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In Brief

Data Snapshot

Druzhba Incident Highlights Risks of Disruption

Hungary and Slovakia said flows of Russian crude oil via the Druzhba pipeline resumed on Wednesday after a brief suspension because of power outages in Ukraine that hit the southern leg of the pipeline.

Ukraine said on Tuesday that it had suspended shipments of crude oil through its territory because of power outages caused by Russian missile attacks on energy infrastructure in the war-ravaged country.

Foreign Minister Peter Szijjarto said on Wednesday that Hungary was receiving oil via Druzhba again.

The pipeline had resumed operations at low pressure, but work was under way to restore full pressure and normal flow volumes, he said.

Slovakia's government also confirmed the resumption of crude deliveries via Druzhba.

Russia's latest wave of missile attacks against Ukrainian electricity infrastructure was the largest to date and caused power outages across Ukraine and neighboring countries.

While the suspension of crude oil shipments was temporary, the incident thrust Russian energy supplies back into the spotlight.

The incident was the first such disruption of oil flows directly linked to military action since Russian troops invaded Ukraine in February.

It also revived fears that Moscow could disrupt crude export flows through the pipeline, as the EU prepares to impose a ban on seaborne imports of Russian crude oil from Dec. 5.

That date coincides with the start of a G7 plan to impose a price cap on exports of Russian oil.

Dependence on Russian Oil

EU sanctions allow Hungary, Slovakia and the Czech Republic to continue importing oil via the Druzhba pipeline until the end of 2024.

The 1 million barrel per day pipeline runs from Russia to Belarus, where it splits into a northern leg that runs to Poland and Germany, and a southern leg through Ukraine to Hungary, Slovakia and the Czech Republic.

Shipments via the southern leg of the Druzhba pipeline totaled 240,800 b/d in 2021, including 68,500 b/d sent to Hungary.

The landlocked countries along Druzhba's southern leg are heavily dependent on Russian crude oil.

Hungary, in particular, has been insistent about the logistical challenges for its refineries to find alternative sources of supply.

So far at least, Russian crude exports via Ukraine have run more or less smoothly during the nine-month war.

Both sides have an interest in keeping the oil flowing, so that Moscow can maintain some of its revenues from oil exports to Europe and Kyiv can continue to earn transit fees, sources say.

However, there has been speculation that the new oil sanctions could provoke a retaliatory response from Moscow against Europe.

Russia has also continued to ship some gas to Europe through Ukraine, but via only one of two entry points on the border between the two countries.

Poland and Germany have both previously announced plans to stop importing Russian crude oil via the northern leg of the Druzhba pipeline by the end of this year.

However, Russian newspaper *Kommersant* reported on Wednesday that Polish refiner PKN Orlen will continue to import some Russian oil via Druzhba in 2023 under a previously signed long-term contract.

In a statement to Reuters, PKN Orlen confirmed that some supplies to its refineries in Poland would continue under long-term contracts.

The company also noted that currently some 70% of the oil supplied to its refineries in Poland, the Czech Republic and Lithuania comes from sources other than Russia.

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

Staff Reports

COP27 Climate Gathering Enters Final Phase

The UN's COP27 climate summit in Egypt is getting down to the nitty gritty, with world leaders arriving to sign off on a final communique that is expected to reaffirm the goal of limiting global warming to 1.5°C amid a push for action to reduce consumption of fossil fuels.

There had been concerns about wavering commitment on the 1.5°C target, but the G20 nations — which include heavyweight oil producer Saudi Arabia — set a positive example by embracing it at their summit in Indonesia on Wednesday.

Other proposals will likely to be harder to pass, however.

Financial support for damage and loss was placed on the official COP27 agenda this year, but given the paucity of firm pledges to contribute to a dedicated compensation fund, the final communique may not mention it at all or may do so only summarily.

Of greater interest to oil and gas producers, perhaps is a proposed commitment to "phase down" the use of fossil fuels, which follows a similar commitment at last year's conference in Glasgow to gradually reduce consumption of coal.

Critically, this idea — originally proposed by India — now has the EU's backing.

"We support the phase down of fossil fuels, if it is on top of [what we agreed in Glasgow], not as an alternative to what we agreed in Glasgow," EU Climate Action Commissioner Frans Timmermans told Energy Intelligence.

Fossil fuel producers should not take any comfort from the fact that global consumption of coal use has actually increased in the year since COP26 in Glasgow.

On the whole there is growing global support for an accelerated transition to clean energy, in large part down because of mounting energy security concerns caused by Russia's war in Ukraine.

The EU, for example, announced this week that it is increasing its targeted reduction in greenhouse gas emissions by 2030 from 55% to 57%, measured against the base year of 1990.

"We will even be moving forward from that in the next few months," Timmermans told a conference panel.

"Getting Rid of Russian Gas"

Germany is bringing forward the target date for its zero-coal policy in the western part of the country to 2030 from 2038, said Stefan Wenzel, State Secretary at Germany's ministry of economic affairs and climate action.

