km offshore, appears to straddle the two countries' maritime border more or less equally.

The deal "provides for development... through cross-border unitization, with a 50%-50% initial split of resources and revenues and a mechanism for future equity redeterminations based on actual production and other technical data," BP says.

Kosmos has 29% of the project. BP, which entered in December 2016 and will take over as operator post-FID, has 61%. The respective state oil firms have 5% each.

Despite the deepwater and virgin location the firms are looking to limit costs by minimizing the number of production wells and tying them back via 100km flowlines to FPSO vessels moored just offshore.

"The innovative near-shore LNG concept being used for Tortue positions the development as one of the lowest cost green-field LNG projects in the world," Kosmos CEO Andy Inglis says.

Savings are slated to come from modular development. First gas of 400mn cfd within three years of FID is slated to come from just two wells and one 2.3mn t/y FPSO. Ongoing cashflow will then pay for subsequent development – a second 2.3mn t/y FPSO is slated to be added in 2023 (MEES, 10 November 2017), with the potential for additional identikit expansion.

The good news on Tortue development comes after an anti-climactic end to BP/Kosmos' 2017-18 Mauritania/Senegal drilling campaign: the last three wells were all flops, with the firms' drillship moving on to Suriname off the north coast of South America (MEES, 9 February).

Mauritania will now see an exploration hiatus with no further offshore wells planned for this year. However, Eni is set to drill an initial exploration well on Morocco's Rabat Deep block next month (see p12).

Kosmos' drilling success has sparked major interest in Mauritania's deepwater: ExxonMobil signed up for three blocks late last year (MEES, 8 December 2017). ♦♦





Will 2018 Be A Boon Year For Middle Eastern IPOs?

The Middle East IPO market dried up after oil prices fell in H2 2014. But the urgent need to generate new revenue means the sustained oil price slump is now the key driver of energy sector privatization plans across the region.

After several torrid years, the Middle East IPO market staged a healthy comeback in 2017. The planned listing of Saudi state-energy giant Aramco has dominated discussions on the outlook for regional IPOs in 2018. But even if this is delayed into 2019, this year looks to have a healthy pipeline, with the UAE and Egypt to the fore.

The value of Middle Eastern IPOs more than quadrupled from \$676mn in 2016 to \$3bn in 2017. However, to put this in perspective, 2014 was three times higher, with the value of IPOs coming in at \$9.8bn. Saudi Arabia was the driver in 2014, with the 15% IPO of National Commercial Bank raising \$6bn, nearly two thirds of the total.

The number of IPOs more than tripled from four to 13 last year. Law firm Baker McKenzie's Cross-Border IPO Index 2017 cites 12, while the \$851mn IPO of Abu Dhabi's Adnoc Distribution in December was finalized after its publication.

Adnoc Distribution brought the number of IPOs in the energy and power sector last year up to four. This enabled the sector to edge out financial IPOs: the biggest 2017 Mena IPO was the \$1.31bn listing of Dubai's real estate firm Emaar Development.

Middle Eastern energy sector IPOs are set to dominate again in 2018 – even excluding the Aramco juggernaut.

REVENUE BOOST SOUGHT

2015 and 2016 saw IPOs dry up across the region as the oil price slump brought low growth in key GCC economies denting investor appetite for new offerings. Unable to achieve their target valuations, firms put listing plans on hold.

But GCC countries are adapting to expectations of lower-for-longer oil prices and are dusting off energy sector privatization plans.

"For Gulf energy firms, especially those that are state-owned, there will be pressure to demonstrate efficiency and cost saving, which could increase listings," says Karen Young of the Arab Gulf Institute in Washington. "Rising interest rates will encourage more asset sales through IPOs

and other means, perhaps more consolidation and some acquisitions as well."

Increased growth of renewable energy, and solar specifically, could also boost the issuance of future energy IPOs given the massive upfront investments required.

Governments in the region are expected to face large fiscal deficits in the years ahead: the IMF forecasts cumulative GCC budget deficits of \$160bn for 2018–22, though this is sharply down (on an annual basis) on a whopping \$90bn for 2017. The halcyon days of 2012 saw a \$220bn surplus.

Hence the need for planning to privatize (fully and/or partially) state-owned assets in a bid to raise capital and help diversify their economies. Consultants Oliver Wyman reckons that GCC governments could feasibly privatize 25% of government-owned assets to 2030, raising \$100bn (7% of their current GDP) in the process.

In addition to raising funds, the privatizations are intended to advance oil sector modernization, improve operational efficiency and boost financial discipline.

"Regional energy giants such as Oman's PDO and Iraq state oil marketer SOMO are expected to set up entities with an eye towards potential listings this year or next. The aim is to boost revenues: they have also announced plans for higher spending," Dubai-based economic consultant Nasser Saidi tells MEES.

Regional NOCs have maintained ambitious capex plans throughout the oil price downturn: Aramco announced in December that it plans to invest \$414bn over the next decade, Adnoc plans to invest \$109bn by 2022 (MEES, 1 December 2017) and the five-year plan of Kuwait's KPC entails \$114bn capex.

Kuwait has long sought to initiate a privatization drive, but has been stymied by an activist parliament. The government made privatization, including of the oil sector, a key pillar of its Fiscal and Economic Reform agenda unveiled in 2016; in July 2016 it said it was looking into partially listing four subsidiaries of KPC (MEES, 15 July 2016). But the election of a more opposition-based parliament in November 2016 has reduced the prospects of success.

Adnoc opted to list 10% of its fuel retailer Adnoc Distribution on the Abu Dhabi Securities Exchange (ADX) on 13 December 2017. The listing raised \$851mn: the biggest listing on the Abu Dhabi stock exchange in the past decade, albeit the first in six years.

Energy aside, the pipeline of UAE deals for 2018 spans a diverse range of sectors from transport (Abu Dhabi Ports), to natural resources (Emirates Global Aluminium, EGA, – the largest aluminum producer in the Middle East) to education (GEMS Education).

The IPO listing amounts range from an estimated \$1bn for Abu Dhabi Ports to \$3–4bn for GEMS education. EGA, which is hoping to raise as much as \$3bn is owned by two of the Gulf's sovereign wealth funds – Abu Dhabi's Mubadala and the Investment Corp. of Dubai.

EGYPT'S BIG PLANS

Non-GCC countries are also aiming to downsize bloated and inefficient state firms.

Egyptian companies have notably been setting themselves up for a bigger piece of the IPO pie following the floating and devaluation of the Egyptian pound; it has a pipeline of six listings expected in 2018 (MEES, 14 July 2017).

State oil engineering firm Enppi is expected to list by the beginning of the second quarter of 2018 with \$150mn sought through offering 24% of its shares on the Egyptian Exchange (EGX). This would mark the first sale of shares in a state-owned company in Egypt in 12 years.

Preparations for the IPO are in full swing, with all legal and procedural hurdles cleared, a senior governmental source told Daily News Egypt on 3 February.

Another state-owned business that is planning to list in the coming months is Egypt's third largest bank, Banque Du Caire, with the sale of a 20% stake targeted. These two IPOs comprise part of a government plan announced last year to raise ££5–7bn (around \$300–400mn) through public issues of state-owned

Continued on p15

Continued from – p14

companies during the 2017-18 fiscal year, which ends 30 June, with further fund-raising is planned for the following years.

