Energy Intelligence

September 22, 2022

WWW.ENERGYINTEL.COM

INTERNATIONAL OIL DAILY®

CONTENTS

In Brief

Data Snapshot

UK Lifts Shale Gas Fracking Moratorium

The UK government has officially lifted a 2019 moratorium on hydraulic fracturing (fracking) of shale gas formations in England, saying the move is intended to strengthen the country's energy security.

Business and Energy Secretary Jacob Rees-Mogg said that in light of the current energy crisis it was an "absolute priority" to explore all sources of energy and open the door to the drilling and hydraulic fracturing (fracking) of shale formations.

"It's right that we've lifted the pause to realize any potential sources of domestic gas," he said.

The government said it would consider future applications for hydraulic fracturing in areas where there is local support.

“Developers will need to have the necessary licenses, permissions and consents in place before they can commence operations," it said.

Polls have tended to show low levels of public support in the UK for shale drilling and fracking, and very few countries have achieved significant oil and gas production from fracked shale formations. The exceptions include the US, Argentina and China.

Tremors

Fracking has proved controversial in the UK due to environmental concerns and pressure from environmental campaigners and local communities. A moratorium remains in place in Scotland and Wales.

The moratorium in England was put in place by the Conservative government in 2019 after regulators concluded that it was impossible to estimate the probability or magnitude of earthquakes that might be triggered by fracking operations.

That move followed tremors at Cuadrilla Resources' site in Lancashire in northern England that exceeded the regulatory threshold. As a result, Cuadrilla was unable to complete exploration drilling.

Aspiring shale developers complained at the time that the rules were unworkable. Advocates have suggested that the threshold for tremors should be set no higher than for other types of industrial activity, such as quarrying.

"We need to revisit the seismic limits to ensure that shale gas extraction can be done in an effective and efficient way," Rees-Mogg told members of parliament on Thursday.

The minister drew fire from lawmakers about the Conservative party's 2019 election manifesto pledge to keep the fracking ban in place "unless the science shows categorically that it can be done safely." Asked about the "local support" condition for shale development, Rees-Mogg said shale drillers could win over communities by offering them perks.

Challenges

A review, published on Thursday, by the British Geological Survey, concluded that forecasting the likely occurrence of fracking-related earthquakes and their magnitude "remains a scientific challenge."

The review, commissioned by the government earlier this year, also said that assessing the risks was difficult because only three wells have been fracked in the UK.

In addition to concerns around seismicity, experts cite several other factors that cloud the long-term outlook for shale gas development in the UK.

The geology is complex, so estimates of initial gas-in-place tend to overstate the potential recoverable volumes. The industry has said that it would require 20-40 wells to be drilled and fracked to deliver a more realistic estimate.

And even under an optimistic scenario, "it's not something that's going to deliver this decade," Mike Bradshaw, professor of global energy at Warwick Business School, said recently.

Ratings agency Moody's said "it remains to be seen to what degree companies are willing to invest at scale given the uncertainties and concerns around fracking."

Nevertheless, the government's move was welcomed by would-be UK shale developers such as upstream minnows Cuadrilla and IGas, and petrochemicals giant Ineos.

The latter company recently renewed its offer to the government to drill a test shale gas well "safely and without harm to the environment."

German Shale Debate

Elsewhere in Europe, fracking is banned in France, Bulgaria, the Netherlands, Denmark, Ireland and Germany and no country is producing oil or gas from shale formations. However, Germany is taking another look at the matter, given that it has been hit hard by a big drop in deliveries of Russian gas this year.

"It is a very controversial discussion," the head of Germany's Wintershall Dea, Mario Mehren, told Energy Intelligence recently.

"In theory, in Germany, we have a legal framework that would allow for the kind of exploratory projects, to see if the shale potential is actually as big as all the experts in Germany say."

"But frankly, to do that you need … support by politicians at federal level, at regional level, but also acceptance in society. Currently, I do not see that," Mehren said.

He also pointed to the lack of oil-field services infrastructure in Germany and the fact that even if companies were able to tap the country's shale gas potential it would take several years to get the gas out of the ground.

"In other countries, either the potential is lower than it is in Germany or it's even less acceptable," he said.

For more coverage of the Ukraine crisis, visit Ukraine Crisis: Energy Impact

Deb Kelly, London

Gunvor Silent on Talk of Possible Sale to Adnoc

Swiss oil trader Gunvor has declined to comment on reports that it is talking to Abu Dhabi National Oil Co. (Adnoc) about the sale of some or all of its shares.

Bloomberg reported that "early stage" talks have focused on the possibility of Adnoc folding Gunvor into its own trading subsidiary that it set up in 2020 to bolster its global presence.

Adnoc Trading markets crude oil and refined products produced by its parent company and also trades third-party barrels in the wider Middle East, including Yemen. Adnoc declined to comment on the reports.