"We want to get rid of Russian gas as fast as possible and rid of fossil fuels in general," Wenzel told the conference.

Chile too is also thinking of bringing forward its current zero-coal target date of 2040, Energy Minister Diego Pardow Lorenzo told Energy Intelligence.

Wednesday's VIP arrivals included Brazilian President-elect Luiz Lula da Silva who was given a rock star's welcome by a crowd of several hundred conference attendees.

Brazil is both a major green energy power and a significant oil producer, and Lula wants it to become a key recipient of nature-based carbon offsets. He has proposed that the COP30 conference in 2025 should be held in Brazil's Amazon rain forest.

There has been much justified criticism of carbon offset schemes, but Daniel Nepstad, president of the Earth Innovation Institute, says that if they are well managed, they could generate $2 billion per year to protect the Amazon.

Rafiq Latta, Sharm el-Sheikh

Repsol CEO: Europe's Transition Policy is Failing

Europe's energy transition policy is failing and has forced the continent to export its industries along with their carbon dioxide emissions, the CEO of Spain's Repsol said on Wednesday.

Repsol has demonstrated strong commitment to the energy transition. It was one of the first major oil and gas companies to set a 2050 net-zero emissions target and has vowed to allocate 30% of its capital spending in 2021-25 to low-carbon investments.

But CEO Josu Jon Imaz called for more "common sense" as he identified three key requirements for Europe's transition policy: security of supply, affordability and decarbonization.

"From my point of view, in Europe, we abandoned, we fully lost the first two subjects ... we have been dependent on Russia for years," he told the Reuters Energy Transition Europe conference in London.

Repsol was ahead of the curve, completing its withdrawal from Russia before that country's invasion of Ukraine by selling its interests in West Siberian exploration blocks to former partner Gazprom Neft in January.

Repsol's home country of Spain did not have a heavy dependence on Russian gas, thanks to its LNG import terminals and easy access to supplies from North Africa.

Still, Imaz lamented that the continent had taken its eye off affordability of supply, which has become a major concern in the wake of the Ukraine crisis.

"We fully abandoned the subject of affordability and today we have a situation where a lot of families ... can't pay their energy bills in our continent," he said.

"And many industries -- which are intensively using energy -- they have to shut their operations. So we have failed on that."

"Exporting Industries and CO2"

Europe is also failing in decarbonization, the Repsol CEO said.

While the figures for the continent's own emission reduction efforts look good, the continent is essentially sweeping the CO2 under the carpet, by forcing its industries to shut down and exporting them to other regions, along with CO2 molecules, he added.

The combined carbon emissions of the steel and cement sectors in China alone are equivalent to the entire CO2 emissions of Europe, Imaz noted, advocating a more balanced approach to the transition.

"We have to put more common sense in the energy transition. And we have to combine the security of supply, with the affordability and the CO2 reduction," he said

"We have to cope with this energy transition based on industrial and technological capabilities. We need a guarantee that the energy we are going to [produce] in the coming years — including oil and gas — is going to be there."

Tom Daly, London

EU, Egypt Agree to Cooperate on Green Hydrogen

The EU and Egypt have agreed to cooperate on production and trade of renewable hydrogen, with the EU also committing to allocate €35 million ($36 million) to Egypt's Energy Wealth Initiative.

The partnership was announced Wednesday at the COP27 climate change conference, which Egypt is hosting.

Both sides have agreed to collaborate on future EU plans to import renewable hydrogen and its derivatives; assist Egypt's transition to a low-carbon economy and develop wider "economic opportunities" through the production, use and export of renewable hydrogen.

The deal is provisional with no legally binding obligations, but it could still serve as a first step in the development of a new hydrogen industry and trade in carbon-free hydrogen between Europe and Egypt.

It follows an LNG supply cooperation pact between Egypt and the EU that was agreed in June.

Both sides want to transition to a low-carbon economy, while Europe's gas crisis — a byproduct of the war in Ukraine — has prompted the EU to review its options for shifting away from fossil fuels, while also strengthening security of energy supplies.

The agreement with Egypt "will support the EU's ambition of reaching 20 million tons of renewable hydrogen consumption in 2030 … and therefore help reduce dependency on Russian fossil fuels," the European Commission said.

Both sides have agreed to promote investment in renewable power generation and work to develop the demand side of a future green hydrogen market by sharing forecasts and advancing reforms in both Egypt and the EU that will provide clarity to future investors.

On the supply side, both sides promised to promote the growth of renewable electricity and hydrogen production with a view to creating "integrated Euro-Egyptian hydrogen value chains."

They will also seek to transition from the production of blue and gray hydrogen to carbon-free green hydrogen.

Building the necessary hydrogen export infrastructure to connect Egypt to the EU is also part of the plans. This will include pipelines, electricity interconnectors and storage and port facilities.