The prospect for Egyptian IPOs has considerably picked up since November 2016 when authorities lifted almost all restrictions on the pound to help secure a \$12bn loan from the IMF. Prior to this, foreign investors were wary that a severe dollar shortage would pose a threat to them releasing their money. This, combined with the considerable devaluation of the Egyptian pound, has made the country's assets attractive to foreign currency investors (see p2).

After experiencing considerable political and economic upheaval in the seven years since the Arab Spring, many believe Egypt has turned a corner. GDP growth of 4.2% for 2016-17 and forecasts (IMF, January 2018) of 4.8% for the current financial year and 5.5% for 2018-19 are outstripping the IMF's previous expectations.

So the time could be ripe for growth on the EGX whose liquidity is still low and whose market cap remains fairly small compared to the size of its economy: Africa's third-largest. Baker McKenzie forecasts that Egypt's IPOs will raise \$332mn this year and that the total value of Egyptian IPOs will reach \$1.16bn within three years.

ARAMCO: THE MAIN EVENT

Of course the behemoth of planned energy IPOs this year is that of a 5% stake of Saudi Aramco. Riyadh is targeting both a domestic and international IPO for the second half of 2018, though this timeline has been called into question on numerous occasions (MEES, 22 December 2017).

While general consensus is that the domestic listing will go ahead, many have cast doubt over both the likelihood and viability of the international segment, for this year at least – especially given that Aramco is yet to announce the listing venue/s.

"The domestic portion is likely to be listed this year on the Tadawul. This is important to achieve domestic 'buy-in' to the policy of liberalization and privatization," says Mr Saidi. "It is too early to make a call on the international segment. But it could be either an international listing or a private placement with China a good contender given the strong interest of Chinese SWFs."

Aramco has engaged in talks with Chinese state companies looking to buy a direct 5% (MEES, 20 October 2017), whilst the Russian Direct Investment Fund (RDIF), a SWF, plans to establish a consortium of Russian and Chinese firms to participate in the IPO (see p10).

Given that future investor demand for the IPO remains unclear, the immediate advantage of a direct placing

is that it would guarantee Riyadh a sizeable wad of cash, urgently needed to help implement 'Vision 2030' reforms (MEES, 29 April 2016).

The lack of transparency from Aramco about any IPO schedule has led to a slew of conflicting reports. This in turn has unnerved investors.

Where progress is being made, it primarily concerns the domestic listing. On 1 January Riyadh announced it was changing Aramco's status from a limited liability company to a joint-stock company; a move enabling it to issue shares (MEES, 12 January).

And Saudi's stock market regulator, the Capital Market Authority (CMA), is making a raft of changes aimed at facilitating international investment on the Tadawul. It will allow foreign investors to own up to 49% of listed securities and reduce the requirements that foreign investors have to meet to 'qualify'.

Efforts are also being made to develop regulatory directives to allow non-resident strategic foreign investors to own strategic stakes in listed companies.

In May 2017 Tadawul CEO Khalid al-Hussan said that to ensure that foreign flows into Saudi stocks increase during global index provider MSCI's consultation period between June 2017 and June 2018, he would consider further relaxing the limits on foreign investors (MEES, 7 July 2017).

MSCI last June added the Tadawul to its watch list for potential inclusion in its Emerging Markets (EM) Index. This marked the start of a two-year review and implementation process that could result in an upgrade from the current frontier market status to EM status in June 2018, with final implementation to be achieved in June 2019.

Egyptian investment bank EFG Hermes argues that EM index inclusion for Saudi Arabia is critical for the Aramco IPO. If so, then H2 2019 would be the earliest potential date for the Aramco listing. "Inclusion of the Tadawul in the MSCI index is a vital step in the formalization and international acceptance of the economic linkage of the kingdom with the global economy," Sadad al-Husseini, a former Aramco executive and energy consultant, tells MEES.

An upgrade in the Tadawul's status would trigger a massive inflow of foreign funds; the MSCI EM index is tracked by roughly \$1.6tn of emerging-market funds across 23 developing countries. Foreign investors own a collective 4.3% of Tadawul-listed companies according to the exchange's website: the majority are London-based emerging markets funds.

Of course, how Aramco's IPO potentially performs would be keenly watched by other major energy companies in the Middle East – a successful Aramco IPO would no doubt encourage other NOCs to open up their oil sector, both upstream and downstream, to investors. ♦♦

Egypt Raises \$4bn Bond

Egypt has raised \$4bn from a Eurobond, the Finance Ministry announced on 14 February. The bond, three times oversubscribed, had been in the pipeline since October (MEES, 20 October 2017). The issue consists of three tranches: \$1.25bn of five-year paper with a yield of 5.58%; \$1.25bn of 10-year paper at 6.59%; and \$1.5bn of 30-year note at 7.9%.

Cairo plans a €1-1.5bn bond issue in April, denominated in Euros, Finance Minister Amr al-Garhy says.

Pricing is seen as favorable for Egypt in the wake of recent fluctuations in the global stock markets and the rise in US interest rates, according to Ahmad Kajuk, Deputy Finance Minister.

Egypt raised \$7bn from the international debt market last year: \$3bn in May from three-tranche bond with pricing very close to the latest issue: 5.45% (5-yr), 6.65% (10-yr), and 7.95% (30-yr); and \$4bn in January (MEES, 26 May 2017).

Mr Garhy says oversubscription of the latest issue shows a strong market appetite for Egyptian debt from investors in the US, Europe, Asia and the Middle East as the economy's health continues to improve with the IMF-supported reforms. Proceeds from the issue will be used to boost Egypt's foreign exchange reserves and finance the fiscal deficit for the current 2017-18 financial year which ends in June, he says.

Egypt's foreign reserves hit a new record high of \$38.2bn at end-January.

The budget deficit is on track to be 9.2% of GDP for the current financial year, according to IMF forecasts released last month. This is wider than the 9% deficit in the budget but a substantial improvement on 10.9% for 2016-17.

This deficit is also being partially covered from the \$12bn IMF loan to Egypt approved in August 2016. The IMF has already disbursed \$4bn of this loan in two tranches and has greenlighted the third \$2bn tranche after completing the second review of Cairo's economic reform program in December.

The outlook for Egypt's economy is looking brighter with foreign reserves reaching an all-time high of \$38.2bn at the end of January and a rebound in tourism and Suez Canal revenue (MEES, 19 January).

The ministry says in its Mid-Year Review of 2017-18 that it is targeting a fall in public debt from 109% of GDP in 2016-17 to around 80-85% of GDP by 2020-21.

Egypt is rated B- with a positive outlook by S&P and B positive by Fitch. ♦♦





Iraq Reconstruction Donors Pledge \$30bn

This week's summit in Kuwait clarified the dire state of Iraqi infrastructure given IS damage and years of underinvestment. Even falling \$58bn short of its requested \$88bn, Baghdad finds itself with access to substantial sums. Is it all good news?

