Energy Intelligence

November 15, 2022

WWW.ENERGYINTEL.COM

INTERNATIONAL OIL DAILY®

CONTENTS

In Brief

Data Snapshot

Iraq Wants Review of Opec-Plus Production Quota

Iraq wants a review of its Opec-plus oil production quota, the country's new Prime Minister Mohammed Shia al-Sudani said on Tuesday.

"Iraq is part of Opec, and ... the third producer [in Opec-plus] in terms of volumes, and in the government, we see the need to reconsider the quota allocated to it within Opec," state media quoted al-Sudani as telling reporters in Baghdad.

Energy Intelligence has recently reported that the sensitive issue of production baselines — on which quotas are based — could be discussed when Opec-plus ministers meet in Vienna on Dec. 4.

Adjusting the baselines could free up more Opec-plus production and narrow the big gap between the targets and actual output of individual members of the group by aligning the quotas more closely with members' true capacity to produce.

Iraq has earned record oil revenues this year, with sums exceeding $10 billion in each month from March to July.

But those revenues have since dipped despite a slight increase in production, and al-Sudani, who was appointed just last month, made clear on Tuesday that maintaining windfall earnings from high oil prices was a priority.

"We are keen to keep the price of oil at no less than $100," he said.

Iraq has chafed at its production targets for years, arguing that the damage caused by many years of sanctions and war justify an exemption.

But while its upstream production potential is huge, limits imposed by its ageing export infrastructure have repeatedly prevented Iraq from hitting its Opec-plus production targets.

The baselines of the top five Opec-plus producers were raised in May — in Iraq's case by 150,000 barrels per day to 4.8 million b/d.

But the country has never produced at that level, and Energy Intelligence estimates that Iraq pumped just shy of 4.5 million b/d in October — about 150,000 b/d below its Opec-plus quota for the month.

The situation could change early next year, however, when the new Karbala refinery, with a nameplate capacity of 140,000 b/d, is expected to begin operations, offering a new outlet for Iraqi crude.

A source at state oil marketer Somo says testing is ongoing, with work underway to fill the refinery’s tanks. The source adds that the plant's operational capacity will become clearer in the first quarter of 2023.

Simon Martelli, London

Russia Ban Set to Upend European Crude Trade

As European refiners look to replace Russia's Urals crude grade ahead of an EU import ban that takes effect in just three weeks, Norway is emerging as their preferred source of alternative feedstock.

Shipments of Norway's medium, sour Johan Sverdrup crude are set to rise to 640,000 barrels per day in December, the largest export program since the field started producing in 2019, as operator Equinor starts Phase 2 of production.

Cargoes have been snapped up by northern European refiners, notably Sweden's Preem and Finland's Neste — two big legacy buyers of Urals that have phased out their purchases since Moscow's Feb. 24 invasion of Ukraine.

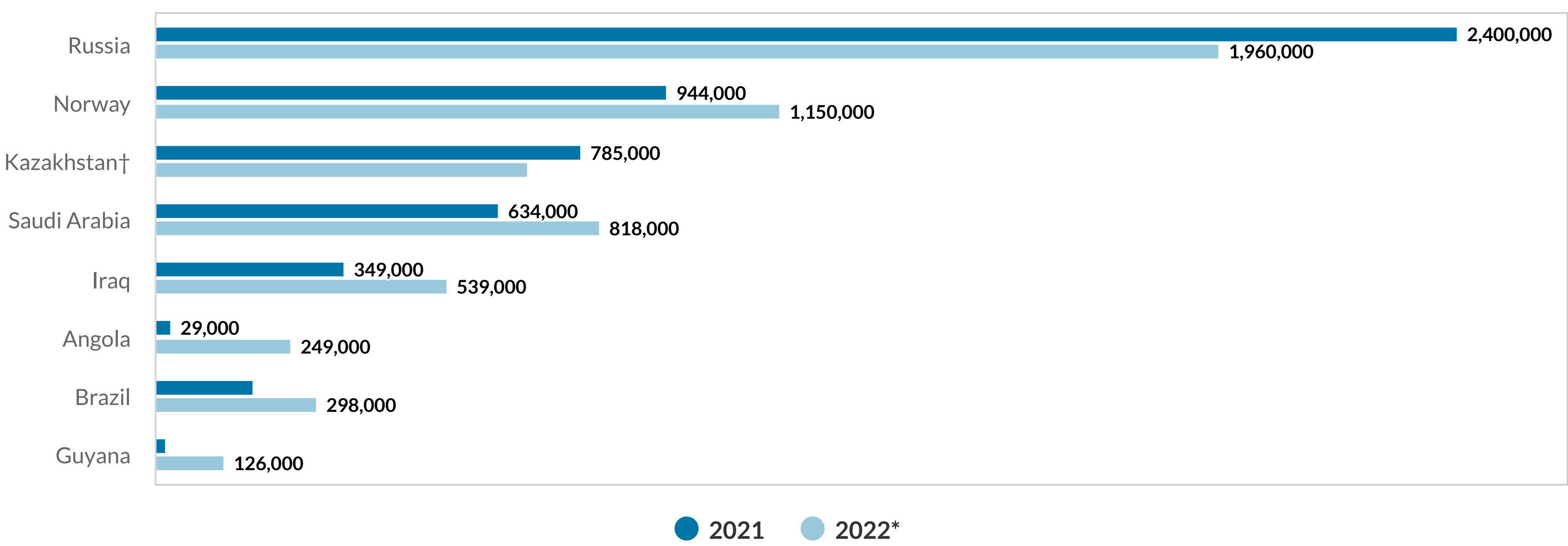
But some buyers have been unable to get their hands on the prized Norwegian grade, and competition will get fiercer after Dec. 5, when at least 1.1 million b/d of Russian crude that has continued to flow to Europe must be replaced.

"With Urals disappearing from Primorsk, Johan Sverdrup is the first option available," said a trader at a refinery in southern Europe. "It is an alternative, but we have not been able to buy a cargo so far. So it's not one of the alternatives for us."