Egypt's Energy Wealth Initiative aims to shut down 5,000 MW of inefficient gas-based power generation capacity (around 5% of Egypt's total electricity supply) and facilitate investment in 10,000 MW of new renewable power capacity.

Tom Pepper, London

Aramco: Hydrogen Will Need Right Policies to Take Off

Saudi Aramco could produce and export significant quantities of blue hydrogen in the future, but it will require governments to put the right policies in place to create sufficient demand, according to the oil giant's vice president of chemicals and low-carbon hydrogen.

"[Hydrogen] is an expensive fuel compared to the solutions we have today. And none of this is commercial without proper incentives or regulations that mandate the use of such low-carbon fuel, or ... provide incentives for people to use it," Olivier Thorel told Energy Intelligence in an interview.

"The demand to a large extent, and the speed at which it will come, will depend on how countries like Japan, Korea and Europe put in place the regulatory framework that makes it economical for power producers, shipping companies, transportation, railways to use hydrogen or ammonia as a fuel," Thorel said.

Aramco has set a target of achieving net-zero greenhouse gas emissions (Scopes 1 and 2) by 2050 — a full decade ahead of Saudi Arabia's national goal.

To that end it has started working on initiatives and projects that involve the production of fuels with a lower carbon footprint than oil and gas, including hydrogen.

The company's initial efforts have focused on "blue" hydrogen made from Saudi Arabia's domestic natural gas resources, with capture and storage of the emissions generated by that process.

Aramco has also started testing exports of hydrogen by converting it into blue ammonia to overcome the inherent difficulties involved in shipping hydrogen itself. The ammonia is made by combining blue hydrogen with nitrogen.

Thorel said tests have shown that blue ammonia can be burned alongside coal in power plants (known as co-firing) and that it could also be used as a fuel for ships.

Scaling Up

Once demand has grown sufficiently — Aramco has previously said that this could occur by 2030 — the company could scale up production of blue hydrogen by displacing the "gray" hydrogen it already produces in Saudi Arabia, Thorel said.

Earlier this week, at the UN's COP27 climate change conference in Egypt, Aramco announced plans to develop one of the world's largest carbon capture and storage hubs.

The hub will be located in the industrial city of Jubail in Saudi Arabia's Eastern Province and would be capable of storing up to 9 million tons of CO2 per year by 2027.

A potential large-scale blue ammonia project by Aramco or its petrochemicals affiliate Saudi Basic Industries Corp. (Sabic) would most likely make use of this facility.

"As soon as phase one [of the carbon capture facility] comes into play in 2027 ... we can immediately decarbonize what we are producing in Jubail," said Thorel.

Aramco could boost its current blue hydrogen output of around 50,000 tons per year to 500,000 tons per year, once the Jubail facility comes on line, and from there is could "easily" expand capacity to 1.5 million tons per year, Thorel added.