Trading sources who know Gunvor and its majority shareholder, Torbjorn Tornqvist, say a whole or partial sale to Adnoc would make sense, but it would depend on the price that the company is prepared to pay.

"Adnoc have a lot of cash, and they could make Gunvor an offer they can't refuse. It's not an obvious synergy, because Gunvor has little exposure to Mideast markets," says a veteran European trader.

Another long-time trader says Gunvor's global reach could make it attractive to Adnoc, adding that its deep involvement in European gas and power markets would enable Adnoc to move into new areas. Gunvor also owns three refineries in Europe that could process Abu Dhabi crude.

However, the same source is unconvinced about a possible tie-up. "Gunvor don't have the same range of assets as, say Vitol or Trafigura. They rely very heavily on their trading. And Torbjorn and his team have taken full advantage of all the recent volatility."

Tornqvist owns 87% of the company with the rest held by members of the management team.

During the first half of this year, its net profit rose to $841 million from just $48 million in the same period of last year, while its revenues surged to $89 billion.

The company traded 99 million tons of oil, LNG and other energy products, which was down 10% year-on-year, proving that size does not always matter in the trading world.

Like its closest rivals — Vitol, Glencore and Trafigura — Gunvor has ramped up sales of both LNG and gas in recent years, with India and Pakistan among the more lucrative markets.

It has also boosted its presence in the US and has signed long-term deals with developers such as Tellurian to lift future LNG production.

Created in the late 1990s as a joint venture between Tornqvist and his Russian-Finnish partner, Gennady Timchenko, Gunvor became one of the most prolific offtakers of Russian crude and refined products.

But Timchenko sold his stake to Tornqvist after he was blacklisted by the US in 2014 following Russia's invasion of Crimea. Since then Gunvor's involvement with Russia has shrunk and currently accounts for less than 10% of its overall business.

According to port data, Gunvor continues to sell Russian gas oil under an arrangement with Surgutneftegas. It also retains a 26% stake in the Ust Luga oil terminal near St. Petersburg that it has been unable to sell because of the war in Ukraine and EU sanctions.

Paul Sampson, London

Gazprom Plans to Raise Investment This Year

Russian gas giant Gazprom plans to increase its 2022 investment spending by 13% compared with a previously approved budget for this year. Management has proposed raising investment this year to 1.98 trillion rubles ($32.5 billion) from the record 1.758 trillion rubles approved in December.

The state-controlled company's 2021 investment program amounted to 1.185 trillion rubles.

The proposed increase for this year still has to be approved by the company's board of directors.

Gazprom has not published financial results for the first half of this year but it has said that it posted record profits as record-high gas prices offset a big drop in the volume of its exports to Europe. It also expects earnings for the full year to surpass the record set in 2021, even though its exports via the Nord Stream pipeline to Germany have been cut off completely since the end of August.

Relations between Russia and Europe have hit rock bottom since Moscow launched a war against neighboring Ukraine in February. The EU has imposed numerous sanctions against Russia, which has hit back with countermeasures of its own.

Europe has long been the biggest market for exports of Russian gas, but Gazprom now needs to invest heavily to redirect its exports to other markets as Europe seeks to slash its imports of Russian oil and gas.

Gazprom said the additional investment proposed for this year will go to upstream gas development projects on the Yamal Peninsula in the Arctic and in East Siberia, and to an extension of the Power of Siberia gas export pipeline to China.

Ramping Up Exports to China

The company will soon start commissioning work on a new 800 kilometer section of Power of Siberia connecting the producing Chayandinskoye field with the new Kovyktinskoye field which will deliver additional gas into the line.

Kovyktinskoye is scheduled to start commercial production in the second half of December, in line with a planned ramp-up in exports to China via Power of Siberia to 38 Bcm/yr by 2025.

Chief Financial Officer Famil Sadygov said the increase in planned investment would not affect Gazprom's plans to pay a record 1.2 trillion rubles in interim dividends, thanks to the company's strong cash flow.

Separately, the government may require Gazprom to hand over more of its profits to bolster the national budget, which has taken a hit from the war and from sanctions. However, Deputy Finance Minister Alexei Moyiseyev told reporters on Thursday that he did not expect the government to block Gazprom's interim dividend plans.

The company had planned to pay out a record 1.24 trillion rubles in dividends for the whole of 2021, but was required to pay all of that to the government in extra taxes. The government controls Gazprom via a 50.23% stake held directly and indirectly.

Business newspaper *Kommersant* reported earlier this week that Gazprom and other oil and gas producers might be forced to hand over more than 3 trillion rubles in additional taxes to the government in 2023-25.

Finance Minister Anton Siluanov said on Thursday that a draft budget for the next three years includes a "fair" contribution from oil and gas companies, which have benefited from high energy prices.

