

Low-cost LNG supplier Qatar to remain in 'relatively strong competitive position': S&P



*** Qatar's revenue stream will be significantly enhanced by North Field expansion, whereby Qatari liquefied natural gas production capacity is expected to increase by 64%**

As a low-cost LNG supplier, Qatar will remain in a "relatively strong competitive position" even after 2030, although demand is likely to peak in the mid-2030s, with increasing use of renewables in the energy market having a gradual impact on demand for hydrocarbons, S&P Global noted in its ratings upgrade.

S&P recently raised its long-term sovereign credit rating on Qatar to 'AA' from 'AA-', assigned a stable outlook, and affirmed the country's 'A-1+' short-term rating.

In its overview, S&P noted Qatar's debt interest costs as a share of government revenue have fallen, and therefore it

expects them to remain low because the government is repaying maturing debt.

Additionally, the government's revenue stream will be significantly enhanced by the North Field expansion, whereby Qatari liquefied natural gas production capacity is expected to increase by 64% (by 2027).

"The upgrade reflects structural improvements in the Qatari government's fiscal position. The government's strategy of paying off maturing debt, will sustainably reduce debt-servicing costs to below 5% of general government revenue over 2022-2025," S&P said.

Higher gas production related to the North Field expansion, expected to come onstream from end-2025, should further increase Qatari government revenue.

Qatar remains one of the largest exporters of LNG globally. Between 2025 and 2027, the government plans to increase its LNG production capacity by about 64%, from 77mn tonnes per year to 126mn tpy.

The strategic pivot away from Russian gas, particularly by European economies, suggests there will be a ready market for the additional Qatari gas.

In its forecast, S&P said, "We assume that LNG production levels will be largely flat until 2025, but increase by about 30% over 2026-2027, on the assumption that the full increase in capacity will take some time to be fully utilised."

S&P said it expects "strong" non-hydrocarbon sector growth as Qatar hosts the FIFA World Cup from November 20 to December 18, which will support an economic expansion of about 5% in 2022.

After the tournament, S&P has forecast real GDP growth will average about 2.5% over 2023-2025 as gas production levels remain broadly stable and non-hydrocarbon sector growth normalises around 4%.

The country's strong general government net asset position remains a credit strength and it expects it to increase over the period to 2025, supported by investment returns on Qatar's sovereign wealth fund, Qatar Investment Authority (QIA),

assets, and the government's repayment of maturing external debt.

Averaging about 150% of GDP in 2022-2025, Qatar Government's large liquid assets provide it with a strong buffer to mitigate the economic effects of external or financial shocks.

COP27: Financing for climate ?damages gets a foot in the door



AFP/Sharm El-Sheikh

UN climate negotiations yesterday offered a sliver of hope and “solidarity” for developing countries battered by increasingly costly impacts of global warming, in agreeing to discuss the thorny issue of money for “loss and damage”.

Countries least responsible for planet-heating emissions – but hardest hit by an onslaught of weather extremes – have been

ramping up the pressure on wealthy polluting nations to provide financial help for accelerating damages.

But in a sign of how contentious the issue is among richer nations fearful of open-ended climate liability, the issue was only added to the formal agenda to the UN's COP27 climate summit in the Egyptian resort town of Sharm el-Sheikh after two days of last-ditch negotiations.

This "reflects a sense of solidarity and empathy for the suffering of the victims of climate induced disasters," Egypt's Sameh Shoukry, the COP27 president, said to applause.

At last year's UN summit in Glasgow, the European Union and the United States rejected calls for a separate financial mechanism.

Instead, negotiators agreed to start a "dialogue" extending through 2024 on financial compensation.

The issue has grown ever more urgent in recent months as nations were slammed by a crescendo of disasters, such as the massive flooding that put a third of Pakistan under water in August.

Senegal's Madeleine Diouf Sarr, who represents the Least Developed Countries negotiating bloc, said climate action across the board had been far too slow.

"Lives are being lost. Climate change is causing irreversible loss and damage, and our people carry the greatest cost," she said, adding that an agreement on funding arrangements must be reached in Egypt.

Appeals for more money are bolstered by a field known as event attribution science, which now makes it possible to measure how much global warming increases the likelihood or intensity of an individual cyclone, heat wave, drought or heavy rain event.

"Today, countries cleared an historic first hurdle toward acknowledging and answering the call for financing to address increasingly severe losses and damages," said Anil Dasgupta, head of the World Resources Institute, a climate policy think tank.

But he said that getting negotiators to agree to discuss the

issue was only an initial step.

“We still have a marathon ahead of us before countries iron out a formal decision on this central issue for C027,” he said.

Wrangling over loss and damage has unfolded against the backdrop of an unmet promise by rich nations to provide \$100bn a year starting in 2020 to help the developing world green their economies and anticipate future impacts, called “adaptation” in UN climate lingo.

That funding goal is still \$17bn short. Rich nations have vowed to hit the target by the end of 2023, but observers say the issue has severely undermined trust.