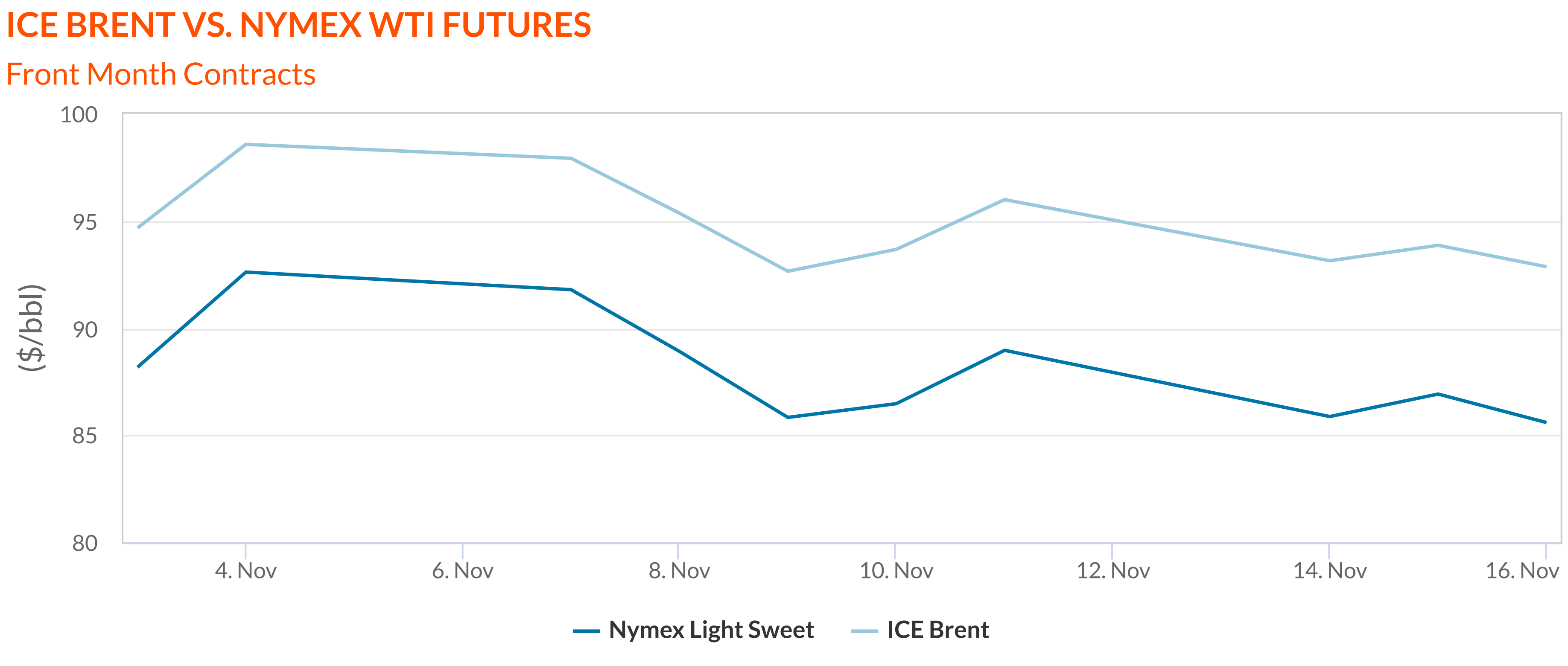
Amena Bakr, Dubai

Oil Futures Slip as Traders Weigh Signals

Oil futures contracts continue to move in a relatively narrow band, picking up some money one day, losing some the other. Wednesday was the latter.

In London, the Brent contract for January loading on ICE Futures lost $1 to close at $92.86 per barrel, while in New York, the Nymex West Texas Intermediate (WTI) crude contract for December delivery fell by $1.33 to settle at $85.59/bbl.

Brent prices have hovered in a $90-$100/bbl range following the early October decision by the Opec-plus coalition to cut output by an actual 1 million b/d from November.



Refined products like diesel and gasoline in the US and Europe have also dropped in value, but diesel cracks — the value of turning crude oil into diesel — are still at a very strong $65/bbl in the US and $40/bbl in Europe. Gasoline margins are close to $20/bbl in the US.

The market has not yet reacted much to the imminent EU ban on crude imports from Russia, which starts on Dec. 5, and a product import ban from Feb. 5.

One trader noted that "the market cannot interpret yet what the bans mean," adding that crude oil from Russia is likely to flow in high volumes and the biggest impact will likely come from the product embargo.

The crude market is finding new ways to replace Russian Urals crude and "the physical market seems to have spun away from the Russian risk," the trader said, echoing traders who noted that the market isn't showing any sense of urgency to replace Urals volumes.

Angola, Guyana, Norway, Brazil, Iraq, Saudi Arabia and the US all have stepped up their crude supplies to Europe to replace Russian flows.

Lack of Exuberance

Data from the US Energy Information Administration (EIA) on Wednesday showed US crude oil inventories falling by 9.5 million bbl last week, of which 5.4 million bbl was from commercial stocks and the balance from the Strategic Petroleum Reserve (SPR), which is still being drained to fight high fuel prices.

However, the Nymex WTI crude future contract barely registered the release of the data and trading volumes remained subdued. In years past the EIA's weekly data would cause huge price swings and change sentiment.

The lack of exuberance over the agency's data release, traders have said, is connected to speculative funds and banks slowing down trading activities.

The US remains a heavyweight in the oil market as the world's largest producer and consumer, but the EIA's weekly petroleum data release has lost much of its shine and guidance in recent months. The agency's data is currently competing with market influences from the Ukraine war, China's Covid-19 policies, the possibility of a recession, a global natural gas crisis and tight global refining capacity.

Russia's war in Ukraine has shifted pricing power more towards Europe for crude oil and even diesel, although gasoline prices are still very much dominated by the US market.

The EIA's data also showed that both domestic diesel and gasoline inventories improved a bit last week, but stocks remain well below average, with diesel in particular in short supply globally.

US exports of refined products were again over 6 million b/d, according to the EIA. So far in 2022, the US has exported an average of 5.84 million b/d, which is 735,000 b/d higher than in the same period in 2021. Crude oil exports are 500,000 b/d higher, much of that to Europe. The US was again a net exporter of 2 million b/d in the week ended Nov. 11, the EIA said.

John van Schaik, New York

IN BRIEF

Drone Hits Oil Tanker Off Oman's Coast

A Liberian-flagged oil tanker was damaged in an apparent drone attack off the coast of Oman on Tuesday.

The tanker, *Pacific Zircon,* is operated by Singapore-based Easter Pacific Shipping, which is owned by Israeli billionaire Idan Ofer.

The company confirmed preliminary reports indicating that the vessel carrying a cargo of gasoil was hit by a projectile about 240 kilometers off the coast of Oman.

The company said the vessel incurred minor damage to the hull but no casualties or spillage were reported.

No one had claimed responsibility for the attack as of Wednesday.

