

The world's biggest offshore wind farm could be cheaper than coal

The world's biggest offshore wind park planned off the coast of England will probably in the next decade generate power more cheaply than by burning coal.

A number of offshore wind projects won contracts to sell power at guaranteed prices in a UK auction Friday. The price of 39.65 pounds per megawatt-hour (around R740) was 31% below the level in a similar auction two years ago.

The plunge highlights how offshore wind, which only a few years ago was a niche technology more expensive than nuclear reactors, is changing the economics of energy around the world. Both utilities and, increasingly, energy majors, are planning to spend \$448 billion through 2030 on an eightfold capacity increase, according to BloombergNEF.

Projects from developers including SSE Plc, Equinor ASA and Innogy SE won offshore wind power-purchase contracts that will have the capacity to generate as much as 5.5 gigawatts of power, the government said. That includes a joint SSE-Equinor project off England's east coast to build the biggest single offshore wind park in the world.

"The auction results today show offshore wind is in line with current power prices – it is already competitive with existing fossil fuel plants, let alone new fossil fuels," said Deepa Venkateswaran, an analyst at Sanford C. Bernstein & Co. in London. "In the next auction in 2021 we will see costs go well below that of existing fossil fuel plants."

One of the winning areas, known as Dogger Bank, is off the coast of Yorkshire. Three projects by Equinor and SSE were

approved in the zone for a total generation of 3.6 gigawatts. Another 1.4 gigawatt project developed by Innogy was also approved in the same area.

Key step

Equinor's success at the auction is a key step in its transition to becoming a broader energy company than just an oil and gas major. The state-controlled Norwegian company has a target of investing as much as 20% of its capital in new energy solutions by 2030.

"Dogger Bank, together with the recent award for Empire Wind in the US, positions Equinor as an offshore wind major," said Pal Eitrheim, Equinor's executive vice president for new energy solutions. "These projects provide economies of scale and synergies, making us an even stronger competitive force in offshore wind globally."

SSE winning capacity will accelerate its shift away from a traditional utility to an energy company focused on renewable power and grids. The Scottish company has agreed to sell its UK domestic supply business to Ovo Energy.

The agreements give the projects a guaranteed buyer through what's known as a contracts-for-difference mechanism. If the wholesale rate is lower than the set price, the government pays the developer the difference. If it's higher, the company pays it back. UK month-ahead power is trading at 42.05 pounds per megawatt-hour, down 34% this year.

Even as wind power moves away from a reliance on government subsidies, the contracts could still play an important role going forward. The guarantee helps developers secure financing and also make the assets more attractive to institutional investors who want reliable returns. The next UK auction round is set to take place in 2021.

The Crown Estate said Thursday it plans to open the first

contest in a decade for sites around the British coast that could draw as much as 20 billion pounds of investment in offshore wind.

For sale

The contracts also open up a track for investors to take stakes in some of these projects. Earlier this year, Iberdrola sold a stake in its 714-megawatt East Anglia One project to Macquarie Group Ltd. for 1.63 billion pounds (£30bn). Projects that have the backing of government-supported purchase agreements are often more attractive to investors who favor the guaranteed prices.

Innogy will likely sell a stake in its 1.4 gigawatt Sofia Offshore Wind Farm development in the Dogger Bank Area, according to Richard Sandford, the company's director of offshore investment and asset management. The company hasn't decided how big of a stake it will sell, but plans to make a final decision sometime next year. SSE also said it will look to sell equity in a 454-megawatt project in Scotland that it won a contract for in the auction.

Cheap US gas is killing nuclear; green power may finish the job



The natural gas boom is killing America's nuclear industry. Wind and solar may finish the job.

While nuclear plants struggle to compete with the flood of cheap gas coming from the nation's shale fields, they still offer a key advantage, supporters say: They generate 24-hour electricity without producing carbon emissions. Renewables, meanwhile, haven't yet nailed down the storage capacity needed to do that. Proponents insist it's only a matter of time.

Battery prices have plunged 85% from 2010 through 2018, and huge storage plants are planned in California and Arizona. Meanwhile, science is advancing on new technology – including chemical alternatives to lithium-ion systems – with the potential to supply power for 100 hours straight, sun or no sun.

