Energy Intelligence

November 1, 2022

WWW.ENERGYINTEL.COM

OIL DAILY®

CONTENTS

In Brief

Data Snapshot

Refiners Say Biden's Bark Is Louder Than Bite

Rhetoric aimed at curtailing oil exports or introducing a windfall profits tax is likely just that — rhetoric.

This is the message being conveyed by several independent downstream companies, including Valero Energy, PBF Energy, Marathon Petroleum and Phillips 66.

During their respective third-quarter earnings presentations, executives for Marathon and Phillips 66 said they were skeptical that criticism and discussions of policies targeting the oil and gas industry in Washington would amount to anything material. Rather, they said that despite the rhetoric, discussions between the Biden administration and oil companies have been constructive and that much of Washington's ire is merely political posturing.

"Our view is when we get off of the public rhetoric and engage with them to address the issues of inventories and supply and cost and price, it's been constructive," said Phillips 66 CEO Mark Lashier. "You have to remember that there's an election next week, and I think that there's going to be a lot of rhetoric right up to that point in time."

Sound and Fury

One persistent thorn in the sides of both the oil industry and the administration has been a potential ban on exports of refined products and crude oil, which are currently hovering at around 6 million barrels per day and 3.5 million b/d, respectively. The notion seems to be that in curtailing such shipments, domestic inventories would rise and prices for consumers would fall.

But industry players have consistently warned that such a move could backfire. According to Marathon Petroleum's senior vice president of global clean products, Brian Partee, the Biden administration appears to agree, regardless of their public messaging.

"I think that through dialogue, there's been an understanding that [an export] ban likely would be counterproductive to the goals and objectives of building inventory and reducing prices," he said, echoing similar statements from Valero. "I think there's been broad understanding and engagement that that's not the best course of action."

Money Talks

More recently the Biden administration has taken aim at massive profits for oil companies, arguing that bloated net income comes at the expense of consumers and talking up the possibility of a windfall tax.

Indeed, both Marathon Petroleum and Phillips 66 reported a bumper third quarter. Marathon's adjusted net income was $3.9 billion for the period, up from $464 million a year earlier, while Phillips 66's third-quarter profit increased by $1.7 billion year-to-year to $3.1 billion.

However, Lashier said he believes that his company and other independent players were not the target of Biden's recent statements.

"A lot of integrateds are coming out with very, very solid results," he said. "And I think that's the target."

He added that for all its bluster, the Biden administration is moving carefully.

“They know that they have to proceed with caution because things that they try to do could disrupt the market even more,” said Lashier. Administration officials “are listening, and they are taking into account the advice that we’ve been giving them along with our peers."

Frans Koster, New York

Oxy Leases Land for More DAC Plants

Occidental Petroleum subsidiary 1PointFive has agreed to lease more than 100,000 acres on the legendary King Ranch in South Texas to support the deployment of as many as 30 direct air capture (DAC) plants.

The agreement marks the beginning of what would be an ambitious new chapter in the rollout of Oxy’s carbon-removal strategy, which the company recently said could involve the construction of as many as 135 DAC plants by 2035.

The lease agreement includes pore space for dedicated CO2 sequestration across some 106,000 acres in Kleberg County, Texas. The pore space has an estimated geologic storage capacity of up to 3 billion tons of CO2, Oxy said in a statement.

The site has the potential to remove up to 30 million tons per year of CO2, assuming all 30 DAC plants are built and operate at full capacity.

In a separate statement, Carbon Engineering, which is providing DAC technology to Oxy, said it has begun front-end planning and engineering for DAC facilities in Kleberg County.

A 1PointFive spokesperson declined to provide a timeline for DAC construction at King Ranch.

‘Pure Sequestration’

The spokesperson said Oxy intends for the King Ranch subsurface to be “used for pure sequestration” rather than enhanced oil recovery (EOR).

Oxy’s first DAC plant (DAC 1) is currently under construction in the Permian Basin in West Texas, Oxy said, with a formal groundbreaking ceremony planned for the end of this month. It will initially capture 500,000 tons/yr of CO2, with an expansion planned to 1 million tons/yr.

CO2 captured at the first plant, which is due on line in late 2024, will be used for EOR at Oxy’s Permian operations.

The Inflation Reduction Act (IRA) passed this summer allows for tax credits of up to $180 per ton for CO2 captured from DAC and sequestered without EOR. Oxy has also begun selling carbon offset credits to help underwrite construction of future DAC plants.

Oxy has hinted at potentially bringing in an equity partner to help finance construction of future DAC plants. DAC 1 is expected to cost $800 million-$1 billion to build.

The King Ranch acreage is also not far from industrial centers in the Gulf Coast region, including Corpus Christi, Texas, making it a potential storage site for captured point-source emissions, Oxy said.

Kingmaking

The 825,000-acre King Ranch is one of the most famous ranches in Texas, with a long history in the energy sector. The company that owns it bills itself as an “agricultural production and resource management company.”

“King Ranch has been focused on conservation for more than a century. While these methods to capture carbon are relatively new, they are consistent with our vision and values,” King Ranch CEO Robert Hodgen said.

Oxy CEO Vicki Hollub said the company is “excited to work with King Ranch on what will be the largest DAC deployment project in the world, as we continue our plans to provide affordable and practical industrial-scale decarbonization solutions.”

Further Opportunities

Separately, Oxy announced last week that its Oxy Low Carbon Ventures (OLCV) unit had agreed with New York-listed Natural Resource Partners (NRP) to evaluate and potentially develop a permanent CO2 sequestration hub in southeastern Texas.

