Crippling Heat Deepens Asia's Reliance on Russian Energy

The extreme heat that's been scorching Asia in recent weeks has produced one clear beneficiary — Russia.

As countries across the region scramble to make sure they have enough coal, gas and fuel oil to keep the lights on and air conditioners running, Russian energy being shunned by the West is looking increasingly attractive.

What began as a push from the Kremlin to fund its invasion of Ukraine has now turned into a pull from Asian economies anxious about making sure their power generators are supplied with enough fuel in what could be the hottest year on record.

"The worst place to be right now amid these searing temperatures is South Asia, especially poorer nations like Pakistan or Bangladesh," said John Driscoll, director of JTD Energy Services Pte in Singapore.

“When you can’t even take care of your people’s basic needs, it’s very hard to care too much about international affairs.”

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Russian exports to Asia of thermal coal and natural gas, the two fuels most often used for electricity generation, have grown markedly this year, figures from data intelligence firm Kpler show.

Coal volumes jumped sharply to 7.46 million tons in April, about a third higher than a year earlier. Shipments of liquefied natural gas to Asia have also been growing in recent months after prices retreated from record highs that had made the fuel unaffordable for many poorer nations.

Meanwhile, Asian imports of Russian fuel oil, a dirtier and cheaper alternative for power generation, had the two highest months on record in March and April, according to Kpler.

The impetus for the region to buy more Russian energy is likely to increase due to an emerging El Niño weather pattern, which has already sent the mercury soaring in parts of the region. Vietnam’s prime minister has warned of power shortages this month, while Myanmar is struggling with worsening blackouts.

Carbon dioxide emissions from burning fossil fuels are trapping heat in the atmosphere. That’s warming the planet and is the primary driver of more extreme weather events, including heat waves.

In India, heat-driven power demand will likely be satisfied mostly by coal, said Aniket Autade, power fundamentals analyst for Rystad Energy.

Read More: A Billion Air Conditioners Will Save Lives But Cook the Planet

China and India — the most enthusiastic buyers of discounted Russian oil — are also purchasing the most coal, gas and fuel oil. They took more than two-thirds of Russian coal sent to Asia last month, according to Bloomberg calculations based on Kpler data. South Korea, however, scooped up 15% of the shipments, while Vietnam, Malaysia and Sri Lanka have also emerged as significant buyers.

For fuel oil, China and India were again the biggest buyers from Russia, with Saudi Arabia and the United Arab Emirates also major importers, the Kpler figures show.

Bangladesh, Pakistan and Sri Lanka will probably import more Russian fuel oil for power generation, according to Emma Li, an analyst with Vortexa. The Middle East has also recently increased its imports, and that's likely to continue over the summer, she said.

Pakistan said this month it was keen to pay for Russian oil imports with the Chinese yuan. The country has has placed an order for a single cargo of the crude, but is keen for a long-term deal to buy it in Chinese currency, its power minister said.

Even Japan, a close ally of the US and therefore reluctant to increase imports from Russia, might expand buying within contractual limits, according to Chris Wilkinson, senior analyst for renewables at Rystad.

"Japan may consider purchasing more LNG from Russia under its existing long-term contracts, as it is more cost-effective than buying on the spot market," he said.

