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In Brief

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G7 Poised to Unveil Oil Price Cap Details

The G7 aims to finalize the level for its price cap on Russian crude exports in the "coming days," a US official said Tuesday, less than two weeks before it is due to take effect.

The G7 coalition, which also includes Australia, is currently waiting for the EU to reach an agreement on the price level as well as some other details, the official said. The EU needs unanimity among its 27 member states to implement sanctions.

"When the EU is done with its process in terms of price setting, then we as a coalition will set a price in order to make the price cap effective," the US official said. The *Wall Street Journal* reported that the price cap could be finalized as early as Wednesday.

Companies in G7 countries will not be allowed to provide services to Russian oil shipments unless cargoes are priced under the cap. The aim is to limit revenues for Moscow to finance its war in Ukraine, while keeping oil flowing. However, Moscow has said it will not cooperate with the cap and has warned that some supply disruption is "inevitable."

Buyers in India and China, which have taken most of the Russian oil displaced by sanctions so far, are expected to try to work around the cap, although this may depend on the availability of alternative shipping.

Ahead of unveiling the level, Washington updated its guidance on the price cap and gave a few new details following the UK's own updated guidance last week. Below, Energy Intelligence looks at some of the details released Tuesday.

What services are covered by the cap?

The US views any company involved in trading and commodities brokering, financing, shipping, insurance, flagging and customs brokering as subject to the cap. If companies do not have an attestation demonstrating that crude is priced under the cap, they cannot take part in the transaction.

Will the price cap level be permanent?

No. The plan is to revisit the price level if and when it needs adjusting. The G7 does not expect to reset it every week or month, the US official said, but perhaps quarterly or semi-annually. Officials are not committing to any timetable for reviewing the price level because "we also want to respond to volatility in the market."

What is the price level likely to be?

Some clues have been given in advance. Western officials have said they want it to be high enough to incentivize output, but low enough to reduce Moscow's oil receipts. US officials have occasionally hinted at prices of around $60 per barrel, but reports of levels under consideration have ranged from $40/bbl to $70/bbl. "The last thing that any member of our coalition wants is for Russia to sell less oil, but to make more money doing it because the price goes up," the US official said.

How will service providers prove that shipments fall under the cap?

The G7 will require that companies secure "attestations" from participants in a transaction with direct knowledge of the price, and keep those attestations on file for five years. As long as the service providers act in good faith and do not have a reason to suspect the attestations are false, they are insulated from blame.

Attestation is a relatively new tactic when it comes to sanctions implementation. John E. Smith, a former head of the US Treasury Department's Office of Foreign Asset Control, said it is broadly similar to sanctions program requirements that companies know their customers and conduct due diligence.

However, the price cap-related sanctions focus on companies that might not normally know the price of a cargo.

"If the government simply said, 'Go do your due diligence,' companies would have been left scratching their heads," Smith said. "This attestation process is simply a direction to companies on how to conduct their due diligence in a way that will satisfy the expectations of the various governments."

Emily Meredith, Washington

Russia Says It's Ready for Price Cap

Russia is preparing its oil industry to navigate the proposed G7 oil price cap as western governments prepare to release key details about the plan, including the price levels that they are proposing for exports of Russian crude and products.

Deputy Prime Minster Alexander Novak reiterated threats that Moscow will not supply its crude and oil products to countries that support the proposed mechanism.

Instead, Russia will look at alternatives including the redirection of volumes to "market-oriented partners or a reduction in oil production," Novak said in a statement issued late on Monday.

He repeated his assertion that the "price cap introduction is an unprecedented act of interference in the fundamentals of the oil market."

Such market manipulation on the part of buyers "will inevitably lead to a decline in investment, lower supply and potential deficit," he warned.

The statement came in anticipation of price ceilings for Russian crude oil and products that could be announced this week by G7 countries.

Under the plan, purchases of Russian oil at or below the capped levels would be exempt from a ban on the use of shipping, insurance and financing for Russian crude oil cargoes that takes effect on Dec. 5.

Similar limitations for Russian oil products are due to take effect on Feb. 5, 2023.

Western leaders say the goal of the price cap is to slash Moscow's oil revenues and its ability to finance the war in Ukraine without disrupting the critical flow of oil to the global economy.

Getting Ready for Cap

Novak gathered Russian oil and gas producers for a meeting last week to discuss measures to support the country's oil industry.

A special coordination center was set up by the Russian energy ministry to monitor the situation in the country's oil, gas and coal industries under export limitations, according to an official statement.

The coordination center has prepared several scenarios for state budget income following the introduction of the price cap. Sources claim that some scenarios include significant production cuts and a complete halt in exports.

Russian state-owned producer Zarubezhneft said last month that it could reduce its production by 70% in response to the price cap. But other Russian companies claim they have all their volumes committed for next year and plan no significant cuts.

The government said the measures would "provide for effective functioning" of its oil and gas industry "under external pressure."

Russia's Revenue Outlook

Even with the price cap in place, Russia is still projecting that state revenues from the oil and gas industry will be resilient.

This year, oil and gas revenues could reach some 10.5 trillion rubles.

The government is expecting annual oil and gas revenues of about 8 trillion rubles ($132 billion) in 2023-25.

Excess revenues above that level would be sent to Russia's rainy day fund — officially the National Welfare Fund — according to recent amendments to the Russian Tax Code signed by President Vladimir Putin.

The government is estimating that after adding to its rainy day fund in 2023, it may need to draw on those reserves to bridge budget deficits in 2024 and 2025.

Staff Reports

EU Proposes Gas Price Cap of €275 Per MWh

The EU has bitten the bullet and proposed a cap on European wholesale gas prices of €275 per megawatt hour (about $83/MMBtu), but it's far from certain that EU energy ministers will approve it when they meet to consider the divisive issue on Thursday.

