

ENERGY INTELLIGENCE **FINANCE**[®]

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EDITOR'S NOTE

To ensure *Energy Intelligence Finance* readers have full use of graphics functionality, one-off graphics will no longer be included in PDF issues of EIF. Instead, each story that has accompanying graphics will include a link to an online version where graphics can be viewed in a more detailed and interactive format.

OUR TAKE

The Devil's in the Details

Hydrogen has garnered a lot of attention from oil and gas majors this month, particularly in the Asia-Pacific, but we would caution against getting too excited about announcements that make little or no mention of project costs, offtakers and final investment decisions. We do see large-scale projects making sense in countries with cheap and abundant wind and solar potential, in the case of green hydrogen, or very cheap gas feedstock, in the case of blue hydrogen, but think long-distance international trade of the fuel will come up against significant challenges.

- Big announcements don't necessarily mean big projects. BP's revelation that it is to become operator of the Asian Renewable Energy Hub (Areh) in the Pilbara region of Western Australia notably gave no cost estimate or time frame for development. Areh was previously billed as a US\$36 billion scheme by InterContinental Energy, which retains a 26.4% interest in the project.
- Costs need to come down. For green hydrogen to become more competitive, significant declines in the price of green electricity and electrolyzers — the crucial devices that split water into hydrogen and oxygen — are needed. TotalEnergies CEO Patrick Pouyanne said on a recent earnings call that to drive down green hydrogen prices, "you need to invest at a very large scale." He was not convinced the right incentives were fully in place in Europe.
- Total has chosen India for its latest big hydrogen investment. The French major was somewhat more specific in announcing its agreement to acquire a 25% stake in Adani New Industries Ltd. The Adani Enterprises subsidiary aims to produce 1 million tons of green hydrogen annually by 2030, underpinned by around 30 gigawatts of new renewable power generation capacity, and will initially invest around \$5 billion in a 2 GW electrolyzer. Manufacturers of electrolyzers, however, say they are getting orders for 20 megawatt devices rather than 2 GW ones.
- Direct electrification can't be beaten. BP estimates hydrogen could account for around 16% of global energy consumption by 2050, whereas the International Energy Agency's Net Zero Emissions scenario sees hydrogen and its derivatives claiming a 10% share by the same year. While hardly insignificant, such market shares will not make hydrogen the dominant fuel of the future. Current hydrogen demand is around 90 million tons annually, with most of it going into refineries and fertilizer plants.
- We see slow progress before 2030, with hydrogen applications in grid management and energy-intensive industrial processes such as steelmaking most likely to take off, along with limited usage in marine and heavy road transportation. We envisage hydrogen trade taking place on a domestic or regional level but expect long-distance shipping, such as between Australia and Japan, to be limited because of the immense engineering challenge that comes with transporting the molecules. Shipment of derivatives such as ammonia, methanol and urea is much more feasible.

EIF INDEX



PEER STRATEGY

East Med Gas Deal Puts IOCs on Alert

- *A memorandum of understanding agreed at the East Mediterranean Gas Forum in Cairo last week could help answer Europe's gas supply prayers.*
- *Israel's offshore is receiving unprecedented attention but there are concerns over policy stability after a number of recent U-turns.*
- *A long-overdue concept selection by Chevron on East Med LNG exports would reassure future investors over the region's potential to supply global gas markets.*

The Issue

A deal for Israel and Egypt to supply Europe with LNG is reigniting international oil company (IOC) interest in East Mediterranean gas as EU states look to wean themselves off Russian pipeline volumes. This could see the East Med receive an investment boost just as new bid rounds are under way or being prepared in Lebanon and Israel. The risk of conflict and political delays cannot be ignored, however, while Egypt's past diversions of gas feedstock from LNG plants to its domestic market still play on investors' minds.

Exploration Renaissance

The Egypt-Israel LNG supply deal is provisional with no volumes or prices mentioned but could lay the groundwork for more investment. Included is a clause in which the EU promises to encourage European companies to bid in competitive tenders and invest in exploration and production in Egypt and Israel.

Attracting European investment in Egypt's energy sector has not been a problem for Cairo since Eni's 30 trillion cubic foot Zohr gas discovery in 2015 triggered an exploration renaissance. BP, Shell and TotalEnergies joined Italy's Eni in Egypt's Nile Delta and deepwater, as did — at a later date — US majors Exxon Mobil and Chevron.