All signs point to the acceleration of renewable energy that can out-compete nuclear and fossil fuels," said Jodie Van Horn, director of the Sierra Club's Ready for 100 campaign, a group seeking a grid powered solely by renewables.

The drive for grids that are 100% emissions-free is being pushed by a growing number of U.S. states citing increasingly aggressive time frames. In July, New York mandated that 70% of the state's power come from renewables by 2030, and 100% by 2040. Seven other states, including California, have similar mandates, and Virginia's governor earlier this month announced an executive order calling for 100% clean energy there by 2050.

Still, there remains a gap between now and 2050. "To get to 80%-to-85%, you can see a path to get there with today's technologies," said Yayoi Sekine, an analyst with BloombergNEF. But using renewables to achieve the final 15%, "that's where the challenge really is."

By 2050, BNEF expects renewables to account for 48% of the U.S. power system, paired with multiple types of supplemental, peaking plants that can supply electricity when needed.

Today, these plants typically burn cheap gas, supplied by a muscled-up U.S. shale industry. By 2035, though, so-called battery peakers – large arrays that store energy when renewables are working at their peak, and send power when they're not – will be more cost-competitive, according to BNEF forecasts. Meanwhile, over the same period, nuclear will wane, as high costs force most reactors to just shut down.

The U.S. isn't the only place where the nuclear industry is struggling. Some nations that rely heavily on the technology, including France and Sweden, are reducing nuclear's load as old reactors retire, and diversifying into cheaper solar and wind power.

Still, the industry has the potential to grow in countries where costs can be reduced through shorter construction times. Engineers in China have been able to build and connect nuclear plants in less than seven years, on average, while their counterparts in the U.S. and Europe need a decade or more.

When is change a 'crisis'?

Why climate terms matter



By Emma Vickers New York

The discussion around changing weather is changing. Anodyne references to “climate change” and “global warming” are being scorned by those who think it’s time for more drastic talk, and action, on the environment. They prefer more urgent terminology in hopes that it translates to more urgent action.

1. What new terms are part of the discussion?

Young demonstrators around the world are demanding that their governments declare climate “emergencies,” going so far as to skip school on Fridays to hold so-called climate strikes. The UK’s Guardian newspaper, which champions environmental issues, said in May that it was changing its house style to prefer

“climate emergency,” “climate crisis” or “climate breakdown” over “climate change” (as well as “global heating” over “global warming”). Editor-in-chief Katharine Viner said “climate change” sounds “rather passive and gentle when what scientists are talking about is a catastrophe for humanity.”

2. Is it showing results?

Maybe. In a poll by the Washington Post and the Kaiser Family Foundation, 38% of US adults termed climate change “a crisis,” while an equal number called it “a major problem but not a crisis.” The Democratic leadership of the US House of Representatives this year established a Select Committee on the Climate Crisis, which aims, by March 2020, to publish a blueprint for keeping the gain in the Earth’s temperature to less than 1.5 degrees Celsius (2.7 degrees Fahrenheit). When Democrats last held a majority in the House, in 2007, they created a similar committee but called it the Select Committee for Energy Independence and Global Warming. It was abolished when Republicans regained control of the House in 2011.

3. Isn’t this just semantics?

Literally, yes. And it could be argued that much more tangible steps are being taken: With a changing atmosphere already upon us, use of electric cars is growing, renewable energy is already cheaper than coal in many places (and is becoming cheaper), many investors are uprooting carbon from portfolios and more and more people are eating less meat. But activists argue that stronger words can focus attention on the planet in a new way, and that rallying cries can prompt corresponding action.

4. What sort of action?

By mid-2019, local and national governments representing 206mn people had declared “climate emergencies,” according to the Climate Emergency Declaration Petition, a campaign group. It says in most cases, that means the government commits to develop an action plan within six months. The student climate strikers who advocate use of “emergency” want governments to

commit to switching to 100% renewable energy as soon as possible, preferably by 2030.

Solar, wind power are so cheap they're outgrowing subsidies



Bloomberg/San Francisco/New York

For years, wind and solar power were derided as boondoggles. They were too expensive, the argument went, to build without government handouts.

Today, renewable energy is so cheap that the handouts they once needed are disappearing.