The proposed price cap is perhaps the most controversial of the EU's various policy responses to a surge in gas and electricity prices this year, triggered by a sharp fall in Russian gas supplies against the backdrop of the war in Ukraine.

The EU's 27 member nations have been deeply divided over the idea of a price cap and businesses that are active in the gas market have been more or less unanimous in resisting regulatory intervention in the market.

Nations such as France, Italy and Spain view a price cap as an essential measure to offer much-needed relief to European industry and to households who have been struggling to pay their energy bills.

But others such as Germany and the Netherlands have warned that placing an upper limit on prices could drive up consumption of gas and prevent Europe from competing in the global marketplace for LNG imports.

In the end, by setting the proposed price cap at such a high level, the European Commission may have opted for a compromise that will leave both camps dissatisfied.

To be adopted a price cap would require the support of a qualified majority of 17 countries representing 65% of the EU's population.

"Mechanism of Last Resort"

EU Energy Commissioner Kadri Simson, presenting the proposal on Tuesday, described it as "a mechanism of last resort to prevent and, if necessary, address episodes of excessively high prices, which are not in line with global price trends."

She emphasized that it is "not a regulatory intervention to set the price on the gas market at an artificially low level."

The mechanism would initially be put in place for one year from Jan. 1, 2023 and it would be triggered if the settlement price of the front-month Dutch TTF gas futures contract — Europe's de facto benchmark gas price — hit €275/MWh.

But two additional conditions would also have to be met: the front-month TTF price would have to remain above that level for two weeks; and it would also have to remain €58 higher than an international LNG reference price for 10 consecutive trading days.

Those conditions would not have been satisfied at the height of the surge in European gas prices in August of this year, when the front-month TTF contract peaked at around €350/MWh but only exceeded €275/MWh for half a dozen days.

Importantly, the measure would apply only to the front-month TTF futures contract and would not include spot and over-the-counter (OTC) transactions. Some commentators have argued that this would limit its impact on European gas prices.

Despite the sharp drop in gas supplies from Russia this year, Europe stepped up its imports of LNG and has done a good job of filling up its gas storage facilities ahead of the winter heating season. Mild autumn weather also lent a helping hand. As a result, the region's gas prices have fallen considerably from their summer peak, with the front-month TTF contract closing at €124.5/MWh on Tuesday.

Nevertheless, prices remain well above historical levels and there are concerns that Europe could find itself short of gas again heading into the winter of 2023-24 and may find it more difficult then to fill up its storage facilities again.

Tom Pepper, Brussels

Opec-Plus Navigates Murky Market Outlook

Opec-plus ministers are starting to position themselves for their Dec. 4 meeting in Vienna, amid an uncertain environment of ongoing oil market volatility, global recession concerns and increased Covid-19 cases in China.

A tense geopolitical climate, with EU sanctions on Russian crude and a G7 price cap due to take effect the following day, will complicate matters further.

All this makes the outcome of the Opec-plus meeting hard to call.

At stake is whether the group's next move will involve some form of easing of the headline 2 million barrel per day cut through the end of 2023, which was announced in early October.

After last month's public spat with Saudi Arabia, US officials expect this — but for now, members remain tight-lipped about options.

Some positioning has started over members' production baselines -- which would be one way to free up more output in the market by aligning members' quotas more closely with their true production capacity.

The other main option to ease the cut would be a simple adjustment of the 2 million b/d target.

Opec-plus could also choose to maintain — or deepen — its cuts, given a negative market outlook, although this could provoke a renewed US reaction.

Energy Intelligence takes a look below at the key questions in the run-up to the meeting.

What are Opec-plus' options for the coming meeting?

Specific oil policy proposals have yet to be discussed ahead of the Dec. 4 meeting, according to delegates.

However, the recent decline in benchmark Brent crude to below $90 per barrel, mainly due to demand concerns and the slowdown in China's post-Covid reopening, is for now reinforcing the idea among members that caution remains critical.

The drop in oil prices is seen by many in Opec-plus to have confirmed the group's concerns about the market when it decided to cut output.

At the time, officials said the decision was taken to get ahead of the demand curve and head off any collapse in oil prices.

On Monday, the *Wall Street Journal* reported that the producer group might ease its cuts by 500,000 barrels per day, which sent Brent prices tumbling to $83/bbl.

The report was "categorically" denied by Saudi Energy Minister Prince Abdulaziz bin Salman, which in turn sent oil back above $87/bbl.

The Saudi minister also indicated that supply could be further reduced, if necessary.

"If there is a need to take further measures by reducing production to balance supply and demand, we always remain ready to intervene," Prince Abdulaziz said in a statement carried by the official Saudi Press Agency.

The denial was a rare move by Saudi officials, who are keen to maintain control over market messaging. Officials from the UAE, Iraq and Kuwait also denied the report, in a sign of unity among Gulf producers.

Realistically, any increase in output would have to come from Mideast Gulf producers that are able to meet their current supply quotas, such as Saudi Arabia and the United Arab Emirates (UAE).

Last week, Prince Abdulaziz also signaled that he favors a cautious approach in market supply policies.

These comments may suggest that any adjustment of the headline 2 million b/d cut might be put on hold until there is more clarity on how the market will react to an apparent weakening in demand and the new sanctions on Russian crude.

While the option of deepening the cuts further remains a possibility, delegates presently think this is unlikely.

The bottom line is that an easing of cuts is an option that delegates say might be discussed, but that any move would likely be very measured.

If agreed, it would essentially represent a signal to consumer states that Opec-plus remains committed to meeting their supply needs in the future.

What would a baseline adjustment involve?

Some positioning has also started over the thorny issue of members' production baselines.

Iraq's prime minister has called for a revision of his country's baseline, although there are questions over how much more the Opec member could boost its output given export infrastructure limitations.

The UAE is also known to be keen to use more of its expanding capacity.