The finance ministry has proposed increasing the export duty on pipeline gas, collecting windfall revenue from LNG producers and increasing taxes for oil producers, Siluanov said said as he presented the draft budget at a government meeting.

For more coverage of the Ukraine crisis, visit Ukraine Crisis: Energy Impact

Staff Reports

Saudi Officials Keep Up Energy Policy Warnings

Senior Saudi officials continue to hammer home the message that the current global energy crisis is largely attributable to policy decisions that favored renewable energy and left the world perilously short of fossil fuels.

Saudi Aramco Chairman Yasser al-Rumayyan told the Future Investment Initiative conference in New York on Thursday that some governments had demonized oil and gas and that this had led to low investment in exploration and less supply.

"They thought you can just press a button and you can transfer from fossil fuel-based energy to renewable energy — and the result was catastrophic," he said. In addition to his position at the giant oil company, al-Rumayyan heads Saudi Arabia's Public Investment Fund which is responsible for managing the kingdom's oil wealth and diversifying the Saudi economy.

For the time being, however, Saudi Arabia remains heavily dependent on oil revenues and senior officials from the kingdom have been arguing that current energy shortages and high prices are a consequence of misguided policy decisions.

Saudi Arabia has been pursuing its own plans to help boost global oil supplies, with Aramco working to expand its oil production capacity to 13 million barrels per day by 2027 from 12 million b/d today.

Aramco's low production costs and relatively low-carbon oil are expected to safeguard its competitiveness, even if global oil demand starts to decline in the years ahead.

Al-Rumyaan said Saudi Aramco's carbon intensity is among the lowest in the world at only 10.5 kg of CO_2 per barrel, versus an industry average of around 25kg/bbl . He also said that in about six months Aramco will deploy new monitoring technology that will measures emissions levels from refineries that process Saudi crude and allow comparisons with emissions from crude sourced from other countries.

Amena Bakr, New York

US Urges Developing Countries to Adopt Green Power

US Climate Envoy John Kerry said Washington and the EU are trying to persuade Egypt and other developing countries to opt for renewables rather than natural gas in power generation projects.

Kerry said the US and EU are working together on an agreement to reduce gas-fired power capacity by 5 gigawatts and deploy an additional 10 GW of renewable power capacity instead, but added that not all of the funding is in place yet.

"We have to find $200 million of concessionary funding to grease the skids," Kerry told the Global Clean Energy Action Forum in Pittsburgh.

The US will put up $35 million dollars, the EU $30 million dollars, and the European Bank for Reconstruction and Development $25 million. Kerry said this provided a model for Washington's "Just Energy Transition Partnerships" program.

"But we need to grow it. We can't keep making a phone call and say: Hey, we need $25 million," he added.

Egypt — which is set to host the COP27 UN climate conference in November — was not the only country that Kerry mentioned.

He said he had recently visited Senegal and Nigeria, whose respective presidents talked about their plans for gas-fired power projects, but had also told him: "If you'll help us do it differently, we're ready to do it differently."

Kerry rejected the notion that the current global energy crisis had shown that the world must continue to develop and burn fossil fuels. He described this as "a nefarious, very predictable political argument being made by some, who have huge interest in doing so, that the clean energy market is somehow responsible for the crisis."