The agreement provides OLCV with the exclusive rights to develop a CO_2 storage hub on some 65,000 acres of pore space controlled by NRP.

The site, which was not specifically identified, is close to many industrial CO_2 emitters and has approximate storage potential of "at least" 500 million tons of CO_2.

NRP says it currently has around 140,000 acres of pore space under lease for carbon sequestration with a total estimated storage capacity of 800 million metric tons of CO_2.

Luke Johnson, Houston

Phillips 66 Sees Diesel Supply Relief on Horizon

The diesel market may see a bit of relief in the near future from the supply side, but achieving a balance still depends on demand, according to independent refiner Phillips 66.

During the company's third-quarter earnings presentation, executives acknowledged that the global situation for distillate fuel oils such as diesel remains tight.

"Clearly, the market around the world is tight on the part of distillates," executive vice president of marketing and commercial Brian Mandell said. "In the US, we're under the 2015-19 ranges by 22% [for] inventories. That's very, very weak inventories given that we're starting to go into the winter season."

Downstream rationalization, the fallout from Russia's invasion of Ukraine and resulting disruptions to both supply and distribution have all contributed to the situation. But more diesel is now set to enter the market, Mandell said.

"There are a lot of things that may take some of the edge off and alleviate some of the stress on the market," he said. "First, around the world, we're coming back from turnarounds … The Chinese have increased [export] quotas, so you'll see more gasoline and diesel on the market in Asia. The French refinery strikes are coming to an end, so those refineries will be back up."

Mandell also noted that weather forecasts have been mild in both Europe and the US, which may put a lid on heating consumption. He added that margins ought to remain supported, but that "the ultimate moderator for those margins will be demand."

Tailwinds

The tight diesel market has yielded strong crack spreads for middle-of-the-barrel products, and this — along with exposure to deeply discounted heavy Canadian crude — has disproportionately benefitted Phillips 66, personnel said.

That's because, particularly in the US Midcontinent, the company's assets tend to yield more distillates than many competitors.

"The market conditions were quite favorable for our kit," said Richard Harbison, senior vice president of refining. "We saw widening Canadian spreads as well as a very strong distillate crack in the region, and that plays well for our kit."

Frans Koster, New York

Denbury Surpasses CCS Goal With Two New Contracts

Carbon dioxide (CO_2) pipeline operator Denbury has secured two more transportation and storage services agreements on the US Gulf Coast, surpassing its year-end goal with two months left in 2022.

The Plano, Texas-based firm said Monday that it has signed a deal with project developer Clean Hydrogen Works to provide transportation and CO_2 services for the planned $7.5 billion Ascension Clean Energy (ACE) complex in Donaldsonville, Louisiana.

The complex would include two blocks producing 7.2 million tons per year of blue ammonia — ammonia created from nitrogen and "blue" hydrogen, which combines natural gas-based steam methane reforming with carbon capture, utilization and storage (CCUS) — and would be built fewer than two miles from Denbury's existing pipeline network.

The agreement follows news last week that Denbury had signed a 20-year definitive agreement to provide CO_2 transportation and storage services to developer Lake Charles Methanol (LCM) in Louisiana for its proposed $4 billion hydrogen-to-blue methanol project.

Exclusive Right

The Clean Hydrogen Works deal gives Denbury the exclusive right to transport and sequester all of the CO2 captured at ACE for a period of 12 years following start-up, although the term could be extended.

Captured CO2 volumes are expected to amount to 12 million metric tons/yr, divided evenly between the two ammonia blocks. Permanent underground storage would be provided by at least one of Denbury's sequestration sites near its pipeline system.

Denbury also said it had invested $10 million in the ACE development and has committed to invest another $10 million when certain project milestones are reached. A final investment decision on the project is targeted for 2024, with commercial operations on the first block expected to start in 2027.

Clean Hydrogen Works is a relatively new company. It was founded in 2021, although members of its executive team previously worked on a $3 billion gas-to-methanol project in the Pacific Northwest that was eventually scrapped because of "regulatory uncertainties," according to its website.

A third partner, tanker owner Hafnia, plans to ship product from the ACE complex to "emerging clean energy markets across the globe," according to a release.

Louisiana officials have shown enthusiasm for the project, preparing a "competitive incentive package" for Clean Hydrogen Works that would include workforce development services, according to a release from the state's economic development agency.

The developer may also take advantage of Louisiana's industrial tax exemption and jobs programs "at the appropriate time," and it may be eligible for up to $7 million in reimbursement for dock infrastructure expenses if the project reaches FID.

Methanol Project

Denbury's agreement with LCM would see it transport the captured CO2 from the methanol facility — estimated at 1 million metric tons/yr — via its Green Pipeline to one of several planned sequestration sites.

But Denbury also plans to build a connection from the Lake Charles industrial corridor to the Green pipeline, which it said would "facilitate" additional CO2 volumes from the area. The company currently estimates CO2 emissions from Lake Charles at 20 million metric tons/yr.

According to its website, LCM is working with the Loan Guarantee Office of the US Department of Energy to establish the terms of guaranteed debt financing for the project, while Morgan Stanley is managing the equity process. The bank has reached approval with "a major infrastructure fund" to invest common equity, according to LCM.

On the regulatory front, major permits are being finalized and the project is on track for a financial close and construction to start in the second half of next year.

CCS as Service

Including the most recent deals, Denbury has secured transportation and storage contracts amounting to 20 million tons/yr, double its year-end 2022 target, according to analysts at Tudor Pickering Holt.

That could make it an even more attractive acquisition target for the likes of Exxon Mobil, which has been rumored to be eyeing the company.