Changes in Europe's crude diet are inevitable and some of them could be dramatic. But even at this late stage of the game, it's unclear which grades will benefit most.

Lackluster buying interest for certain alternatives to Urals has left some market participants puzzled by the lack of a sense of urgency.

CHANGES IN CRUDE EXPORT ORIGINS TO EUROPE
(b/d)



NOTE: *Data from Jan-Oct † CPC marine terminal. Source Kpler

Kazakh and Mideast Crude

Kazakhstan's CPC Blend, for example, is a light, sour crude that should theoretically be seeing stronger demand.

Instead, prices for CPC have come under heavy pressure recently, mainly due to an expected rise in December loadings.

The Kazakh crude oil transits Russia on its way to the CPC marine terminal on Russia's Black Sea coast and there is a risk that it could be blended with Russian crude, making some potential buyers wary of unwittingly breaching the EU ban.

Meanwhile, Mideast producers of medium and heavy sour crudes are eyeing the opportunity in Europe to replace Russian oil, which has already been eroding their market share in Asia.

Saudi Arabia and Iraq are both pushing more crude west of Suez and betting on stronger demand there going forward.

They recently raised their official formula prices for Europe-bound cargoes loaded in December — the first to arrive after the EU ban — by up to $1/bbl in Iraq's case, while lowering their prices for sales to Asia.

India has become the top destination for heavily discounted Russian crude shunned by Europe, and Russia looks set to surpass Iraq and Saudi Arabia as India's main supplier.

"The Iraqis are more than happy to sell more barrels west because obviously they are losing some clients," says the southern European trader. "We increased the contract several months ago and I am sure that if we asked for more, we can get more."

Brazil and Angola

Two likely beneficiaries of the disruption of Russian crude flows to Europe are Angola and Brazil, which both produce medium, sweet crude that refiners can blend and run as replacements for Urals.

Brazil's trans-Atlantic exports have surged this year, with grades like Buzios and Iracema regularly heading to Europe.

But some sellers of Brazilian crude have not found the strong European demand for December-loading cargoes that they had expected.

And Angolan offers have come down sharply, traders say, from premiums to dated Brent of $1/bbl for Dalia to discounts to the North Sea benchmark.

"Everyone is leaving their purchases to the very last minute," says another trader with a European refinery.

"With the big Russia ban as of Dec. 5, we should have seen a race to take these Angolan grades, to take Johan Sverdrup, to take everything, to cover this demand. But strangely enough, that hasn't happened."

Weak Chinese demand — in particular for Angolan crude — appears to be a key factor in this, offsetting stronger demand in Europe.

Another big problem for sellers — even if it is one that should go away after Dec. 5 — is the simple fact that the big discounts offered for Russian crude make it by far the most competitive option for those still prepared to buy it.

"Technically it's very easy to replace Urals," says the trader. "What is not easy is to replace something that costs X minus $20 [to dated Brent] with something that costs X."

Simon Martelli, London and Tom Pepper, London and Julien Mathonniere, London

---

Mechanics of the G7 Price Cap on Russian Oil

The UK government published guidelines this week on the proposed price cap for Russia oil exports, amid expectations that an agreement could be hammered out at the G20 summit now under way in Bali, Indonesia.

There will be separate price caps for crude (from Dec. 5) and refined products (Feb. 5) that will complement an EU embargo on Russian oil imports coming into force on those dates.

But, with Russia refusing to endorse the price cap and its two main customers, India and China, showing no enthusiasm for the concept, the impact on Russian oil export levels and prices remains unclear.

The price cap targets Russia's exports outside the EU and broader G7, and is intended to allow Russian oil to keep flowing despite the ban on shipping and related financial services while limiting revenues to Moscow.

Waivers to a ban on shipping services will be granted if a cargo is purchased at or below the G7 price cap.

Energy Intelligence outlines below some of the details on implementation of the price cap that have emerged this week.

Why is the UK move significant?

Across G7 states, including the EU, there will be regulations restricting services for the maritime transportation of Russian oil, including trading, shipping, finance and insurance, which will form the foundation for the oil price cap. Compliance with the price cap will then allow an exception to the ban.

What that means in practice is if a firm buys Russian oil at or below the agreed price cap, it will be exempt from the services ban and thus able to access those G7 services to transport the oil.

London this week released detailed, public information on the practicalities, following an earlier move by the US. Further details have been awaited by the oil industry as the deadline rapidly approaches.

The UK is a crucial part of the initiative because of the big role it plays in international maritime insurance. It provides some 60% of protection and indemnity coverage for the global shipping industry, according to the UK Treasury.

The UK guidelines basically say that oil traders are responsible for reporting the actual price of the transaction and liable for sanctions penalties of up to £1 million ($1.2 million), or 50% of the estimated value of the breach, if they cheat. But officials will be talking to industry over the next couple weeks to finetune punishment. Banks, insurance and shipping companies will not be held responsible if they are found to have acted on wrong information, but must report wrongdoing it they suspect it.

Will the UK be the only G7 nation to impose financial penalties?

No, all G7 nations and allies in the scheme, which so far includes Australia, are expected to enforce this price cap mechanism on Russian crude oil and oil products — although Japan may only be a passive participant. The UK will do so via the UK Treasury's Office of Financial Sanctions Implementation, the US via the US Treasury's Office of Foreign Assets Control and the EU via the European Commission and its member states.

How much has the oil industry been consulted?

In drawing up the latest guidelines, the UK and US governments say they worked closely with oil companies, trading houses, shipping firms, brokerages and insurance companies to ensure the effective implementation of the measures. The "attestation process" is said to be very different from when the process first started.

However, officials accept that there was industry caution over the oil price cap, that it is novel and quite different from previous sanctions measures. Ultimately, traders and companies along the oil trading value chain will have to decide for themselves whether they have the risk appetite to lift Russian Urals going forward.

