Aramco sees oil demand picking up on China and aviation recovery



The world's biggest oil company is confident demand will pick up strongly this year as China reopens its economy and the aviation market recovers.

"We are very optimistic in terms of demand coming back to the market," Saudi Aramco's chief executive officer, Amin Nasser, said in an interview. "We are starting to see good signs coming out of China. Hopefully, in the next couple of months, we'll see more of a pickup in the economy there."

Demand for jet fuel is now around 1mn barrels a day below prepandemic levels, according to Nasser, roughly half the figure from a year ago. "It's picking up," he said at the World Economic Forum in Dayos.

Oil prices whipsawed in 2022. Brent crude surged to almost \$130 a barrel in the wake of Russia's attack on Ukraine, but

slumped in recent months as the Chinese, US and European economies slowed. It's trading at about \$86.80 a barrel, up 1% since the end of December.

Many Wall Street banks, including Goldman Sachs Group Inc, expect it to climb above \$100 a barrel in the second half of the year. They cite a global economic rebound by that time, low fuel stockpiles in nations such as the US and the potential for Russian exports to drop as the west tightens sanctions.

Nasser reiterated that companies need to invest more in oil production. Idle capacity stands at 2mn barrels a day, barely above total demand of 100mn barrels, and will probably drop as China ends its coronavirus lockdowns, he said.

The world needs 4-6mn barrels a day of new production just to make up for the natural decline in existing fields, according to the CEO.

"We're moving into the situation where we're eroding spare capacity and any supply interruptions will have a huge impact," he said.

"We will be in a situation similar to natural gas," he said, referring to how prices for the fuel jumped to the equivalent of \$250 a barrel after Russia's invasion.

The Saudi Arabian state-controlled company sees oil demand continuing to grow for the rest of the decade, even as electric vehicles become more popular and investors pour money into renewable energy.

"It's offsetting some of the demand" for oil, said the CEO. Still, crude consumption will "definitely" be higher in 2030.

The increasing use of petrochemicals — feedstocks for everything from plastics to fertilisers and clothes — is positive for Aramco, he said.

The company wants to convert 4mn barrels a day of crude into petrochemicals by the end of the decade. It's looking at more investments in Chinese refineries and liquid-to-chemical plants as part of that push, said Nasser.

"We're in serious discussions with so many entities" in China, he said.

Last year, Aramco and its chemicals subsidiary, Sabic, said they were planning to build a 320,000 barrels-per-day refinery at Gulei, a coastal Chinese town.

Aramco is also investing billions of dollars in hydrogen, a fuel seen as crucial to the transition to cleaner forms of energy. The Saudi firm aims to export blue hydrogen, made by converting natural gas and capturing the carbon dioxide emitted in the process, on a large scale from about 2030.

Talks with potential importers in Japan and South Korea are progressing, though they'll probably need to get assurances of financial support from their governments before they sign any supply contracts, Nasser said.

"They think they'll be able to do it in 2023," he said. "We'll see."

Blue hydrogen may end up costing the equivalent of around \$250 a barrel of oil, Nasser said, though Aramco won't know until it's done more research.

"It's not going to be \$80 or \$100" a barrel, he said. "This is cleaner — it costs more."

Negotiations with European firms are proving tougher, primarily because they want to wait for technological advances to bring down the price of blue hydrogen.



By William Wilkes

Germany's industrial heavyweights like BASF SE battling an unprecedented energy crunch are seeing signs the worst of the crisis has passed.

Fears of gas rationing after Russia's invasion of Ukraine have dissipated for the country's chemicals, metals and glass makers amid mild temperatures and Germany completing its first liquefied natural gas import terminal. Companies switching to purchasing gas and electricity in the spot market instead of long-term agreements are already reaping the benefits.

Energy prices are significantly lower for us," said Christopher Profitlich, a spokesman for SKW Piesteritz GmbH, which was forced to halt production of key base chemical ammonia last year after gas prices surged. "Both our machines are working and all of our production staff are working again."

Germany's pivot to wean itself off Russian gas is paying off. The government has rushed to tap liquefied natural gas in the market, boosting imports to Europe to a record high and keeping reservoirs close to full through the early winter. The

country has also fast-tracked building LNG terminals.