Denbury specializes in enhanced oil recovery (EOR), employing so-called "CO2 floods" to squeeze marginal barrels out of mature oil fields. But the Denbury assets that would likely be the most attractive to Exxon are its massive CO2 pipeline network and growing footprint of leased acreage suitable for sequestering captured CO2. The company has also set a net-zero target that includes direct, indirect and end-use emissions.

Exxon has identified carbon capture and storage (CCS) as a key pillar of its energy transition and net zero strategies.

Caroline Evans, Houston

Enterprise Predicts Strong US Crude Output Growth

Midstream and logistics giant Enterprise Product Partners says that despite perceived slowdowns in oil production and concerns about investment, US supply is set to significantly ramp up through next year.

The company also decried inefficiencies that have tightened diesel markets, especially on the US East Coast.

Think Permian

During Enterprise's third-quarter earnings presentation on Tuesday, executives shared the company's outlook for domestic oil output while acknowledging some of the challenges that producers currently face.

"The supply chain issues in the oil field and labor issues are not minor," said Anthony Chovanec, senior vice president for fundamentals and commodity risk assessment. He noted that due to those constraints, some integrated firms such as Chevron are now looking to the lower range of their output guidances.

However, he said, activity in the Permian Basin is speeding up and getting more sophisticated. "We've got 60-rig increase in the Permian Basin year-to-date," said Chovanec. "And if you think about what those rigs look like, compared to say 2019 or 2020, there is some efficiency [that's] 30% greater — this is not a small number."

Chovanec said that government data puts year-to-date US oil production growth at some 400,000 barrels per day. For full-year 2022, Enterprise is estimating that incremental domestic crude output will grow by 500,000-600,000 b/d, with another 600,000-800,000 b/d coming next year, he added —almost entirely driven by activity in the Permian.

"Any other increases when we look at oil are relatively small," said Chovanec. "So think Permian."

Jones Act Smacked

While US crude production is increasing, some regional markets are short refined products. This is especially true of the US East Coast, where stocks of distillate fuel oils such as diesel and heating oil are 37.8% below year-ago levels, per government data.

Enterprise co-CEO Jim Teague said that situation is not natural. "The critically low inventories of distillate in the Northeast United States were self-inflicted and could have been completely avoided by temporarily waiving the Jones Act," he said.

He also took aim at political rhetoric targeting the oil industry.

"In most meetings [with overseas customers], we are asked if our politicians have a clue about the realities of the world's immediate and longer term needs to US energy," Teague said. "Unfortunately, the rhetoric that comes from our government and inaction on badly needed permitting reform for pipelines, transmission, infrastructure and mining probably answers that question. Our government needs to understand that rhetoric matters."

Enterprise reported net income of $1.4 billion in the third quarter of 2022, up from $1.2 billion in the same period last year.

Frans Koster, New York

Global Diesel Reshuffle Underpins Oil Prices

The potential for disruptions in the global gasoil/diesel market has been supportive of crude prices, with Brent stubbornly trading in a narrow $90-$95 per barrel range for the past 17 sessions.

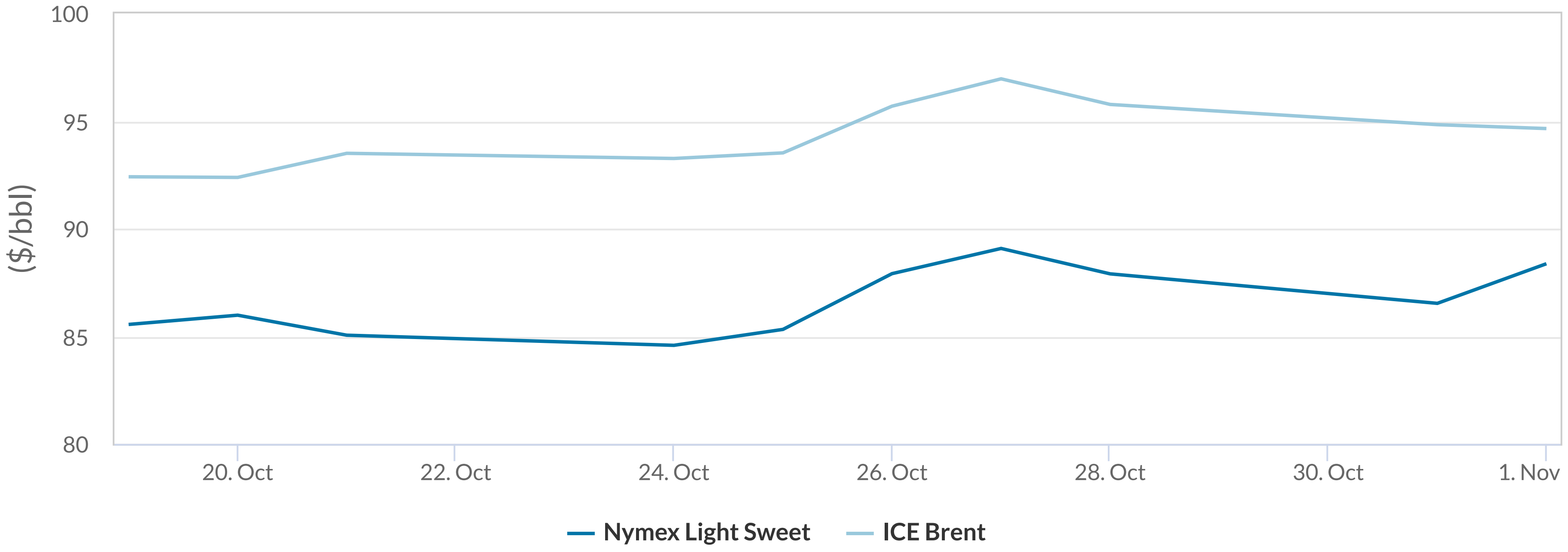
In London, the January Brent contract was down 18¢ and settled at $94.65/bbl on Tuesday, while in New York, the front-month Nymex West Texas Intermediate (WTI) December contract rebounded and gained $1.84 to close at $88.37/bbl.