On sun-drenched fields across Spain and Italy, developers are building solar farms without subsidies or tax-breaks, betting they can profit without them. In China, the government plans to stop financially supporting new wind farms. And in the US,

developers are signing shorter sales contracts, opting to depend on competitive markets for revenue once the agreements expire.

The developments have profound implications for the push to phase out fossil fuels and slow the onset of climate change. Electricity generation and heating account for 25% of global greenhouse gases. As wind and solar demonstrate they can compete on their own against coal- and natural gas-fired plants, the economic and political arguments in favor of carbon-free power become harder and harder to refute.

"The training wheels are off," said Joe Osha, an equity analyst at JMP Securities. "Prices have declined enough for both solar and wind that there's a path toward continued deployment in a post-subsidy world."

The reason, in short, is the subsidies worked. After decades of quotas, tax breaks and feed-in-tariffs, wind and solar have been deployed widely enough for manufacturers and developers to become increasingly efficient and drive down costs. The cost of wind power has fallen about 50% since 2010. Solar has dropped 85%. That makes them cheaper than new coal and gas plants in two-thirds of the world, according to BloombergNEF.

"Solar got cheap," said Jenny Chase, an analyst at BNEF. "It's really that simple."

Yet for all its promise, clean energy still has a long way to go before fully usurping coal and gas. Wind and solar still only accounted for about 7% of electricity generation worldwide last year, according to BNEF. And most wind and solar projects still depend on subsidies. In the US, in fact, the solar industry is pushing to extend federal tax credits that are scheduled to decline over the next few years.

And then there's the issue of round-the-clock power. Solar doesn't work at night. Wind farms go idle when breezes slack. So until battery systems are cheap enough for generators to stockpile electricity for hours at a time, renewables can't constantly provide power like coal and gas.

Perhaps nowhere is the push toward subsidy-free clean energy clearer than on arid expanses of Southern Europe. About 750

megawatts of subsidy-free clean-energy projects are expected to connect to the grid in 2019 alone, across Spain, Italy, Portugal and elsewhere – enough to power about 333,000 households, according to Pietro Radoia, an analyst at BNEF.

“The cheapest way of producing electricity in Spain is the sun,” Jose Dominguez Abascal, the nation’s secretary of state for energy, said last year.

The road to subsidy-free renewables wasn’t easy for Spain. A decade ago, it offered developers a lavish feed-in tariff, prompting an uncontrolled boom that strained the national treasury. Spain slashed incentives and now has a hands-off energy policy.

China, the world’s largest renewable energy market, also propped up wind and solar for years. Now it’s shifting toward a more market-driven approach. Earlier this year, officials announced a plan to develop 20.8 gigawatts of renewable projects that can only profit from selling electricity into grids at prices equal to or less than coal. Plus, most wind farms built on land – as opposed to in the ocean – won’t be eligible for subsidies after 2021.

The picture is less clear in the US. Nearly every American wind and solar project remains eligible for subsidies through federal tax breaks, which are scheduled to decrease or phase out altogether over the next few years. Plus, dozens of states have renewable-energy quotas, forcing utilities to buy a certain amount of wind and solar.

Still, they’re starting to compete on their own. The proof is in the sales agreements. For years, clean-energy developers needed 20- or 25-year power-purchase contracts to ensure a return on investment. Now they’re building wind and solar farms with agreements for 15 years or less – with the expectation that projects will compete against gas- and coal-fired plants in wholesale markets after the deals conclude.

Talks on track for Qatar-Germany LNG project: envoy



Preparations are ongoing for the arrival of a large trade delegation led by the Prime Minister of the Federal State of Lower Saxony, Stephan Weil, who is scheduled to visit Qatar by November-end, German ambassador Hans-Udo Muzel has said.

Muzel said Lower Saxony hosts several ports where a proposed LNG distribution terminal would be located.

He said discussions with Qatar Petroleum (QP) are underway and that "there are ports in Germany that are tendering for the project."

"Lower Saxony is where the ports are located and the home of Volkswagen. It is a very commercially active business state with ports on the North Sea coast, as well as the food chamber of Germany with a lot of agriculture-related and food processing industries. In this context, we are looking forward to have continued talks on the LNG terminal and other projects," Muzel told reporters on the sidelines of a recent meeting.