But in Israel, majors were noticeable by their absence until Chevron entered the country through its acquisition of Noble Energy in 2020. Some speculated a lack of participation by IOCs in Israel's first bid round in 2016-17 was down to fears they would be excluded from future opportunities in the Mideast Gulf. But the 2020 Abraham accords — which

secured diplomatic recognition for Israel in Gulf states Bahrain and the United Arab Emirates — have changed the political landscape.

Even Abu Dhabi's state-owned Mubadala now has acreage in Israel. An executive at Petronas — whose home country of Malaysia has yet to recognize Israel — believes the company and European IOCs may well consider Israel more seriously going forward, as well as perhaps Lebanon.

Political Risk Lingers

The IOCs may prove wary of political inconsistency in both those countries, however. Israel is preparing a fourth offshore licensing round, which — while in the IOCs' interests — does in fact represent a policy U-turn. Energy Minister Karine Elharrar, who signed off on the bid round, had previously insisted Israel would target renewables investments over gas to help meet net-zero emissions targets.

Furthermore, Israel's gas export policy, which was due to be revised to allow companies to ship more volumes overseas, was shelved earlier this year. The country had planned to hike its export quota from 40% to 60% to reduce the risk of fields becoming stranded assets. And one former IOC executive recalls Noble's years-long struggles in Israel to reach a final investment decision on the 22 Tcf Leviathan field, which faced both political and regulatory delays. Under domestic pressure, the current Israeli government is likely to limp on until elections in October, which could affect the bid round.

Lebanon's current dire economic situation and electricity crisis with frequent blackouts would make many IOCs think twice. Yet Total, Eni and Russia's Novatek still jointly hold offshore Blocks 4 and 9 there. They are yet to make a commercial discovery but still have well commitments to fulfill. The deadline for submissions in Lebanon's second offshore bid round was recently extended until December.

Bordering on a Solution

Amid this backdrop, the threat of an escalating conflict between Israel and Lebanese Shiite militant group Hezbollah should factor into IOC calculations. The US is currently mediating a solution to the disputed maritime border between Israel and Lebanon amid intensifying rhetoric.

Conflict has impacted regional gas projects previously. As a result of Israel's brief war with Palestinian Hamas in May 2021, Chevron's 11 Tcf Tamar field was forced to shut in production for 10 days. Any missile attack by Hezbollah could

potentially strike key gas infrastructure offshore or impact IOC production and revenues.

Despite this, the CEO of East Med-focused E&P Energean, Mathios Rigas, told Energy Intelligence that “anyone who invests [in Israel] knows and understands that his investment will receive the protection of the government ... I will myself fly to the Karish rig and I will sleep there. I feel very safe,” he said.

Energean’s floating production, storage and offloading (FPSO) vessel arrived at the Karish gas field, 90 kilometers off Israel’s coast, this month. Gas production targeting 630 million cubic feet per day is expected to start by the third quarter, destined for the Israeli market. Hezbollah had explicitly said it would prevent Israel extracting gas from Karish.

All Eyes on Chevron

Chevron’s selection of an export option for a Phase 2 monetization of Leviathan, potentially combined with development of the 4 Tcf Aphrodite field offshore Cyprus, is long overdue and would provide a level of reassurance as new investors consider East Med gas projects.

Joint development looks likely with a provisional state-to-state agreement already in place between Cyprus and Egypt to pipe Aphrodite gas to Egypt’s Shell-operated Idku LNG terminal for liquefaction. Floating LNG at Leviathan is another option that some industry sources in Egypt have argued would give Chevron more direct control over its production. Furthermore, the US major this week signed a preliminary agreement with Egyptian Natural Gas Holding Co. (Egas) to explore sending gas from offshore Mediterranean fields to Egypt for processing and export. Italy’s Eni, which operates Egypt’s Damietta LNG terminal, signed a similar deal with Egas in April looking to “maximize gas production and LNG exports ... to promote Egyptian gas export to Europe, and specifically to Italy.”

Under the Israel-Egypt deal with the EU, a plan will look at existing infrastructure and include the need to build and develop “new liquefaction plants.” A European Commission funded-study into a potential East Mediterranean Gas Pipeline is due to conclude this year but there are industry concerns over its commercial and technical viability. European financial institutions have previously favored the cost savings associated with using Egypt’s existing LNG plants.