The issue is that for months, many Opec-plus members, including Russia, Nigeria and Angola, have been falling short of their targets. As a result, the group has been pumping about 3.5 million b/d less than targeted.

The volume of oil released by such a move would depend on how the issue is addressed, and whether baselines are merely tweaked or fundamentally realigned.

It would be a very sensitive matter to negotiate, as many members are keen to preserve their share of the oil market — even if only on paper.

The issue's potential to create tension within Opec-plus is a major deterrent to discussing baselines at this point, Energy Intelligence understands, making this less likely as an option.

What do current supply-demand balances look like?

Last week, Opec again lowered its demand growth estimates for 2022 and 2023, saying there are signs that the global economy has entered a period of "significant uncertainty and mounting challenges."

Opec trimmed its demand forecasts for both years by 100,000 b/d each. That followed downward revisions last month of 500,000 b/d for 2022 and 400,000 b/d for 2023.

Energy Intelligence balances point to a surplus of around 600,000 b/d in the first half of 2023. Combined with recent price weakness, this indicates a sloppy market going into the meeting.

However, major uncertainty exists around the supply impact of the new sanctions on Russia, which — if they cause a major disruption — could significantly change the near-term outlook for balances.

How will the relationship between Opec-plus and the US affect matters?

The US responded with fury to the Opec-plus cut, focusing its anger on the group's de facto leader Saudi Arabia.

The resulting public spat has since cooled. Some US officials hope this calmer atmosphere will help the kingdom return more supply at the next meeting.

Immediately after the decision to cut, some Opec-plus officials indicated that it could be tweaked in the future, depending on market conditions.

It is unclear whether there have been any direct or indirect assurances from Opec-plus states to US officials that more supply would be added at the December meeting. Adding to the uncertainty is the possibility of another release of US strategic oil stockpiles, beyond the 180 million barrels already announced.

That would irritate Opec-plus members and would likely influence their Dec. 4 decision — but the US may be waiting to see what Opec-plus does first.

What about Russia?

Like the last Opec-plus meeting, the coming gathering will take place in a highly charged political environment.

Many Opec-plus members hope there won't be a repeat of Washington's angry reaction to the last decision, in which some US officials accused the group of siding with Russia in its war in Ukraine.

At the same time, keeping Russia on board as a member of the broad Opec-plus group is seen as a priority.

Moscow is keen to see oil prices stay high to counter the impact of sanctions. The US, as part of a broader G7 effort, is trying to do the opposite — limit Russia's revenues — through the price cap.

In the face of this, Opec-plus delegates recognize that striking a balance might be tricky, and that if a further deepening of the cuts is deemed necessary, this would most likely set off another round of criticism.

From a practical standpoint, there are questions over how the group would replace any loss of supply if Russian exports are impacted by the sanctions — either because Moscow cannot find enough alternative buyers in time, or because it cuts supply.

Deputy Prime Minister Alexander Novak said this week that Moscow would not ship oil to countries that implement the price cap and that imposition of a cap would "inevitably" lead to "lower supply."

Amena Bakr, Dubai

Russia Threatens to Reduce Ukraine Gas Transit

Gazprom has accused Ukraine of withholding some of the Russian gas it ships to Moldova via Ukraine and has threatened to retaliate by reducing gas transit flows through Ukraine from Nov. 28.

Ukraine has rejected state-controlled Gazprom's assertion and has accused Russia of weaponizing its gas and trying to justify further cuts in its exports to Europe during the peak period of winter heating demand.

The clash marks the latest round in a long-running dispute between Russia on one side and Europe and Ukraine on the other, which has led to a sharp drop in supplies of Russian gas to Europe.

Although Russia and Ukraine are at war, Ukraine has become the main route for Russia's remaining exports of gas to Europe after Gazprom cut off supplies via the Nord Stream subsea pipeline to Germany at the end of August.

Gazprom says Ukraine has kept 52.5 million cubic meters of gas destined for Moldova and that it plans to reduce transit flows until that volume is recovered.

Ukraine's state-owned Naftogaz said that it was not seizing gas destined for Moldova without the latter's permission, but added that since late September deliveries of gas from Moldova to Ukraine have been conducted virtually.

This means that instead of gas being physically delivered from Moldova to Ukraine, Naftogaz has deducted a corresponding volume of Russian gas from the transit volumes destined for Moldova.

Gazprom may have interpreted this as Ukraine seizing gas that should have been physically transported to Moldova — a country of 2.6 million people that lies between Ukraine and Romania in southeast Europe.

Muted Market Impact

Gazprom's threat to curb transit flows via Ukraine did not appear to have much impact on European gas prices during most of Tuesday's trading session.

However, by the end of the day, the front-month December Dutch TTF gas futures contract was showing a gain of just over 7% at €124.5 per megawatt hour ($37.5 per million Btu).