Some international oil companies have been vocal in their opposition to this type of market intervention. TotalEnergies CEO Patrick Pouyanne told the Energy Intelligence Forum in October that he considered the price cap "a bad idea."

Can a company trade oil using a fluctuating benchmark like Brent and still comply with UK Treasury guidelines?

The UK Treasury guidelines state that the cap will apply as a fixed price at the time of the "most recent transaction" between loading a cargo and delivering it.

In practice, most oil companies do not trade oil at a fixed price, but rather as a differential to a variable benchmark. They arrange shipping and insurance well before the dates of loading or delivering of a cargo, when the actual price is determined.

For example, if the price cap were set at $60 per barrel and a trader were to purchase a Russian Urals grade cargo at a $20 discount to Brent, which at that time was trading at around $80, then the trader would be in compliance. However, if Brent then rises to $100 around the date of loading the cargo, the trader would no longer be compliant.

The rules do not seem to accommodate this. In keeping with the G7 agreement, the UK government insists that the price cap will be a fixed price set along the supply chain from leaving Russia to the point of delivery. If the cap is set at $40/bbl, it will be applied at $40/bbl at any stage along that chain.

If a Russian Urals crude shipment is taken inland and not substantially transformed, and a trader reships it as a seaborne cargo, the cap would continue to be imposed. If it is substantially transformed into refined products, the cap will not apply.

How will Russia react?

Predicting the reaction of the Russian government to this new set of G7 measures is very hard.

Some speculate that Moscow could limit some production in an attempt to drive up prices and hurt the G7, as oil consumers.

The UK and US governments appear to be betting that ultimately Moscow will not want to cut off a key revenue stream for its economy.

Moscow has said it will not cooperate with the price cap. However, London expects Russia to seek to continue to sell oil into the cap or within the confines of the cap mechanism. The UK government thinks it will not risk damaging its reputation as a reliable supplier to customers.

The G7 plans to monitor the mechanism constantly. If Moscow takes a more unpredictable approach, G7 governments would review the oil price cap and try to respond quickly to any Russian move, according to the plans.

Tom Pepper, London and Paul Sampson, London and John van Schaik, New York

IEA Projects Dip in Global Diesel Demand Next Year

The International Energy Agency (IEA) said on Tuesday that global growth of oil demand will slow to 1.6 million barrels per day next year from 2.1 million b/d this year, as a result of mounting economic headwinds.

China's weak economy, Europe's energy crisis, and the strong US dollar "are all weighing heavily on consumption," it said in its latest monthly *Oil Market Report*.

The agency pegged Russia's crude oil exports to the EU at 1.5 million b/d in October — 1 million b/d below where they stood before Moscow launched its war in Ukraine.

It estimated Russia's exports of refined products to the EU at 1 million b/d in October (including 600,000 b/d of diesel) — down 300,000 b/d from the pre-war level.

An EU ban on imports of Russian crude oil is set to take effect on Dec. 5, followed by a ban on imports of refined products on Feb. 5.

The IEA said the approaching EU import bans and and a related ban on maritime services will put "further pressure on global oil balances, and, in particular, on already exceptionally tight diesel markets."

High diesel prices are "fueling inflation, adding pressure on the global economy and world oil demand," the report said.

The agency projects that growth in global diesel/gasoil demand will slow from 1.5 million b/d in 2021 — to just 400,000 b/d in 2022 and post a small decline in 2023 under the weight of persistently high prices and a slowing economy.

Diesel consumption is closely correlated with industrial and commercial activity. It picked up during the rebound that followed the Covid-19 pandemic, but has slowed with the global economy this year as inflation and interest rates have soared.

The IEA said that as Europe has turned away from Russian crude, no significant offsetting demand has arisen beyond China, India, and Turkey "despite massive discounts."

A further rerouting of trade should help ease pressures but a shortage of tankers is a major concern, it added.

Competition for non-Russian diesel barrels "will be fierce, with EU countries having to bid cargoes from the US, Middle East and India away from their traditional buyers."

As for global oil supply, the IEA sees growth of 4.6 million b/d this year slowing to just 740,000 b/d in 2023 as reduced supply from Opec-plus offsets additions from the US (1 million b/d), Brazil (300,000 b/d) and Norway (270,000 b/d).

IEA SUPPLY AND DEMAND PROJECTIONS

(million b/d)	2021	Q1'22	Q2'22	Q3'22	Q4'22	2022	Q1'23	Q2'23	Q3'23	Q4'23	2023
Oil Demand	97.7	99.4	98.7	100.3	100.7	99.8	99.6	100.5	102.3	103.0	101.4
Non-Opec Supply	63.8	64.9	64.7	66.1	66.5	65.5	65.4	65.9	66.5	66.6	66.1
Opec NGLs	5.1	5.3	5.4	5.4	5.4	5.3	5.4	5.4	5.5	5.5	5.4
Call on Opec Crude + Stock Change	28.8	29.2	28.6	28.9	28.8	28.9	28.8	29.2	30.3	30.9	29.8

Source: IEA Oil Market Report (November)

Julien Mathonniere, London

COP27: Renewables Need Marshall Plan, Less Red Tape

Renewables may now be cost-competitive and contribute to energy security, but structural challenges that are impeding their growth require urgent attention, according to delegates at the UN's COP27 climate summit in Egypt.

Renewables have low operating costs but they have considerable up-front investment costs, and the developing world, which typically has to pay higher interest rates to borrow money, needs financial support.

"Africa needs funding, funding, funding," Congo (Kinshasa) Energy Minister Didier Ntubuanga told the conference.

The need for richer countries to help less affluent nations has been a major theme at this year's conference, with the latter group expressing frustration at developed nations' failure to honor a pledge to provide $100 billion a year in climate finance.

The climate targets of most developing countries are conditional on external financing and it will be impossible to achieve the climate goals of the Paris Agreement unless those funds are made available.