For now, Israeli diplomats say Cyprus and Israel must resolve a boundary delineation dispute over the Aphrodite and smaller Ishai field that is holding up development. Chevron, Shell and Israeli partner Delek operate Aphrodite, while smaller Israeli firms manage Ishai.

Tom Pepper, London

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CORPORATE STRATEGY

Adnoc Readies for LNG Era in Fujairah

- *Changing domestic gas fortunes have enabled Abu Dhabi National Oil Co. (Adnoc) to push forward with plans to build an LNG export plant in Fujairah.*
- *Adnoc’s two ultra-low carbon intensity trains will make the United Arab Emirates the Mideast Gulf’s second-largest LNG exporter, ahead of Oman but far behind Qatar.*
- *The timely capacity addition will bolster Adnoc’s position as a supplier just as Russia’s invasion of Ukraine tightens the global LNG market.*

The Issue

Adnoc is moving swiftly with plans to build new gas liquefaction capacity in the emirate of Fujairah as it seeks to bolster its position as an LNG exporter at a time of market upheaval and rising global demand for the super-chilled fuel. The 9.6 million ton per year Fujairah project benefits from an advantageous position on the Gulf of Oman, outside the Iran-dominated Strait of Hormuz, and has potential to be among the world’s lowest-carbon LNG export facilities — a future hedge against the energy transition.

From Import to Export

A decade ago, plans were under way to build a major LNG import terminal in Fujairah to bring natural gas to the UAE in the face of tightening supplies. Come 2022 and the UAE’s gas fortunes have fundamentally changed. The LNG import plans have been dropped and Adnoc is pushing forward decisively with the implementation of its integrated gas strategy. This aims to make the UAE, which imports gas from Qatar via the Dolphin pipeline, become self-sufficient in gas by 2030 and transition into a net exporter.

The turnaround has been made possible by the start-up of the Barakah nuclear power complex in Abu Dhabi, increased renewables capacity, and the ongoing development of abundant domestic sour and unconventional gas resources, as well as of gas caps in oil fields such as Umm Shaif. Once Barakah is running at its full 5.6 gigawatt capacity across four reactors later this decade, it will meet as much as 25% of domestic power demand for 60 years and is expected to replace around 1 billion cubic feet per day of gas.

The additional gas resources becoming available have enabled Adnoc to plan two 4.8 million ton/yr LNG trains at Fujairah, on top of its existing 5.8 million tons/yr of liquefaction capacity on Das Island about 160 kilometers off the coast of Abu Dhabi. The Fujairah expansion would thus lift Adnoc’s LNG capacity to 15.4 million tons/yr, likely by around 2026. That would see the UAE move ahead of neighboring Oman, which has around 11 million

tons/yr, to take the No. 2 LNG producer spot in the region. It will still remain well below Qatar's liquefaction capacity of about 77 million tons/yr, which is in the process of being expanded to 126 million tons/yr in two phases until 2027.

The new Fujairah capacity will be developed by Das Island operator Adnoc LNG, established in 1973 as Adgas and 70% owned by Adnoc, with Mitsui & Co. on 15%, BP on 10% and TotalEnergies on 5%. McDermott was last month selected to carry out the project's front-end engineering and design (Feed), which will be followed by the award of engineering, procurement and construction work in 2023.

Low Cost, Low Carbon

The expansion might be smaller than Qatar's but it still has several things going for it. For both Adnoc and its international partners, the expected lower-cost and low-carbon production offers significant incentive as they navigate their way to net zero. Adnoc previously said Fujairah is set to become "one of the world's lowest carbon intensity LNG production facilities through incorporating new technologies and running on clean power."

Whether this will include carbon capture and storage technology, as is the case in Qatar, isn't known but seems likely. Last year, Adnoc awarded a contract to Technip Energies to update the Feed for its Ghasha sour gas project, in which Eni and other international firms are also partners, to integrate carbon capture technology. What is clear is that nuclear power is expected to provide low-carbon electricity for Fujairah LNG — as it does for Adnoc's onshore operations already.

The project is also extremely timely given rising global energy demand and market upheaval caused in large part by Russia's invasion of Ukraine, which has prompted Western states led by the EU to slash — with the goal to eventually stop — Russian gas imports. A dash by Europe to replace Russian pipeline gas and a volatile spot market with eye-watering prices have left buyers in Europe and Asia scrambling to secure long-term LNG supply deals.