However, the White House released a statement in which National Security Advisor Jake Sullivan said the Biden administration was "confident that Iran likely conducted this attack."

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

CNOOC Starts Up Indonesia Gas Field

China's CNOOC Ltd. said gas production has started at the offshore MDA field in Indonesia — the largest of the three fields that form the $800 million 3M project.

3M — which also includes the MBH and MAC fields — is one of Indonesia's main upstream projects this year.

MBH started production in October while production at MAC is expected to start by the end of this year, Indonesia's upstream regulator SKK Migas told Energy Intelligence.

3M consists of nine producing wells connected to a 175 million cubic feet per day floating production unit.

Peak daily production is expected to reach 127MMcf/d, CNOOC said.

3M is operated by Husky-CNOOC Madura, a joint venture comprising CNOOC Ltd. (40%), Cenovus Energy (40%) and Samudra (20%).

The field is located about 75 kilometers off the coast of Madura Island in about 80 meters of water.

Marc Roussot, Singapore

Ukraine Slams Russia for 'Climate Crimes'

Russia is committing serious "climate crimes" in its war in Ukraine, Ukrainian Environment Minister Ruslan Strilets told the UN's COP27 climate change conference in Egypt.

Some 33 million tons of additional CO2 have been emitted as a result of the war, while another 49 million tons of emissions will be caused by the post-war reconstruction of Ukraine, Strilets said.

Ruslana Lyzhychko, a member of Ukraine's parliament, participating in a COP27 panel via video link, called for an end to dependence on Russian fossil fuels.

Russia has been deliberately targeting energy infrastructure in Ukraine in recent weeks, adding to the misery caused by the nine-month-old war.

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

Rafiq Latta, Sharm al-Sheikh

Inpex to Build Hydrogen Demo Plant

Inpex said it will build a demonstration "blue" hydrogen and ammonia project in Niigata prefecture, Japan.

The project will involve transporting natural gas by pipeline from the Higashi-Kashiwazaki field to the Hirai area, where a 700 ton/yr blue hydrogen facility will be built.

Some of the hydrogen output will be used to produce "blue" ammonia for the chemical and fertilizer industries, and the rest for power generation.

An Inpex spokesman said the plant would be completed and handed over to Inpex in August 2025.

CO2 generated during the production of hydrogen and ammonia will be captured and stored in a subsurface gas reservoir.

The project will be subsidized by the government research and development agency Nedo.

It will serve as an initial step toward construction of a commercial blue hydrogen production plant in Niigata prefecture by 2030.

Clara Tan, Singapore

Saipem Wins Drilling Contracts

Italy's Saipem has been awarded contracts worth $800 million to extend drilling work on projects in West Africa and the Middle East.

The awards include a contract in Cote d'Ivoire, where Italy's Eni is scheduled to carry out additional development drilling on the Baleine discovery.

They also include a contract with Azule Energy — the BP-Eni joint venture in Angola — for 12 wells over a period of some 26 months, continuing work already under way in Block 15/06.

Saipem's Mideast contracts are for three shallow-water "jackup" drilling units. The company did not specify the countries or projects where the rigs would work.

Christina Katsouris, London

DATA SNAPSHOT

Oil and Gas Prices, Nov. 16, 2022

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

CRUDE OIL FUTURES

($/bbl)	Chg.	1st Mth.	2nd Mth.
ICE Brent	-1.00	92.86	91.65
Nymex Light Sweet	-1.33	85.59	85.00
DME Oman	-1.11	87.13	86.38
ICE Murban	-0.70	91.31	89.98

INTERNATIONAL SPOT CRUDES

($/bbl)	Chg.	Price	Prior Close
Brent (Dated)	-1.68	92.61	94.29
Dubai	+1.20	88.00	86.80
Forties	-2.53	92.27	94.80
Bonny Light	-2.13	93.52	95.65
Urals	-2.13	73.14	75.27
Opec Basket*			91.16