In an earlier statement to *Gulf Times*, Muzel said Germany is

looking to source some of its liquefied natural gas (LNG) needs from Qatar as part of the Western European country's energy supply diversification plans.

"Germany is also actively looking at diversifying its energy supply and considering options to set up an LNG terminal. In this context, German companies are, of course, talking to Qatar Petroleum concerning the supply of LNG to Germany in the near future," the ambassador said.

Quoting HE the Minister of State for Energy Affairs and QP president and CEO Saad Sherida al-Kaabi's interview with business daily Handelsblatt in Berlin last year, Reuters reported that QP was in talks with German energy firms Uniper and RWE for the establishment of a local LNG terminal.

Reuters also reported an RWE spokesperson saying that discussions with QP were not about a shareholding in a potential German LNG terminal but potential gas deliveries to Germany.

Muzel also said the German embassy in Doha is also gearing up for the visit of Deputy Minister of Economics and Energy Thomas Bareiss on November 1 for the 'Qatar IT Conference and Exhibition (2019)'.

Similarly, preparations are being made for the next official meeting of the Joint Task Force on Trade and Investment on the sidelines of the Doha Forum 2019 slated for December 14-15, the ambassador said.

"Qatar and Germany are keen to keep stronger political and economic relations," Muzel said.

Asked about the status of the €10bn pledged by His Highness the Amir Sheikh Tamim bin Hamad al-Thani during the 'Qatar-Germany Business and Investment Forum' held in September 2018 in Berlin, Muzel said some of the funds would be utilised to spur further growth in the SME sector and in promoting young entrepreneurs through private sector expertise to steer the direction of the investments.

"There are key investments in many different sectors, and Qatar's investments are very much welcome because they contribute a lot, and we have a great experience with Qatari investors," Muzel added.

Exxon Mobil, Shell among groups picked to build 5 Pakistan LNG terminals



Pakistan has selected groups that include Exxon Mobil Corp and Royal Dutch Shell to build five liquefied natural gas (LNG) terminals as it aims to triple imports and ease gas shortages. The terminals could be in operation within two to three years, Omar Ayub Khan, Pakistan's minister of power and petroleum, said in an interview on Friday.

Pakistan is chronically short of gas for power production and to supply manufacturers such as fertilizer makers, hobbling the country's economy.

"It will make a significant dent in the gas shortage," Khan said.

The groups selected to build terminals are Tabeer Energy, a unit of Mitsubishi Corp; Exxon and Energas; Trafigura Group

and Pakistan GasPort; Shell and Engro Corp; and Gunvor Group and Fatima.

It was not immediately clear if the companies involved had made final investment decisions to proceed.

The five must submit plan details to the ministry of ports and shipping by Nov. 5 for approval, but cabinet has already approved them, Khan said.

Pakistan's two LNG terminals currently have 1.2 billion cubic feet per day of capacity, and a third expected to come on line next year will add 600 million cubic feet per day, Khan said.

The country has sought bids for a 10-year LNG supply tender for the current terminals and the results will be announced in two to three weeks, Khan said.

It was unclear what capacity the five new terminals will have, but Khan said they could collectively triple Pakistan's LNG import capacity.

The arrests this summer of two LNG industry executives by the National Accountability Bureau raised some concerns about the risks of investing in Pakistan.

But Khan said the interest of five investment groups speaks for itself.

"That is a ringing endorsement that (Pakistan's) policies are clear and transparent," he said. "It's a competitive market."

The cost of building the terminals and finding buyers for the gas will be up to the groups, and they will pay Pakistan a royalty based on volume, Khan said.

Pakistan's contribution will be funding construction of a \$2 billion north-south pipeline to distribute the gas, and storage facilities, he said.

Pakistan's fertilizer industry has coped in the past year with a steep increase in government-set natural gas prices, Sher Shah Malik, executive director of Fertilizer Manufacturers of Pakistan Advisory Council, said in an interview on Thursday.

Gas is the main ingredient in production of urea fertilizer.

Two of Pakistan's urea plants lack gas to run regularly, and one closed last year, forcing Pakistan to import fertilizer.

Since LNG is often too expensive for making fertilizer, the government should also expand domestic gas exploration before reserves are depleted, Malik said.