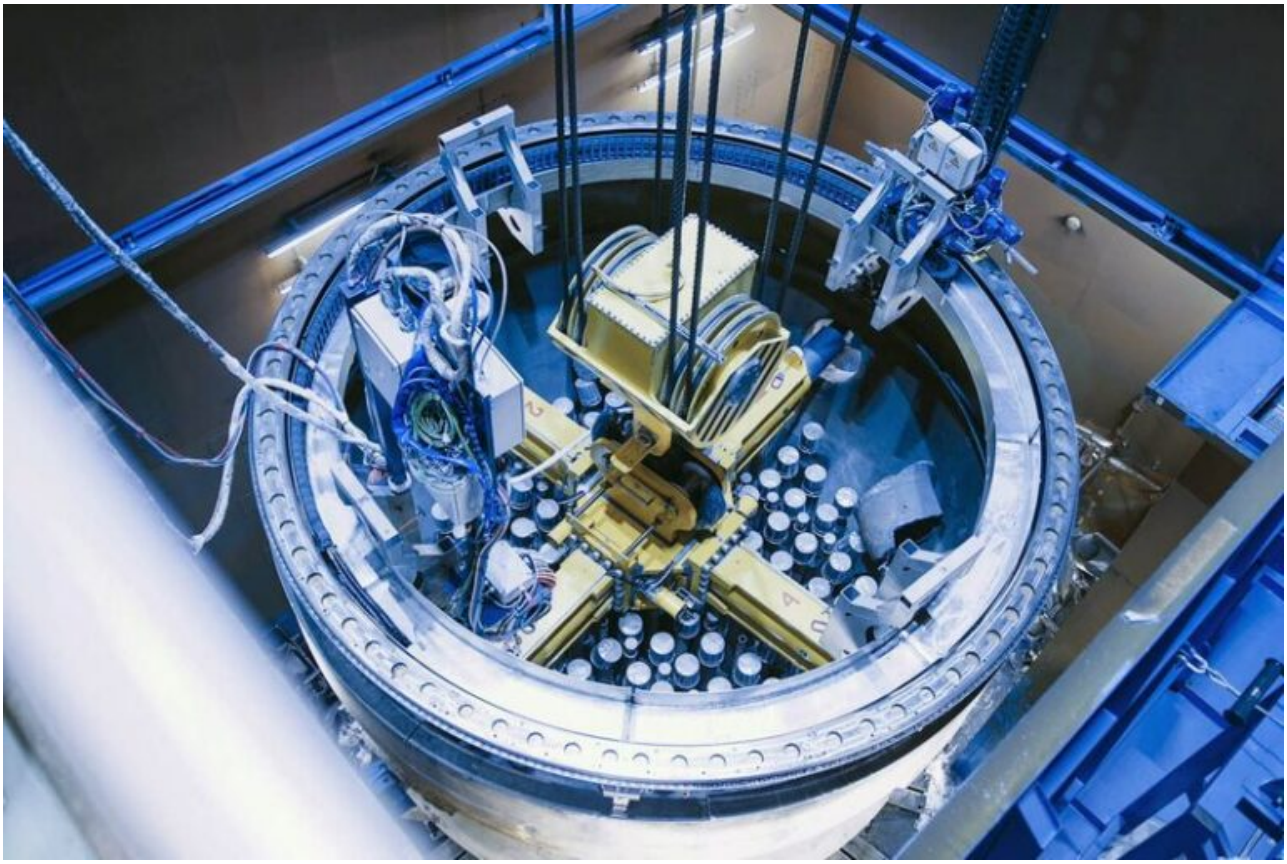
For JTD Energy's Driscoll, the increasing purchases of Russian energy by many Asian countries highlights both the White House's declining clout and the perilous situation many nations find themselves in.

"[They] are asking themselves: would I rather risk falling

afoul of the US or forgo steep discounts on energy?," he said. "When there's a good deal on the table, how can poorer nations afford to say no?"

— With assistance by Aaron Clark

The Russian Nuclear Company The West Can't Live Without



When European countries want to decommission aging nuclear plants, they often call Nukem. There's only one catch.

By Jonathan Tirone and Petra Sorge
May 13, 2023 at 9:00 AM GMT+3
Cutting the heart out of a nuclear power plant is a surgical procedure that only a few specialists are equipped to handle.

The process begins by launching plasma-torch-wielding robots into an empty pool surrounded by thick concrete walls. From there, the remote-controlled machines make circular cuts, as if slicing pineapple rings, through a 600-ton steel vessel that contains radiation generated over decades of splitting atoms. These rings are then diced into meter-long pieces and transported via secure convoy to radioactive waste repositories, where they are left to cool down — indefinitely.

Behind the scenes, scores of nuclear engineers, radiation safety experts and state regulators monitor this operation, which can cost upwards of a billion dollars and take years to plan and execute. The expertise needed to pull this off without error is why “there are only a handful of players” in the high-radiation decommissioning business, said Uniper SE’s Michael Baechler, who is supervising the dismantling of Sweden’s Barsebaeck Nuclear Power Plant.

Among the oldest and most experienced is Germany’s Nukem Technologies Engineering Services GmbH, which for decades has offered its unique services in Asia and Africa and across Europe. Nukem engineers helped contain radiation from the destroyed reactors in Chernobyl and Fukushima. They helped lead the clean-up of an atomic-fuel factory in Belgium. In France, the company devised ways to treat waste from the International Thermonuclear Experimental Reactor.

With researchers predicting that cleaning up after aging nuclear power plants will evolve into a $125 billion global business in the near future, Nukem should be ideally positioned to capitalize on the moment.

Except for one thing: the company is wholly owned by Rosatom Corp., the Kremlin-controlled nuclear giant, putting it in the center of an uncomfortable standoff.

While Germany has been vocal in urging EU countries to stop importing Rosatom’s nuclear fuel, a highly

specialized commodity used for power plants, of which Rosatom is the world's biggest exporter, authorities do not want to prevent Nukem from doing business in Germany, according to three government officials who asked not to be identified in return for discussing private deliberations. As sanctions have not been implemented, doing so would violate EU competition laws, they said.