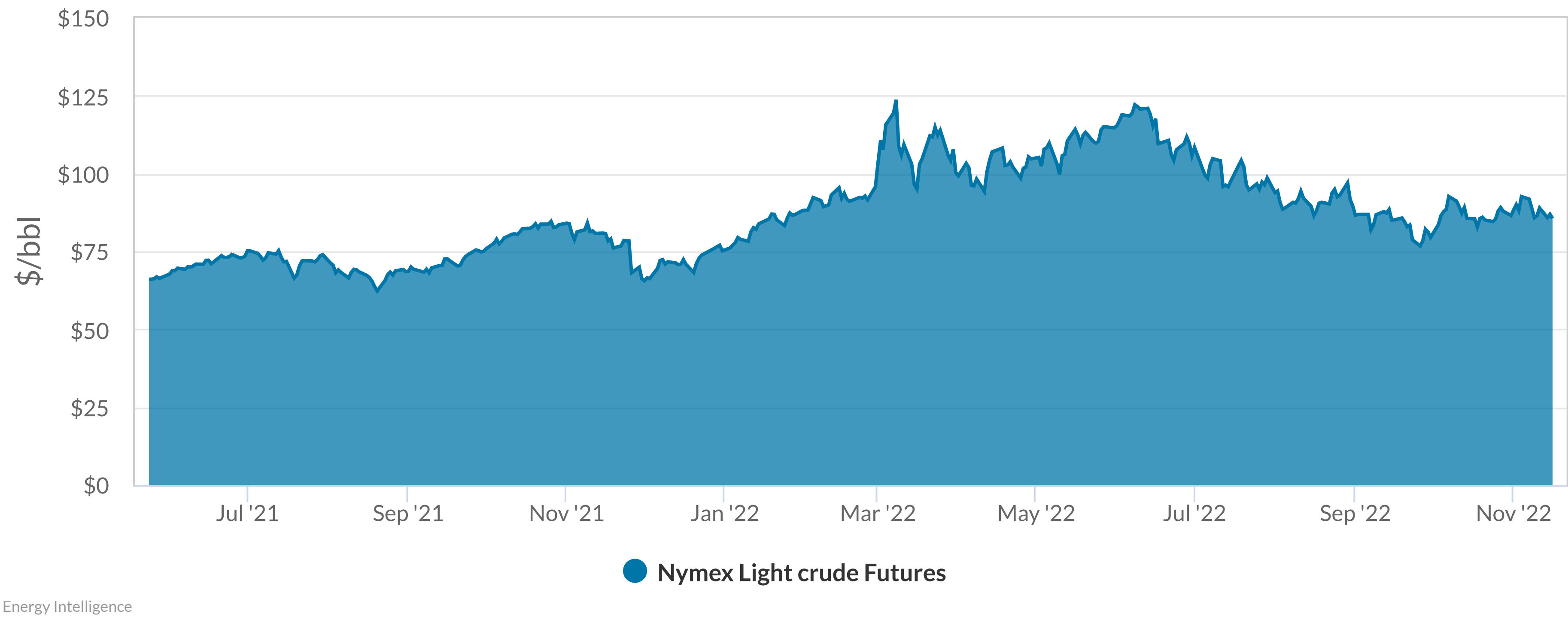
*Opec price assessed.

NORTH AMERICAN SPOT CRUDES

($/bbl)	Chg.	Price	Prior Close
WTI (Cushing)	-1.25	85.62	86.87
WTS (Midland)	-1.25	84.12	85.37
LLS	+0.25	91.62	91.37
Mars	+0.70	85.37	84.67
Bakken	-1.25	90.42	91.67