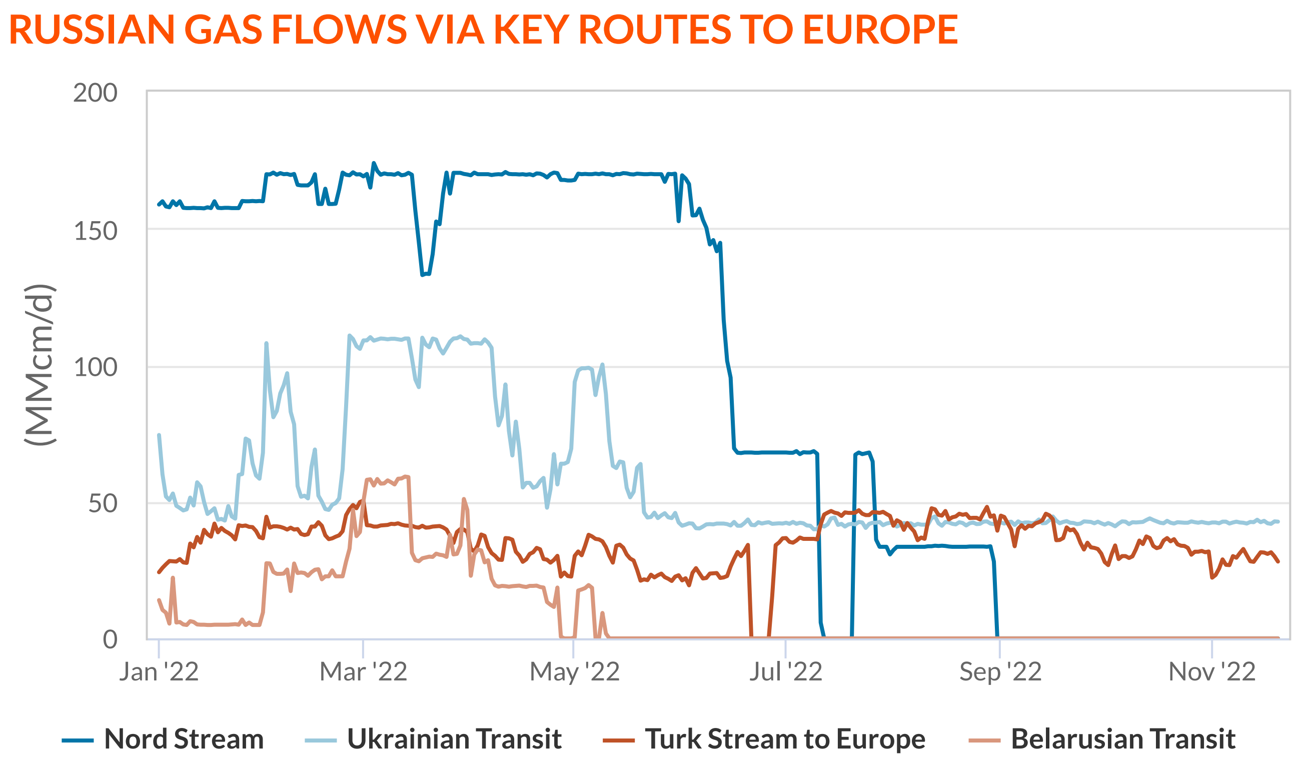
Nevertheless, that remains far below a late summer peak of around €350/MWh. Anxiety around winter supplies has abated since then as strong LNG imports and moderate demand helped Europe replenish gas storage volumes before the winter.

Russian gas transit volumes via Ukraine have remained fairly steady at slightly more than 40 MMcm/d for six months since late May, with Gazprom planning to supply 42.9 MMcm on Tuesday.

However, that is far below the available transit capacity of 77 MMcm/d at the Sudzha entry point into Ukraine from Russia, the only entry point currently in use.

Gazprom also supplies around 30 MMcm/d via the Europe-bound leg of the Turk Stream gas pipeline (see graph).

But it stopped supplying Europe via the Yamal-Europe pipeline across Belarus and Poland in May and via the Nord Stream pipeline in late August. An explosion later caused severe damage to the Nord Stream pipeline.



Source: Gazprom, GTSOU, Nord Stream AG, Entsog, Energy Intelligence

Staff Reports

Oman Sets Out Hydrogen Development Plans

Hydrogen Oman (Hydrom) is gearing up to auction and award up to six blocks of land by the end of 2023 for development of up to 1 million tons/yr of green hydrogen capacity by the end of the decade.

Under Phase A of Oman's hydrogen development plans, up to six blocks will be offered in two bid rounds, says Hydrom's acting managing director Firas al-Abduwani.

In the first round, two blocks in the Duqm area of central eastern Oman will be awarded by the end of the first quarter of 2023, he told the Gulf Intelligence Oman Energy ESG Forum in Muscat on Tuesday.

Under an accelerated timeline, documents for companies seeking to qualify for the auction were released this month, with request for proposal documents following in December. Bids are due to be submitted in January.

The second round — for another two to four blocks in the Dhofar region of southern Oman — will be launched in April of next year, with bids due in October and awards expected by the end of 2023.

Al-Abduwani said a Phase B auction is expected to be launched in 2024.

$140 Billion Target

Hydrom — fully owned by Energy Development Oman (EDO) and regulated by the energy and minerals ministry — was set up in October with the goal of developing green hydrogen production in Oman.

However, Hydrom itself won't be involved "monetarily" in development of the blocks, al-Abduwani said. Oman hopes to attract $140 billion of investment for the development of a green hydrogen industry.

Hydrom's main mandate is to devise a master plan that among other things will include setting aside government-owned land areas for development and facilitating the development of common infrastructure.

"Oman is leading with green hydrogen because it has a clear competitive advantage," al-Abduwani said.

He pointed to the "remarkable" wind and solar resources available in the 50,000 square kilometers of land along Oman's coastline from Duqm to Salalah in Dhofar.

Hydrom expects the winning consortia to deliver integrated projects, including the generation of renewable electricity, the production of hydrogen, its conversion into derivatives such as ammonia or methanol and the offtake of end-products.

Net Zero Emissions Goal

In October Oman committed to reaching net-zero emissions by 2050 in line with the Paris Agreement objective of limiting global warming to 1.5°C.

Oman thus became the third Middle East oil and gas producer to make a net-zero pledge after last year's announcements by the United Arab Emirates and Saudi Arabia.

The sultanate's energy ministry unveiled a Green Hydrogen Strategy last month, along with the announcement of Hydrom's formation.