"We are heading for very difficult times," he said. "If nothing happens, we'll be high and dry."

Source: Reuters (Reporting by Rod Nickel in Islamabad; additional reporting by Sabina Zawadzki in London; editing by Tom Hogue and Jason Neely)

E.ON to tackle Npower after EU clears Innogy takeover



ESSEN, Germany/BRUSSELS (Reuters) – E.ON (EONGn.DE) will move quickly to address problems at Npower, the loss-making British retail business it is taking over after European regulators approved its purchase of assets from peer Innogy (IGY.DE), the German energy group's CEO said on Tuesday.

“(Npower) is an open wound which bleeds heavily,” Johannes Teyssen told journalists. “I am pretty sure that we will make statements on the matter in the course of this year.”

His comments came after European Union antitrust regulators earlier cleared E.ON's purchase of Innogy's network and retail assets, paving the way for a major reshuffle in Germany's energy sector that was first unveiled in March 2018.

The approval seals the fate of Innogy, which was carved out from RWE (RWE.G.DE) and listed three years ago as a separate entity, with its assets being taken over by its parent and E.ON.

Npower, one of Britain's big six energy suppliers, has been losing money for years and both Innogy and E.ON have said they would look at all options for the business, leaving room for a

sale, restructuring or winding it down.

Innogy's break up marks the biggest overhaul in Germany's power industry since the country sped up its exit from nuclear energy earlier this decade, and will turn E.ON into a networks and retail energy group with more than 50 million customers.

RWE, in turn, will become Europe's No.3 renewables player after Spain's Iberdrola (IBE.MC) and Italy's Enel (ENEL.MI) and hold a 16.7% stake in E.ON, making it the largest shareholder. RWE CEO Rolf Martin Schmitz will join E.ON's supervisory board.

PAINFUL CONCESSIONS

The European Commission, which oversees competition policy in the 28-member EU, approved the deal on condition E.ON sells certain businesses in Germany, the Czech Republic and Hungary.

"It is important that all Europeans and businesses can buy electricity and gas at competitive prices," EU Competition Commissioner Margrethe Vestager said in a statement, adding E.ON's commitments meant the deal would not lead to less choice or higher prices.

E.ON agreed to drop most of its customers supplied with heating electricity in Germany and to discontinue the operation of 34 electric charging stations along German autobahn highways.

It will also divest part of its retail business in Hungary as well as Innogy's retail power and gas business in the Czech Republic, which have already drawn interest from potential buyers, Teyssen said.

The disposals, which include about 2 million supply customers, will reduce E.ON's results by more than 100 million euros (\$110 million), he added.

Teyssen said he was relieved by the regulatory clearance after the Commission vetoed deals by Siemens (SIEGn.DE) and Alstom (ALSO.PA) as well as Thyssenkrupp (TKAG.DE) and Tata Steel (TISC.NS) earlier this year.

“We decided in favor of addressing the concerns and against having our way no matter what,” Teyssen said. “Considering ... E.ON’s outstanding development opportunities, these quite painful concessions are tolerable.”

Writing by Christoph Steitz; Editing by Michelle Martin and Mark Potter

Our Standards:The Thomson Reuters Trust Principles.

‘Saudi oil output to recover in two or three weeks after attack’



Reuters London/Dubai

Tuesday, 17 September 2019 09:35 PM

Saudi Arabia sought to calm markets yesterday after an attack on its oil facilities, with sources in the kingdom saying output was recovering much more quickly than initially forecast and could be fully back in two or three weeks.

International oil companies, fellow members of the Opec oil group and global energy policy makers had heard no updates on the impact of the weekend attack from the Saudis for 48 hours, according to sources with knowledge of the situation. And on Monday, sources briefed on state oil giant Aramco's operations had said it could take months for output to recover.

The attack knocked out half of Saudi Arabia's oil production, or 5% of global output, sending prices soaring when trading resumed on Monday.

So the new prediction of a quick return to normal output sent prices down sharply yesterday.

The kingdom is close to restoring 70% of the 5.7mn barrels per

day lost due to the attack, a top Saudi official said, adding that Aramco's output would be fully back online in the next two to three weeks.