Crack spreads for ultra-low-sulfur diesel (ULSD) in Europe are remain north of $70/bbl, signaling that more supply is needed after French refinery strikes knocked out at least 300,000 b/d of ULSD production.

With little or no capacity upside from the European refining system, the onus of rebalancing the middle distillate market is on other regions, starting with the US.

ICE BRENT VS. NYMEX WTI FUTURES

Front Month Contracts



US Diesel In Demand

At $94/bbl, the ULSD crack spreads in the US Gulf make it more attractive for refiners to ship diesel to Europe than trying to resupply the PADD1 US East Coast region, which is one of biggest diesel demand hubs in the winter.

"The problem for PADD 1 is that it cannot get more from the USGC, the main production center, because pipelines are full and the Jones Act just makes it uneconomical," a refining source said.

The Jones Act is a 1920 law that requires goods shipped between US ports to be transported on ships that are built, owned and operated by US citizens or permanent residents. As a result, importing refined product is generally cheaper for US East Coast customers.

But as of late, diesel import flows have been reduced by maintenance at Canadian refineries. Diesel inventories in the US East Coast are at a historic low of 25 million barrels.

Speculators are also taking advantage of the fact that New York Harbor in PADD1 is the main delivery point for US distillate future contracts to re-route diesel flows to Europe, where they fetch higher premiums.

Russian Rehab

Europe is under increasing pressure to replace 450,000 b/d of Russian USLD as the EU bans on Russian crude (Dec.5) and refined product (Feb.5) imports loom.

The continent's push for clean diesel engines in the 1990s has heavily tilted European product demand toward diesel. Severing ties with Russia means that curing this addiction could soon become a priority for the EU.

But for now, substitution flows remain crucial. Diesel imports from India and China are up by about 150,000 b/d. The hope is that China will continue to ramp up exports of middle distillates to Southeast Asia, which would free up product export capacity elsewhere.

This would leave more room for Middle East product exports to Europe. This would also alleviate pressure on the US diesel market and help ease prices.

Julien Mathonniere, London

IN BRIEF

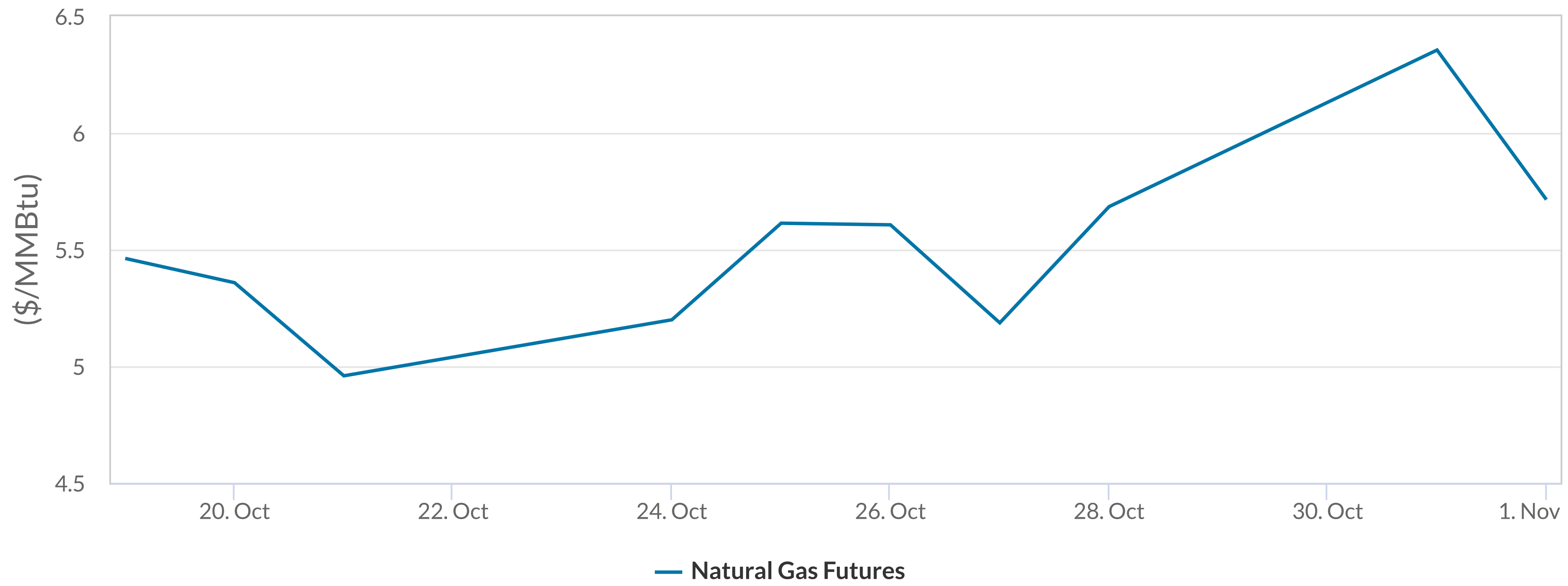
US Natgas Futures Retreat From Monday Gains

US Nymex natural gas futures tumbled on Tuesday, with the December gas contract falling by 65.1¢ to settle at $5.714/MMBtu, losing all but 3¢ of Monday's spike in an apparent wave of profit-taking.