Pakistan, for example, is targeting a 50% share for clean energy in its overall energy mix by 2030. But 35% of that is conditional on international financial support, Climate Change Secretary Asif Hyder Shah told Energy Intelligence.

Focus on Infrastructure

Francesco La Camera, director-general at the International Renewable Energy Agency (Irena) argues that a "Marshall Plan" is needed to promote the growth of renewable energy in the developing world.

"You really need to focus on building the infrastructure," La Camera said in an interview with Energy Intelligence.

"You can build any plant you want, but if you cannot trade hydrogen from your harbor, if you cannot distribute energy, if you cannot send hydrogen by pipeline how can you succeed?"

La Camera also said that the case for investment in renewable energy has never been stronger, especially when the benefits of job creation are considered.

Power grid infrastructure is particularly important, and not just in developing countries, Giles Dickson CEO of lobby group WindEurope told Energy Intelligence.

He estimates that the EU needs some €860 billion to meet its wind power targets through 2030 — €400 billion for generation and the rest for developing the grid.

The EU hopes to generate some 43% of its electricity from wind by 2030, rising from around 190 GW today to 510 GW.

"So, you know, nearly tripling in just eight years. It's extremely challenging," says Dickson.

Bureaucratic Obstacles

Two factors are exacerbating the challenge of developing sufficient clean energy infrastructure in Europe — permitting and a revenue cap for renewable power.

EU wind farms have been taking up to 10 years to permit and build, says Dickson.

"If you want to build an onshore wind farm in Italy, for example, you will spend €40,000 on photocopying costs alone."

The EU passed legislation this year to shorten permitting to two years, but Dickson says it does not provide developers with the kind of reassurance they need.

"There's no clarity in EU law, about which permits are covered by that two-year deadline and when the clock starts ticking and when it stops ticking," he says.

The second issue is a revenue cap of €180 per MW/hour that the EU introduced for renewable power.

The EU cap was set considerably higher than production costs for renewable power, but national governments are allowed to introduce a lower cap.

This "creates confusion, and uncertainty for investors," and investments have fallen since the measure was introduced, says Dickson. Investors "want the market rules to be plain, clear and simple," he adds.

Rafiq Latta, Sharm el-Sheikh, Egypt

ONGC Videsh Output Takes Sakhalin-1 Hit

India's ONGC Videsh expects its oil and gas production for the current financial year to fall by around 17% because of the disruption of operations at the Sakhalin-1 project in Russia and severe floods in South Sudan.

But production is expected to recover to prior levels during the next financial year, which will start on Apr. 1, 2023, executives said during a conference call with analysts on Tuesday.

ONGC Videsh is the international upstream arm of India's state-controlled Oil and Natural Gas Corp. (ONGC). Like other Indian companies its financial year runs from Apr. 1 to Mar. 31 of the following year.

Executives said the company's overall output will likely average 10 million tons of oil equivalent (about 200,000 barrels of oil equivalent per day) for the 2022-23 financial year — down from 12 million tons of oil equivalent (240,000 boe/d) in 2021-22.

That would be the company's lowest level of annual production since the 2015-16 financial year.

ONGC Videsh holds a 20% stake in Sakhalin-1, which accounted for almost a quarter of the Indian company's total output in 2021-22.

But gross production at Sakhalin-1 fell to minimal levels of around 5,000-10,000 b/d this from prior levels of more than 200,000 b/d after former operator Exxon Mobil declared force majeure because of Western sanctions.

Russia later ended Exxon's operatorship and formed a new operating company for Sakhalin-1 in which ONGC Videsh retained a 20% interest. The venture produced around 20,000 b/d of oil in October.

Stranded Dividend Income

Russia's war in Ukraine has also prevented ONGC Videsh from repatriating dividends worth about $42 million that were earned from its 26% stake in the Vankorneft upstream venture in Russia.

The Indian company holds its stake in Vankorneft through a subsidiary based in Singapore, which Russia deems an "unfriendly country." Its dividend income therefore remains stranded in a Russian bank account for the time being.

ONGC has also seen a dip in its 2022-23 output in South Sudan — which accounted for 4% of its total production in 2021-22 — because of severe and extensive flooding. However, its production in Colombia has risen during 2022-23.

Meanwhile, parent company ONGC is set to see its production rise next year as production starts at Block KG-DWN-98/2 in the Bay of Bengal.

Output from the block is expected to peak at 45,000 barrels per day of crude oil and 12 million cubic meters a day of gas by the 2024-25 financial year, according to another executive who spoke on the ONGC Videsh call.

ONGC's output is likely to remain flat in 2022-23 at 41 million tons of oil equivalent (about 820,000 boe/d) but rise to 46 million tons of oil equivalent (920,000 boe/d) in 2023-24, the executive said.