Iraq's high-profile donor conference in Kuwait this week in many ways posed more questions than it answered. All told the conference raised \$30bn, a figure given by Kuwaiti officials, which will go toward Baghdad's planned \$88bn project pipeline.

The sums pledged consisted of a hotchpotch of grants, investments, export credits, and other financial instruments – making the \$30bn figure difficult to verify and its actual allocation unclear. Moreover, such pledges often never materialize. Of the \$88bn requested, \$47bn was for projects directly related to Islamic State damage, with the remaining \$41bn to address investment shortfalls.

Iraq says \$22.85bn is needed for projects over the next 12 months, and with northern Iraq in ruins, the recovery effort itself will require heavy lifting. Iraqi officials, at least publicly, appeared underwhelmed in receiving pledges for only 34% of requested funds. Foreign Minister Ibrahim al-Ja'fari told AFP "We were hoping for more. We are not disappointed, but the amount was less than expected." But if Baghdad genuinely expected \$88bn from the international community, disappointment was inevitable.

Iraqi Prime Minister Haidar al-Abadi will seek to capitalize on the event ahead of May's elections, pointing to the revenue boost as proof of Iraq's improved foreign relations. Opponents meanwhile will point out that the bulk of the finances raised were loans, which if they even materialize will add to Iraq's debt, which hit 67% of GDP as of end-2016. Moreover, Turkey's position as the largest backer, at \$5bn, could prove toxic with Mr Abadi's Shia base given Ankara's support for Kurdish and Sunni political groups.

WAR SCARS REVEALED

Mr Abadi claimed in early 2017 that Islamic State damage totaled \$35bn (MEES, 10 March 2017), but the destructive operation to liberate Mosul and the surrounding Nineveh province more than doubled that figure. Iraq's immediate priorities lie in the social sectors (housing, health, social protections, etc.), as revealed ahead of the conference.

Analysis of Baghdad's report itemizing reconstruction needs show 39% is slated for spending on the social sectors, with over 50% of that dedicated to housing alone. Some 43% of housing damage occurred in Nineveh, while damage in Anbar and Salahuddin provinces each accounted for about 20%. These three provinces need the bulk of spending in other sectors as well.

The report also shows that Iraq is prioritizing frontloading investment: 30% of the total is slated for immediate relief over the next year and the other 70% on the medium term (defined at 2-5 years). Iraq's productive sectors are to be developed over the medium term, whereas infrastructure and the social sector need immediate investment.

Baghdad will also look to spend \$9bn on its power generation infrastructure with half of that within 12 months – a crucial measure to reduce Iraq's perennial electricity woes. Five power plants, all in Iraq's north, are earmarked for rehabilitation with a total refurbished and added power generation capacity of 6.1 GW. With 2017 peak load generation around 15 GW, the project would provide a substantial boost, but completing projects in a timely matter is not proved to be Baghdad's strong suit.

Two of the five power plants to be restored are located at Baiji, where Iraq also plans to rehabilitate the 310,000 b/d refinery (see p8).

THE LAY OF THE LAND

In practice, the stipulations tied to each individual investment will limit how Baghdad can spend the money. Turkey made headlines as the top "donor" with a \$5bn credit line, while Reuters reports about \$5.5 in private sector investments. Adding together the various sums, the \$30bn figure still looks optimistic, and may include pledges made before the conference including \$4.7bn from the World Bank.

If Iraq wishes to bridge the \$58bn gap, its already grim 2018 economic outlook won't make matters any easier. Its draft budget, albeit based on \$50/B, projects a \$9.9bn deficit, and that includes

IRAQ'S PRIORITIZED SPENDING NEEDS (\$BN)

	Yr1	Yr2-5	Total	% of total
Social Sectors	9.21	25.25	34.45	39.0
Housing	4.99	12.45	17.44	19.8
Health	0.87	3.49	4.37	4.9
Education	0.91	3.65	4.56	5.2
Social Protection	1.64	4.73	6.37	7.2
Heritage & Tourism	0.79	0.92	1.72	1.9
Productive Sectors	4.26	19.18	23.43	26.6
Agriculture	1.02	2.38	3.39	3.8
Water Resources	0.14	0.06	0.21	0.2
Industry & Commerce	2.12	8.46	10.58	12.0
Finance & Markets	0.98	8.27	9.25	10.5
Infrastructure	8.41	15.08	23.49	26.6
Power	4.56	4.56	9.11	10.3
Oil & Gas	0.74	6.47	7.21	8.2
ICT	0.21	0.43	0.64	0.7
Transport	1.19	2.77	3.96	4.5
Water & Sanitation	1.71	0.73	2.44	2.8
Municipal services	0.01	0.11	0.13	0.1
Cross-cutting Sectors	0.98	5.89	6.87	7.8
Governance	0.96	0.41	1.37	1.6
Environment	0.02	5.48	5.50	6.2
TOTAL	22.85	65.40	88.25	

SOURCE: IRAQ RECONSTRUCTION AND INVESTMENT.

a 5% real-terms cut to capital spending (MEES, 17 November 2017). Total capex is set for \$23.4bn in 2018, though the amount allocated toward reconstruction in Iraq's north is unclear.

ARABS VIE WITH IRAN

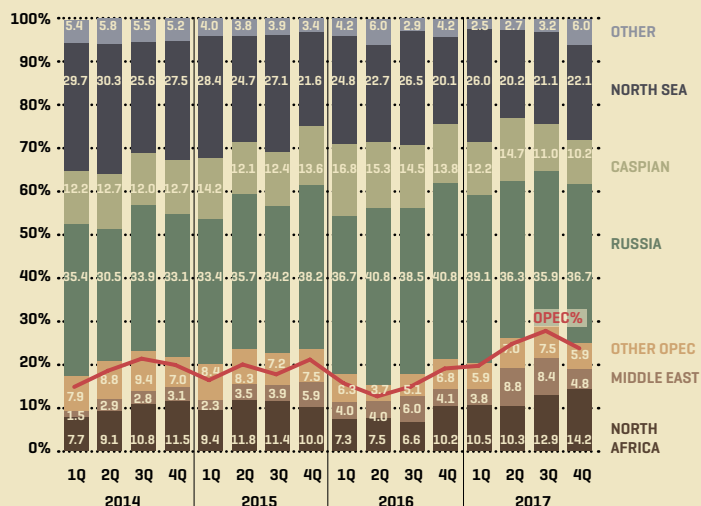
The conference also provided Saudi Arabia and its fellow GCC countries with an opportunity to improve relations with Iraq and further wean Baghdad away from Tehran – a clear prerogative for Riyadh (MEES, 8 December 2017). But when it came time to write the checks, Iraq's Arab brethren were cautious. Saudi Arabia provided \$1.5bn, Kuwait committed \$2bn, and the UAE committed \$500mn – putting total investments from the Gulf around \$5bn (including \$1bn from Qatar). Further investments may follow now that Iraq has provided a clear list of projects. ♦♦