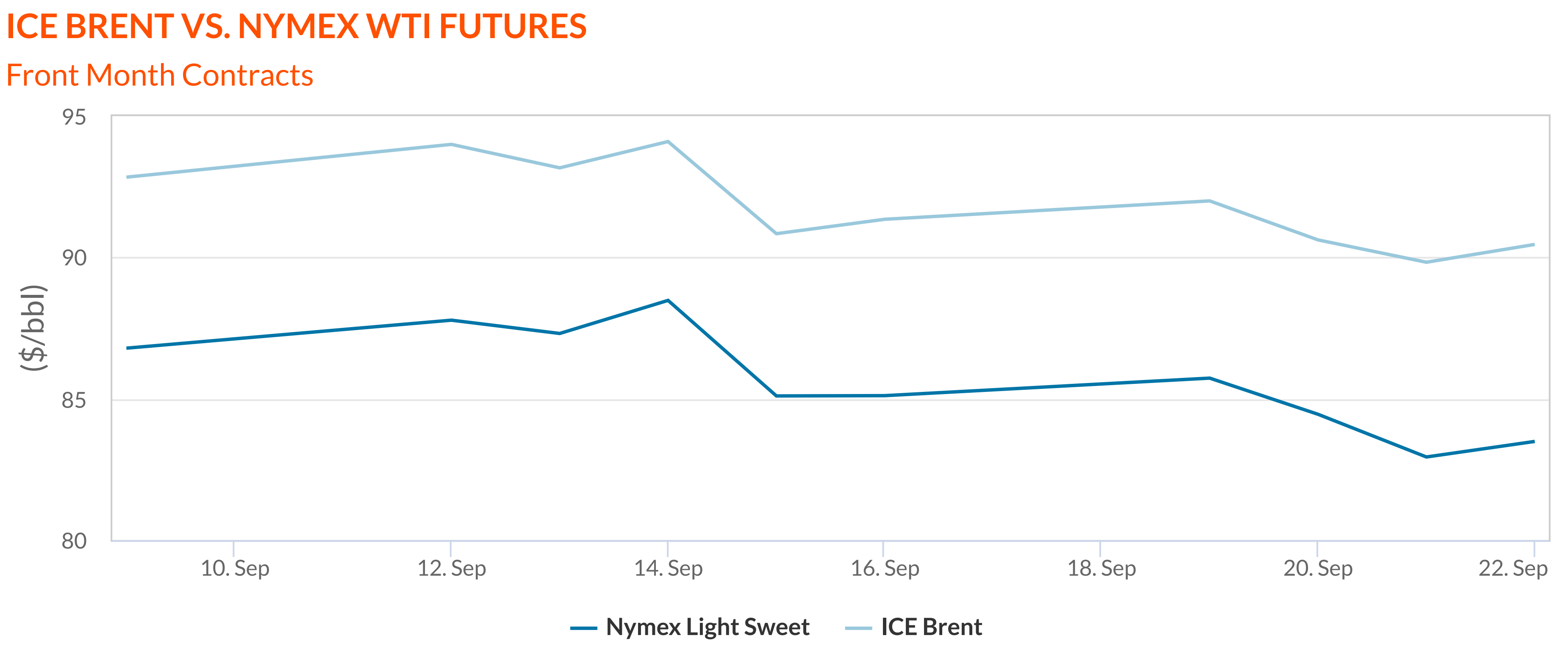
"Our battle right now is a battle against business as usual," he added.

Emily Meredith, Washington

Fundamentals Push Brent Back Above $90

Oil futures rose on Thursday, with global benchmark Brent bouncing back above $90 per barrel, a level it seems reluctant to push below.

In London, Brent crude for November delivery rose 63¢ to settle at $90.46/bbl, while in New York, November West Texas Intermediate (WTI) on Nymex closed up 55¢ at $83.49/bbl.



Technical traders say Brent remains well above its next key support level — in fact, the front month contract is closer to resistance than support.

For all the bearish sentiment driving prices, expectations of a tight market, especially for heating fuels during the Northern Hemisphere winter, seems to be putting a floor under oil.

The continued and intensifying displacement of Russian petroleum by the EU is keeping the market tight. Opec actions and strained spare capacity serve as supports, as does the impending end of the US strategic reserves sales.

Tightness is largely focused on the middle of the barrel products and especially diesel. To wit, October Nymex diesel futures rocketed higher on Thursday, closing 7.77¢ higher at $3.4115 per gallon. The gasoline contract rose by 2.92¢ to settle at $2.5157/gallon.

Diesel in Demand

Refinery economics reflect the concern about the availability of diesel. In the US, Energy Intelligence's downstream model suggests that a complex Gulf Coast facility processing incremental Brent realizes a diesel crack of $54.99/bbl. Singapore cracks against DME are also high at $30.17/bbl. Even in the challenging European environment, refiners running incremental spot Brent see diesel cracks of a whopping $47.14/bbl.

There appears to be little relief for diesel supplies on the horizon. Crack spreads are already incentivizing maximum diesel yield in most regions, and refiners in the US are running flat out at 93.6% and have been keeping utilization at a frenetic rate, upping the chances of outages. Indeed, BP's refinery in Toledo, Ohio is now shut down after a fire that killed two employees. Refiners in the West simply cannot do much more to feed the diesel market, while in China exports of products remain curtailed.

As supply runs into obstacles, demand might soon start perking up. This is especially true as high natural gas costs not only impede Europe's refinery operations but also hurt consumers; the prospects for fuel-switching are high, a development that would boost diesel demand.

Should the winter be cold, prices (and cracks) will get even hotter. The International Energy Agency (IEA) sees as much as 700,000 barrels per day in incremental oil demand stemming from potential fuel-switching, and the downstream has little wiggle room or capacity to meet that. Strained supply and potentially higher demand come against a backdrop of low inventories as well. There is virtually no cushion.

Frans Koster, New York

IN BRIEF

Eni Bids in UK Carbon Storage Round

The UK said on Thursday that it received 26 bids from 19 companies for offshore CO2 storage licenses in its first storage licensing round.

A spokesman for the North Sea Transition Authority told Energy Intelligence that the list of applicants would not be made public.

However, some bidders have made their participation known, including the UK arm of Italian major Eni, which plans to store CO2 at its depleted Hewett field.