Located in the rolling hills and orchards just east of Frankfurt, Nukem is a niche player in Rosatom's global empire. At the same time, it exposes the fault line running through the EU's approach to nuclear power. Unlike Russia, which has cultivated expertise across all of the industrial processes needed to convert and enrich uranium atoms into forms usable for generating energy, Europe's hodgepodge development of nuclear technologies has left states dependent on outside providers to fill gaps in production and services. Experts estimate it would take at least four or five years before the EU could match Rosatom's fuel-manufacturing capacity, but even if that process were sped up, it would require more time still to replicate its global reach and array of services.

Pressure to cut Rosatom out of European supply chains has mounted since Russian forces seized Europe's biggest nuclear power station outside the Ukrainian city of Zaporizhzhia and sent in Rosatom engineers to run it. The fact that it or Nukem, a subsidiary, haven't been sanctioned, "should raise some serious questions," said Darya Dolzikova, a researcher at the Royal United Services Institute. But more than a year later, it's still up to individual companies to decide whether to continue doing business with the energy giant. So far, many are proceeding as usual: Rosatom saw exports surge more than 20% in the year after Russia invaded Ukraine.

Unlike Germany's seizure of Russian storage and refining assets after the war, Nukem doesn't have as much fixed infrastructure to go after. If sanctions were to be imposed, Rosatom might simply close shop or move Nukem's

headquarters to a friendlier jurisdiction.

This has left Nukem stuck in a strange kind of limbo, as customers interested in tapping its expertise are now faced with the choice of whether to work with a Kremlin-controlled company. Its experience is particularly valuable as its 120 mostly German engineers can work across the nuclear supply chain, a huge advantage in light of the fact that more young nuclear engineers study to build new installations than tear down existing ones. The International Atomic Energy Agency in Vienna has warned of an acute shortage of decommissioning workers.

“In Europe,” said Mark Hibbs, an analyst at the Carnegie Endowment for International Peace who has been tracking the company for more than three decades, “Nukem presides over a large pool of know-how.”

But even without sanctions, traditional markets such as Lithuania and Finland have stopped working with Nukem and Rosatom, respectively. Others, including the Czech Republic, Slovakia and Bulgaria are diversifying away from Russian suppliers. On a day-to-day level, it’s gotten trickier to do business since the Russian invasion, said Nukem Chief Executive Officer Thomas Seipolt. Money transfers take longer, as does securing the authorizations needed to ship technologies across borders, and some customers have been hesitant to sign contracts, he said. A consulting arrangement “was paused and then cancelled following the start of the Ukraine conflict,” said Boris Schucht, chief executive officer of the fuel consortium Urenco. Due to the political situation, Nukem’s Seipolt noted, “the further development of the company” has “become uncertain.”

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.)

Qatari Minister: No ‘Quick Fix’ to EU Gas Crisis

There is not much Qatar can do to alleviate Europe’s gas crisis in the short term due to contractual commitments, Qatari Energy Minister Saad al-Kaabi tells Energy Intelligence – but further out, in five to seven years, new Qatari LNG exports to Europe should be significant. In an exclusive interview, al-Kaabi said production from the Golden Pass LNG project in the US, where QatarEnergy partners with Exxon Mobil, is due on stream in 2024 and is “already earmarked for Europe.” Up to half of new output from Qatar’s 48 million ton per year North Field mega-expansion could also go West of Suez when it starts up from 2026. Al-Kaabi also serves as head of state-owned QatarEnergy, which is in active discussions with customers for the new supplies. Significantly, targeted contract durations are shorter than the 20-year deals seen in Qatar’s original LNG expansion, reflecting European reluctance to lock into gas supplies long-term. “I think 10-15-year deals are probably what are most acceptable to both sides. But for us, the long-term deal, it’s not just about duration, it’s about price,” he said. Even with such supplies, al-Kaabi expressed skepticism about Europe’s ability to completely wean itself off Russian gas. Europe will find it “very difficult”

to completely forgo Russian pipeline gas for more than two winters. Despite storage, fuel switching and active efforts to expand LNG imports, “a quick fix” to the EU’s dependency on Russian gas does not exist.

Qatar’s North Field expansion is attracting enormous interest from foreign investors, with TotalEnergies tipped to become the first of the Phase-2 partners to be selected later this month. But investors in existing Qatari projects face a rocky ride when contracts on current joint ventures expire, as Exxon and Total discovered when their prized Qatargas-1 contract was not renewed last year. Al-Kaabi revealed that QatarEnergy came close to going it alone on the North Field expansion, too. Qatar, which is generating around 1 million barrels of oil equivalent per day of net output for Exxon, Total and Shell alone, is critical for the majors. However, “if there is no value, there is no partnership, very plain and simple,” al-Kaabi said. Even if joint ventures are maintained after expiry, terms will be tougher. For Exxon, which has stakes in nine of Qatar’s 14 trains, these contract renewals are especially strategic. Qatar knows the value of its LNG will likely drive a hard bargain. “An investment in Qatar is really an important downside-risk revenue maker” for partners, al-Kaabi said.