ICE BRENT CRUDE FUTURES

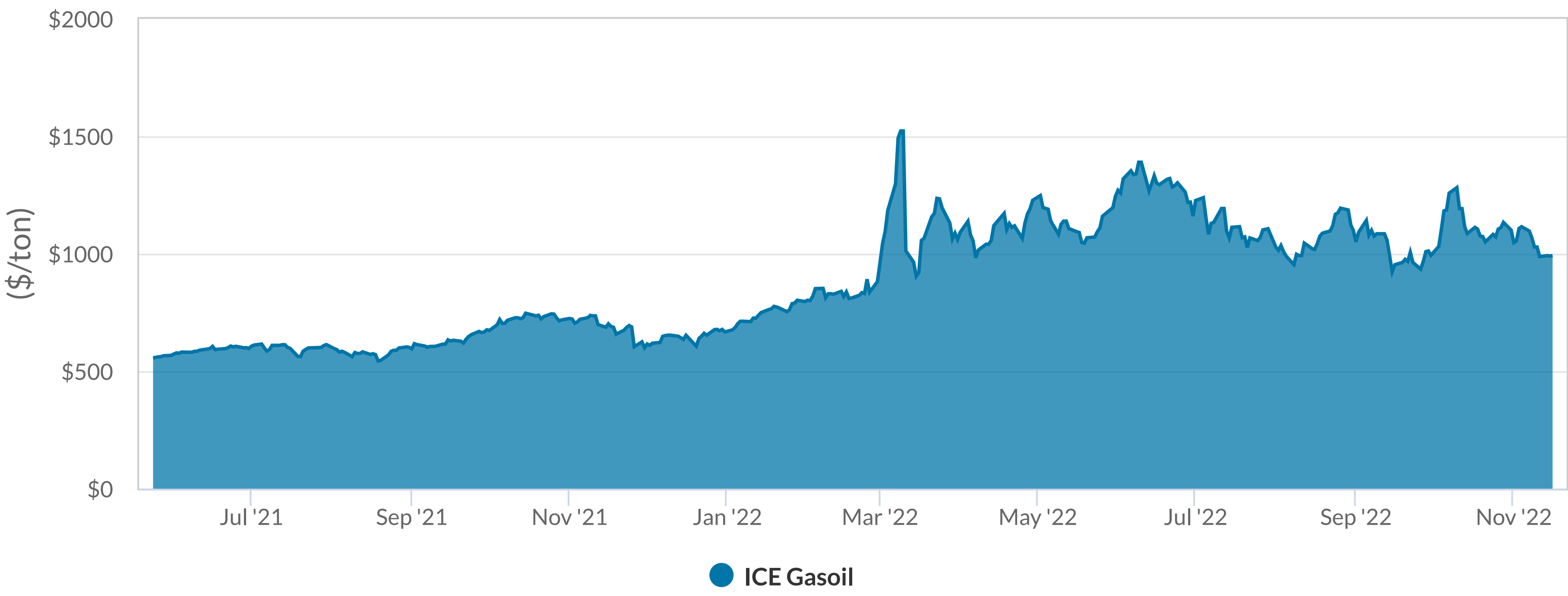
NYMEX LIGHT CRUDE FUTURES



REFINED PRODUCT FUTURES

Nymex	Chg.	1st Mth.	2nd Mth.
Gasoline (¢/gal)	-0.81	250.80	245.97
ULSD Diesel (¢/gal)	-2.77	361.36	348.39
ICE			
Gasoil ($/ton)	+1.50	991.75	979.25
Gasoil (¢/gal)	+0.48	316.53	312.54

ICE GASOIL FUTURES



NYMEX GASOLINE FUTURES

US SPOT REFINED PRODUCTS

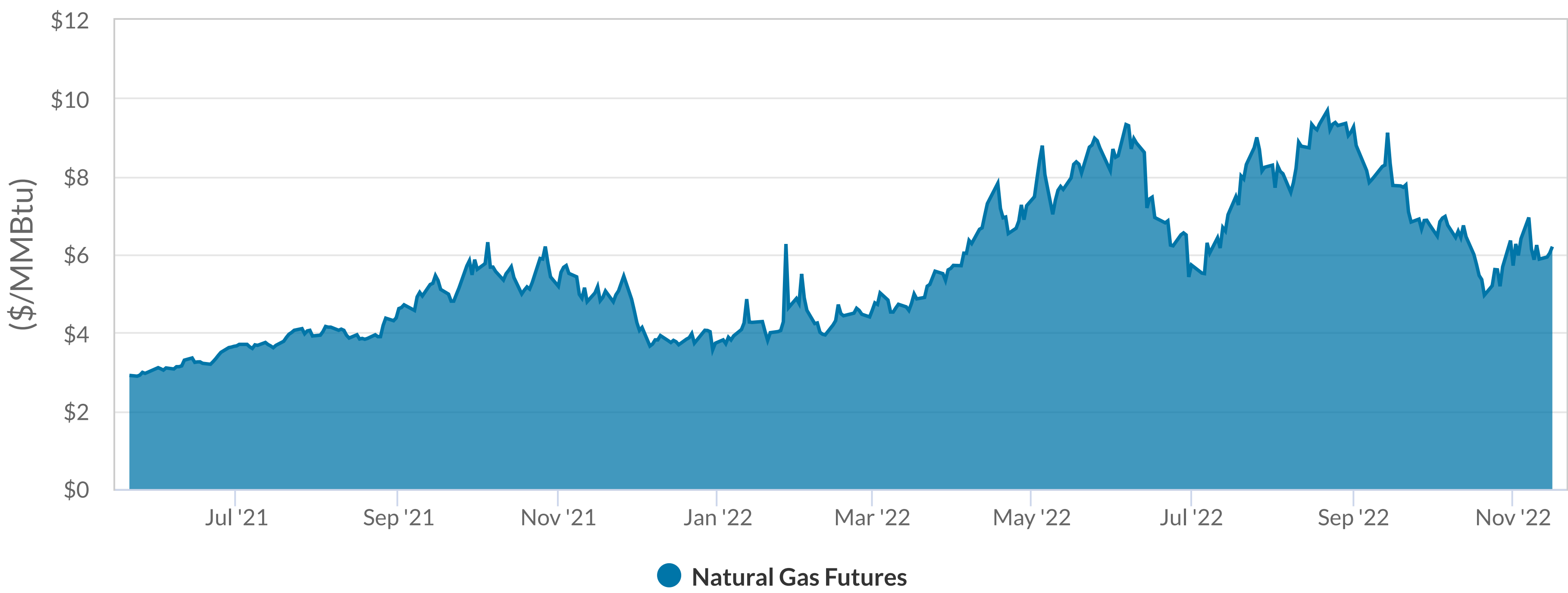
New York (¢/gal)	Chg.	Price	Prior Close
Regular Gasoline	-15.47	277.55	293.02
No.2 Heating Oil	-51.05	382.41	433.46
No.2 ULSD Diesel	-61.05	402.41	463.46
No.6 Oil 0.3% *			94.07
No.6 Oil 1% *			84.65
No.6 Oil 3% *			67.16
Gulf Coast (¢/gal)			
Regular Gasoline			243.77
No.2 ULSD Diesel	+0.20	333.41	333.21
No.6 Oil 0.7% *			83.95
No.6 Oil 1% *			83.95
No.6 Oil 3% *			64.48