GERMANY CRUDE IMPORTS ('000 B/D): RESURGENT LIBYA, IRAQ [KRG], IRAN BOOST MENA SHARE TO RECORD 20% IN 2H17

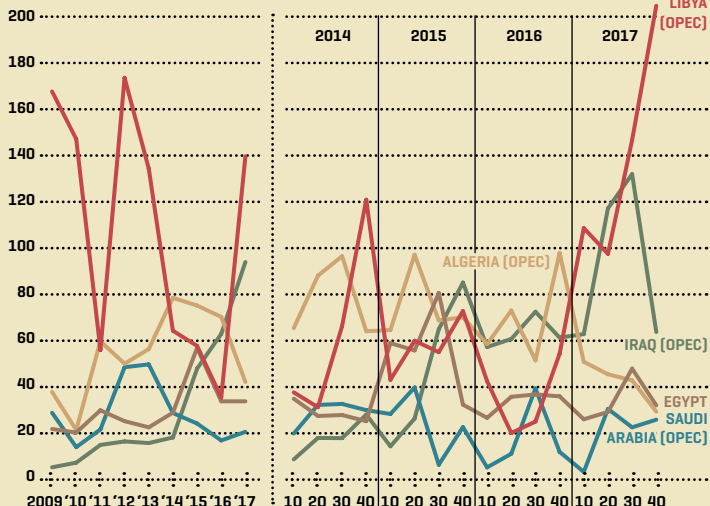
	vs 2016						vs 3Q17				vs 4Q16						
	2017	%		2016	2015	2014	4Q17	%		%	3Q17	2Q17	1Q17	Oct17	Nov17	Dec17	
Middle East	118.6	+35.1	+42.1	83.4	75.6	46.7	91.6	-64.2	-41.2	+15.5	+20.3	155.8	154.1	68.0	129.2	71.1	73.8
*% of total	6.7	+2.2		4.5	4.1	2.6	4.8	-3.6		+0.8		8.4	8.8	3.8	6.9	3.7	3.9
Saudi Arabia [Opec]	20.4	+3.6	+21.3	16.8	23.9	28.3	25.5	+3.2	+14.2	+13.5	+112.6	22.3	30.0	3.6	20.7	38.7	17.4
Iraq [Opec]	93.6	+30.8	+49.0	62.8	47.9	18.4	63.6	-67.6	-51.5	+2.5	+4.0	131.3	116.6	62.7	107.8	30.2	51.9
Iran [Opec]	15.8	+15.8	-	0.0	0.0	0.0	8.3	-15.8	-65.6	+8.3	-	24.1	9.8	21.4	7.7	17.5	0.0
Kuwait [Opec]	3.5	-0.3	-7.1	3.8	3.8	0.0	2.4	+0.2	+10.7	-0.5	-16.2	2.2	7.5	1.8	0.7	2.2	4.5
North Africa	218.9	+73.6	+50.7	145.3	197.7	177.8	268.6	+31.5	+13.3	+79.9	+42.3	237.1	180.1	188.7	315.9	221.3	267.2
Libya [Opec]	139.6	+103.8	+289.8	35.8	58.0	64.5	204.4	+57.8	+39.5	+149.9	+274.7	146.6	97.6	108.7	223.5	178.1	210.9
Egypt	33.9	+0.0	+0.1	33.9	56.5	29.1	32.2	-15.4	-32.4	-3.8	-10.5	47.7	29.4	26.3	41.4	20.4	34.5
Algeria [Opec]	42.2	-27.7	-39.7	69.9	74.7	78.0	29.6	-13.3	-31.1	-67.6	-69.6	42.9	45.5	50.8	44.6	22.0	21.8
Tunisia	3.2	-2.5	-43.5	5.7	8.5	6.2	2.4	+2.4	-	+1.4	+130.8	0.0	7.6	2.9	6.4	0.7	0.0
Angola [Opec]	4.1	-9.3	-69.5	13.4	6.8	5.0	0.0	-10.7	-100.0	-18.8	-100.0	10.7	4.7	0.8	0.0	0.0	0.0
Nigeria [Opec]	99.8	+22.7	+29.4	77.1	135.8	144.5	97.4	-10.8	-10.0	+12.6	+14.8	108.2	107.8	85.5	99.4	127.0	66.7
Venezuela [Opec]	12.6	+4.8	+60.7	7.8	2.1	0.2	5.4	-14.3	-72.6	-3.7	-40.3	19.8	11.1	14.2	0.0	5.1	11.1
Eq Guinea [Opec]	3.6	-2.5	-40.6	6.0	3.2	0.0	8.7	+8.7	-	-5.1	-36.8	0.0	0.0	5.6	0.0	13.3	12.9
Opec Total	435.2	+141.7	+48.3	293.5	356.3	338.9	445.4	-62.7	-12.3	+91.1	+25.7	508.0	430.6	355.1	504.5	434.1	397.1
*% of total	23.7	+7.7		16.0	19.3	18.7	23.6	-4.0		+4.5		27.5	24.6	19.7	26.9	22.8	21.1
FSU	891.4	-108.6	-10.9	1,000.0	895.5	827.6	886.7	+22.4	+2.6	-128.9	-12.7	864.3	894.1	923.8	869.8	949.9	842.3
Russia	673.1	-48.9	-6.8	721.9	654.2	603.0	693.6	+32.2	+4.9	-65.6	-8.6	661.4	635.9	704.6	721.4	713.0	646.9
*% of total	37.9	-1.1		39.0	35.4	33.2	36.7	+2.6		-4.1		34.1	36.1	39.1	38.4	37.4	34.4
Kazakhstan	168.5	-5.6	-3.2	174.2	133.3	140.7	153.0	-9.0	-5.5	-16.8	-9.9	162.0	200.6	158.5	135.7	169.5	154.3
Azerbaijan	49.8	-54.1	-52.1	103.9	107.9	83.9	40.1	-0.8	-2.0	-46.6	-53.7	40.9	57.6	60.8	12.7	67.4	41.1
North Sea	405.1	-21.9	-5.1	427.0	477.7	512.4	416.8	+28.4	+7.3	+43.5	+11.6	388.4	353.8	468.3	395.6	416.3	438.7
Norway	209.7	-15.8	-7.0	225.6	253.5	309.1	249.3	+69.3	+38.5	+33.2	+15.4	180.0	163.5	252.5	223.6	283.8	241.6
UK	173.9	-11.1	-6.0	185.1	202.3	197.7	146.5	-35.2	-19.4	-0.7	-0.5	181.6	166.3	201.9	135.2	118.0	185.3
Denmark	12.4	+2.3	+22.2	10.2	14.4	5.5	11.5	-6.0	-34.3	+7.1	+163.0	17.4	17.2	3.5	28.5	4.5	1.2
Netherlands	9.0	+2.8	+44.7	6.3	7.4	0.0	9.6	+0.2	+2.6	+3.9	+68.6	9.4	6.8	10.5	8.2	10.0	10.6
Mexico	6.6	-9.7	-59.5	16.2	11.2	0.0	9.5	+9.5	-	-11.2	-54.0	0.0	0.0	16.9	14.8	0.0	13.5
USA	17.4	+5.3	+43.2	12.2	2.3	0.0	44.5	+38.5	+635.5	+35.6	+399.1	6.1	12.3	6.5	31.7	27.6	73.8
other	43.1	-20.2	-31.9	63.3	41.0	99.5	59.3	+5.4	+10.1	+10.8	+22.4	53.9	35.7	22.5	21.5	76.5	80.4
TOTAL	1,778	-73.8	-4.0	1,852	1,849	1,814	1,889	+44.3	+2.4	+30.1	+1.6	1,844	1,754	1,801	1,878	1,908	1,880
Mena	337.5	+108.8	+47.5	228.7	273.4	224.5	360.2	-32.7	-8.3	+95.3	+36.0	392.9	334.1	256.8	445.1	292.4	340.9
*% of total	19.0	+6.6	+53.7	12.4	14.8	12.4	19.1	-2.2	-10.5	+4.8	+33.8	21.3	19.1	14.3	23.7	15.3	18.1

*CHANGE EXPRESSED IN PERCENTAGE POINT TERMS. SOURCE: BAFA, MEES CALCULATIONS.