LNG feedstock growth might have played into the tug-of-war between bulls and bears. On Monday, traders reacted to the Oct. 28 restart of Cove Point LNG in Maryland, adding just under 750 MMcf/d in demand.

But that reaction was goosed by expectations for the 2.1 Bcf/d Freeport LNG in Texas to come back on line after being idled for five months by an explosion and fire.

NYMEX NATURAL GAS FUTURES



Energy Intelligence

While signs abound that Freeport will resume at least 85% of operations this month, federal regulators put out word on Tuesday that they still needed to sign off on the repairs before operations can restart. That appeared to spook the market despite that always have been the case.

Nonetheless, with heating loads set to ramp higher by mid-month, lackluster demand, which is now capping gas prices below $6/MMBtu, will inevitably pick up.

Tom Haywood, Houston

Pemex Lakach Project Gets Green Light

Mexican state oil firm Pemex's revamped plan to develop the previously abandoned Lakach deepwater natural gas project in the Gulf of Mexico has been approved by the country's oil and gas regulator.

The development plan for the field, which is estimated to hold roughly 930 Bcf of gas reserves, will cost nearly $1.8 billion, up from the original proposed price tag of about $1.5 billion, according to Mexico's National Hydrocarbons Commission (CNH).

Pemex highlighted the Lakach revival at the beginning of the year as one of its 10 strategic priorities. The company sees the field potentially producing up to 400 MMcf/d. US LNG specialist New Fortress Energy, which is partnered with Pemex on the project, said in July that it expects Lakach to be fully operational by the end of next year.

Lakach was Pemex's first deepwater development and was well on its way to first production in 2014, but work was suspended two years later when natural gas prices plunged, raising concerns over its economic viability. The CNH has also raised concerns over the state oil firm's ability to fund and operate the venture, given its strained finances and lack of deepwater experience.

Michael Deibert, Washington

BOEM Finalizes Wind Lease Acreage

The US Bureau of Ocean Energy Management (BOEM) announced on Tuesday that it is finalizing two US Gulf of Mexico wind leasing areas off the coasts of Texas and Louisiana.

The first of the territories is off the coast of Galveston, Texas, and includes just over 508,000 acres. The second is off the coast of Lake Charles, Louisiana, and comprises roughly 174,000 acres. The agency plans to issue a notice of lease sales for the two leasing areas later this year.

BOEM has aggressively pursued offshore wind leasing as part of the Biden administration's plan to deploy 30 GW of offshore wind capacity by 2030.

The bureau is using its renewable energy competitive leasing process to identify offshore parcels that appear most suitable for wind development, in collaboration with the National Oceanic and Atmospheric Administration.

Bridget DiCosmo, washington

DATA SNAPSHOT

Oil and Gas Prices, Nov. 1, 2022

All data are produced by Energy Intelligence in cooperation with Refinitiv.

CRUDE OIL FUTURES

($/bbl)	Chg.	1st Mth.	2nd Mth.
ICE Brent	-0.18	94.65	92.79
Nymex Light Sweet	+1.84	88.37	87.19
DME Oman	+1.70	91.24	89.24
ICE Murban	0.00	93.62	94.34

INTERNATIONAL SPOT CRUDES

($/bbl)	Chg.	Price	Prior Close
Brent (Dated)	+1.82	95.12	93.30
Dubai	+0.80	91.40	90.60
Forties	+1.69	94.83	93.14
Bonny Light	+1.69	97.73	96.04
Urals	+1.69	76.73	75.04
Opec Basket*			94.73

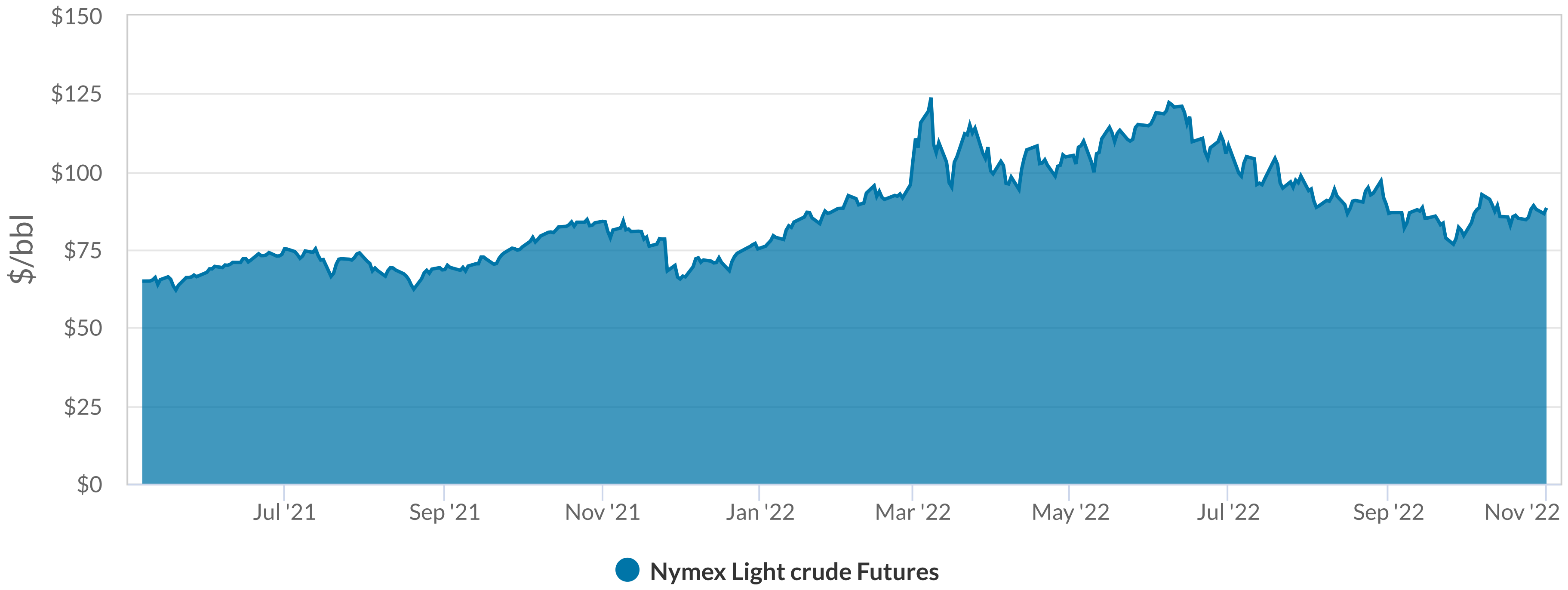
*Opec price assessed.