Rakesh Sharma, New Delhi

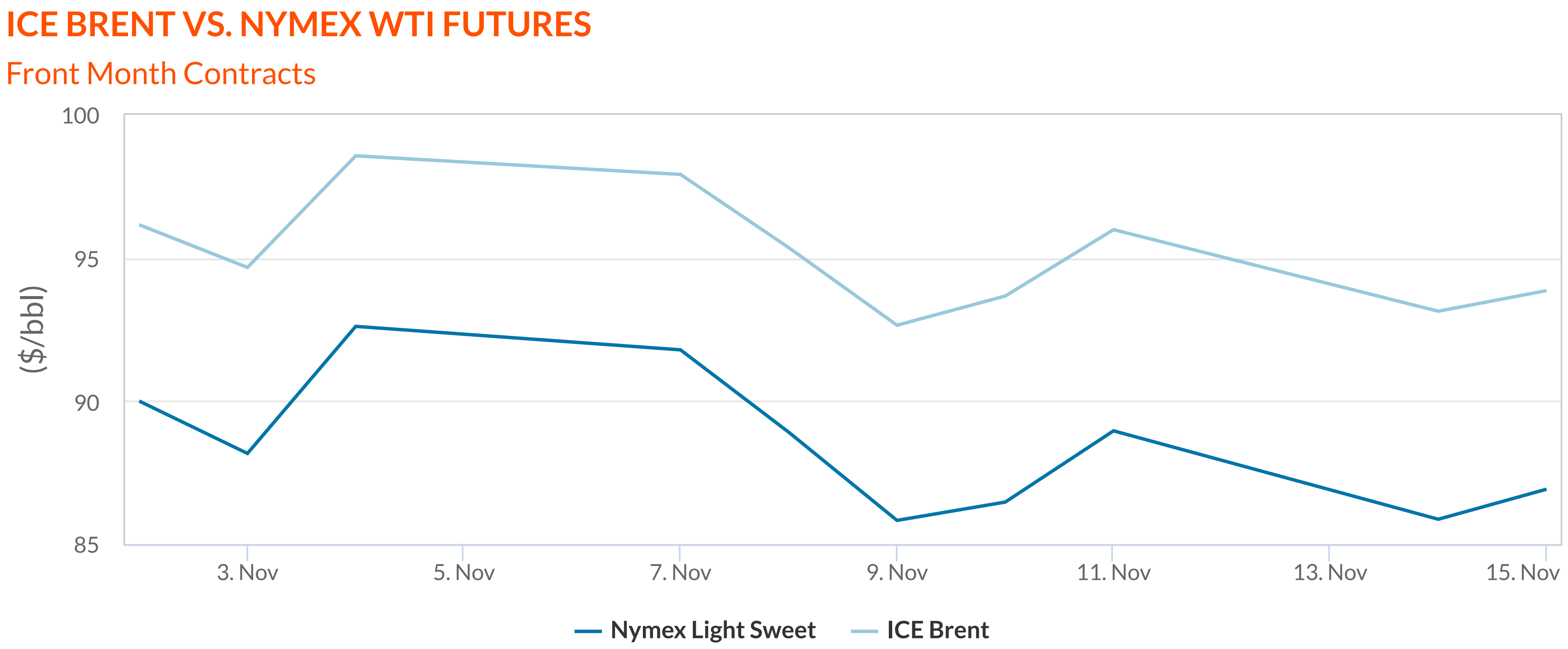
Druzhba Outage Sends Crude Futures Higher

Oil prices settled higher on Tuesday following news that oil supply to Hungary via the Druzhba oil pipeline had been temporarily suspended due to a fall in pressure.

Brent crude futures closed up 72¢ at $93.86 per barrel, while US West Texas Intermediate (WTI) crude rose by $1.05 to settle at $86.92/bbl.

Russian state-owned pipeline monopoly Transneft was notified by Ukraine of the pipeline disruption, the RIA news agency quoted Transneft as saying on Tuesday.

Meanwhile, the US said it was investigating unconfirmed reports that stray Russian missiles caused an explosion that killed two people in a Polish village near the border with Ukraine.



An EU ban on seaborne Russian crude, set to start on Dec. 5, means that 1.1 million barrels per day of oil supply will need to be replaced, the International Energy Agency (IEA) said Tuesday.

"When you look at what we saw from the IEA about global oil inventories, that should be very bullish," said Phil Flynn, an analyst at Price Futures Group.

Adding support to oil prices, US producer prices increased less than expected in October, providing more evidence that inflation was starting to ease, which could allow the US Federal Reserve to slow its aggressive interest rate hikes.

Wall Street indexes rose after the data was published, while the US dollar index fell, making greenback-denominated oil less expensive for other currency holders.

"The inflation data was positive in a way. Stocks took off from that and it looks like we're getting dragged higher now," said John Kilduff, partner at Again Capital in New York. "We're still in that inverse dollar effect here."

The IEA's gloomy economic outlook will put global oil demand on track to contract by nearly 250,000 b/d in the fourth quarter of 2022 from a year earlier, with demand growth slowing to 1.6 million b/d in 2023 from 2.1 million b/d in full-year 2022.

US crude stocks fell by about 5.8 million barrels for the week ended Nov. 11, according to market sources citing American Petroleum Institute figures on Tuesday. Gasoline inventories rose by about 1.7 million bbl while distillate stocks rose by about 850,000 bbl. US government data on domestic inventories will be published on Wednesday.

In China, Covid-19 cases continued to rise, including in the capital Beijing, and the country's factory output growth slowed.

Investment bank JPMorgan cut its quarterly and full-year forecasts for economic growth in China. Opec recently cut its 2022 global oil demand growth forecast for the fifth time since April, citing mounting economic challenges including high inflation and rising interest rates. (Reuters)

IN BRIEF

China's Refinery Throughput Dips

China's refinery throughput dipped in October after a strong rebound in September, but the country's two largest refiners are expected to raise crude runs in November.

Refinery throughput dipped by a marginal 20,000 b/d from September to 13.86 million b/d in October, although levels rose by around 100,000 b/d from October of 2021, according to data from the National Bureau of Statistics (NBS).

September crude runs had surged by 1.2 million b/d from August as refiners began to ramp up diesel output for export.

PetroChina, the country's second-largest refiner is likely to increase its crude runs in November, said a Chinese market source.

And Sinopec, China's largest refiner, is also likely to increase its runs slightly, compared with October, the source added.

November crude throughput will also be bolstered by the new 320,000 b/d Shenghong refinery, which has started up its crude distillation unit and is slowly starting up secondary units, said another Chinese market source.

Chinese refineries processed 13.4 million b/d of crude in the first 10 months of this year — down by roughly 600,000 b/d compared to the same period last year.

Freddie Yap, Singapore

Total to Start Lebanon Exploration

TotalEnergies and Eni are preparing to start exploration work offshore Lebanon, following the recent resolution of a border dispute between Israel and Lebanon.

Lebanon and Israel agreed to delineate their maritime border last month in a US-brokered deal that ended a decades-long dispute and opened the door for further offshore oil and gas exploration in the Mediterranean Sea.