"It looks like the risk of forced gas rationing has gone away this winter," said Wolfgang Große Entrup, who heads Germany's VCI chemical sector association. "But prices will need to stay lower for much longer for most companies to see a real difference."

The surge in gas prices forced many industrial companies to curb output, stoking fears for the furture of factories and jobs. Major manufacturers including automaker Volkswagen AG and chemical giant BASF drew up emergency plans in case of supply disruptions, as Russia effectively stopped direct gas flows since September.

Price Shock

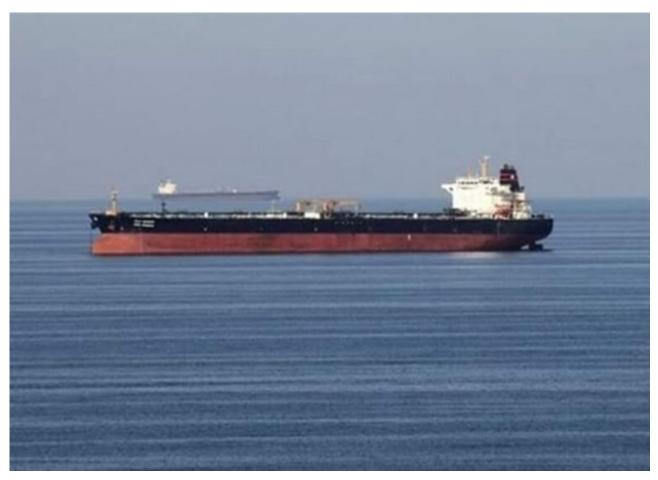
While prices have started to wane, they remain significantly above levels seen before Russia started under-delivering gas in the months before its February 2022 invasion. Companies dealing with the price shock said customers in many cases have turned elsewhere, such as sourcing aluminum parts from the US or Asia.

"The feeling of apocalypse has lifted," said Marius Baader, managing director of Aluminium Deutschland which represents aluminum manufacturers, said by phone. "But there's no reason to celebrate yet."

The drag on Europe's biggest economy has also eased. Economists had predicted a downturn in September after measures of consumer confidence dropped and surveys of purchasing managers signaled a decline in output. Now the broader economy appears to be flatlining rather than shrinking.

"The currently stable energy supply situation ensures that production is secured for the time being," said Matthias Frederichs, head of the BV building materials manufacturers'

من هو سعيد الحظ الذي فاز بالترخيص رقم 8 للرقابة على !بواخر الفيول؟



فضحية مخالفة لكل الاصول: شروط غير متوفرة وتداخل مصالح سياسية "خاص - "أخبار اليوم

منذ نحو عشر سنوات توقفت وزارة الطاقة عن منح التراخيص لشركات الرقابة على بواخر الفيول والمحروقات، ليستقر العدد على سبع شركات التي تقوم بعملها بشكل دوري لجهة اخذ العينات من حمولة البواخر واجراء الفحومات المخبرية اللازمة تطبيقا للقانون الساري

…المفعول

ولكن الجديد على هذا المستوى هو الترخيص الذي منحه وزير الطاقة وليد فياض في الاسابيع الاخيرة لشركة جديدة ليرتفع العدد الى 8 "بحسب ما كشف مصدر مطلع لوكالة "أخبار اليوم".

وفي التفاصيل، اشار المصدر الى ان وزير الطاقة عمل على توقيع هذا الترخيص قبل بلوغ مديرة عام النفط في وزارة الطاقة والمياه أورور فغالي السن القانونية، وإحالتها إلى التقاعد الشهر الفائت، كاشفا ان انطوان الفرد دوره (الذي ترشح الى الانتخابات النيابية في طرابلس على اللائحة المدعومة من التيار الوطني الحر ولم يفز) حصل عليه دون ان يمر الملف بالاجراءات التقنية ومطابقة كل الشروط

:وهنا تحدث المصدر عن ابرز الشروط التي يجب الالتزام بها

- ،ان يكون لدى الشركة خبرة تتجاوز العشر سنوات —
- الالتزام بالمذكرة رقم 3 التي تنص على ضرورة ان تكون الشركة المحلية منضمة الى "شركة ام" عالمية" التي تغطي كل اعمال الشركة العاملة في لبنان اكان على المستوى التقني او اللوجستي، ما . يكسبها الصدقية

وهنا سأل المصدر: هل ان الشركة الجديدة تتمتع بالخبرة المطلوبة؟ كما انه حتى اللحظة لم نعرف من هي الشركة الام التابعة لها، حيث لم يحدد الامر في بياناتها.