"The high number of bids for the UK's first-ever carbon storage licensing round, announced by the NSTA, is a clear indication of the level of interest in the UK's storage potential", said Ruth Herbert, CEO of the UK's Carbon Capture and Storage Association.

The UK has set a target of capturing and storing 20 million-30 million tons of CO2 per year by 2030.

Jason Eden, London

Denmark Approves Field Expansion

The Danish Energy Agency has approved plans for the expansion and development of the Solsort West Lobe oil and gas field in the North Sea.

Work on the expansion project is expected to start in 2023, with production expected by the end of the same year.

Ineos Oil & Gas Denmark is the operator of the Solsort license, located about 250 km (155 miles) west of Denmark's Jutland Peninsula.

Oil output is expected to be around 39,800 b/d and gas production around 0.45 Bcm over the lifetime of the field.

Production from Solsort West Lobe will account for around 12% of Denmark's oil output and up to 5% of total gas output in 2024, according to a recent production forecast from the Danish Energy Agency.

The agency has forecast total Danish oil production of 3.6 MMcm (around 62,000 b/d) and gas output of 0.79 Bcm this year.

Danish hydrocarbon production is not expected to pick up until the delayed restart in 2024 of the Tyra field, which is being redeveloped.

Danish oil output is expected to peak in 2028, with natural gas output peaking in 2027 at 3.3 Bcm.

Jaime Concha, Copenhagen

Salvage Work to Start on Stranded Tanker

The UN has said sufficient funds have been raised to start a first phase of work to secure an oil tanker off the coast of Yemen and prevent a catastrophic oil spill.

The vessel, the *FSO Safer*, is estimated to hold 1 million bbl of oil. It has been anchored off Yemen for more than 35 years, and no maintenance work has been carried out on it since 2015.

A UN statement said some $75 million has been raised and that salvage work can begin soon.

However, an additional $38 million will be needed for a second phase of the operation to create a permanent storage solution by installing a secure double-hulled vessel.

Work on the first phase should start within weeks, but it will take around four months to stabilize the tanker.

Storms usually occur in the Red Sea from around October.

Rafiq Latta, Nicosia

Singapore Stocks Leap

Singapore onshore oil product inventories leapt by 8.4% from a week ago to 47.15 million bbl on Sep. 21, according to data released by government agency IE Singapore.

SINGAPORE ONSHORE PRODUCT STOCKS

('000 bbl)	Sep 21	Sep 14	Vol.Chg.	%Chg.
Light Distillates	15,365	15,589	-224	-1.4%
Middle Distillates	8,384	8,504	-120	-1.4%
Fuel Oil	23,400	19,419	3,981	20.5%
Total	**47,149**	**43,512**	**3,637**	**8.4%**

Source: IE Singapore

Freddie Yap, Singapore

DATA SNAPSHOT

Oil and Gas Prices, Sep. 22, 2022

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

CRUDE OIL FUTURES

($/bbl)	Chg.	1st Mth.	2nd Mth.
ICE Brent	+0.63	90.46	89.53
Nymex Light Sweet	+0.55	83.49	83.03
DME Oman	+1.07	90.65	88.45
ICE Murban	+0.84	92.27	90.38

INTERNATIONAL SPOT CRUDES

($/bbl)	Chg.	Price	Prior Close
Brent (Dated)	+0.55	90.40	89.85
Dubai	-1.50	91.20	92.70
Forties	+1.05	89.82	88.77
Bonny Light	+1.05	93.47	92.42
Urals	+1.05	72.17	71.12
Opec Basket*			96.31