Total said it has signed a framework agreement with Israel that will allow it to start exploring the Qana prospect in Lebanon's Block 9. The agreement provides for payment of royalties to Israel if any resources are found to extend into Israeli waters.

Total said it had started preparations for exploration work, including the mobilization of personnel, the purchase of required equipment and procurement of a drilling rig.

Total operates Block 9 and holds a 60% interest. Its partner Eni holds a 40% stake.

Yousra Samaha, Dubai

Total, Conoco Complete Libya Deal

TotalEnergies and ConocoPhillips have completed the joint purchase of the 8.16% stake in Libya's Waha oil concession held by US producer Hess.

As a result of the deal — announced in November of last year — Total and ConocoPhillips have each increased their stake in the joint venture from 16.33% to 20.41%. Libya's National Oil Corp. (NOC) has retained its 59.18% holding.

Waha Oil Co. plans to increase production from its concessions in Libya's eastern Sirte Basin to around 530,000 barrels of oil equivalent per day.

The latest realignment at Waha comes three years after Libya approved Total's acquisition of US producer Marathon Oil's 16.33% stake.

Total said on Tuesday that it is studying solarization of Waha's oil and gas production sites and has separately finalized the location and commercial terms of a new 500 MW solar power plant in western Libya in partnership with Libyan utility Gecol.

Tom Pepper, London

DATA SNAPSHOT

Oil and Gas Prices, Nov. 15, 2022

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

CRUDE OIL FUTURES

($/bbl)	Chg.	1st Mth.	2nd Mth.
ICE Brent	+0.72	93.86	92.75
Nymex Light Sweet	+1.05	86.92	86.25
DME Oman	-0.09	88.24	87.46
ICE Murban	+0.18	92.01	90.92

INTERNATIONAL SPOT CRUDES

($/bbl)	Chg.	Price	Prior Close
Brent (Dated)	+0.72	94.30	93.58
Dubai	-4.20	86.80	91.00
Forties	-1.11	94.80	95.91
Bonny Light	-1.32	95.65	96.97
Urals	-1.32	75.27	76.59
Opec Basket*			94.42

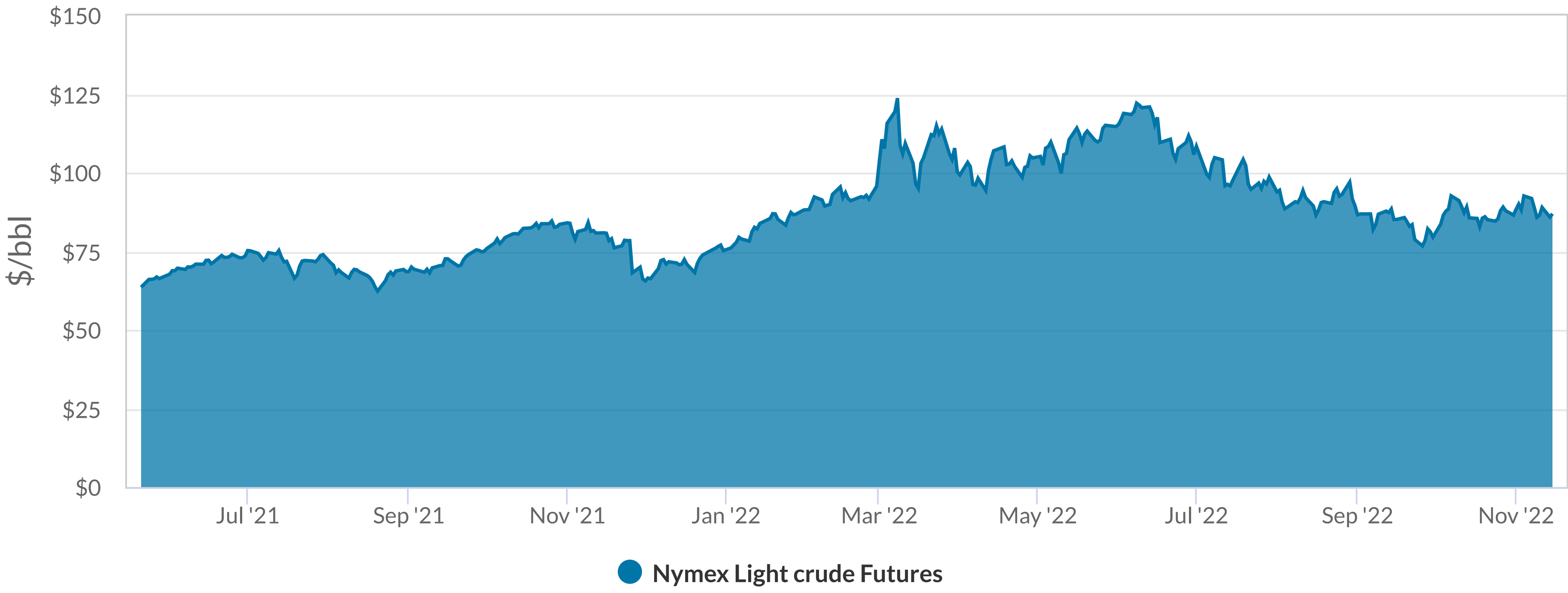
*Opec price assessed.