LNG is only part of a multifront, international investment drive now under way at QatarEnergy. Downstream, petrochemicals is a priority, with al-Kaabi touting QatarEnergy’s planned US project with Chevron Phillips Chemical as “the largest polyethylene plant.” It recently awarded construction contracts for a 1.2 million ton/yr blue ammonia project, also tipped to be the biggest of its kind. But its global upstream drive is most significant. There were doubters when the strategy launched, but QatarEnergy has been vindicated over the past year by major exploration success in Namibia. QatarEnergy, by virtue of sizable stakes in both Total and Shell discoveries, is poised to be the largest reserves holder

in a significant new oil province – Total's Venus discovery is described as the largest deepwater find ever. There have also been offshore gas discoveries in Cyprus and South Africa. And in Brazil, output at QatarEnergy's offshore Sepia field is set to more than double to 400,000 barrels per day in the next couple of years.

Despite confidence in long-term gas demand, QatarEnergy is taking steps to ensure its place in the energy transition. It is investing heavily in greenhouse gas emission mitigation technology at projects. Over $250 million is being spent on such measures at the LNG expansion alone – principally carbon capture and storage (CCS) and solar power. Some 11 million tons/yr of CCS is planned by 2035. "From an overall value chain, Qatari LNG will be the least carbon footprint LNG you can get," al-Kaabi said. "We think that our buyers, and our investors that have joined us in [North Field East expansion], see this as the Rolls-Royce of projects." Transition pressures are feeding into the urgency for developing projects. "I am a believer that you need to monetize what you can because the market conditions change, and there is a competitive advantage to go ahead of others," al-Kaabi stated.

Sweden Sets Up $23 Billion Emergency Backstop for Utilities

Niclas Rolander

Want the lowdown on European markets? In your inbox before the open, every day.

Sweden’s government will provide Nordic and Baltic utilities as much as 250 billion kronor ($23.2 billion) in credit guarantees as it seeks to prevent Russia’s energy curbs from setting off a financial crisis.

The measure is aimed at helping companies struggling to meet the surging collateral requirements needed to trade electricity, and avoid the threat of some going into technical defaults as soon as Monday, Finance Minister Mikael Damberg said at a news conference in Stockholm. Utilities registered with Nasdaq Clearing AB are eligible for the guarantees.

“The issue is currently isolated to energy producers, but unless we act, it could have contagion effects on the rest of the financial market,” the minister said on Sunday. “Ultimately, it could lead to a financial crisis.”

The surging price of energy in Europe has made it more expensive for utilities to buy and sell electricity, because of the collateral required to guarantee trades on power markets facing unprecedented turbulence. Fortum Oyj of neighboring Finland said Aug. 29 its collateral rose by 1 billion euros ($1 billion) in a week to 5 billion euros, excluding funds posted by its German subsidiary Uniper SE.

Germany agrees $65bn inflation relief package

AFP / Berlin

The German government yesterday unveiled a new multi-billion euro plan to help housesholds cope with soaring prices, and said it was eyeing windfall profits from energy companies to help fund the relief.

German businesses and consumers are feeling the pain from sky-high energy prices, as Europe’s biggest economy seeks to

extricate itself from reliance from Russian supplies in the wake of Moscow's invasion of Ukraine.

Rapid measures to prepare for the coming cold season will ensure that Germany would "get through this winter," Chancellor Olaf Scholz said at the unveiling of the €65bn ($65bn) package.

The latest agreement, which brings total relief to almost €100bn since the start of the Ukraine war, was hammered out overnight into Sunday by Germany's three-way ruling coalition of Scholz's Social Democrats, the Greens, and the liberal FDP.

Among the headline measures are one-off payments to millions of vulnerable pensioners and a plan to skim off energy firms' windfall profits. The government's latest relief package came two days after Russian energy giant Gazprom said it would not restart gas deliveries via the Nord Stream 1 pipeline on Saturday as planned after a three-day maintenance.

The government had made "timely decisions" to avoid a winter crisis, Scholz said, including filling gas stores and restarting coal power plants. But preventative measures, including a drive to reduce consumption, have done little to break a sharp increase in household bills.

The latest announcement follows two previous relief packages totalling €30bn, which included a reduction in the tax on petrol and a popular heavily subsidised public transport ticket.

But with the expiration of many of those measures at the end of August and consumer prices soaring, the government has been under pressure to provide new support. Inflation rose again to 7.9% in August, after falling for two straight months thanks to previous government relief measures.

The take-off in energy prices is expected to push inflation in Germany to around 10% by the end of the year, its highest rate in decades. Scholz said however that not everyone is suffering from the high consumer prices.