وفي سياق متصل ذكّر المصدر بدراسة اجرتها وزارة الطاقة منذ نحو خمس سنوات تبين فيها ان السوق لا يحتمل شركة ثامنة، قائلا: اليوم السوق في تراجع نظرا الى الازمة الاقتصادية التي يعاني منها البلد، الامر الذي سيؤدي الى تسريح موظفين من الشركات السبعة

وامام هذا الواقع، لفت المصدر الى ان اصحاب الشركات السبعة وجدوا خللا، واجتمعوا مع احد وزراء الطاقة السابقين من اجل استيضاح الامر وعبروا عن اعتراضهم على هذا التجاوز، كما طالبوا بان يتم تصنيف الشركة وتحديد حصة كل واحدة منها من رقابة البواخر وفق تراتبية الاقدمية

الى ذلك، اوضح المصدر ان دوره يملك وكالة بحرية، (تعمل على تخليص المعاملات ودفع الرسوم) وبالتالي اي ترخيص رقابي له سيؤدي .الى تداخل المصالح

وختم سائلا: هل ما حصل هو استعمال النفوذ، هل هذه الرقابة هي رشوة غير مباشرة من قبل مرجع سياسي؟

QatarEnergy wins working interest in new Brazilian offshore exploration block



QatarEnergy, in a consortium with TotalEnergies and Petronas, has been awarded the Agua-Marinha Production Sharing Contract (PSC), under the 1st Cycle Permanent Offer round, by Brazil's National Agency of Petroleum, Natural Gas, and Biofuels (ANP). Under the terms of the PSC and associated agreements, QatarEnergy will hold a 20% working interest, alongside the operator Petrobras (30%), TotalEnergies (30%) and Petronas Petroleo Brasil Ltda (20%).

The Agua-Marinha block has a total area of 1,300sq km and is located in water depths of about 2,000m off the coast of Rio de Janeiro in the prolific Campos Basin.

Commenting on this occasion, HE the Minister of State for Energy Affairs, Saad bin Sherida al-Kaabi, also the president and CEO of QatarEnergy, said: "We are pleased to achieve this latest successful joint-bid, which adds further highly prospective acreage to our upstream portfolio in Brazil, and particularly in the prolific Campos Basin."

Al-Kaabi added: "We are delighted to achieve this success with our valued partners Petrobras, TotalEnergies, and Petronas. I wish to take this opportunity to thank the ANP and the Brazilian authorities for this opportunity and for their ongoing support."

The acquisition, which is expected to close in the first half of 2023, further establishes QatarEnergy as one of the leading upstream players in Brazil, where it already holds working interests in two producing fields and numerous exploration blocks.

EU countries agree gas price cap to contain energy crisis



BRUSSELS, Dec 19 (Reuters) — European Union energy ministers on Monday agreed a gas price cap, after weeks of talks on the emergency measure that has split opinion across the bloc as it seeks to tame the energy crisis.

The cap is the 27-country EU's latest attempt to lower gas prices that have pushed energy bills higher and driven recordhigh inflation this year after Russia cut off most of its gas deliveries to Europe.

Ministers agreed to trigger a cap if prices exceed 180 euros (\$191.11) per megawatt hour for three days on the Dutch Title Transfer Facility (TTF) gas hub's front-month contract, which serves as the European benchmark.

The TTF price must also be 35 eur/MWh higher than a reference price based on existing liquefied natural gas (LNG) price assessments for three days.

"We have succeeded in finding an important agreement that will shield citizens from skyrocketing energy prices," said Jozef Sikela, industry minister for the Czech Republic, which holds the rotating EU presidency.

The cap can be triggered starting from Feb. 15, 2023. The deal will be formally approved by countries in writing, after which it can enter into force.

Once triggered, trades would not be permitted on the front-month, three-month and front-year TTF contracts at a price more than 35 euros/MWh above the reference LNG price.