Fujairah is the UAE's only emirate located on the Gulf of Oman and already serves as an oil export hub for Adnoc. The location outside the narrow, congested Strait of Hormuz — the world's most important energy chokepoint — will insulate the Fujairah LNG cargoes from ongoing geopolitical tensions in the region involving Iran and cut shipping times by several days.

Sales Strategy

The Fujairah project could drive another shift for Adnoc's LNG strategy, as it is sure to face stiff competition from rival LNG suppliers — including in the East Mediterranean and East Africa — in spite of projected demand growth.

The company is used to having to adapt to LNG trends, however. In late 2018, after its long-term sales agreement with Japan's Jera

expired, Adnoc responded to a vastly changed market environment that offered greater supply choices for customers by signing seven three-year deals, some of which had an option to be extended. Jera and commodity traders Trafigura, Gunvor, Glencore and EDF Trading were among those deals struck with at the time.

The sales strategy could change once again now that European customers have begun to eye long-term supply deals as they pivot away from Russia. Japan, too, may ultimately seek to secure more LNG outside Russia as part of its G7 pledge to phase out Russian energy imports, although for now it is keeping its LNG interests there unchanged.

Oliver Klaus, Dubai

[Click here for full story with graphics](#)

PEER STRATEGY

Tight Markets Buoy Majors' Strategic Divestment Plans

- *The majors remain committed to ongoing divestment programs despite mounting concerns around medium-term oil and gas supplies.*
- *Assets previously marked for sale broadly remain noncore as companies more selectively focus upstream and downstream footprints in response to the low-carbon energy transition.*
- *Higher prices will likely lend further support to these plans by boosting valuations and preserving cash flows from remaining assets.*

The Issue

The depths of the Covid-19 downturn in 2020 put the freeze on many divestment plans, but the majors' asset disposals have been back roaring over the past 18 months. Asset sales nearly doubled in 2021 compared to 2020 for the five leading Western majors, and while sales have slowed this year, negotiations remain supportive. The majors have been clear that long-term objectives to gradually — or in BP's case, aggressively — reduce oil and gas exposure and hunker around their lowest-cost, lowest-carbon upstream assets remain intact. Higher prices and the prospects of tight oil and gas markets this decade are therefore not cause for re-evaluation. Instead, more buyers and stronger valuations than previously expected may shake loose.

Targets in Sight

BP, Chevron, Exxon Mobil, Shell and TotalEnergies divested \$30.2 billion of assets last year, almost double the \$15.8 billion sold in 2020, company balance sheets show. Sales in the first quarter of 2022, however, were barely half year-earlier levels at \$4.9 billion.

The slowdown in part reflects the chaos that has gripped global oil and gas prices so far this year as the Russia-Ukraine crisis roils markets. “Sometimes a lower commodity price — but a stable commodity price — can actually be more conducive to transactions than a high price that’s perhaps only temporarily high,” notes Alex Msimang, partner in energy transactions and projects at law firm Vinson & Elkins.

That said, prices stabilizing around higher-than-expected levels should be additionally supportive for dealmaking into the remainder of the year and beyond, with buyers armed with fuller pockets and greater confidence in oil and gas’ returns prospects.

Shell leads the way in asset sales since the start of 2021, having divested almost \$16 billion. BP follows at \$8.8 billion. Both have clear targets. Shell said in February it would pursue divestments averaging \$4 billion per year on the road to net zero, easing from its bumper 2021 that included its \$9.5 billion sale of its Permian Basin assets to ConocoPhillips. BP is looking to divest \$25 billion of assets between second-half 2020 and 2025. Sales stood at \$14 billion at the end of the first quarter of this year, according to CFO Murray Auchincloss.

Chevron — which has trimmed the periphery of its massive Permian Basin position and sold assets in the US Eagle Ford this year — is working in a more modest range of \$1 billion-\$2 billion in annual divestments. French major Total declined to comment on its divestment targets, while Exxon has not clarified its wider goals. Reports in 2019 suggested \$25 billion of oil and gas asset sales by 2025, although Exxon has gone through several strategic iterations since. What is known is that the US major — which plans oil and gas output growth this decade — is actively divesting large portions of its North American dry gas portfolio following a historic \$19.3 billion write-down in late 2020. Its legacy assets in the Texas Barnett Shale were sold last month as part of that effort, which aims to significantly improve Exxon’s upstream returns profile globally.