Half of lost Saudi oil to remain offline for a month: S&P



DUBAI: Around three million barrels per day of Saudi oil will remain offline for a month, about half the production halted by the weekend's devastating attacks on key crude facilities, S&P Platts said on Tuesday.

The report came as oil prices dipped slightly following record

gains Monday as uncertainty prevailed on global markets over when the OPEC kingpin will be able to restore lost production.

Strikes on Abqaiq – the world's largest processing plant – and the Khurais oilfield that the US has blamed on Iran have knocked out 5.7 million barrels per day (mbpd), or six percent of global production.

“At this point, it looks likely that around 3.0m bpd of Saudi Arabian crude supply will be offline for at least a month,” S&P Global Platts said in a report.

The Saudi cabinet chaired by King Salman warned on Tuesday the unprecedented attacks posed a threat to global energy supply.

“The goal of the unprecedented destructive aggression... is to target primarily global energy supplies,” the cabinet said in a statement.

“We urge the international community to take firmer measures to stop these flagrant aggressions,” said the statement, cited by the SPA news agency.

The kingdom stressed that it was “capable of responding to the attacks”, regardless of who the perpetrators were, but did not name any.

But it reiterated earlier claims that the strikes were carried out with Iranian weapons.

Challenging

Riyadh pumps some 9.9m bpd of which around 7.0m bpd are exported, mostly to Asian markets.

“Saudi Arabia will likely say that they can fully supply their customers, although as time goes on this may be challenging. Any indication of delays or supply tightness will lead to further price increases in the weeks/months ahead,” S&P said.

The threat of a prolonged supply outage from Saudi Arabia highlights the lack of spare production capacity in the market, estimated at 2.3m bpd, most of it held by Riyadh, the energy news provider said.

Reports said Monday the kingdom was likely to restore up to 40 per cent of the lost production immediately, but experts had conflicting views on how long it will take to bring production back to pre-strike levels.

The crisis revived fears of a conflict in the tinderbox Gulf region and raised questions about the security of crude fields in the world's top exporter as well as for other producers.

London-based Capital Economics said global crude stocks, estimated at around 6.1 billion barrels, should be able to compensate for the lost output.

It said that if Saudi Arabia manages to restore full production by next week, oil prices would quickly come down to around \$60 a barrel.

But if it takes months and tensions persist, benchmark Brent crude prices could hit \$85 a barrel, it said.

Oil prices sink

Oil prices sank five per cent on Tuesday, reversing some of the previous day's gains as analysts predicted Saudi output would recover sooner than expected after weekend drone attacks.

In the space of several minutes in afternoon European trading, North Sea Brent crude oil for delivery in November tumbled from \$67.75 to \$65.00. It fell as low as \$64.24, before recovering somewhat.

The market was already trading in negative territory after the previous day's record gains that were fuelled by attacks on Saudi facilities which wiped out half the kingdom's crude

output.

"The markets were once again wrong-footed by the Saudi news," said Forex.com analyst Fawad Razaqzada in reaction to Tuesday's price drop.

"This time prices slumped on reports of sooner-than-expected return for oil production after the attacks.

"Although little details have emerged, speculators are evidently happy to sell now and ask questions later. And who would blame them after that big (price) gap?"

The spike in the oil price had stoked fears that costlier energy and geopolitical instability could weigh on an already slowing global economy, but a quick recovery in Saudi exports and a return to earlier price levels would alleviate those concerns.

"Arguably Monday's spike in oil was unsustainable, since oversupply concerns have been the much more dominant theme this year, but the sudden drop came earlier and quicker than expected," said Chris Beauchamp, chief market analyst at online trading firm IG.

Traders were meanwhile nervously awaiting a further response from the United States after it said Iran was likely to blame.

The crisis revived fears of a conflict in the tinderbox Gulf region and raised questions about the security of crude fields in the world's top exporter Saudi Arabia as well as other producers.

"Oil's reversal didn't do much for the global markets. The indices remain concerned over what happens next between Saudi Arabia and Iran, fears that helped to undermine sentiment," said Spreadex analyst Connor Campbell.

The attack on Saudi oil facilities also took attention away from the upcoming trade talks between China and the US, as

well as a much-anticipated policy meeting of the Federal Reserve, which is expected to cut interest rates Wednesday.