NORTH AMERICAN SPOT CRUDES

($/bbl)	Chg.	Price	Prior Close
WTI (Cushing)	+1.02	86.87	85.85
WTS (Midland)	+0.97	85.37	84.40
LLS	+1.52	91.37	89.85
Mars	+1.57	84.67	83.10
Bakken	+1.02	91.67	90.65

ICE BRENT CRUDE FUTURES

NYMEX LIGHT CRUDE FUTURES

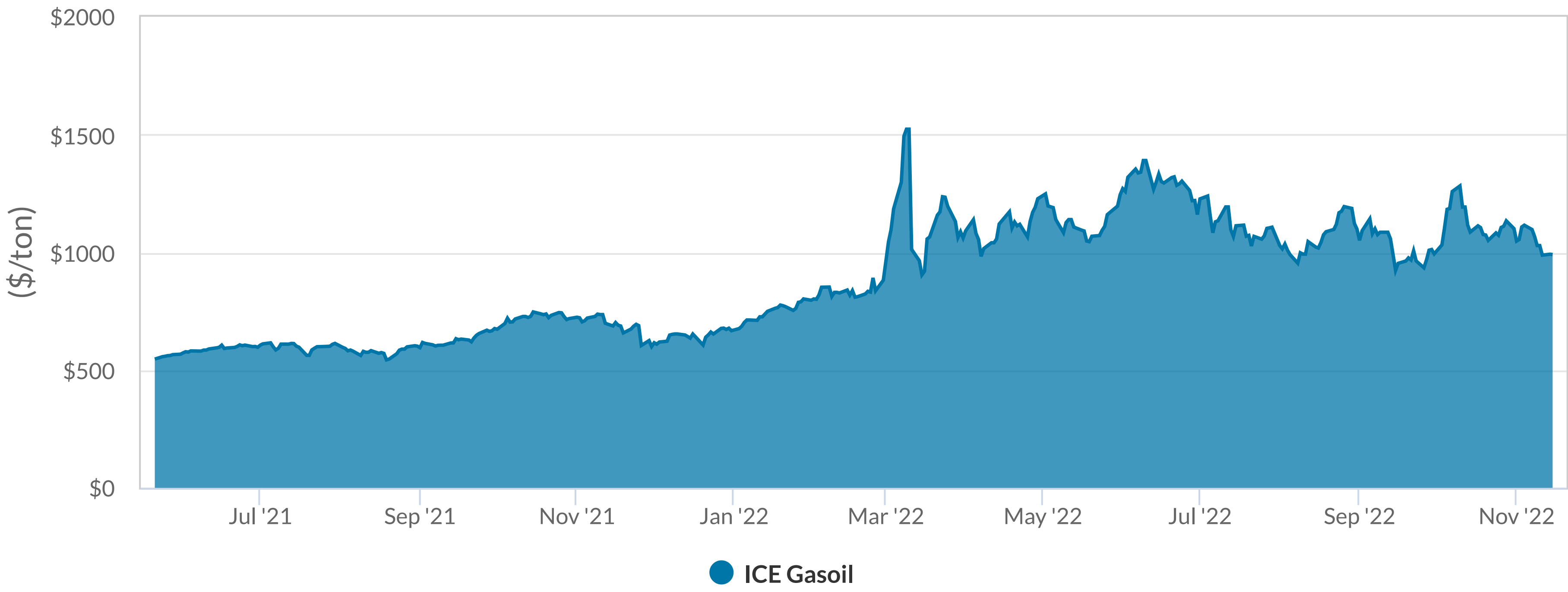


Energy Intelligence

REFINED PRODUCT FUTURES

Nymex	Chg.	1st Mth.	2nd Mth.
Gasoline (¢/gal)	-1.24	251.61	247.42
ULSD Diesel (¢/gal)	+9.73	364.13	350.99
ICE			
Gasoil ($/ton)	-1.50	990.25	981.00
Gasoil (¢/gal)	-0.48	316.05	313.10

ICE GASOIL FUTURES



NYMEX GASOLINE FUTURES

US SPOT REFINED PRODUCTS

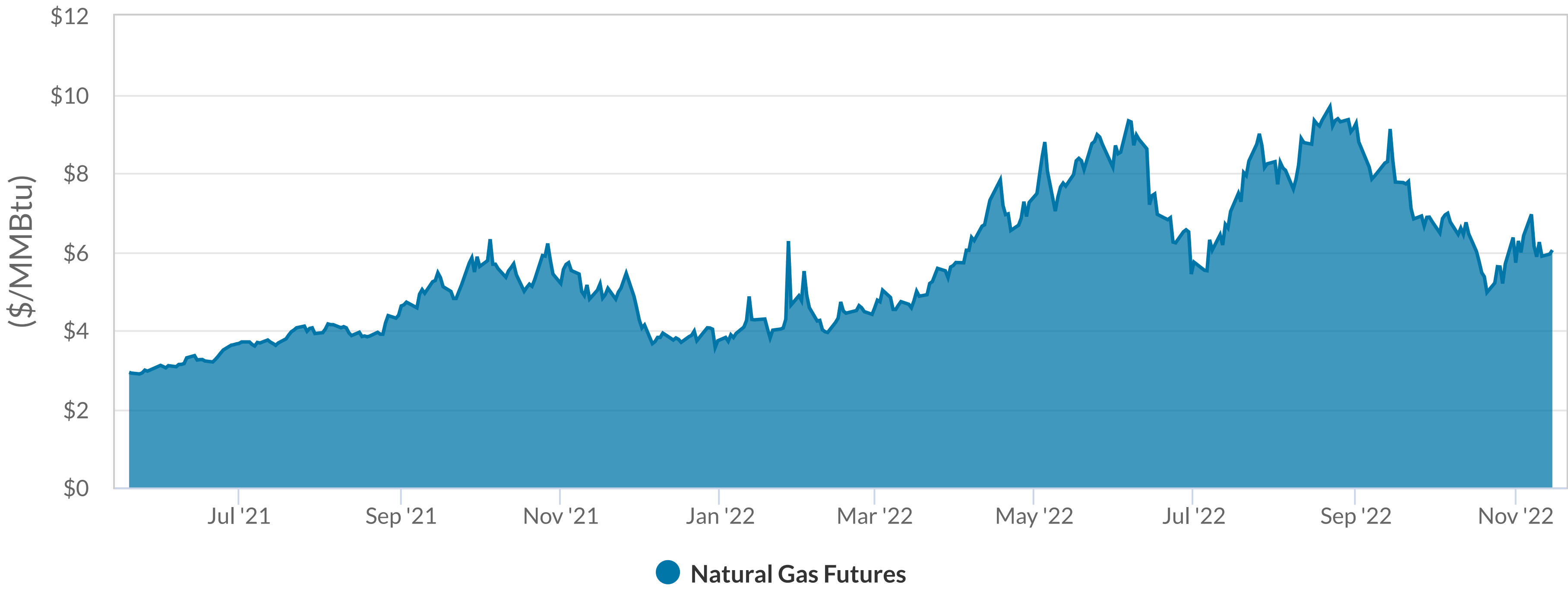
New York (¢/gal)	Chg.	Price	Prior Close
Regular Gasoline	+0.20	293.02	292.82
No.2 Heating Oil	+9.41	433.46	424.05
No.2 ULSD Diesel	+9.41	463.46	454.05
No.6 Oil 0.3% *			93.35
No.6 Oil 1% *			84.99
No.6 Oil 3% *			66.44
Gulf Coast (¢/gal)			
Regular Gasoline			249.57
No.2 ULSD Diesel	+3.41	333.21	329.80
No.6 Oil 0.7% *			83.23
No.6 Oil 1% *			83.23
No.6 Oil 3% *			63.76