Some energy companies which may not be using gas to generate electricity were "simply using the fact that the high price of gas determines the price of electricity and are therefore

making a lot of money," he said.

"We have therefore resolved to change the market organisation in such a way that these random profits no longer occur or that they are skimmed off." The trimming of windfall profits would create "financial headroom that should be used specifically to relieve the burden for consumers in Europe," the government said in its policy paper.

The move could potentially bring "double-digit billions" of euros in relief, finance minister Christian Lindner estimated in the press conference. The government said it would push for the move to be implemented across the European Union, before going ahead with the measure on its own.

Brussels on Monday said it would prepare "emergency" action to reform the electricity market and bring prices under control. Scholz said he expected the EU to "deal quickly" with the issue, adding that it was "very clear that we need rapid changes in this area".

Repeating his mantra that Germans will "never walk alone" through the energy crisis, the chancellor unveiled a raft of measures, including a one-off payment of €300 to millions of pensioners to help them cover rising power bills.

The government will also target students with a smaller one-time transfer of €200, and an heating cost payment for people receiving housing benefits.

Berlin also set aside €1.5bn for work on a successor to the wildly popular nine-euro monthly ticket on local and regional transport networks. The relief package as a whole should be financed without planning to take on further debt, Lindner said.

"These measures are included within the government's existing budget plans," covering 2022 and 2023, he said, with the remainder covered by the windfall energy profit measures.

France faces uncertain winter as nuke power shortage looms

By Forrest Crellin, Silvia Aloisi And Nina Chestney/Paris

France, once Europe's top power exporter, may not produce enough nuclear energy this winter to help European neighbours seeking alternatives to Russian gas, and may even have to ration electricity to meet its own needs.

France has for years helped to underpin Europe's electricity supply, providing about 15% of the region's total power generation.

But this year, for the first time since French records began in 2012, France has become a net power importer as its own production of nuclear energy hit a 30-year low, based on data from consultancy EnAppSys.

The supply squeeze, caused by a wave of repairs at the country's nuclear power stations, couldn't have come at a worse time. Europe is in the grip of an energy crisis as Russian gas supplies plummet in the wake of the Ukraine conflict and France, which derives 70% of its electricity from nuclear energy, has lost its edge.

French power prices have hit a string of all-time highs – topping 1,000 euros ($1,004.10) per megawatt hour earlier this month – on expectations the country will not have enough electricity to meet domestic demand. That surge, from prices of around €70 a year ago, has added to a cost-of-living crisis.

“Sky-high electricity prices are an economic threat, with France’s nuclear issues seemingly turning into a greater challenge than Russian gas flows,” said Norbert Rücker, head of economics and next generation research at Julius Baer.

A record number of France’s 56 nuclear reactors have gone offline for overdue maintenance and checks related to corrosion issues that first surfaced last December. Some reactors have had to cut production during the summer to prevent rivers used to cool reactors from overheating.

As of August 29, 57% of nuclear generation capacity was offline, based on data provided by state-controlled nuclear power group Electricite de France, or EDF.

EDF’s current outage schedule sees production levels returning to around 50 gigawatts (GW) daily by December from around 27 GW now as reactors gradually come back for the winter season.

But the market, analysts and union officials think that forecast is too optimistic.

In a normal year, France produces around 400 terawatt-hours (or 400,000 GWh) of nuclear electricity and exports about 10% of it in warmer months. But during winter consumption peaks, France imports power from its neighbours, particularly Germany.

This year, EDF forecasts French nuclear production at 280-300 terawatt-hours, the lowest since 1993. France has imported power from the likes of Germany and Belgium during the summer, when it would usually be exporting it.

“That makes for scary winter prospects,” said Paris-based nuclear energy consultant Mycle Schneider.

Six analysts polled by Reuters estimated that France’s power capacity during the winter will fall below EDF’s forecasts, by 10 to 15GW a day until at least late January. This means

France will need to import more power when the rest of Europe will also be facing an energy crunch, or risk blackouts.
Last week, EDF – which this year has cut its nuclear output forecasts several times and issued four profit warnings – delayed the restart of several reactors to at least mid-November, fuelling more uncertainty.
Current power market prices reveal a lack of confidence in EDF's ability to put all its reactors back online in time for the cold season, a parliamentary source close to government said, although this source also said the availability of the fleet should improve from current low levels.
"We should be able to recover a large part of the reactors which are currently offline," the source said. "We can also ask the French to make efforts, especially to reduce consumption peaks."
The measures the French government could take include forced interruption of power supply to industrial and commercial consumers, reduced heating in public buildings, turning off street lights and controlled power cuts, he said.
French Prime Minister Elisabeth Borne has urged companies to draft energy savings plans by next month, warning they would be hit first if France has to ration gas and electricity.
The CGT union, France's biggest, is bracing for some rolling blackouts this winter.
"The situation is really worrying… to say that there won't be power cuts is a very optimistic gamble, unless one already knows for sure that the winter will be warm," said Virginie Neumayer, who follows nuclear issues at CGT.
Even if EDF can boost nuclear production, analysts say France will still not have spare power to sell to neighbours starved of Russian gas, with Italy, Britain and Switzerland seen as the countries worst hit.
"We have seen some effects over the last months already, as Spain, the UK and Italy all have had to increase their domestic production, since export volumes from France have been much lower than normal," said Fabian Ronningen of consultancy Rystad Energy.