This effectively caps the price at which gas can be traded, while allowing the capped level to fluctuate alongside global LNG prices — a system designed to ensure EU countries can still bid at competitive prices for gas in from global markets.

Germany voted to support the deal, despite having raised concerns about the policy's impact on Europe's ability to attract gas supplies in price-competitive global markets, three EU officials said.

An EU official told Reuters Germany agreed to the price cap after countries agreed changes to another regulation on speeding up renewable energy permits, and stronger safeguards were added to the cap.

Those safeguards include that the cap will be suspended if the EU faces a gas supply shortage, or if the cap causes a drop in TTF trading, a jump in gas use or a significant increase in gas market participants' margin calls.

Soaring power and gas prices have rocked energy companies across Europe, forcing utilities and traders to secure extra funds from governments and banks to cover margin call requirements.

Germany's Uniper (UN01.DE) has booked billions of euros of losses on derivatives, exacerbating a crisis as it rushed to fill the gap left after Russia cut supplies.

Jacob Mandel, senior associate at Aurora Energy Research, said the TTF front-month contract has rarely closed above 180 eur/MWh, noting this has occurred on 64 days in its history. All of those were in 2022.

Two EU officials said only Hungary voted against the price cap.

The Netherlands and Austria abstained. Both had resisted the cap during negotiations, fearing it could disrupt Europe's energy markets and compromise Europe's energy security.

Dutch energy minister Rob Jetten said: "Despite progress the last couple of weeks, the market correction mechanism remains potentially unsafe."

"I remain worried about major disruptions on the European energy market, about the financial implications and, most of all, I am worried about European security of supply," he added.

The EU proposal has also drawn opposition from some market participants, who have said it could cause financial instability.

The Intercontinental Exchange (ICE) (ICE.N), which hosts TTF trading on its Amsterdam exchange, last week said it could move TTF trading to outside of the EU if the bloc capped prices.

On Monday, it said it will assess whether it can continue to operate fair and orderly markets for TTF gas hub trading. For now, ICE TTF markets will continue trading as normal.

The front month TTF gas price closed trading on Monday 9% lower, at 107 euros/MWh, Refinitiv Eikon data showed.

The contract hit a record high of 343 euros in August — a price spike that prompted the EU to move ahead with its price cap.

Italy's energy authority ARERA expects further increases in gas prices as the winter season kicks in, its President Stefano Besseghini said on Monday.

Meanwhile, Russia's Kremlin spokesman Dmitry Peskov said the cap was an attack on market pricing, and unacceptable, Russia's Interfax news agency reported.

The deal follows months of debate on the idea and two previous emergency meetings that failed to clinch an agreement among EU countries that disagreed on whether a price cap would help or hinder Europe's attempts to contain the energy crisis.

Roughly 15 countries, including Belgium, Greece and Poland, had demanded a cap below 200 euros/MWh — far lower than the 275 euros/MWh trigger limit originally proposed by the European Commission last month.

Poland's prime minister said the price cap would end Russia and Gazprom's ability to distort the market.

"At the recent meetings in Brussels, our majority coalition managed to break the resistance — mainly from Germany," Mateusz Morawiecki wrote on Twitter. "This means the end of market manipulation by Russia and its company Gazprom."

Saudi oil minister says Opec+ will stay cautious on production



Bloomberg / Sharm El-Sheikh

Saudi Arabia's energy minister said Opec+ will remain cautious on oil production, weeks after the group angered the US by lowering output.

The 23-nation alliance, led by Riyadh and Russia, is set to meet on December 4 to decide whether to cut production again, keep it stable or reverse course and pump more. Members are looking at the state of the global economy and seeing plenty of "uncertainties," Prince Abdulaziz bin Salman said.

Oil has dipped since June as central banks raise interest rates and China maintains its Covid Zero strategy. But Brent is still above \$95 a barrel and up 23% this year, with many traders concerned about supply shortages once the European Union effectively bans the import of Russian crude from next month.

"Our theme is being cautious," the minister said at the Saudi Green Initiative during the COP27 climate summit in Egypt. "It's about being responsible and not losing sight of what the market requires."