Published in Dawn, September 18th, 2019

Oil market gripped by uncertainty over lost Saudi production



Oil markets are grappling with uncertainty over how long it will take Saudi Arabia to restore output after the devastating attacks that knocked out five per cent of global crude supply.

As state oil giant Saudi Aramco grows less optimistic that there will be a rapid recovery after the strikes that cut the nation's output by half, investors are seeking clarity on just

how bad it could be. Initially, it was said significant volumes could begin to return within days, but Saudi officials later told a foreign diplomat they face “severe” disruption measured in weeks and months. Saudi Energy Minister Prince Abdulaziz bin Salman is scheduled to hold a press briefing on Tuesday evening in Jeddah.

“Today’s press conference is going to be crucial – we have to wait for that really,” said Olivier Jakob, managing director at consultant Petromatrix GmbH in Zug, Switzerland. “We need to have that update in order to make a proper assessment.”

The worst ever sudden disruption to global oil supplies continues to reverberate as geopolitical risk premiums soar on concern over instability in the Middle East and a potential retaliation against Iran, which the U.S. has blamed for the strikes. Traders may not have fully priced in the impact of the supply losses, according to Citigroup Inc.

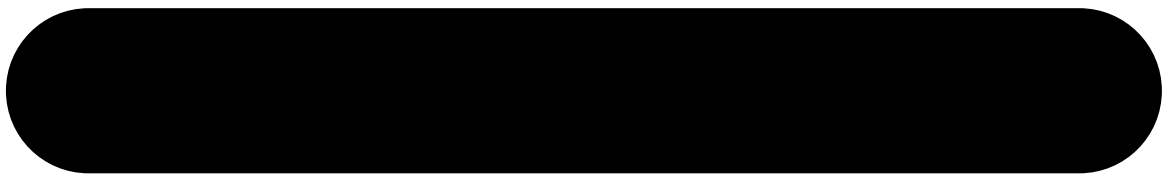
The attacks, which damaged one of the Saudis’ flagship fields and a key processing complex, triggered one of the wildest bouts of trading seen in oil markets, with Brent futures rising 19 per cent in a matter of seconds at the open on Monday and ending the day up 15 per cent, their biggest single-day advance.

It was a more subdued start to trading on Tuesday, with both Brent and West Texas Intermediate futures edging lower.

Saudi Aramco lost about 5.7 million barrels a day of output on Saturday after 10 unmanned aerial vehicles struck the Abqaiq facility and the kingdom’s second-largest oil field in Khurais.

While Aramco is still assessing the state of the Abqaiq site and the scope of repairs, it currently believes less than half of the plant’s capacity can be restored quickly, according to people familiar with the matter, who asked not to be identified because the information isn’t public.

Saudi Aramco is firing up idle offshore oil fields – part of its cushion of spare capacity – to replace some of the lost production, one person said. Customers are also being supplied using stockpiles, though some are being asked to accept different grades of crude. The kingdom has enough domestic inventories to cover about 26 days of exports, according to consultant Rystad Energy A/S.



Customers are also preparing to tap strategic reserves if needed. U.S. President Donald Trump authorized the release of oil from the U.S. Strategic Petroleum Reserve, while the

International Energy Agency, which helps coordinate industrialized countries' emergency fuel stockpiles, said it was monitoring the situation.

The disruption surpasses the loss of Kuwaiti and Iraqi petroleum output in August 1990, when Saddam Hussein invaded his neighbor. It also exceeds the loss of Iranian oil production in 1979 during the Islamic Revolution, according to the IEA.

Nevertheless, U.S Energy Secretary Rick Perry said Tuesday that the market is well-supplied and a "staggering spike" in prices is unlikely.

Brent futures slipped 83 cents to US\$68.19 a barrel on the ICE Futures Europe exchange as of 2:02 p.m. London time, while WTI dropped 60 cents to US\$62.30 on the New York Mercantile Exchange. Brent is trading at a US\$6.11 premium to WTI for the same month.

"It is still difficult to assess the exact scale of the damage caused by the drone attacks to Saudi infrastructure in the Eastern province, but recent official statements lean toward a longer outage than initially anticipated," Citigroup Inc. analysts Ed Morse and Francesco Martoccia said in a report.

—With assistance from Shery Ahn and Grant Smith.