“I think Italy would be the most affected country (if France stopped exporting electricity), as they are Europe’s overall largest power importer.”

EDF CEO Jean-Bernard Levy said on Monday that among the reactors that are closed, 12 were for corrosion problems and the rest were either shut for routine maintenance delayed by the pandemic or taken off-line to prepare them for winter.

Levy said the company was “totally mobilised” to avoid more outages.

“These works are heavy, we will need hundreds and hundreds of very skilled people, we are making them come from abroad, the US in particular,” he told a business conference. He said corrosion issues required workers to operate in a part of the reactor where radiation is high, meaning exposure had to be limited.

For the coming winter, meteorologists often look at how the La Niña weather pattern develops over the summer as an indicator of a colder than average winter.

Currently, the odds of that happening are at 60% during December-February 2022-23, US government weather forecaster the National Weather Service’s Climate Prediction Center said.

Longer term, questions remain over whether EDF, which is in the process of being fully nationalised, can maintain its ageing fleet of existing power stations – mostly build in the 1980s – or build new ones quickly enough to replace them.

France’s nuclear safety watchdog ASN said in May that fixing the corrosion issues affecting EDF’s reactors could take years.

The next generation nuclear reactors EDF has built – including one in Flamanville in France, and another at Hinkley Point in England – have run billions over budget and several years beyond schedule. – Reuters

Russia’s Oil Resilience Faces Bigger Test as EU Ban Looms

Russia defied expectations of a collapse in oil production following its invasion of Ukraine. But Moscow will have to redouble its efforts to find new buyers if it’s to keep output from shrinking in the coming months.

After plunging in the immediate aftermath of its offensive in February, Russian production has rebounded over the past three months as domestic refining boomed and Asian customers stepped in to take shipments shunned by Western buyers. Yet a looming European Union ban on most Russian crude, as well as a gathering economic slowdown, will strike a blow to the country’s producers.

“Russian oil companies have been enjoying the beauties of the summer season — soaring domestic demand and the absence of EU sanctions have allowed them to ramp up production,” said Viktor Katona, head of sour-crude analysis at data firm Kpler.

“As we look into the immediate future, that is bound to change.”

Russian output of crude and condensate — a lighter type of oil — reached a wartime high of around 10.8 million barrels a day in July. Volumes may fall to about 10.5 million a day when the EU ban kicks in in December, Katona said. Analysts at Rystad Energy AS see some 10.1 million a day by year-end, while the International Energy Agency expects a slump of about 2 million a day by the start of 2023.

Russia’s Energy Ministry didn’t respond to requests for comment on its outlook for future production as the EU restrictions approach.

The embargo, which will apply to imports of seaborne crude and most piped supplies from Dec. 5, is set to remove some 1.3 million barrels a day from the European market, IEA estimates show. A ban on oil-product imports follows on Feb. 5, likely cutting a further 1 million barrels a day, the IEA said last week.

Many traditional buyers are already refusing to take Russian barrels, prompting Moscow to sell to customers in Asia, often at a substantial discount. Russia has this year raised its seaborne crude flows to the region by almost 800,000 barrels a day, according to vessel-tracking data compiled by Bloomberg.

But the country can’t count on Asia to mop up all the spare barrels once the EU ban comes into effect as the region is already saturated with Russian crude, according to analysts at Kpler, Rystad and Moscow-based BCS Global Markets.

“In the short term, Asia is already taking almost all that it can,” said Ron Smith, an analyst at BCS.

A loss of Russian production equal to all its current seaborne exports to Europe is a worst-case scenario and unlikely to materialize, said Sergei Vakulenko, an independent expert with

more than 25 years' experience in the Russian oil industry. He expects that traders globally will be eager to find buyers for the extra Russian volumes, given a dearth of spare production capacity elsewhere.

Vakulenko sees Russian output remaining roughly flat until year-end, a view shared by Kirill Bakhtin, a senior oil and gas analyst at Sinara Bank.

"We expect more or less stable production of Russian liquid hydrocarbons in the amount of 10.8 million barrels per day until February 2023," thanks to successful efforts to redirect oil from Europe to Asia, Bakhtin said.