GERMAN CRUDE IMPORTS (%): MENA, OPEC SHARE AT RECORD HIGH...



...AS LIBYA VOLUMES HIT 5-YEAR HIGH (TOP MENA SUPPLIERS, '000 B/D)



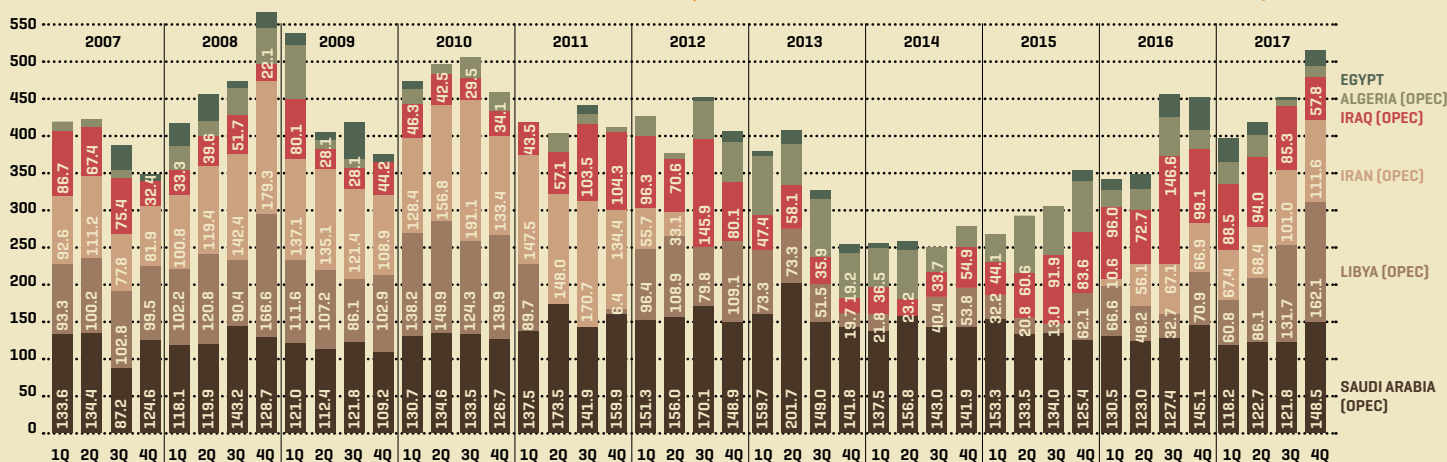
SPAIN 2017 CRUDE IMPORTS ('000 B/D): STRONG IRAN AND LIBYA RECOVERY RAISES MIDEAST VOLUMES TO 6-YEAR HIGH