NORTH AMERICAN SPOT CRUDES

($/bbl)	Chg.	Price	Prior Close
WTI (Cushing)	+1.82	88.36	86.54
WTS (Midland)	+2.12	86.86	84.74
LLS	+1.67	90.91	89.24
Mars	+2.52	83.56	81.04
Bakken	+1.82	93.16	91.34

ICE BRENT CRUDE FUTURES

NYMEX LIGHT CRUDE FUTURES

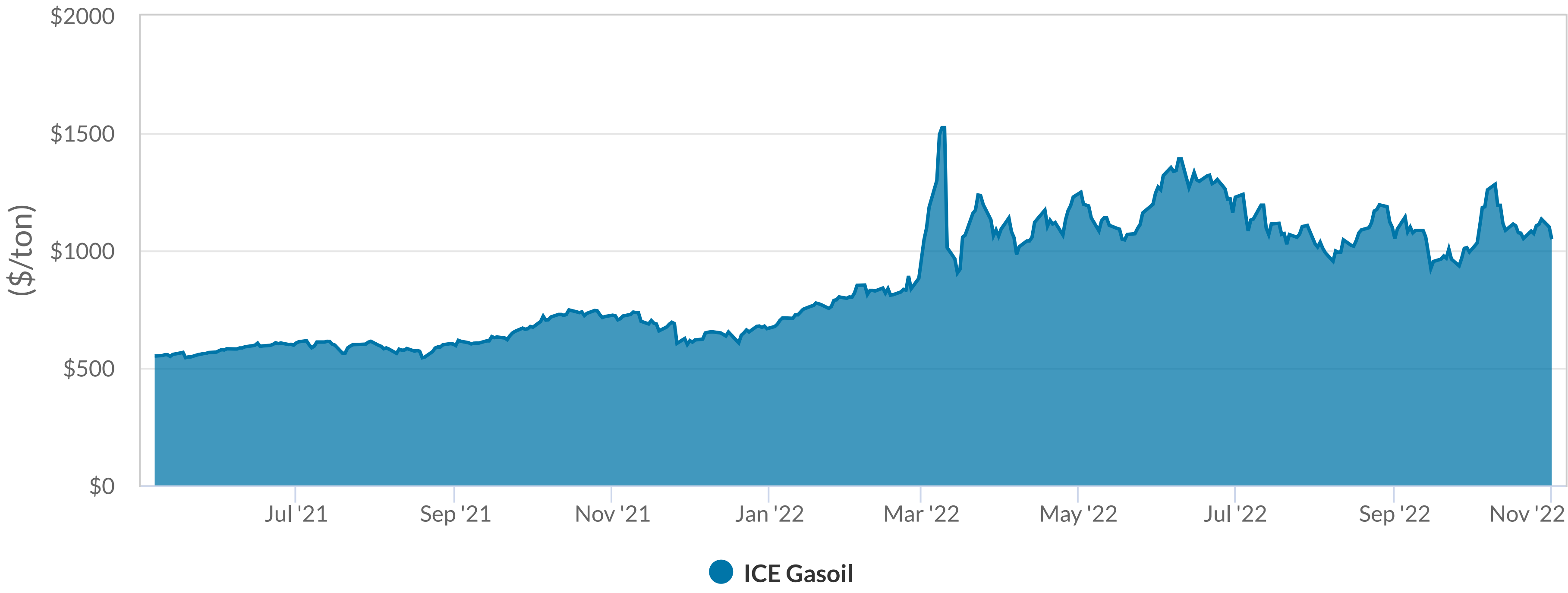


Energy Intelligence

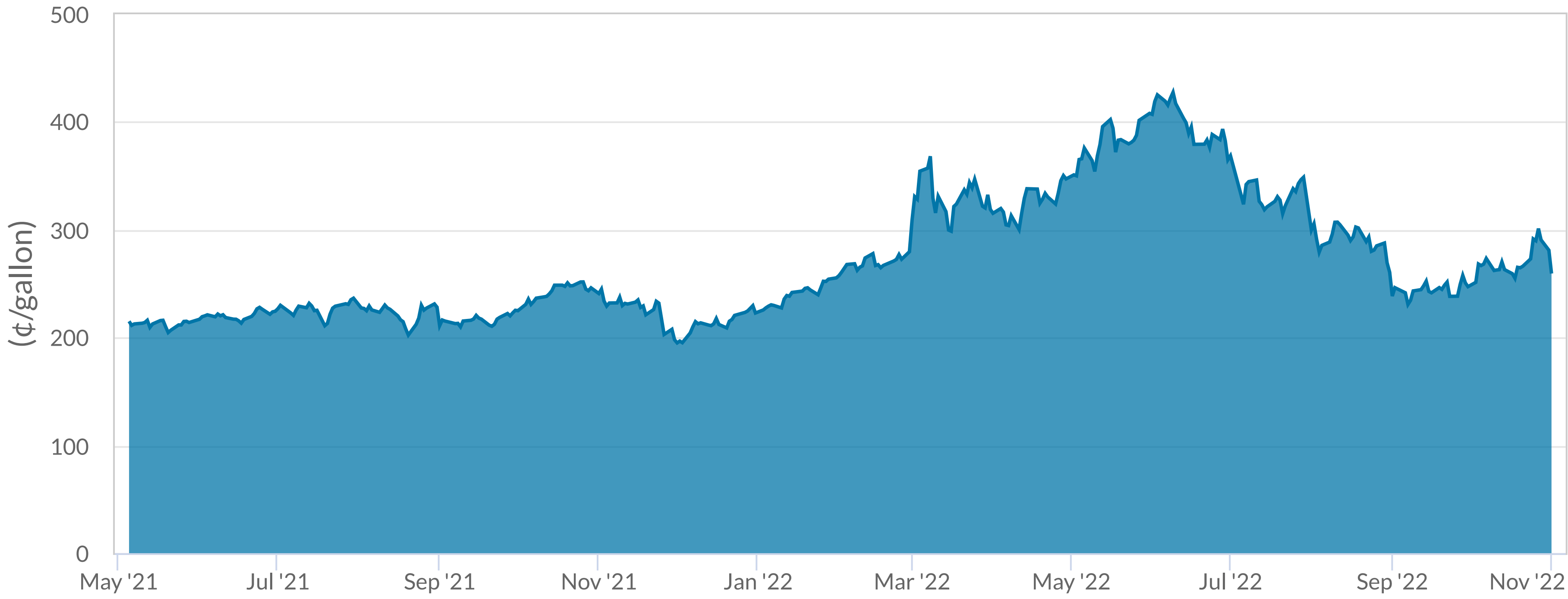
REFINED PRODUCT FUTURES

Nymex	Chg.	1st Mth.	2nd Mth.
Gasoline (¢/gal)	-21.62	259.45	252.49
ULSD Diesel (¢/gal)	-56.98	362.11	346.91
ICE			
Gasoil ($/ton)	-52.75	1047.50	995.25