He cited last month's report from the International Monetary Fund that said the "worst is yet to come" for many economies. "It's about recession," he said in a Bloomberg TV interview. "I also see what central banks are saying and doing."
China loosened some coronavirus restrictions on Friday,
including cutting the amount of time travellers must spend in
quarantine. The move boosted oil prices and Chinese stocks.
But many analysts doubt there'll be a rapid reopening of the
country.

"The jury is still out," Prince Abdulaziz said. "The Chinese authorities are saying they are going to continue to be strict and diligent and follow the same regimentation that they have."

Oil giants face backlash for handing record profits to investors



Bloomberg / New York

Big Oil's record profits are a huge hit on Wall Street but

increasingly provocative in the corridors of power from Washington to London as politicians lash out against executives for funnelling windfall profits to investors.

The controversy this week was not so much about the gargantuan dollar amounts earned but what the world's largest energy companies chose to do with them. Exxon Mobil Corp, Chevron Corp, Shell Plc and TotalEnergies SE are handing almost \$100bn to shareholders annually in the form of buybacks and dividends while reinvesting just \$80bn in their core businesses this year, according to data compiled by Bloomberg.

"Can't believe I have to say this, but giving profits to shareholders is not the same as bringing prices down for American families," President Joe Biden tweeted on Friday in response to Exxon's dividend increase.

Biden assailed Exxon again Friday evening at a Democratic fundraiser in Philadelphia, saying the company's earnings were "the most it's made in its 152-year history, while the rest of America is struggling."

"Those excess profits are going back to their shareholders and their executives instead of going to lower prices at the pump and giving relief to the American people, who deserve it and need it," he added.

"I'm going to keep harping on it," Biden vowed. "They talk about me picking on them — they ain't seen nothing yet. I mean it. It outrages me. Representative Ro Khanna, a California Democrat, called energy profits "obscene," and introduced legislation to prohibit fuel exports, a move he said would lower prices at the pump. Senate Majority Leader Chuck Schumer called the earnings "unconscionable."

Russia's post-invasion halt to natural gas shipments to much of Europe and sanctions on the country's oil exports triggered a global scramble for energy supplies, bidding up prices in the process.

With gasoline prices and household utility bills squeezing consumers and pushing up inflation, politicians are demanding major oil companies reinvest more profits in drilling and refining to ease the strain.

For their part, oil executives, under pressure on emissions and years of poor returns, are in no mood to back down.

"There are hard times, as we saw just two years ago where we had enormous losses," Chevron chief executive officer Mike Wirth said on Bloomberg TV. "You move into another part of the cycle and you have strong earnings. Good times don't last just like the difficult times don't last. We have to invest through those cycles."

Wirth rejected the idea that current profits are a windfall and warned politicians against enacting any "short-sighted" policies that would restrain investment.

Earlier this year, the UK passed a windfall-profits tax on domestic oil and gas producers including BP Plc and Shell to claw back some of their extraordinary earnings, and there may be more measures on the way. Prime Minister Rishi Sunak says all options are on the table as he attempts to fill a £35bn (\$40.7mn) budget shortfall.

The European Union also gave a green light earlier this year for countries to implement windfall levies. An analysis from Boston Consulting Group found that the measure could raise as much as 150bn euros (\$149mn) in the next year. "There's just a big gap in country finances and this is a way to fill that," said Anders Porsborg-Smith, a managing director at BCG. "And it's rarely unpopular to tax supernormal profits."

California Governor Gavin Newsom, also a Democrat, said it's time to "crack down on oil's price gouging tactics and put their profits back into our pockets," adding "gas prices shouldn't be this high." But analysts say California's strict clean-fuel standards are a major reason why the state pays more for gasoline than any other in the US.

Windfall taxes may be popular but whether they're effective is another matter. Shell hasn't had to pay any windfall tax in the UK so far, despite making record-setting profits this year, due to increased investment in the North Sea. More importantly, the industry says such taxes risks chilling investment by the oil majors at a time when they're most needed.

Exxon and Chevron are increasing oil and gas output fast in the Permian Basin, and both reported strong refining throughput in the third quarter, but there's a limit to how much they can do to ease prices in the short-term. Major projects take years of planning and development. Bad policy is a factor behind today's energy crisis, according to Exxon CEO Darren Woods.

"Unfortunately, the markets that we're in today are a function of many of the policies, and some of the narrative that's floated around in the past," he said. "Our focus is really making sure people understand what the potential consequences of some of these policies are."