	vs 2016					vs 3Q17					vs 4Q16					Oct17	Nov17	Dec17
	2017		%	2016	2015	2014	4Q17		%		%	3Q17	2Q17	1Q17	4Q16			
Middle East	296.2	+9.4	+3.3	286.8	206.0	182.2	317.9	+9.7	+3.2	+6.8	+2.2	308.2	285.1	274.2	311.1	352.1	338.8	262.7
*% of total	22.5	+0.1		22.4	15.9	15.4	24.7	+2.8		+1.2		21.8	22.9	20.7	23.5	27.2	23.9	22.8
Saudi Arabia (Opec)	127.6	-3.8	-2.9	131.4	136.2	144.8	148.5	+26.7	+21.9	+3.4	+2.3	121.8	122.7	118.2	145.1	183.0	166.0	96.5
Iran (Opec)	87.4	+37.4	+74.9	50.0	0.0	0.0	111.6	+10.6	+10.5	+44.7	+66.8	101.0	68.4	67.4	66.9	100.5	102.4	131.7
Iraq (Opec)	81.2	-22.5	-21.7	103.7	69.8	37.4	57.8	-27.5	-32.2	-41.3	-41.7	85.3	94.0	88.5	99.1	68.6	70.4	34.4
North Africa	150.0	+35.5	+31.0	114.5	99.8	81.1	198.2	+53.0	+36.5	+56.1	+39.5	145.2	133.4	123.0	142.1	133.1	219.7	241.6
Libya (Opec)	110.2	+55.8	+102.5	54.4	32.4	28.8	162.1	+30.4	+23.1	+91.2	+128.8	131.7	86.1	60.8	70.9	118.2	182.0	186.2
Algeria (Opec)	20.7	-11.9	-36.6	32.6	63.1	44.8	14.1	+5.6	+66.8	-11.9	-45.7	8.5	30.2	30.2	26.0	0.0	22.0	20.3
Egypt	19.1	-8.4	-30.4	27.5	3.9	4.7	21.9	+17.0	+340.3	-23.3	-51.5	5.0	17.1	32.0	45.3	15.0	15.7	35.2
Mena total	446.2	+44.9	+11.2	401.4	305.8	263.3	516.0	+62.7	+13.8	+62.8	+13.9	453.3	418.5	397.2	453.2	485.2	558.5	504.3
*% of total	33.9	+2.5		31.4	23.6	22.3	40.0	+7.9		+5.8		32.1	33.6	30.0	34.2	37.5	39.3	43.7
Africa (sub-Saharan)	284.5	-9.8	-3.3	294.3	408.5	358.5	211.9	-177.8	-45.6	-73.7	-25.8	389.7	250.5	286.3	285.6	217.2	228.6	190.0
Nigeria (Opec)	192.4	+28.2	+17.2	164.2	219.7	201.0	170.9	-51.9	-23.3	+25.2	+17.3	222.9	184.6	191.0	145.7	157.5	165.2	190.0
Angola (Opec)	51.2	-8.0	-13.5	59.2	118.2	104.8	31.4	-64.5	-67.3	-9.9	-24.1	95.9	33.3	45.5	41.3	30.9	63.3	0.0
Eq. Guinea (Opec)	11.2	-22.4	-66.7	33.5	30.2	8.2	0.0	-11.2	-100.0	-55.8	-100.0	11.2	22.2	11.0	55.8	0.0	0.0	0.0
Gabon (Opec)	4.2	-3.8	-47.6	8.0	19.6	12.9	0.0	-10.4	-100.0	-10.8	-100.0	10.4	0.0	6.1	10.8	0.0	0.0	0.0
other Africa	25.5	-3.8	-13.1	29.4	20.8	31.6	9.6	-39.6	-80.5	-22.4	-70.0	49.2	10.4	32.7	32.0	28.8	0.0	0.0
Russia/Caspian	155.7	-38.0	-19.6	193.7	164.1	172.2	163.3	+15.8	+10.7	+13.3	+8.8	147.5	165.6	148.6	150.0	100.5	226.5	162.9
Kazakhstan	91.7	+32.7	+55.3	59.1	60.6	55.6	90.4	-9.7	-9.7	+43.3	+92.0	100.1	99.1	77.7	47.1	100.5	76.8	93.9
Russia	44.9	-56.7	-55.8	101.6	80.3	91.5	46.6	+13.1	+38.9	-41.6	-47.1	33.6	51.7	49.7	88.2	0.0	92.6	47.3
Azerbaijan	19.1	-13.9	-42.2	33.0	23.1	25.1	26.3	+12.4	+89.4	+11.5	+78.2	13.9	14.7	21.1	14.7	0.0	57.1	21.8
North Sea	85.1	+29.8	+53.8	55.4	64.0	51.5	67.8	-2.8	-3.9	-13.2	-16.3	70.6	88.5	113.1	81.0	69.9	17.8	115.7
Norway	53.7	+34.7	+182.2	19.0	27.5	23.9	48.8	+4.6	+10.4	+41.3	+549.4	44.2	56.0	65.9	7.5	32.4	17.8	96.1
UK	31.5	-4.9	-13.4	36.3	36.5	27.6	19.1	-7.4	-27.9	-54.5	-74.1	26.5	32.5	47.2	73.5	37.6	0.0	19.6
other Europe	12.7	+3.8	+42.9	8.9	9.0	7.2	10.7	-2.6	-19.4	-0.2	-1.8	13.3	19.2	7.6	10.9	9.2	9.3	13.7
Americas	332.9	+6.4	+1.9	326.5	343.4	329.4	319.4	-17.4	-5.2	-24.2	-7.0	336.8	303.4	371.9	343.6	412.8	379.2	166.4
Mexico	183.6	+8.1	+4.6	175.6	169.4	163.2	183.7	+12.2	+7.1	-18.1	-9.0	171.5	175.4	205.7	201.8	267.6	178.2	105.3
Brazil	82.1	+25.9	+46.0	56.3	37.9	22.8	81.8	-12.3	-13.1	+42.9	+110.5	94.2	100.2	51.1	38.9	77.4	134.1	33.9
Venezuela (Opec)	20.2	-1.3	-6.0	21.5	61.4	56.1	9.1	-18.3	-66.9	-18.7	-67.4	27.3	4.9	39.1	27.8	20.8	6.3	0.0
Colombia	19.1	-34.8	-64.6	53.9	63.3	80.4	0.0	-24.1	-100.0	-47.6	-100.0	24.1	15.5	37.1	47.6	0.0	0.0	0.0
Canada	18.7	+10.0	+113.9	8.8	11.4	4.9	26.7	+7.0	+35.3	+5.9	+28.7	19.7	0.0	27.5	20.7	33.6	39.3	7.1
USA	8.1	-2.4	-23.0	10.6	0.0	0.0	18.2	+18.2	-	+11.4	+169.3	0.0	7.4	7.5	6.8	13.4	21.2	20.1
TOTAL	1,317	+37.1	+2.9	1,280	1,295	1,182	1,289	-122.0	-8.6	-35.2	-2.7	1,411	1,246	1,325	1,324	1,295	1,420	1,153
of which Opec	706.2	+46.0	+7.0	660.3	750.5	640.8	705.5	-110.7	-13.6	+16.2	+2.3	816.2	646.4	657.8	689.3	679.5	777.7	659.2
*Opec %	53.6	+2.0		51.6	58.0	54.2	54.7	-3.1		+2.7		57.8	51.9	49.7	52.0	52.5	54.8	57.2

*CHANGE EXPRESSED IN PERCENTAGE POINT TERMS.

SPAIN CRUDE IMPORTS FROM MENA COUNTRIES: LIBYA VOLUMES HIT 14-YEAR HIGH IN Q4, OVERTAKING SAUDI FOR TOP SPOT; IRAN HIGHEST SINCE 2011 ('000 B/D)

SOURCE: CORES, MEES.



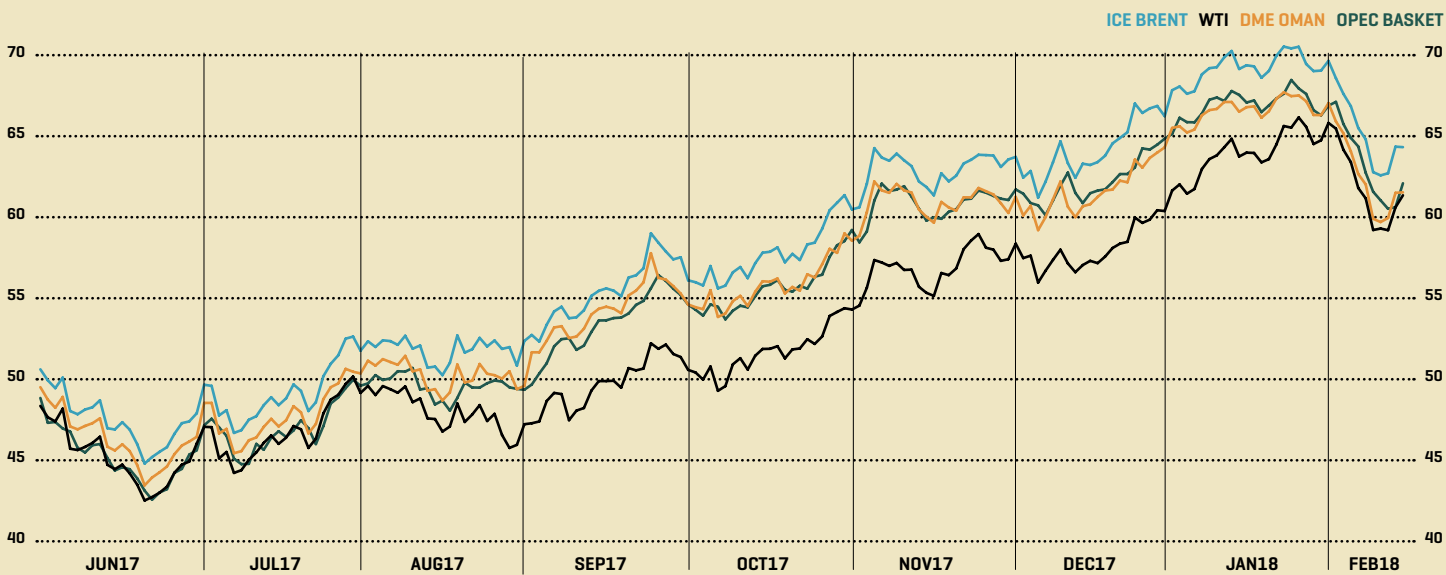
CRUDE OFFICIAL SELLING PRICES (\$/B):