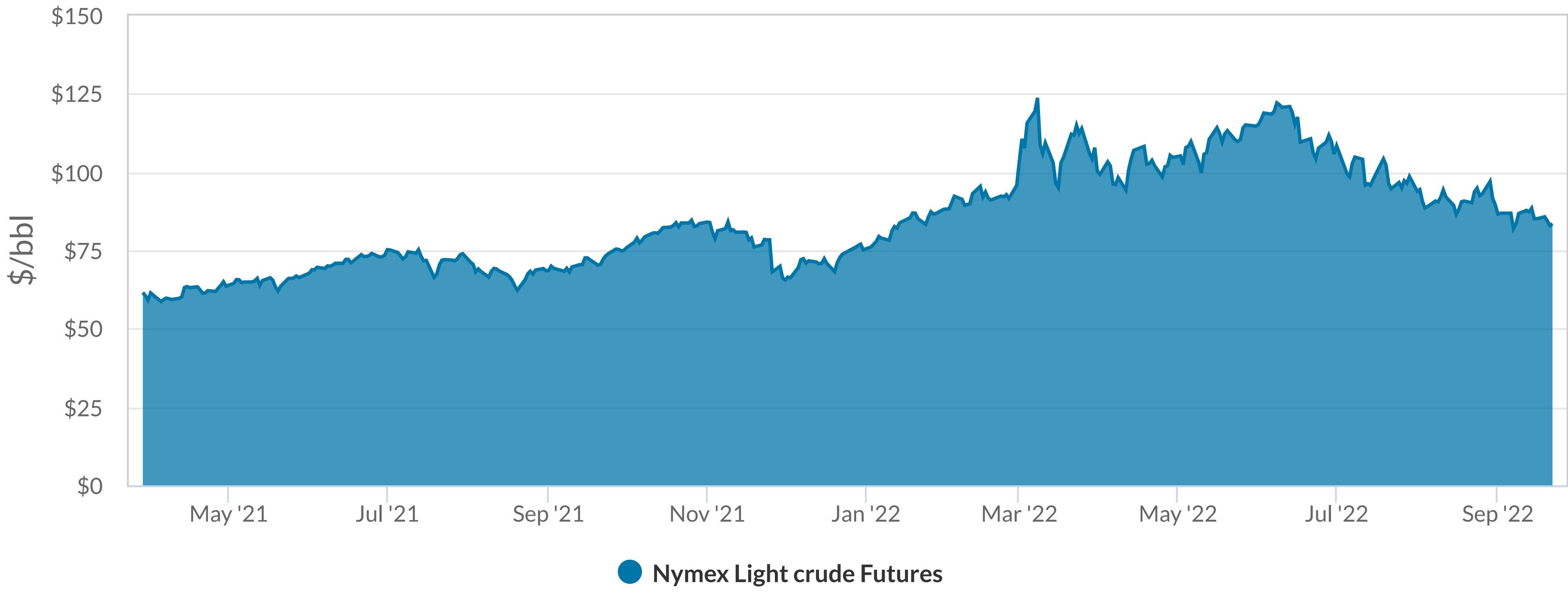
*Opec price assessed.

NORTH AMERICAN SPOT CRUDES

($/bbl)	Chg.	Price	Prior Close
WTI (Cushing)	+0.64	84.02	83.38
WTS (Midland)	+0.29	83.22	82.93
LLS	+0.64	86.52	85.88
Mars	+0.29	82.27	81.98
Bakken	+0.64	88.52	87.88