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

INTERNATIONAL SPOT REFINED PRODUCTS

Rotterdam ($/ton)	Chg.	Price	Prior Close
Regular Gasoline	-40.20	843.80	884.00
ULSD Diesel	+21.00	1021.50	1000.50
Singapore ($/bbl)			
Gasoil	-3.19	121.01	124.20
Jet/Kerosene	-4.96	122.64	127.60
VLSFO Fuel Oil ($/ton)	-37.54	633.79	671.33
HSFO Fuel Oil 180 ($/ton)	-6.65	430.44	437.09

NYMEX NATURAL GAS FUTURES



Refinitiv

NATURAL GAS PRICES

($/MMBtu)	Chg.	Price
Henry Hub, Nymex	+0.10	6.03
Henry Hub, Spot	-0.25	5.90
Transco Zone 6 - NY	N/A	N/A
Chicago Citygate	-0.30	5.94
Rockies (Opal)	-0.19	8.33
Southern Calif. Citygate	+0.16	9.00
AECO Hub (Canada)	+0.10	4.46
Dutch TTF (euro/MWh)	+6.00	116.00
UK NBP Spot (p/th)	+6.00	106.00

US/Canada spot prices from Natural Gas Week

Equity Markets, Nov. 15, 2022

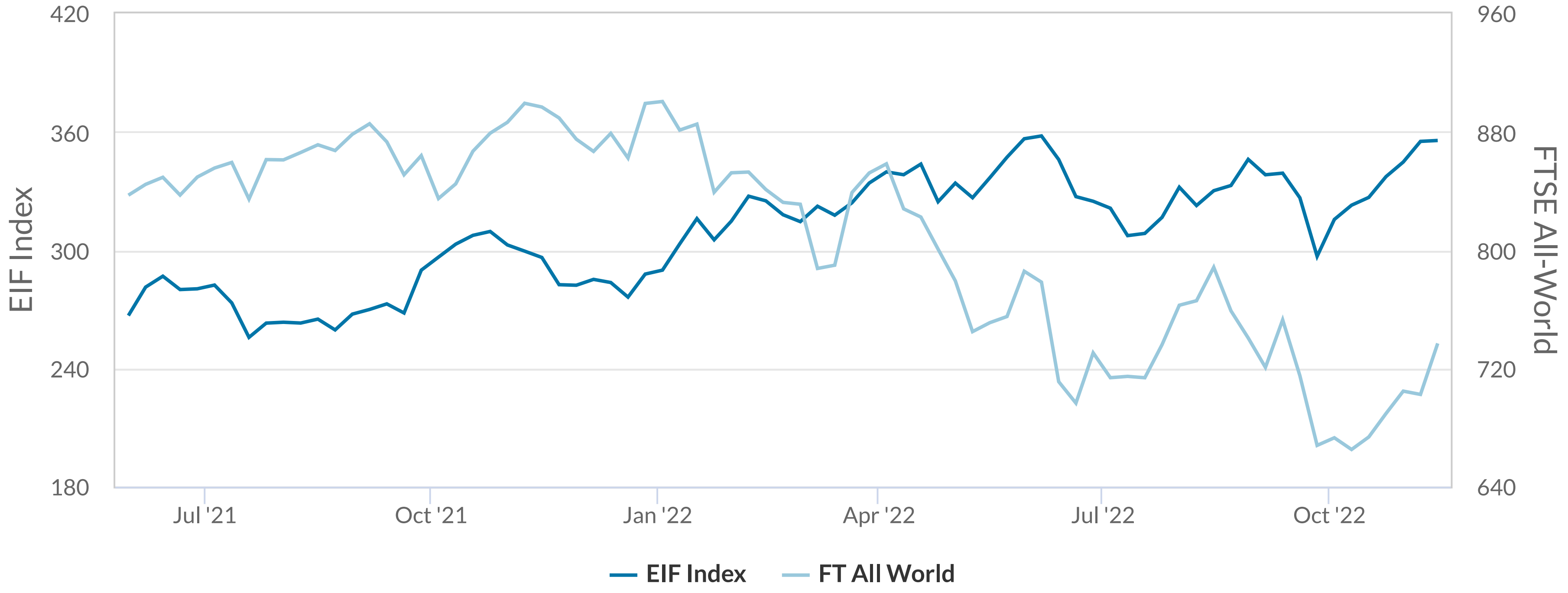
All data are produced by Energy Intelligence in cooperation with Reuters.

EQUITY MARKET INDEXES

	Chg.	Index	YTD %Chg.
EIF Global*	-1.09	355.55	+23.99
S&P 500	+34.48	3,991.73	-16.72
FTSE All-World*	-5.19	736.88	-18.23

*Index for previous day

EIF INDEX



EIF Global Oil and Gas Index of 21 traded equities