	Jan17	Feb17	Mar17	Apr17	May17	Jun17	Jul17	Aug17	Sep17	Oct17	Nov17	Dec17	Jan18	Feb18	Mar18
SAUDI ARABIA												*VS ICE BRENT FROM JULY 2017 PREVIOUSLY VS BWAVE.			
to Asia (FOB Ras Tanura, vs Oman/Dubai average)															
Arab Super Light (>40°)	+3.05	+3.45	+4.45	+3.95	+3.75	+3.05	+3.40	+2.50	+3.30	+4.00	+4.10	+4.55	+5.75	+5.95	+6.10
Arab Extra Light (36-40°)	+0.65	+1.10	+1.70	+0.95	+0.60	+0.00	+0.40	+0.00	+0.60	+1.40	+1.80	+2.45	+3.05	+3.15	+3.25
Arab Light (32-36°)	-0.75	-0.15	+0.15	-0.15	-0.45	-0.85	-0.25	-0.45	-0.25	+0.30	+0.60	+1.25	+1.65	+1.65	+1.65
Arab Medium (29-32°)	-1.40	-0.90	-0.55	-0.85	-0.85	-1.30	-0.65	-0.90	-0.90	-0.55	-0.65	+0.00	+0.25	+0.05	-0.20
Arab Heavy (<29°)	-3.30	-2.80	-2.60	-2.60	-2.60	-2.80	-1.85	-1.75	-1.95	-1.65	-1.80	-1.15	-1.05	-1.25	-1.55
to Northwest Europe (FOB Ras Tanura, vs ICE Brent)*															
Arab Extra Light (36-40°)	-2.40	-2.90	-1.55	-2.15	-2.85	-2.35	-2.15	-1.90	-1.10	-0.45	-0.85	+0.00	+0.55	+0.65	+0.45
Arab Light (32-36°)	-4.20	-4.70	-3.45	-3.90	-4.35	-3.45	-3.10	-2.55	-2.05	-2.15	-2.70	-1.80	-1.20	-1.20	-1.75
Arab Medium (29-32°)	-5.10	-5.70	-4.55	-5.00	-5.40	-4.55	-4.10	-3.40	-3.00	-3.10	-3.95	-3.15	-2.70	-2.55	-3.35
Arab Heavy (<29°)	-6.70	-7.25	-6.05	-6.55	-7.05	-6.10	-5.40	-4.40	-4.10	-4.40	-5.60	-4.85	-4.45	-4.20	-5.35
to Mediterranean (FOB Ras Tanura, vs ICE Brent)*															
Arab Extra Light (36-40°)	-2.00	-2.55	-1.30	-1.70	-2.75	-2.15	-2.55	-2.35	-1.35	-0.40	-0.10	+0.50	+0.75	+1.15	-0.15
Arab Light (32-36°)	-4.10	-4.55	-3.55	-3.65	-4.35	-3.45	-3.45	-3.00	-2.40	-2.10	-1.90	-1.35	-1.25	-0.95	-2.35
Arab Medium (29-32°)	-5.10	-5.50	-4.50	-4.50	-5.15	-4.25	-4.25	-3.80	-3.40	-3.20	-3.30	-2.70	-2.70	-2.35	-3.85
Arab Heavy (<29°)	-6.70	-6.90	-5.90	-5.75	-6.25	-5.30	-5.00	-4.30	-4.20	-4.15	-4.35	-3.75	-3.75	-3.40	-5.10
FOB Sidi Kerir (vs ICE Brent)*															
Arab Extra Light (36-40°)	-1.45	-2.15	-0.90	-1.15	-2.20	-1.65	-2.00	-1.75	-0.70	+0.15	+0.50	+1.10	+1.25	+1.70	+0.45
Arab Light (32-36°)	-3.55	-4.15	-3.15	-3.10	-3.80	-2.95	-2.90	-2.40	-1.75	-1.55	-1.30	-0.75	-0.75	-0.40	-1.75
Arab Medium (29-32°)	-4.55	-5.10	-4.10	-3.95	-4.60	-3.75	-3.70	-3.20	-2.75	-2.65	-2.70	-2.10	-2.20	-1.80	-3.25
Arab Heavy (<29°)	-6.15	-6.50	-5.50	-5.20	-5.70	-4.80	-4.45	-3.70	-3.55	-3.60	-3.75	-3.15	-3.25	-2.85	-4.50
to US (FOB Ras Tanura, vs ASCI)															
Arab Extra Light (36-40°)	+1.90	+2.10	+2.40	+2.10	+2.70	+2.90	+3.00	+2.90	+2.80	+3.30	+3.50	+3.20	+2.90	+2.60	+3.10
Arab Light (32-36°)	+0.05	+0.25	+0.40	+0.20	+0.50	+0.60	+1.10	+1.10	+1.20	+1.30	+1.10	+1.20	+1.00	+0.90	+0.90
Arab Medium (29-32°)	-1.15	-1.15	-0.90	-1.00	-0.70	-0.60	-0.10	-0.10	+0.00	+0.00	-0.30	-0.30	-0.50	-0.60	-0.70
Arab Heavy (<29°)	-2.35	-2.35	-2.20	-2.30	-2.00	-1.90	-1.60	-1.60	-1.50	-1.30	-1.65	-1.55	-1.75	-1.85	-1.95
delivered US Gulf (vs ASCI)															
Arab Light (32-36°)	+1.40	+1.60	+1.75	+1.55	+1.85	+1.95	+2.45	+2.45	+2.55	+2.65	+2.45	+2.55	+2.35	+2.25	+2.25
Arab Medium (29-32°)	+0.20	+0.20	+0.45	+0.35	+0.65	+0.75	+1.25	+1.25	+1.35	+1.35	+1.05	+1.05	+0.85	+0.75	+0.65
Arab Heavy (<29°)	-1.00	-1.00	-0.85	-0.95	-0.65	-0.55	-0.25	-0.25	-0.15	+0.05	-0.30	-0.20	-0.40	-0.50	-0.60
IRAN															
to Asia (FOB Kharg Island, vs Oman/Dubai average)															
Iranian Light (33-34°)	-0.55	+0.05	+0.35	+0.10	-0.20	-0.60	+0.02	-0.18	+0.02	+0.50	+0.80	+1.40	+1.85	+1.80	+1.80
vs Saudi Arab Light	+0.20	+0.20	+0.20	+0.25	+0.25	+0.25	+0.27	+0.27	+0.27	+0.27	+0.20	+0.15	+0.20	+0.15	+0.15
Iranian Heavy (30-31°)	-1.69	-1.19	-0.84	-1.10	-1.10	-1.55	-0.92	-1.17	-1.17	-0.99	-1.09	-0.49	-0.24	-0.50	-0.75
vs Saudi Arab Medium	-0.29	-0.29	-0.29	-0.25	-0.25	-0.25	-0.27	-0.27	-0.27	-0.44	-0.44	-0.49	-0.49	-0.55	-0.55
Foroozan (31°)	-1.49	-0.99	-0.64	-0.90	-0.90	-1.35	-0.72	-0.97	-0.97	-0.74	-0.84	-0.24	+0.01	-0.25	-0.45
Soroosh (18.6°) (vs Iranian Heavy)	-5.56	-5.56	-5.91	-5.50	-5.50	-5.25	-4.80	-4.40	-5.75	-5.45	-5.50	-4.85	-4.85	-5.05	-5.35
to Northwest Europe/South Africa (FOB Kharg Island, vs BWAVE)															
Iranian Light (33-34°)	-4.30	-4.75	-3.50	-3.90	-4.30	-3.45	-3.10	-2.55	-2.05	-2.30	-2.65	-1.75	-1.25	-1.35	-2.25
Iranian Heavy (30.7°)	-6.00	-6.55	-5.40	-5.80	-6.15	-5.40	-5.05	-4.35	-3.95	-4.20	-4.80	-3.95	-3.65	-3.65	-4.80
Foroozan (31°)	-5.80	-6.35	-5.20	-5.60	-5.95	-5.20	-4.85	-4.15	-3.75	-3.95	-4.55	-3.70	-3.40	-3.40	-4.50
to Mediterranean (FOB Kharg Island, vs BWAVE)															
Iranian Light (33-34°)	-5.10	-5.55	-4.55	-4.60	-5.25	-4.35	-4.30	-3.85	-3.15	-2.95	-2.75	-2.20	-2.20	-1.95	-3.50
Iranian Heavy (30-31°)	-6.90	-7.35	-6.40	-6.35	-7.00	-6.25	-6.15	-5.70	-5.20	-5.10	-5.10	-4.50	-4.60	-4.35	-6.00
Foroozan (31°)	-6.70	-7.12	-6.20	-6.15	-6.80	-6.05	-5.95	-5.50	-5.00	-4.85	-4.85	-4.25	-4.35	-4.10	-5.70
Soroosh (18.6°)	-10.70	-10.90	-9.90	-9.75	-10.25	-9.30	-9.00	-8.35	-8.20	-8.10	-8.15	-7.40	-7.30	-7.10	-9.10
FOB Sidi Kerir (vs BWAVE)															
Iranian Light (33-34°)	-3.10	-3.70	-2.70	-2.70	-3.40	-2.55	-2.50	-2.00	-1.25	-1.05	-0.90	-0.35	-0.40	-0.25	-1.80
Iranian Heavy (30-31°)	-4.90	-5.50	-4.55	-4.45	-5.15	-4.45	-4.35	-3.85	-3.30	-3.20	-3.25	-2.65	-2.80	-2.65	-4.30
Foroozan (31°)	-4.70	-5.30	-4.35	-4.25	-4.95	-4.25	-4.15	-3.65	-3.10	-2.95	-3.00	-2.40	-2.55	-2.40	-4.00