Gasoil (¢/gal)	-16.84	334.32	317.65

ICE GASOIL FUTURES



NYMEX GASOLINE FUTURES



US SPOT REFINED PRODUCTS

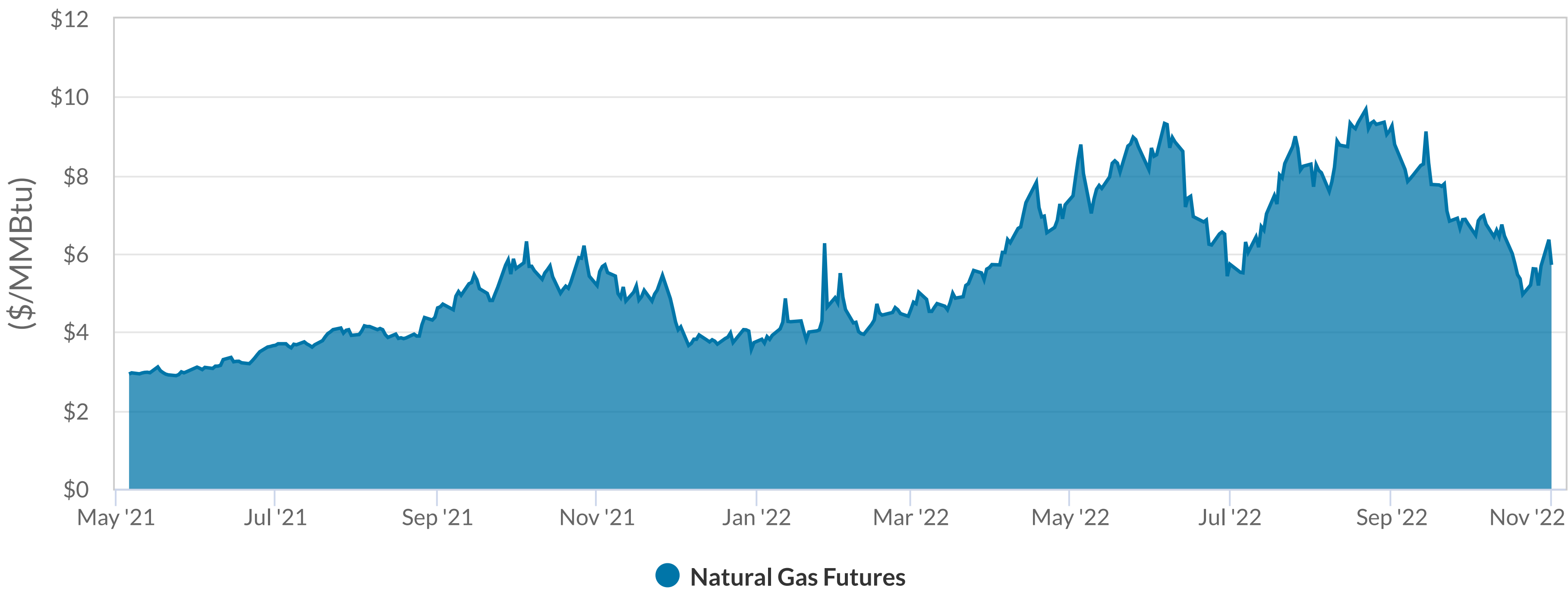
New York (¢/gal)	Chg.	Price	Prior Close
Regular Gasoline	-3.17	309.51	312.68
No.2 Heating Oil	-29.14	400.16	429.30
No.2 ULSD Diesel	-46.14	433.16	479.30
No.6 Oil 0.3% *			92.94
No.6 Oil 1% *			86.71
No.6 Oil 3% *			61.91
Gulf Coast (¢/gal)			
Regular Gasoline	-22.17	262.76	284.93
No.2 ULSD Diesel	-86.14	360.16	446.30
No.6 Oil 0.7% *			83.41
No.6 Oil 1% *			83.41
No.6 Oil 3% *			56.41