Upstream Retrenchment

All but 12 of the group’s 78 announced divestments tracked by analytics firm Enverus since the start of 2021 came from the upstream (downstream counted 10, midstream one and LNG one). Most upstream sales were of minority or nonoperated interests, with 23 deals involving offshore projects.

Across the board, the majors are laser-focused on recasting their upstream portfolios to only contain assets that are resilient to lower prices, boast a lower-carbon footprint and match with their shortlists of strategic priorities. The latter consideration is why six of the deals over the past 18 months saw a fellow major step in as the buyer — Shell bought stakes from Chevron in Block 5 offshore Suriname and the Blacktip project in the Gulf of Mexico, for example — even as they share price and carbon resiliency as goals.

The rationale is not expected to change even if assets marked for sale are able to command strong returns in the current \$110-plus oil environment. In fact, Total CEO Patrick Pouyanne suggested his firm may be a bit more opportunistic on asset sales, telling investors on a first-quarter earnings call he may “move countercyclically to divest some nonstrategic oil in this favorable environment, particularly production that is high carbon intensity, to further rebalance our energy mix.”

Rival BP last week pulled off a deal along similar lines, offloading its 50% stake in the carbon-intensive Sunrise oil sands project in Alberta in return for a 35% stake in the Bay du Nord project in Eastern Canada, with a much lower emissions profile. That said, BP CEO Bernard Looney has been quick to note that the UK major is “not in a rush” to divest, even with triple-digit oil prices. “We’re going to take our time. We’re going to be seekers of value. And with prices being where they are today and the outlook being the outlook, that’s only going to help our situation going forward,” he said on BP’s earnings call last month.

To be sure, plenty more upstream divestments are to come, judging by the list of assets majors still have on the block. Total will sell its 10% interest in Shell Petroleum Development Co. (SPDC) onshore Nigeria due to disruption caused by local communities, according to Pouyanne. “We will keep, however, the onshore gas licenses of SPDC ... as they are critical to feed an LNG expansion,” he said. BP’s Auchincloss says more divestments are “in the hopper.” While guiding for \$2 billion-\$3 billion of asset sales per year, he cautioned that the timing of these was difficult to predict.

“Now is probably busier than it was 12 months ago” for discussions around bigger or strategic transactions, says Vinson & Elkins’ Msimang, as the easing of travel restrictions makes due diligence efforts on such deals easier to perform. He meanwhile sees interest in oil and gas on the rise from the financial investor community.

Russian Roulette

One great unknown in the majors’ plans is the potential success of divestments in Russia. The Russia-Ukraine conflict has prompted Exxon, Shell and BP to announce plans to exit the country, although both the timing for such deals and potential valuations in play remain highly uncertain.

For Shell, the conflict has already effectively frozen its divestment of its 37.5% stake in the PCK Schwedt refinery in Germany to Rosneft, as Berlin places the transaction under review. Shell had planned the sale prior to the Ukraine conflict as part of its wider strategy to reduce its refining portfolio down to five core sites.

Tom Daly, London

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ENERGY AND EQUITY MARKET DATA For the week ended Jun 17, 2022