Oliver Klaus, Muscat

Oil Prices Rebound Despite Pervasive Market Angst

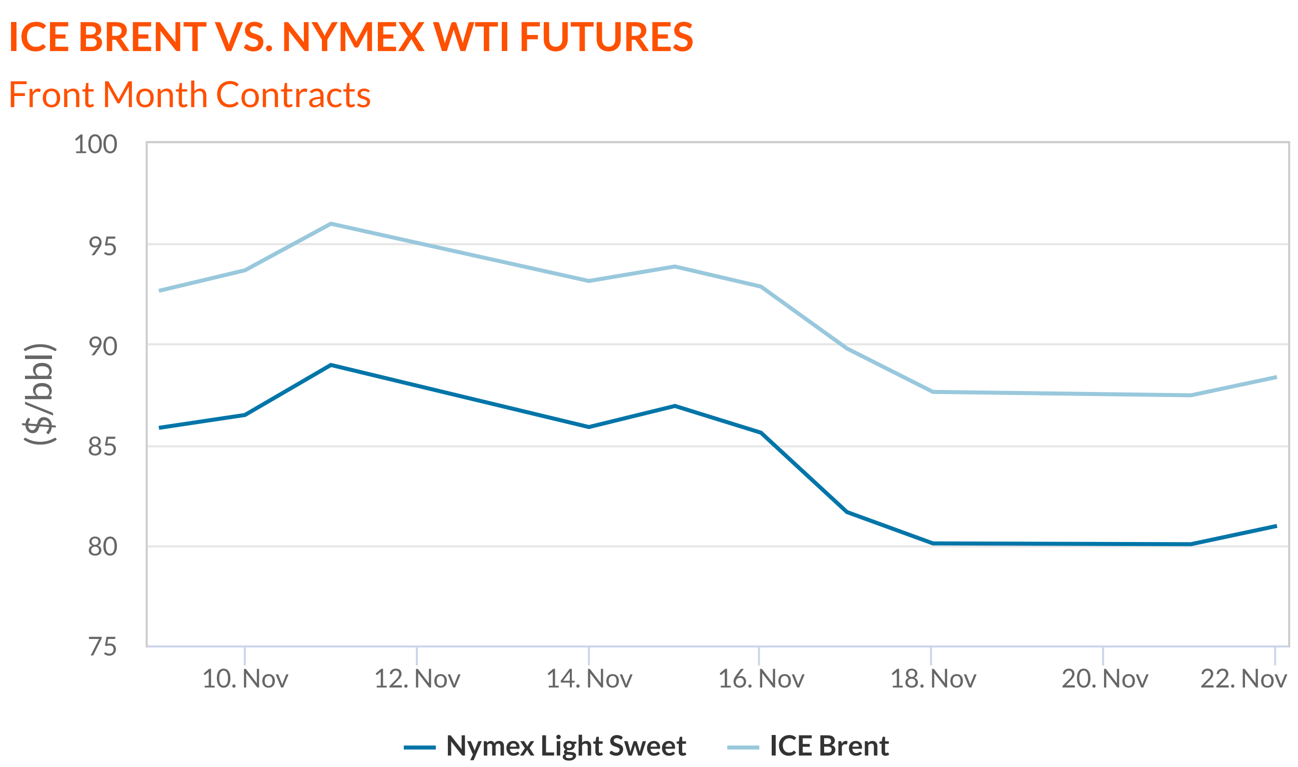
Oil futures regained some momentum on Tuesday in an otherwise discordant market in which bear factors have gained the upper hand.

In London, the January Brent contract was up 91¢ and settled at $88.36/bbl, while in New York, the front-month Nymex West Texas Intermediate (WTI) January contract gained $1.22 and closed at $80.95/bbl.

Despite the EU ban on Russian crude exports beginning in just two weeks, the oil market is not panicking. On the contrary, future prices are stabilizing and returning to relatively normal backwardation levels, at least for the front-trading months. Both Brent and WTI time spreads seem to indicate that market disruptions are over, even if that does not align with fundamentals.

The January 2023 Brent contract showed a premium of around 70¢ over deliveries in February on Tuesday. The same WTI premium was at around 20¢ after a brief negative 3¢ flip into contango on Nov. 18.

Shallow backwardation usually signals a relatively balanced market, enticing a some oil out of storage by putting spot prices a bit higher than future deliveries, but without causing excessive price pain at the prompt end.



Growing Anxiety

Market sentiment remains fickle, however. Oil futures have continued to price in the probability of a more severe recession, especially in Europe, where energy prices are still at risk of winter disruptions.

“The result is lower spot prices and a flattening forward curve to an extent that is not yet backed up by a corresponding rise in inventories,” said Ole Hansen, head of commodities at Saxo Bank.

Even a notorious permanent market bull like investment bank Goldman Sachs has cut its four-quarter 2022 price forecast by $10 to $100/bbl.

“It raises the question whether the macroeconomic outlook has driven prices down to levels that are not yet justified by current supply and demand developments,” Saxo Bank said.

Although global diesel shortages loom large in winter outlooks, so far they have been shrugged off by the market. Europe is still importing about 450,000 barrels per day of Russian diesel, and that will have to be replaced entirely after Feb. 5, when the EU ban on Russian products kicks in.

Refined product inventories at the core Amsterdam-Rotterdam-Antwerp (ARA) hub in Europe have grown by less than 10% since their mid-July low, with gasoil rising by only 450,000 metric tons to 1.7 million tons.

External Forces

While the market has been hunting for positive clues about economic growth, more worrying developments have continued to occur at the margin.

The steep rise in Covid-19 caseloads in China is one. It is difficult to tell at this point if the latest surge is the result of an actual reopening of the country and if it will trigger more lockdowns and take a toll on Chinese oil demand.

“Growing anxiety about demand growth in the world’s second-biggest economy inevitably has an adverse effect on global oil demand,” PVM Oil analyst Tamas Varga wrote.

In addition to prices, oil demand is also sensitive to central bank action against inflation and the resulting effects on the US dollar. The aggressive hikes in interest rates translate into an even stronger dollar, which increases the cost of holding oil and could work against the oil market as a whole.