QatarEnergy Trading to offtake, market 70% of LNG produced by Golden Pass project in US



Doha

Affiliates of QatarEnergy and ExxonMobil have agreed to independently offtake and market their respective proportionate equity shares of LNG produced by the Golden Pass LNG Export Project located in Sabine Pass, Texas, the US.

Pursuant to the agreement, QatarEnergy Trading, a wholly owned subsidiary of QatarEnergy, will offtake, transport, and trade 70% of the LNG produced by Golden Pass LNG.

The construction of Golden Pass, which has a total production capacity in excess of 18mn tonnes of LNG per year, is well underway with first LNG production expected by the end of 2024.

Commenting on this development, HE the Minister of State for Energy Affairs, Saad bin Sherida al-Kaabi, also the President and CEO of QatarEnergy said, "The energy market is highly dynamic and undergoing a period of transformation, and LNG will continue to play a key role in meeting global energy demand and ensuring security of supply. This agreement is an important addition to our efforts to meet demand for cleaner energy and to support the economic and environmental requirements for a practical, equitable and realistic energy transition."

Al-Kaabi added: "QatarEnergy is the global leader in LNG, the cleanest of all fossil fuels, and it is only natural for us to increase focus on LNG trading and portfolio optimisation to

deliver innovative LNG solutions that meet the needs of our customers across the globe. I am proud of what QatarEnergy Trading has achieved in the very short time since its inception and with this new addition to its portfolio, I am confident that QatarEnergy Trading will accelerate its efforts to deliver on our aspiration of becoming a world leader in LNG trading in the near future."

As a result of this arrangement, Ocean LNG Limited, a joint venture established in 2016 between affiliates of QatarEnergy and ExxonMobil for offtaking and marketing the entire production of Golden Pass LNG, has ceased operations, and will be wound down.

Turkey-Libya preliminary deal prompts Greece, Egypt to push back



TRIPOLI, Oct 3 (Reuters) — Libya's Tripoli government signed a preliminary deal on energy exploration on Monday, prompting Greece and Egypt to say they would oppose any activity in disputed areas of the eastern Mediterranean.

Libya's eastern-based parliament, which backs an alternative administration, also rejected the deal.

Speaking at a ceremony in Tripoli, Turkish Foreign Minister Mevlut Cavusoglu and Libyan Foreign Minister Najla Mangoush said the deal was one of several in a memorandum of understanding on economic issues aimed at benefiting both countries.

It was not immediately clear whether any concrete projects to emerge would include exploration in the "exclusive economic zone" which Turkey and a previous Tripoli government agreed in 2019, angering other eastern Mediterranean states.

That zone envisaged the two countries sharing a maritime

border but was attacked by Greece and Cyprus and criticised by Egypt and Israel.

"It does not matter what they think," said Cavusoglu when asked if other countries might object to the new memorandum of understanding.

"Third countries do not have the right to interfere," he added.

Greece's foreign ministry said on Monday that Greece had sovereign rights in the area which it intended to defend "with all legal means, in full respect of the international law of the sea."

It cited a 2020 pact between Athens and Egypt, designating their own exclusive economic zone in the eastern Mediterranean, which Greek diplomats have said effectively nullified the 2019 accord between Turkey and Libya.

"Any mention or action enforcing the said 'memorandum' will be de facto illegitimate and depending on its weight, there will be a reaction at a bilateral level and in the European Union and NATO," the Greek foreign ministry said in a statement.

An Egyptian foreign ministry's statement said on Monday that Foreign Minister Sameh Shoukry received a phone call from his Greek counterpart, Nikos Dendias, where they discussed the developments in Libya.

They both stressed that "the outgoing 'government of unity' in Tripoli does not have the authority to conclude any international agreements or memoranda of understanding," the Egyptian foreign ministry's statement added.