*Price in $/bbl. Percentages refer to sulfur content.

INTERNATIONAL SPOT REFINED PRODUCTS

Rotterdam ($/ton)	Chg.	Price	Prior Close
Regular Gasoline	+33.30	924.30	891.00
ULSD Diesel	-59.00	1077.50	1136.50
Singapore ($/bbl)			
Gasoil	-1.87	126.08	127.95
Jet/Kerosene	-1.02	123.44	124.46
VLSFO Fuel Oil ($/ton)	+4.75	669.07	664.32
HSFO Fuel Oil 180 ($/ton)	+22.41	425.16	402.75

NYMEX NATURAL GAS FUTURES



Refinitiv

NATURAL GAS PRICES

($/MMBtu)	Chg.	Price
Henry Hub, Nymex	-0.64	5.71
Henry Hub, Spot	-0.55	4.49
Transco Zone 6 - NY	-0.14	3.11
Chicago Citygate	-0.79	3.35
Rockies (Opal)	+1.36	6.41
Southern Calif. Citygate	+1.86	7.70
AECO Hub (Canada)	-0.35	3.83
Dutch TTF (euro/MWh)	-7.45	21.00
UK NBP Spot (p/th)	-22.10	44.00

US/Canada spot prices from Natural Gas Week

Equity Markets, Nov. 1, 2022

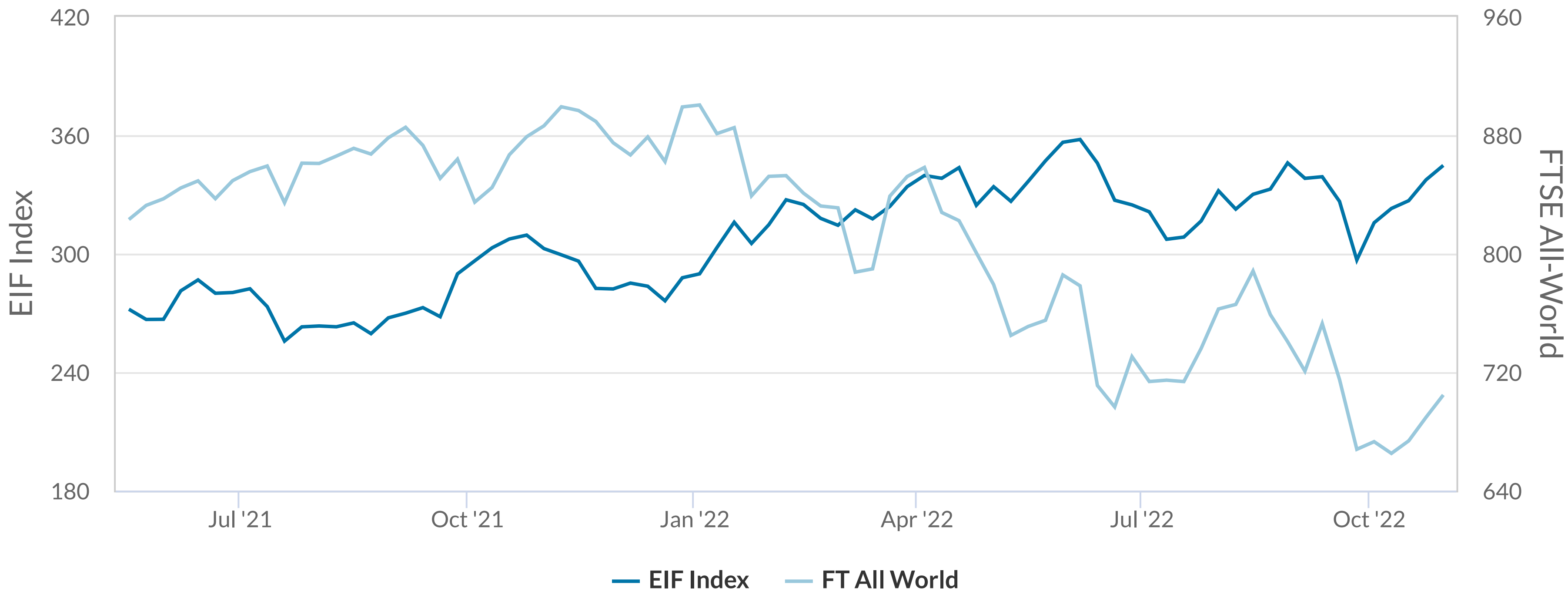
All data are produced by Energy Intelligence in cooperation with Reuters.

EQUITY MARKET INDEXES

	Chg.	Index	YTD %Chg.
EIF Global*	-2.65	344.71	+20.21
S&P 500	-15.88	3,856.10	-19.55
FTSE All-World*	-2.98	704.61	-21.81

*Index for previous day

EIF INDEX



EIF Global Oil and Gas Index of 21 traded equities