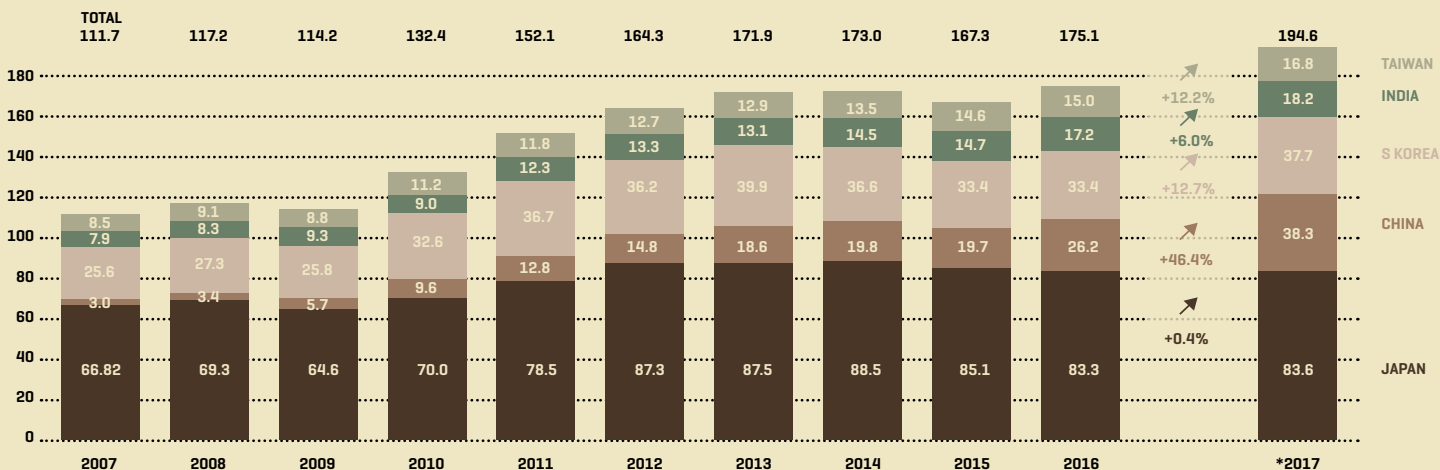
BENCHMARK CRUDE PRICES (\$/B)

	15Feb	5-9Feb	29Jan-2Feb	Jan18	Dec17	Q4 2017	Q3 2017	Q2 2017	2018 (>15Feb)	2017	2016	2015
WTI	61.34	61.94	65.21	63.72	57.95	55.37	48.16	48.18	63.12	50.88	43.43	48.83
ICE Brent	64.33	65.52	69.15	69.06	64.09	61.46	52.17	50.79	67.86	54.74	45.13	53.59
DME Oman	61.53	62.76	66.53	66.47	61.49	59.29	50.76	49.65	65.20	53.24	42.00	51.20
ICE Dubai	61.44	62.84	65.80	66.48	61.68	59.43	50.85	49.79	65.15	53.34	42.09	51.37
OPEC Basket	62.09	63.86	66.89	66.85	62.06	59.35	49.98	48.47	65.71	52.43	40.76	49.51
JCC	na	na	na	na	62.44	58.34	49.61	53.33	na	52.84	41.86	55.03

AVERAGE SETTLEMENT PRICES FOR PERIOD IN QUESTION.



THE TOP 5 GLOBAL LNG IMPORTERS, ALL IN ASIA, TOOK A RECORD 195MN T IN 2017, UP 11% ON 2016'S PREVIOUS RECORD, AS CHINA OVERTOOK KOREA AS #2 IMPORTER (MN T)



*ESTIMATES FOR TAIWAN AND INDIA BASED ON JAN-NOV AND JAN-OCT 2017 DATA. SOURCE: NATIONAL IMPORT STATISTICS, IGU, GIIGNL.

MEES EDITORIAL STAFF

Publisher:	Dr.Saleh S Jallad	sjallad@mees.com	Editors:	Waylon Fairbanks	wfairbanks@mees.com
Managing Director:	Fadi Aboualfa	faboualfa@mees.com		Melissa Hancock	mhancock@mees.com
Managing Editor:	James Cockayne	jcockayne@mees.com		Jamie Ingram	jingram@mees.com
Consultant:	Walid Khadduri	wkhadduri@mees.com		David Knott	dknott@mees.com
Production:	Ledha Socratous	lsocratous@mees.com		Richard Nield	rnield@mees.com
	Irene Stylianou	istylianou@mees.com		Fatima Sadouki	fsadouki@mees.com
Advisor:	Basim Itayim	bitayim@mees.com		Peter Stevenson	pstevenson@mees.com