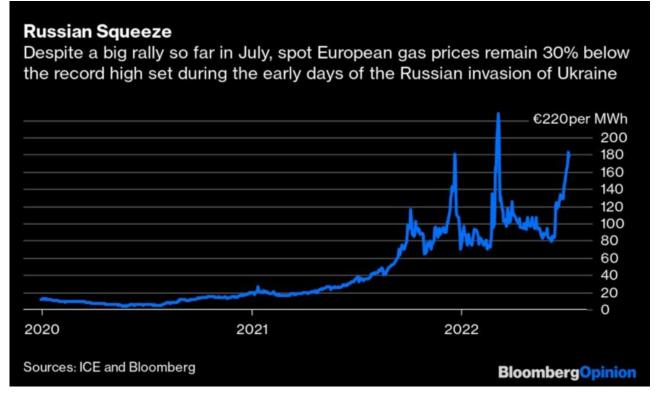
Dendias posted on Twitter about his phone call with Shoukry, saying both sides challenged the "legitimacy of the Libyan Government of National Unity to sign the said MoU," and that he will visit Cairo for consultations on Sunday.

Turkey has been a significant supporter of the Tripoli-based Government of National Unity (GNU) under Abdulhamid al-Dbeibah, whose legitimacy is rejected by the Libyan parliament.

Parliament Speaker Aguila Saleh, seen as an ally of Egypt, said the memorandum of understanding was illegal because it was signed by a government that had no mandate.

The political stalemate over control of government has thwarted efforts to hold national elections in Libya and threatens to plunge the country back into conflict.

Europe gas crisis is bigger than its mega rescue plan



Craig Stirling and Elena Mazneva (Bloomberg) — The economic damage from the shutdown of Russian

gas flows is piling up fast in Europe and risks eventually eclipsing the impact of the global financial crisis.

With a continent-wide recession now seemingly inevitable, a harsh winter is coming for chemical producers, steel plants and car manufacturers starved of essential raw materials who've joined households in sounding the alarm over rocketing energy bills. The suspected sabotage of Germany's main pipeline for gas from Russia underlined that Europe will have to survive without any significant Russian flows.

Building on a model of the European energy market and economy, the Bloomberg Economics base case is now a 1% drop in gross domestic product, with the downturn starting in the fourth quarter. If the coming months turn especially icy and the 27 members of the European Union fail to efficiently share scarce fuel supplies, the contraction could be as much as 5%.

That's about as deep as the recession of 2009. And even if that fate is avoided, the euro-area economy is still on track to spend 2023 suffering its third biggest contraction since World War II — with Germany among those suffering the most.

"Europe is very clearly heading into what could be a fairly deep recession," said Maurice Obstfeld, a former chief economist at the IMF who's now a senior fellow at the Peterson Institute for International Economics in Washington.

The bleak outlook already means that, seven months on from the outbreak of war in Ukraine, governments are shoveling hundreds of billions of euros to families at the same time as they bail out companies and talk of curbs on energy-usage. And those rescue efforts may still fall short.

Adding to the pressure on companies and consumers, the European Central Bank is also squeezing the economy as its new laser-like focus on surging inflation drives the fastest hiking of interest rates in its history. ECB President Christine Lagarde said Monday that she expects policy makers to lift borrowing costs at the next several meetings. Traders

are already pricing in a jumbo 75 basis-point hike at the next monetary policy meeting on Oct. 27.

"The outlook is darkening," Lagarde told EU lawmakers in Brussels. "We expect activity to slow substantially in the coming quarters."

Some energy-industry watchers warn of a lasting crisis that potentially proves bigger than the oil-supply crunches of the 1970s. Indeed, the final impact of the shortages could be even worse than economic models can capture, Jamie Rush, Bloomberg's chief European economist, said.

In an energy crunch, the industrial supply chain can break down in dramatic and unpredictable ways. Individual businesses have a breaking point above which high energy costs simply mean they stop operating. Whole sectors can face shortages of energy-intensive inputs such as fertilizer or steel. In the power system, once a blackout starts, it can quickly get out of control, cascading across the grid.

"Our analysis is a sensible starting point for thinking about the channels through which the European energy markets affects the economy," Rush said. "But it cannot tell us the impact of system failures."

As a witness to the pain, consider the experience of Evonik Industries AG, one of the world's largest specialty chemical manufacturers, based in western Germany's industrial Ruhr valley. In a statement to Bloomberg, the company warned of the potential long-term harm from persistently high costs.

"The basic condition for the prosperity of the German economy, and in particular of the industry, is the permanent availability of energy, also from fossil sources, at reasonable prices," the company said.