Julien Mathonniere, London

IN BRIEF

Equinor to Develop Arctic Gas Field

Norway's Equinor will invest 14.8 billion Norwegian crowns ($1.44 billion) to develop the Irpa (formerly Asterix) gas discovery, located north of the Arctic Circle in the Norwegian Sea.

Irpa, which is being developed as a tie-back to Equinor's Aasta Hansteen field, will come on stream at the end of 2026. Both fields will keep producing through 2031 and then Irpa will continue through 2039.

The project will tap around 20 Bcm of gas (124 million boe) for export to Europe initially via the Polarled pipeline from Aasta Hansteen and then onward via other lines, Equinor said.

Originally slated to come onstream in 2023, the field is one of the deepest to be developed off Norway at a depth of 1,350 meters.

"It has been challenging to develop Irpa ... but good support in the partnership and increased demand for gas have made an investment decision possible," Equinor said.

A generous tax package due to end this year has encouraged companies to push through several project sanctions.

The Irpa project partners are operator Equinor (51%), Wintershall Dea (19%), Petoro (20%) and Shell (10%).

Deb Kelly, London

Total Plans French Hydrogen Project

TotalEnergies and Air Liquide plan to build a low-carbon hydrogen project at the Grandpuits refinery near Paris, which is being converted into a biorefinery.

The €130 million ($133 million) project involves Air Liquide building a 20,000 tons/yr green and blue hybrid hydrogen production facility using carbon capture and storage at an adjacent site to the Grandpuits refinery.

Total plans to convert the refinery to production of biofuels and bioplastics by 2024.

The French major will buy blue hydrogen from the Air Liquide facility and send surplus biogas to its partner from the refinery.

The low-carbon hydrogen will be used to make sustainable aviation fuel (SAF).

"The new hydrogen production unit ... will produce hydrogen that is partly renewable, thanks to the recycling of residual biogas from the Grandpuits biorefinery, in place of the natural gas that is normally used," Total said.

Captured CO2 will be used for food and industrial applications, it added.

Jason Eden, London

DATA SNAPSHOT

Oil and Gas Prices, Nov. 22, 2022

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

CRUDE OIL FUTURES

($/bbl)	Chg.	1st Mth.	2nd Mth.
ICE Brent	+0.91	88.36	87.70
Nymex Light Sweet	+0.91	80.95	80.73
DME Oman	-0.33	81.55	81.24
ICE Murban	+0.86	87.17	85.27

INTERNATIONAL SPOT CRUDES

($/bbl)	Chg.	Price	Prior Close
Brent (Dated)	+0.22	88.65	88.43
Dubai	+0.95	82.15	81.20
Forties	+5.71	90.01	84.30
Bonny Light	+5.71	91.14	85.43
Urals	+5.71	70.76	65.05
Opec Basket*			84.18

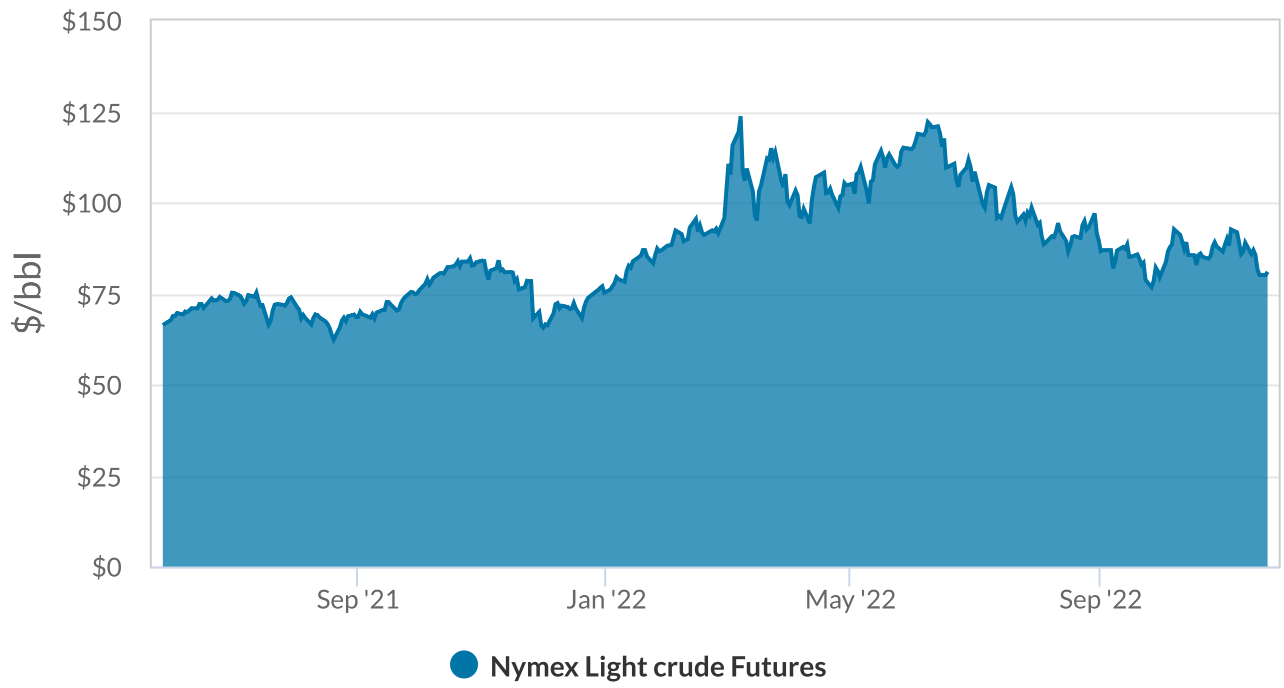
*Opec price assessed.