EIF GLOBAL INDEX COMPONENTS*

	Close Jun 17	1-Wk Chg.	1-Wk	% Chg. 52-Wk	YTD
Lukoil (mos)	77.44	+7.53	+10.76	-16.05	-12.11
Rosneft (mos)	7.12	+0.49	+7.42	-4.56	-11.51
Sinopec-S (sesh)	0.50	-0.01	-1.88	-15.36	-24.02
Equinor (osl)	35.18	-1.07	-2.95	+65.41	+31.34
Reliance Industries (bse)	33.22	-1.52	-4.37	+11.21	+4.47
Saudi Aramco (sse)	10.26	-0.51	-4.72	+9.16	+18.35
Sinopec-H (sehk)	0.45	-0.03	-5.67	-16.17	-4.24
CNOOC-H (sehk)	1.34	-0.11	-7.56	+17.72	+43.85
Eni (mise)	12.61	-1.31	-9.44	-0.38	-9.24
TotalEnergies (par)	51.80	-5.51	-9.61	+6.84	+2.09
PetroChina-H (sehk)	0.49	-0.06	-10.28	+4.23	+10.68
Petrobras-4 (spse)	5.30	-0.64	-10.85	+8.28	+26.10
Ecopetrol (bvc)	0.71	-0.09	-11.55	+10.29	+7.01
Petrobras-3 (spse)	5.81	-0.79	-11.97	+20.24	+26.10
Shell (lse)	24.99	-3.80	-13.21	+22.62	+13.88
ONGC (bse)	1.82	-0.29	-13.83	+7.72	-5.02
BP (lse)	4.64	-0.75	-13.89	+2.84	+3.74
Exxon Mobil (nyse)	86.12	-14.34	-14.27	+38.93	+40.74
Chevron (nyse)	148.38	-27.02	-15.40	+38.58	+26.44
Suncor (tse)	34.33	-6.96	-16.86	+43.08	+37.04
EIF Global Index	339.17	-26.00	-7.12	+21.04	+16.56

*Converted US\$/share.

SHARE PRICES IN LOCAL CURRENCY†

	Close Jun 17	1-Wk Chg.	1-Wk	% Chg. 52-Wk	YTD
NOCs					
Rosneft (mos)	384.45	+14.95	+4.05	-28.67	-35.91
Gazprom (micex)	315.50	+6.30	+2.04	+15.36	-8.09
PetroChina-S (sesh)	5.83	+0.03	+0.52	+11.47	+18.74
Equinor (osl)	350.60	-0.60	-0.17	+92.85	+48.62
Sinopec-S (sesh)	3.35	-0.04	-1.18	-11.84	-19.66
Saudi Aramco (sse)	38.50	-1.90	-4.70	+9.22	+18.30
CNOOC-S (sesh)	18.65	-1.07	-5.43	#N/A	#N/A
PTTEP (set)	162.50	-11.50	-6.61	+34.30	+37.71
Sinopec-H (sehk)	3.50	-0.29	-7.65	-15.25	-3.58
CNOOC-H (sehk)	10.52	-0.90	-7.88	+19.00	+44.84
Petrobras-4 (spse)	27.31	-2.34	-7.89	+7.57	+16.63
Petrobras-3 (spse)	29.93	-2.98	-9.05	+19.94	+16.63
PetroChina-H (sehk)	3.87	-0.49	-11.31	+5.37	+11.44
Ecopetrol (bvc)	2,760.00	-390.00	-12.38	+15.38	+2.60
Majors					
TotalEnergies (par)	49.34	-5.16	-9.47	+21.17	+10.55
Exxon Mobil (nyse)	86.12	-14.34	-14.27	+38.93	+40.74
Chevron (nyse)	148.38	-27.02	-15.40	+38.58	+26.44
BP (lse)	379.45	-71.95	-15.94	+17.10	+14.81
Shell (lse)	2,044.00	-396.00	-16.23	+39.62	+26.03

	Close Jun 17	1-Wk Chg.	1-Wk	% Chg. 52-Wk	YTD
Regional Integrated					
Lukoil (mos)	4,182.00	+284.00	+7.29	-37.26	-36.35
Eni (mise)	12.01	-1.23	-9.29	+12.98	-1.72
OMV (vse)	44.12	-4.66	-9.55	-11.26	-11.67
Repsol (bme)	13.74	-1.75	-11.27	+23.07	+31.66

	Close Jun 17	1-Wk Chg.	1-Wk	% Chg. 52-Wk	YTD
Global Independents					
Woodside Petroleum (asx)	31.92	-2.90	-8.33	+34.63	+45.55
Occidental (nyse)	55.68	-8.19	-12.82	+97.31	+92.07
Kosmos Energy (nyse)	6.57	-1.43	-17.88	+107.26	+89.88
Hess (nyse)	102.87	-24.85	-19.46	+20.13	+38.96
APA (nyse)	39.22	-9.59	-19.65	+85.61	+45.85
ConocoPhillips (nyse)	93.74	-23.09	-19.76	+58.85	+29.87
EOG Resources (nyse)	111.67	-30.38	-21.39	+42.11	+28.54