It's not alone. Volkswagen AG, Europe's biggest carmaker, is exploring ways to help its broad supplier network in Europe

counter a shortage in natural gas, including making more parts locally and shifting manufacturing capacity. Domo Chemicals Holding NV, which jointly operates Germany's second-biggest chemical plant, is cutting production in Europe, while Italian truckmaker Iveco Group NV has said it's holding talks with suppliers about their struggles with energy prices.

Data released just last week showed private-sector activity in the euro zone contracted for a third month in September, with an index of purchasing managers compiled by S&P Global slumping to its lowest level since 2013. Meanwhile the crisis has also driven consumer confidence to a record low.

The problem began to take root last year when energy prices started to soar as demand recovered from the Covid-19 pandemic, and Russian President Vladimir Putin began to quietly restrict gas supplies to Europe.

His invasion of Ukraine in February plunged the economy into further chaos amid ballooning inflation, a deepening cost-of-living crisis, and cuts to industrial production. By early September, the limited gas that had still been running through the Nord Stream 1 pipeline from Russia to western Europe had stopped indefinitely.

The pipeline suffered a sharp drop in pressure this week and a German security official said the evidence points to deliberate sabotage rather than a technical issue. Gas leaks from three pipelines appeared almost simultaneously in the Baltic Sea, prompting Denmark to say it was stepping up security around its own energy assets.

To put that in context, a year earlier such gas supplies, including LNG, covered around 40% of Europe's total demand. So while gas and power prices have slipped from August records, they are still more than six times higher than normal in some areas. At that price, thousands of companies simply aren't viable in the long term without government support.

For Bloomberg Economics, the baseline scenario — estimated using a suite of models that combine energy supply, prices, and growth — is now one where Russian flows hold at around 10% of those seen in 2021. That's already pretty dire, according to economists Maeva Cousin and Rush.

"Even after government support, the real income squeeze is big enough to trigger a recession," they said.

Their "bad luck" scenario features even less gas, a winter as cold as 2010, and low production from renewable energy.

"If consumer behavior proves sticky and unity between EU countries begins to break down, gas prices could spike above 400 euros, inflation could approach 8% next year and the economy might contract by almost 5% this winter," they said.

Politicians already opened the fiscal floodgates to avert an economic catastrophe during the pandemic and kept up support as the energy crisis took hold. Now they have to choose whether to further strain public finances with more aid or answer to voters for allowing the crisis to spiral out of control.

"Governments are under enormous pressure to intervene," said Dario Perkins, an economist at TS Lombard in London. "Price caps, liquidity support and big fiscal transfers seem inevitable. The authorities must support households and businesses or suffer a recession similar to the one they dodged during the pandemic."

- The European Commission proposed measures to help reduce the impact on consumers, including raising 140 billion euros from energy companies' earnings, mandatory curbs on peak power demand, and boosting energy-sector liquidity
- Germany injected 8 billion euros into utility Uniper SE in a government rescue whose cost will likely run into the tens of billions of euros

- France will budget 16 billion euros to limit power and gas price increases to 15% for households and small companies next year
- Italy's cabinet approved a 14 billion-euro aid plan to help companies squeezed by rising costs in Mario Draghi's final act before the Sept. 25 election
- The Netherlands unveiled a 17.2 billion-euro support package for households, including a hike in the minimum wage and higher taxes on corporate profits

Totting up all the red ink, the Bruegel think-tank estimates that as of the middle of September, EU governments had earmarked 314 billion euros to cushion the crunch's impact on consumers and businesses.

That will take its toll on the region's public finances, and Simone Tagliapietra, a researcher at Bruegel, described the bill as "clearly not sustainable from a fiscal perspective."

The lingering fear of the energy industry is that the pain of coming months may only be the start. Christyan Malek, JPMorgan Chase & Co's global head of energy strategy, told Bloomberg TV this month that once Beijing eases Covid restrictions Chinese demand for LNG will increase, leading to more competition and more price pressures for Europe.

"This is not just a three-month problem," said Anouk Honore, senior research fellow at Oxford Institute for Energy Studies. "This is potentially a two-year problem."

(Updates with details of Nord Stream incident in second and 17th paragraphs. An earlier version of this story corrected a reference to Volkswagen disruption.)