NORTH AMERICAN SPOT CRUDES

($/bbl)	Chg.	Price	Prior Close
WTI (Cushing)	+1.09	80.83	79.74
WTS (Midland)	+1.09	78.98	77.89
LLS	+1.09	85.83	84.74
Mars	+1.09	75.83	74.74
Bakken	+1.09	85.63	84.54

ICE BRENT CRUDE FUTURES

NYMEX LIGHT CRUDE FUTURES



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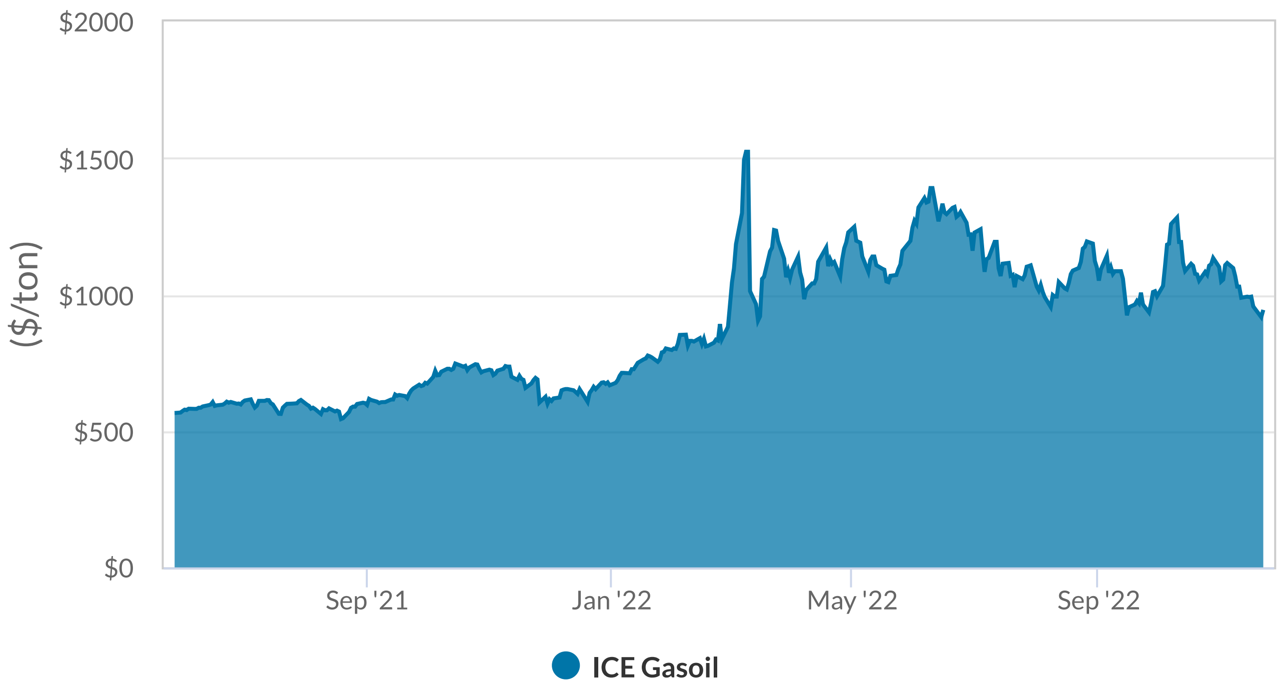
REFINED PRODUCT FUTURES

Nymex	Chg.	1st Mth.	2nd Mth.
Gasoline (¢/gal)	+10.34	254.05	244.38
ULSD Diesel (¢/gal)	-2.60	347.13	336.64
ICE			
Gasoil ($/ton)	+26.50	943.25	938.25
Gasoil (¢/gal)	+8.46	301.05	299.45

ICE GASOIL FUTURES



NYMEX GASOLINE FUTURES

US SPOT REFINED PRODUCTS

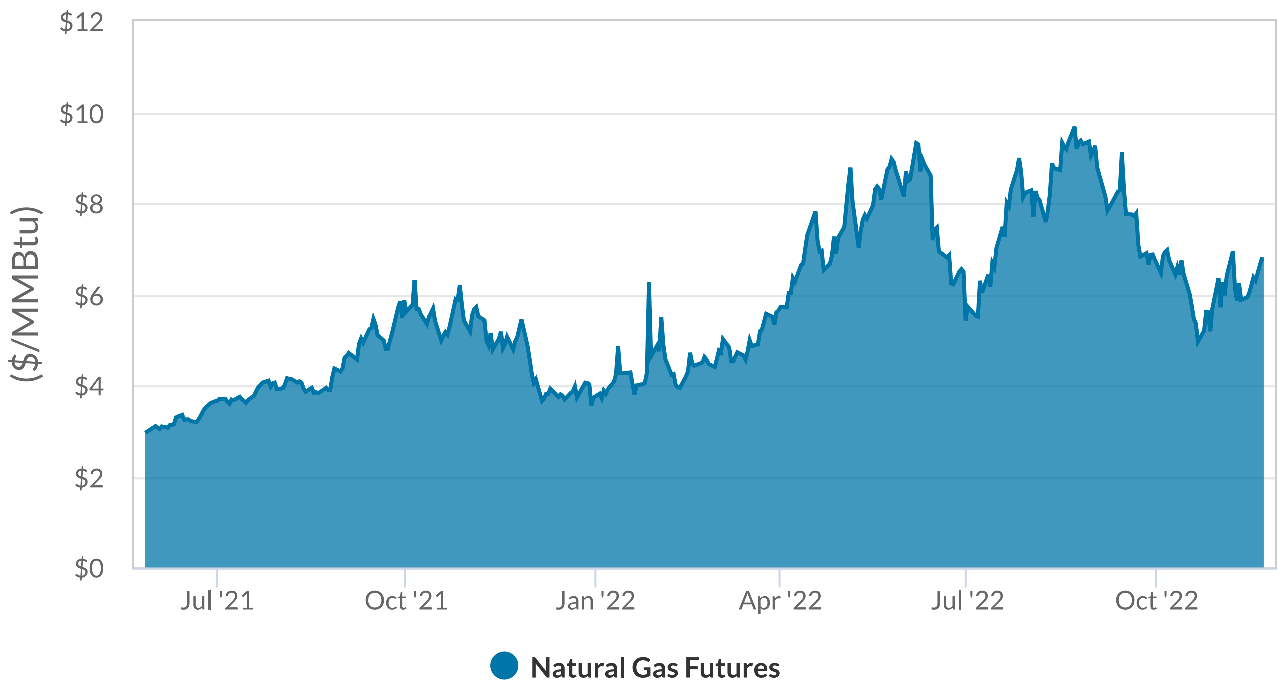
New York (¢/gal)	Chg.	Price	Prior Close
Regular Gasoline	+1.63	272.86	271.23
No.2 Heating Oil	+11.52	348.00	336.48
No.2 ULSD Diesel	-0.98	357.00	357.98
No.6 Oil 0.3% *			87.66
No.6 Oil 1% *			77.03
No.6 Oil 3% *			65.83
Gulf Coast (¢/gal)			
Regular Gasoline			222.98
No.2 ULSD Diesel	-5.73	313.50	319.23
No.6 Oil 0.7% *			74.82
No.6 Oil 1% *			74.82
No.6 Oil 3% *			60.57