ICE BRENT CRUDE FUTURES

NYMEX LIGHT CRUDE FUTURES

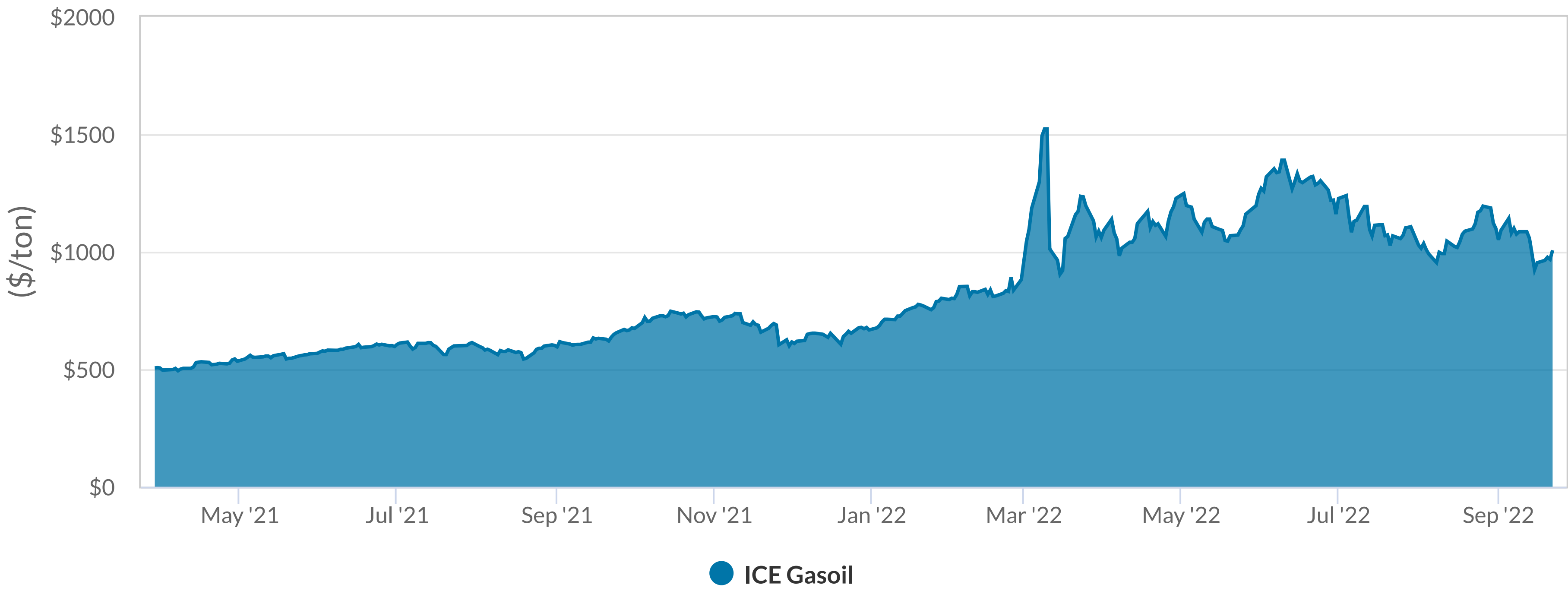


Energy Intelligence

REFINED PRODUCT FUTURES

Nymex	Chg.	1st Mth.	2nd Mth.
Gasoline (¢/gal)	+2.92	251.57	243.16
ULSD Diesel (¢/gal)	+7.77	341.15	332.07
ICE			
Gasoil ($/ton)	+39.00	1006.25	967.25
Gasoil (¢/gal)	+12.45	321.16	308.71

ICE GASOIL FUTURES



NYMEX GASOLINE FUTURES

US SPOT REFINED PRODUCTS

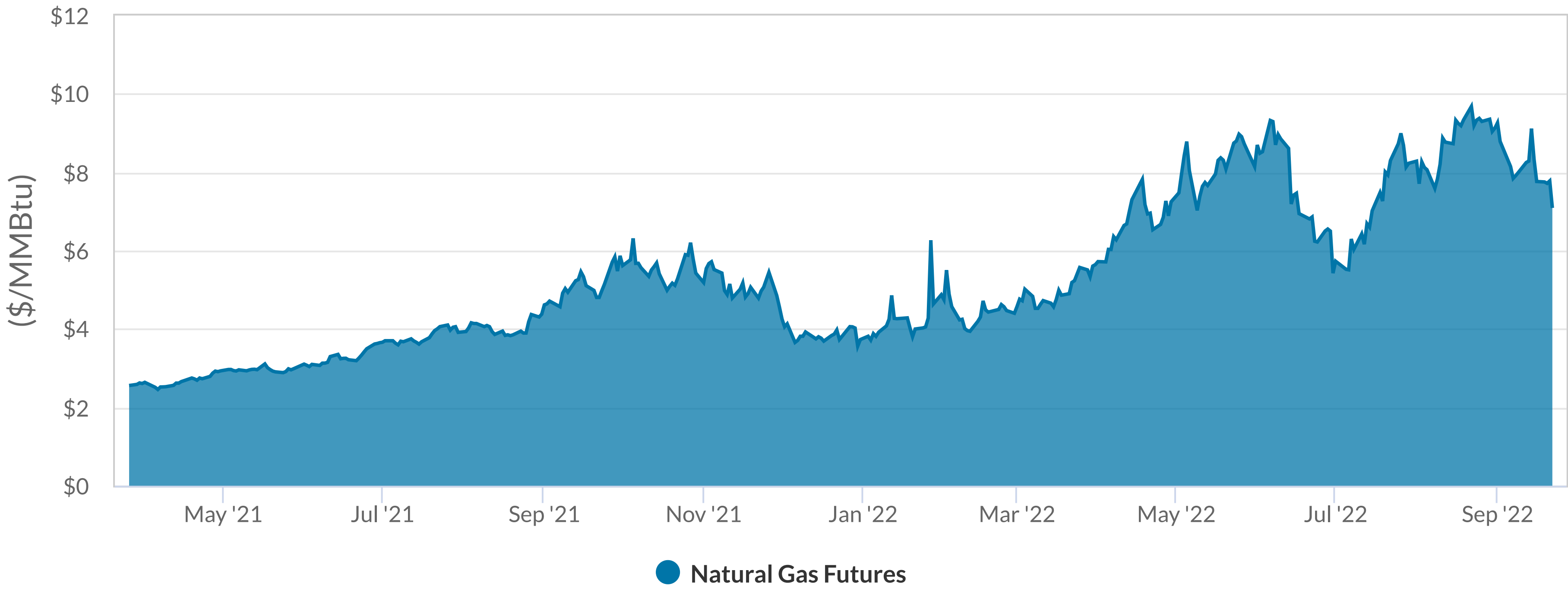
New York (¢/gal)	Chg.	Price	Prior Close
Regular Gasoline	+5.97	265.30	259.33
No.2 Heating Oil	+7.17	322.95	315.78
No.2 ULSD Diesel	+8.17	341.45	333.28
No.6 Oil 0.3% *			90.39
No.6 Oil 1% *			79.71
No.6 Oil 3% *			66.71
Gulf Coast (¢/gal)			
Regular Gasoline	+10.47	269.80	259.33
No.2 ULSD Diesel	+6.17	331.45	325.28
No.6 Oil 0.7% *			78.91
No.6 Oil 1% *			78.91
No.6 Oil 3% *			59.81