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

INTERNATIONAL SPOT REFINED PRODUCTS

Rotterdam ($/ton)	Chg.	Price	Prior Close
Regular Gasoline	+7.70	851.50	843.80
ULSD Diesel	-2.50	1019.00	1021.50
Singapore ($/bbl)			
Gasoil	+1.22	122.23	121.01
Jet/Kerosene	+1.22	123.86	122.64
VLSFO Fuel Oil ($/ton)	+13.91	647.70	633.79
HSFO Fuel Oil 180 ($/ton)	+7.97	438.41	430.44

NYMEX NATURAL GAS FUTURES



Refinitiv

NATURAL GAS PRICES

($/MMBtu)	Chg.	Price
Henry Hub, Nymex	+0.17	6.20
Henry Hub, Spot	-0.15	5.75
Transco Zone 6 - NY	N/A	7.63
Chicago Citygate	-0.24	5.71
Rockies (Opal)	-0.49	7.84
Southern Calif. Citygate	-0.70	8.30
AECO Hub (Canada)	-0.19	4.28
Dutch TTF (euro/MWh)	-14.00	102.00
UK NBP Spot (p/th)	-24.00	82.00

US/Canada spot prices from Natural Gas Week

Equity Markets, Nov. 16, 2022

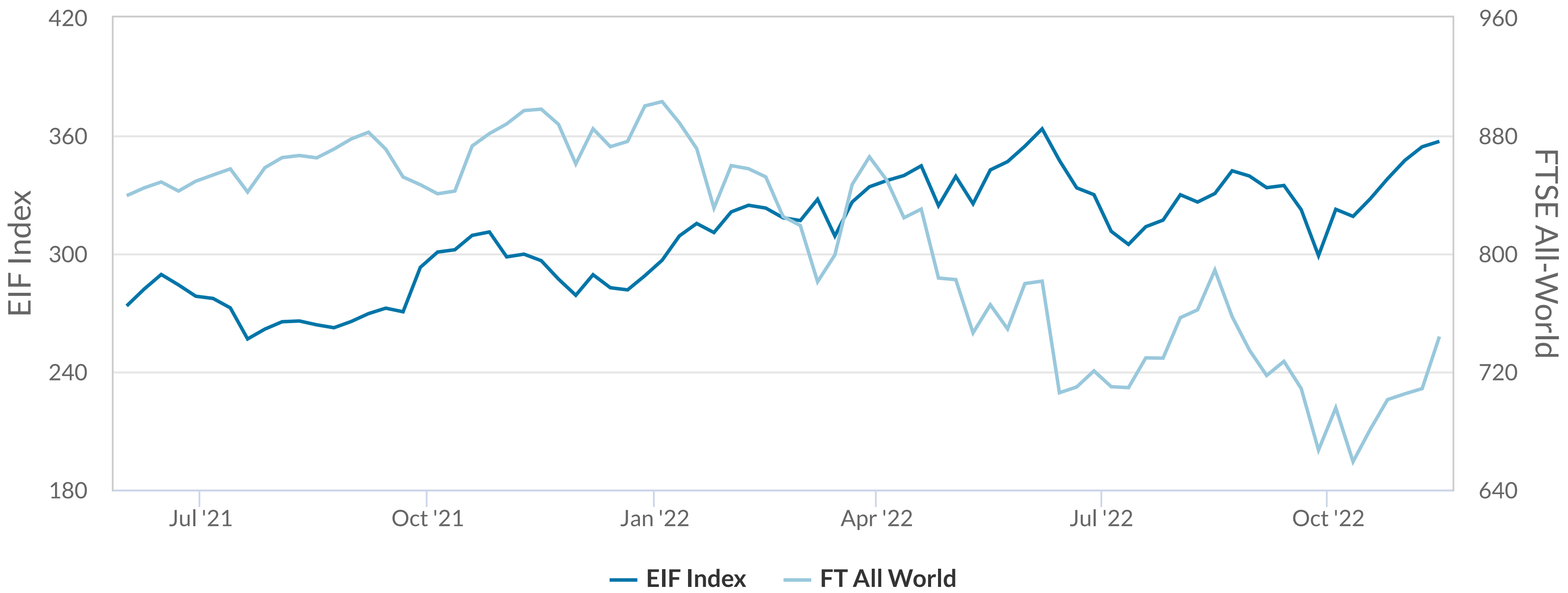
All data are produced by Energy Intelligence in cooperation with Reuters.

EQUITY MARKET INDEXES

	Chg.	Index	YTD %Chg.
EIF Global*	+1.55	357.01	+24.50
S&P 500	-32.94	3,958.79	-17.41
FTSE All-World*	+6.88	743.76	-17.47

*Index for previous day

EIF INDEX



EIF Global Oil and Gas Index of 21 traded equities