In the first couple of weeks this month, Russia's daily crude oil and condensate output averaged about 10.47 million barrels a day, according to a Kommersant newspaper report Monday. The 3% drop from July is likely driven by seasonality and not by long-term factors such as sanctions, with much of the lower supply coming from a group of smaller producers, including gas giant Gazprom PJSC, according to the Energy Ministry's CDU-TEK data seen by Bloomberg.

Refinery Demand

Russia's seaborne exports have recently slid from their spring peaks, but oil producers have been bolstered by growth in domestic refining amid higher seasonal fuel demand at home and abroad.

Yet toward the end of the year, any attempt to process more crude domestically and increase output of lighter products — which may find a market in Europe before the February ban is enforced — would also mean production of heavier fuels that are harder to sell in the colder months.

In spring, Russian producers were able to find buyers for their fuel oil in the Middle East after the US imposed its own ban. But demand in that region may ebb as the weather cools,

limiting Russia's ability to export the heavy product, said Mikhail Turukalov, chief executive officer of Moscow-based Commodities Markets Analytics LLC.

In the colder months, Russia also lacks the logistical capability needed for a major hike in fuel-oil exports, Turukalov said.

"This winter, oil-processing in Russia will hardly be able to grow enough to compensate for the expected oil-export declines," he said.

— With assistance by James Herron, and Julian Lee

Russian gas cuts will not kill German economy

By Daniel Gros/Brussels

Much of the conventional wisdom about Europe's current

natural-gas crisis – triggered by reduced deliveries from Russia – rests on two assumptions: that the German economy depends on cheap Russian gas, and that this bet has gone spectacularly wrong. But while German industry is strong, and the country imports a lot of natural gas from Russia, a closer inspection of the numbers and economics involved does not support the prevailing narrative.

For starters, natural gas does not play a large enough role to drive an industrial economy. In 2019, gas imports via pipeline cost Germany $30 billion, representing only 0.75% of its GDP, and the overall value of the country's gas consumption was below 2% of GDP. These modest ratios are similar across industrialised economies and suggest that cheap gas imports are highly unlikely to be a major growth factor. Moreover, even though gas consumption has stagnated in Germany and most of Western Europe over the past two decades, the economy grew, albeit slowly.

The argument that cheap Russian gas might have favoured Germany more than other countries also is not backed up by the numbers. In 2019, Germany accounted for only about 2.3% of global natural-gas consumption, but 4.5% of world GDP. Germany's gas intensity per unit of GDP is thus about one-half of the global average, much lower than that of the United States and many other industrialised countries, including Japan and South Korea.

European economies tend to be thriftier in their energy use than the rest of the world. But even within Europe, Germany performs well, with lower gas consumption per unit of GDP than other large European economies, such as Italy and Spain. This is surprising since these two Mediterranean countries have much less need for heating in winter (and air conditioning in summer requires an order of magnitude less power than heating). Only France, with its large nuclear-power sector, is less dependent on gas.

A similar picture emerges from related metrics, such as the value of energy imports as a percentage of GDP, or gas usage for industrial purposes as a share of industrial value added.

All these indicators show that the German economy uses energy less intensively than most others.

The idea that German industry gained an advantage from access to cheap Russian gas ignores the reality that there is a European gas market with, up to now, only small differences in wholesale prices across countries. One could of course argue that Russia sold its energy cheaply to Germany to make the country dependent. But the data challenge the common perception that Germany receives cheap gas.

Over the past decade, German industry has paid about 10% more for natural gas than its competitors in other major European economies. Supplies from North Sea fields have enabled British industrial firms to pay even less than their continental peers, but this does not appear to have helped them much.

The implication is that Russia obtained a non-economic benefit (German dependence on its gas supplies) for almost no cost. The inverse of this is that Germany experienced a loss of energy independence without gaining a noticeable economic advantage.

The one large economy that is both energy-intensive and has cheap natural gas is the United States. The average US citizen uses more than twice as much natural gas as a European – 25 megawatt-hours per year for the US, compared to about 10MWh for European countries. Moreover, US natural-gas prices have been somewhat lower than German or EU prices for most of the past two decades, and are now only a fraction of the European price, as European prices have increased by a factor of five, whereas US prices have changed little. Despite this cost advantage, however, the manufacturing industry of the US – and that of the United Kingdom – has not grown particularly strongly.