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

INTERNATIONAL SPOT REFINED PRODUCTS

Rotterdam ($/ton)	Chg.	Price	Prior Close
Regular Gasoline	-6.30	836.50	842.80
ULSD Diesel	+22.25	1022.00	999.75
Singapore ($/bbl)			
Gasoil	-2.55	118.35	120.90
Jet/Kerosene	-3.12	119.36	122.48
VLSFO Fuel Oil ($/ton)	-6.93	662.71	669.64
HSFO Fuel Oil 180 ($/ton)	+0.31	424.64	424.33

NYMEX NATURAL GAS FUTURES



NATURAL GAS PRICES

($/MMBtu)	Chg.	Price
Henry Hub, Nymex	-0.69	7.09
Henry Hub, Spot	-0.24	7.76
Transco Zone 6 - NY	N/A	5.50
Chicago Citygate	-0.43	6.38
Rockies (Opal)	-0.40	6.39
Southern Calif. Citygate	-0.44	6.91
AECO Hub (Canada)	+0.56	3.99
Dutch TTF (euro/MWh)	-8.80	170.00
UK NBP Spot (p/th)	+13.00	250.00

US/Canada spot prices from Natural Gas Week

Equity Markets, Sep. 22, 2022

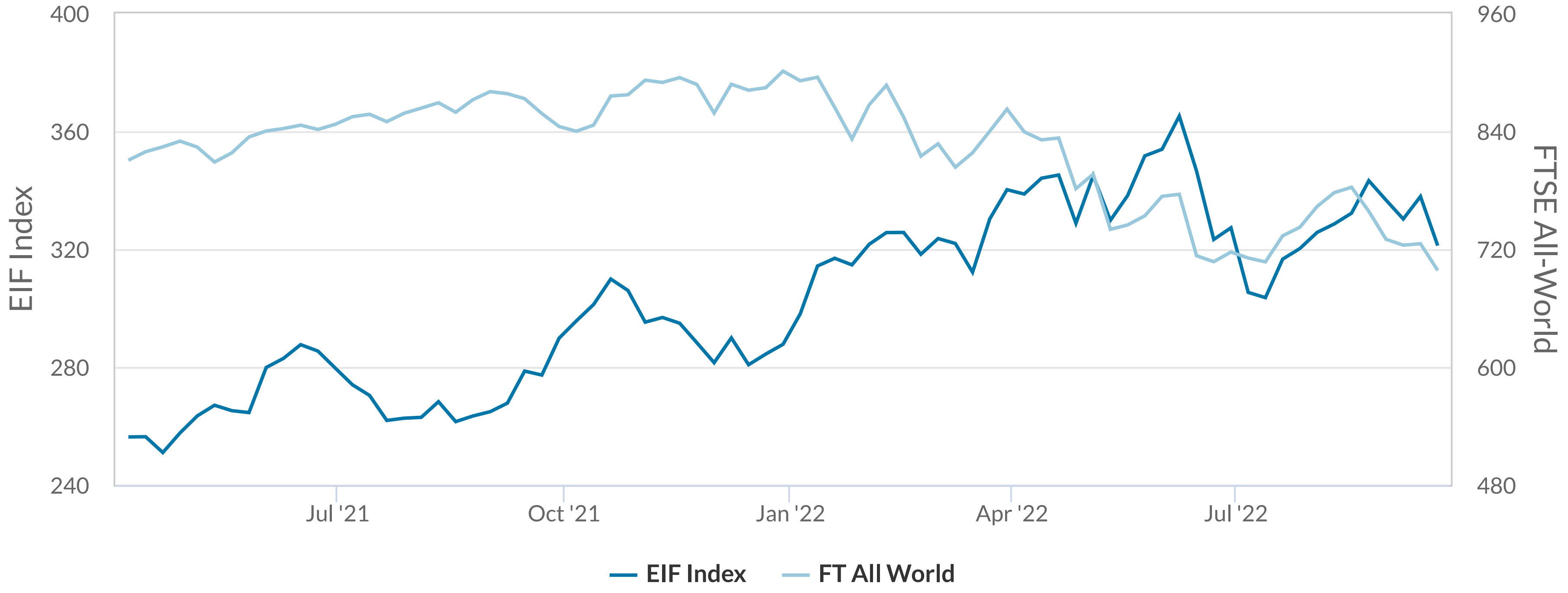
All data are produced by Energy Intelligence in cooperation with Reuters.

EQUITY MARKET INDEXES

	Chg.	Index	YTD %Chg.
EIF Global*	-1.28	321.21	+12.01
S&P 500	-31.94	3,757.99	-21.60
FTSE All-World*	-10.13	698.39	-22.50

*Index for previous day

EIF INDEX



EIF Global Oil and Gas Index of 21 traded equities