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

INTERNATIONAL SPOT REFINED PRODUCTS

Rotterdam ($/ton)	Chg.	Price	Prior Close
Regular Gasoline	+37.00	785.00	748.00
ULSD Diesel	-12.50	961.00	973.50
Singapore ($/bbl)			
Gasoil	+1.02	113.68	112.66
Jet/Kerosene	+1.82	118.85	117.03
VLSFO Fuel Oil ($/ton)	+19.81	619.98	600.17
HSFO Fuel Oil 180 ($/ton)	+2.64	400.53	397.89

NYMEX NATURAL GAS FUTURES



Refinitiv

NATURAL GAS PRICES

($/MMBtu)	Chg.	Price
Henry Hub, Nymex	+0.00	6.78
Henry Hub, Spot	-0.04	6.21
Transco Zone 6 - NY	N/A	N/A
Chicago Citygate	-0.36	5.82
Rockies (Opal)	+0.75	9.60
Southern Calif. Citygate	+1.02	10.47
AECO Hub (Canada)	-0.42	4.71
Dutch TTF (euro/MWh)	+7.80	121.00
UK NBP Spot (p/th)	-1.25	110.25

US/Canada spot prices from Natural Gas Week

Equity Markets, Nov. 22, 2022

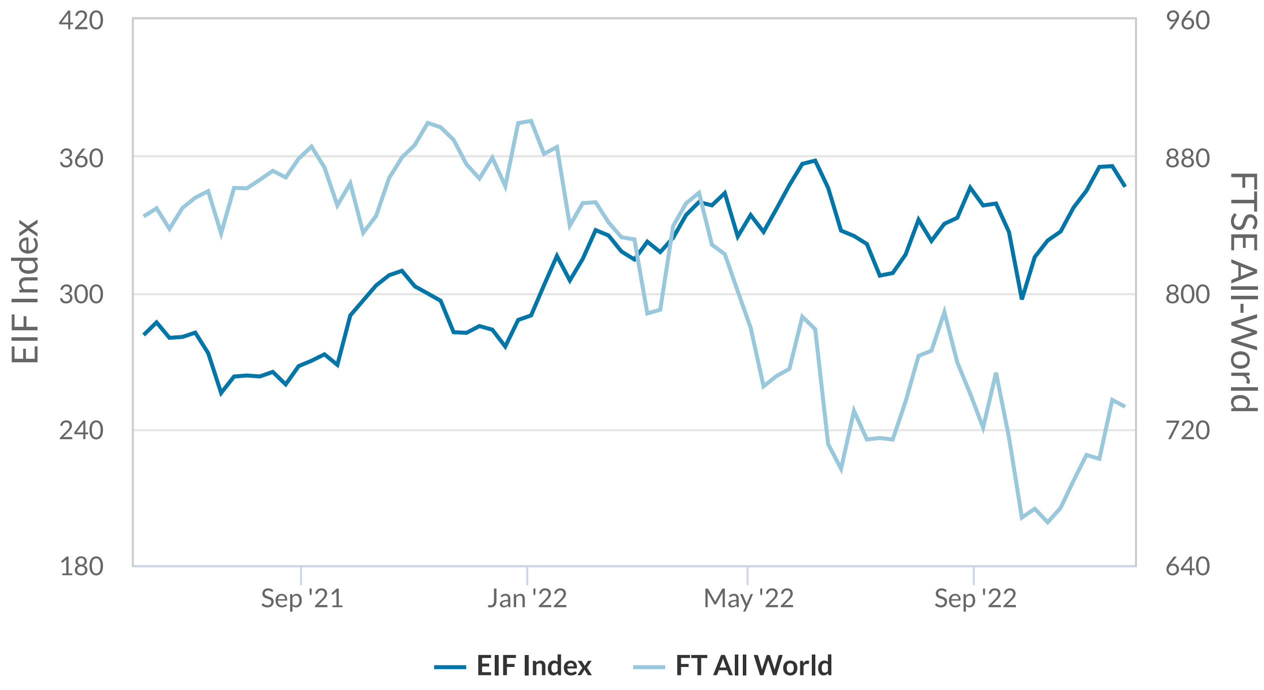
All data are produced by Energy Intelligence in cooperation with Reuters.

EQUITY MARKET INDEXES

	Chg.	Index	YTD %Chg.
EIF Global*	-4.28	346.33	+20.77
S&P 500	+53.64	4,003.58	-16.47
FTSE All-World*	-5.22	732.89	-18.68

*Index for previous day

EIF INDEX



EIF Global Oil and Gas Index of 21 traded equities