	Close Jun 17	1-Wk Chg.	1-Wk	% Chg. 52-Wk	YTD
Refiners					
Reliance Industries (bse)	2,589.30	-124.70	-4.59	+17.08	+9.34
Eneos (tyo)	538.30	-31.00	-5.45	+13.18	+25.10
Phillips66 (nyse)	90.51	-15.80	-14.86	+4.44	+24.91
PBF Energy (nyse)	32.98	-7.35	-18.22	+107.29	+154.28
Marathon Petroleum (nyse)	87.29	-21.05	-19.43	+43.19	+36.41
Valero (nyse)	112.44	-28.07	-19.98	+43.09	+49.70
HollyFrontier (nyse)	45.00	-11.37	-20.17	+33.21	+37.28

	Close Jun 17	1-Wk Chg.	1-Wk	% Chg. 52-Wk	YTD
Oil-Field Services, EPC					
Saipem (mise)	43.00	-2.05	-4.54	+1859.66	-51.06
Worley (asx)	13.83	-1.25	-8.29	+19.53	+30.10
Petrofac (lse)	126.00	-18.70	-12.92	+2.73	+9.28
Fluor (nyse)	24.22	-3.73	-13.35	+40.65	-2.22
Baker Hughes (nyse)	29.96	-5.28	-14.98	+24.94	+24.57
TechnipFMC (nyse)	6.59	-1.22	-15.62	-28.37	+11.32
Transocean (nyse)	3.52	-0.88	-20.00	-9.04	+27.54
Halliburton (nyse)	31.69	-8.80	-21.73	+39.48	+38.57
Schlumberger (nyse)	36.64	-10.57	-22.39	+12.84	+22.34
Wood Group (lse)	175.75	-60.25	-25.53	-25.78	-8.03

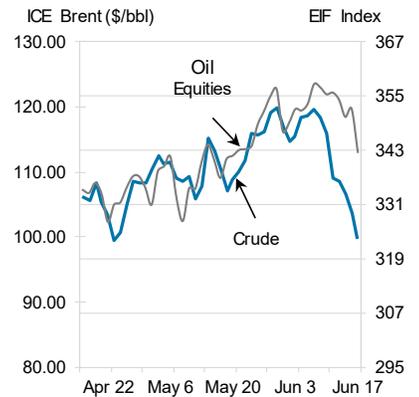
	Close Jun 17	1-Wk Chg.	1-Wk	% Chg. 52-Wk	YTD
Midstream					
Enbridge (tsx)	52.71	-5.47	-9.40	+5.48	+6.68
TC Energy (tsx)	65.32	-7.30	-10.05	+0.23	+11.03
Williams (nyse)	29.74	-5.15	-14.76	+10.43	+14.21
Plains All-American (nyse)	9.71	-1.72	-15.05	-14.60	+3.96
Enterprise Products (nyse)	23.45	-4.17	-15.10	-4.52	+6.79
Kinder Morgan (nyse)	16.05	-2.98	-15.66	-12.34	+1.20

*set=Bangkok; bme=Madrid; sehk=Hong Kong; osl=Oslo; bvc=Bogota; micex=Moscow; bse=Mumbai; par=Paris; nyse=New York; lse=London; mise=Milan; tyo=Tokyo; tsx=Toronto; asx=Sydney; spse=Sao Paulo; sse=Riyadh

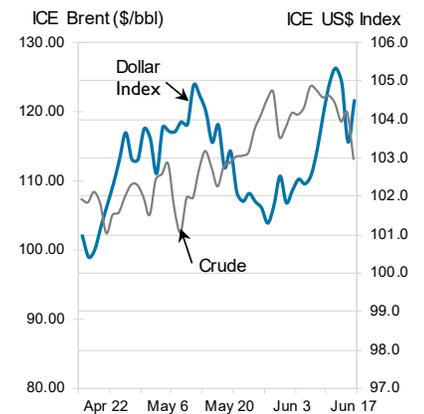
CRUDE VS. EQUITIES



CRUDE VS. OIL EQUITIES



CRUDE VS. CURRENCY



EIF Index based on share prices of the 22 equities listed under EIF components, adjusted for US\$ market capitalization. All equities listed are ordered by percentage change over the previous week. Local share prices are shown in local currency. Crude prices in \$/bbl; Nymex oil products prices in \$/gallon; ICE gas oil in \$/ton; Henry Hub natural gas prices in \$/MMBtu; UK NBP natural gas prices in pence/therm.