Adjusting to a world without Russian gas is of course a major problem for Europe. Yet, although Germany seems more vulnerable because it used to receive a large share of its gas from Russia, this can change quickly. Germany is building new regasification capacity in record time to allow the country to import the quantities of liquefied natural gas needed to fill

the gap between lower Russian supplies and domestic demand, which is already falling because of high prices.
Once this import capacity has been constructed, Germany will be in the same situation as its European neighbours, which also have to bid for LNG. Prices are likely to stay high for some time. But with an energy intensity below the EU average, Germany should be able to bear the burden slightly better than Italy, Spain, and some Eastern European countries. France, of course, will be much less affected, at least if its nuclear reactors can resume full production.
We should also not forget the global picture. Bottling up a large percentage of Russian gas (which is what will happen if Europe no longer buys from Russia) increases the global gas price, which affects Asian countries as well, because they compete with Europe on LNG. South Korea and Japan have a higher energy intensity than Europe, and even China imports large quantities of LNG, at a price similar to what European countries pay.
Expensive energy, particularly natural gas, poses a difficult economic and political challenge for all energy-importing industrialised countries. Only the US and some other smaller energy producers such as Norway, Canada, and Australia benefit from this situation. But the data suggest that Germany is better placed to weather this crisis than most of its main competitors. — Project Syndicate

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How Europe Became So

Dependent on Putin for Its Gas

Russian gas is attractive to Europe because it's usually cheap, easy to transport and almost always available. Some European Union countries depend on it because they are shutting coal plants, and Germany is even planning for the end of nuclear power. Russia's dominance has been enhanced by the depletion of North Sea fields controlled by the U.K. and the Netherlands. Gazprom PJSC supplies about a third of all gas consumed in Europe and, before the Russian invasion of Ukraine, was on track to become even more important as the continent shrinks its own production. In March, however, Russia threatened to cut supplies, and the European Union began mapping out a path to reduce its dependence.

1. How did Russia become so significant?

With its vast Siberian fields, Russia has the world's largest reserves of natural gas. It began exporting to Poland in the 1940s and laid pipelines in the 1960s to deliver fuel to and through satellite states of what was then the Soviet Union. Even at the height of the Cold War, deliveries were steady. But since the Soviet Union broke up, Russia and Ukraine have quarreled over pipelines through Ukrainian territory, prompting Russian authorities to find other routes.

2. How vulnerable is Europe?

A supply crunch in late 2021 provided a vivid insight into Europe's reliance on gas flows from Russia. Storage tanks in the EU fell to their lowest seasonal level in more than a decade after longer-than-usual maintenance at Norwegian fields and Russia rebuilding its own inventories. Benchmark gas prices more than tripled. The EU vowed a decade ago to reduce its dependence on Russian energy, and continuing purchases by

member nations have been a contentious issue within the economic bloc and caused rifts with the U.S.

3. What role does Ukraine play?

About a third of Russian gas flowing to Europe passes through Ukraine. Even as the crisis in the region escalated into war, analysts said Russia, with a history of supply disruptions over price disputes, probably would strive to be seen as a reliable supplier. Gazprom's shipments to Europe and Turkey were about 177 billion cubic meters in 2021, according to calculations by Bloomberg News and BCS Global Markets based on the company's data. When Ukraine and Russia reached a five-year gas transit deal in December 2019, assuring supplies until 2024, Ukrainian President Volodymyr Zelenskiy said the nation would earn at least $7 billion from transit fees.

4. How has Russia disrupted the market before?

In 2006 and 2009, disputes with Ukraine over pricing and siphoning of gas led to cutoffs of Russian supplies transiting through the country. The second shutdown lasted almost two weeks in the dead of winter. Slovakia and some Balkan countries had to ration gas, shut factories and cut power supplies. Since then, the most vulnerable countries have raced to lay pipelines, connect grids and build terminals to import liquefied natural gas, a supercooled form of the fuel that can be shipped from as far as Qatar and the U.S.

5. What supply networks are there?

Outside supplies, mostly from Russia, Norway and Algeria, account for about 80% of the gas the EU consumes. Some of the biggest economies are among the most exposed, with Germany importing 90% of its needs — much of it via a pipeline under the Baltic Sea called Nord Stream, which has been fully operational since 2012. (This was the supply line Russia on March 7 suggested could be cut as part of its response to sanctions imposed over the invasion of Ukraine.) Belgium,

Spain and Portugal face the problem of low storage capacity, as does the U.K., which no longer is part of the bloc and closed its only big gas storage site. The continent has a mass of pipelines, including Yamal-Europe, which runs from Russia through Belarus and Poland before reaching Germany, and TAG, which takes Russian gas to Austria and Italy. Many cross several borders, creating plenty of possible choke points.

6. What about the Nord Stream 2 pipeline?

It was against this background that Nord Stream 2, a new Russian pipeline alongside the first, was completed in late 2021. But it has become entangled in politics and a lengthy regulatory process. There was strong opposition from the U.S., which imposed sanctions that delayed construction. Following the eruption of the war in Ukraine, Germany suspended its certification process for Nord Stream 2, and the EU's executive arm readied a revised energy strategy for the bloc to "substantially reduce our dependency on Russian gas this year."

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