The UN Environment Programme has said the goal – first set in 2009 – has not kept up with reality, and estimates that funding to build resilience to future climate threats should be up to 10 times higher.

Meanwhile, countries are far off track to reach the Paris deal goal of limiting global warming to 1.5 degrees Celsius.

The UN says the world is currently heading to 2.8C of warming, or a still-catastrophic 2.4C even if all national pledges under the Paris treaty are fulfilled.

Depending on how deeply the world slashes carbon pollution, loss and damage from climate change could cost developing countries \$290-580bn a year by 2030, reaching \$1-1.8tn in 2050, according to the Grantham Research Institute on Climate Change and the Environment in London.

The World Bank has estimated the Pakistan floods alone caused \$30bn in damages and economic loss. Millions of people were displaced and two million homes destroyed.

Simon Stiell, the UN’s climate change executive secretary, said vulnerable countries are “tired” and “frustrated”.

“Here in Sharm el-Sheikh we have a duty to speed up our international efforts and turn words into action to catch up with their lived experience,” he said.

Up to now, poor countries have had scant leverage in the UN wrangle over money. But as climate damages multiply, patience is wearing thin.

The AOSIS negotiating block of small island nations told AFP that they would like to see the details for a dedicated loss-and-damage fund worked out within a year.

“There’s not enough support for us to even to begin to prepare for the loss and damage that we are expected to face,” said AOSIS lead negotiator on climate finance Michai Robertson.

China is doubling down on coal despite its green ambitions



Bloomberg / Beijing

China is building a vast array of new coal-fired power stations, potentially more than the operating capacity of the US, even though it knows the plants will probably never be fully used.

The puzzle of why the world’s leading installer of clean

energy is investing so much in the worst polluting – and increasingly expensive – fossil fuel shows the depth of Beijing's concern over the global squeeze in energy supplies. But it also reflects planning for a gradual relegation of coal's role, from prime power source to a widely available but often idle backup to China's rapidly expanding renewables fleet.

Work on at least 165 gigawatts of plants powered by coal should begin by the end of 2023, the National Development and Reform Commission told executives at a meeting in September, according to state-backed Jiemian News. The chairman of China Energy Engineering Corp, meanwhile, has forecast the country could add a total of 270 gigawatts in the five years to 2025 – more than currently exists in any other nation.

New coal permits have already increased, and while the final extent of the ramp-up isn't known, adding 270 gigawatts could cost 568bn to 766bn yuan (\$79bn to \$106bn), according to a calculation based on BloombergNEF data. Excluding China, the rest of the world's pipeline of coal power projects stands at about 101 gigawatts, data compiled by Global Energy Monitor show.

China's strategy is designed to avoid the pitfalls that have hobbled parts of the US and Europe, which stopped investing in fossil fuel production and infrastructure before renewables were ready to take over. That's led to an over-reliance on imports in some places, and in others a dependence on grids that can fall prey to the unreliability of sunshine and wind. At the recent party congress, President Xi Jinping laid out how China's energy transition would be different by following "the principle of building the new before discarding the old." In practice, that means adding both clean power and more coal to try and eliminate economy-crippling power shortages and create a buffer against volatile global fuel prices, while at the same time advancing the country's long-term climate goals. As China's economy grows, it requires ever more power, and it has said it plans to peak coal consumption only by the middle of the decade.

But even as new plants are built, the intention is for them to be used less and less as they're displaced by increasing amounts of clean energy.

In the context of global energy insecurity, it's not surprising that China would ramp up its coal capacity, said Yan Qin, an analyst in Oslo, Norway, at Refinitiv. "But the push to add more clean energy to the grid hasn't slowed down, meaning that growing renewables will squeeze the running hours of coal plants," she said.

The plan carries big risks. Coal financiers are directing capital to investments that are almost designed to be stranded. If they protest because their projects are being underutilised, it could slow the decarbonisation of the planet's worst polluter. And the world's carbon budget is finite, which means that any coal burned at all in China increases the chances of missing targets to avoid catastrophic warming.

The NDRC's proposal is already facing some pushback from utilities and local lenders, according to a person familiar with the matter. Many coal power generators are losing money amid high fuel prices and aren't enthusiastic about funding and running plants that would only be used during times of peak demand, the person said, declining to be identified because the talks are private.

Still, it's clear that the regulator's tone on coal power has changed since last year's energy crisis, according to the person. More plants will be built in areas that are reliant on hydropower, and near the massive wind and solar farms being built in the desert interior, to ensure reliable supply when intermittent renewables generation stalls, the person said.

China is also making efforts to lessen the burden on coal power generators, in large part by leaning on miners to boost output to record levels and keep the Chinese market well below sky-high international prices. The government has also given utilities leeway to charge higher rates to industrial customers. And, it's making progress in developing a mechanism that would compensate coal plants that sit idle while on

backup duty, Refinitiv's Qin said.

In any case, the rate at which clean energy is added will probably be more instructive than power plant spending in determining when coal burning starts to dwindle, said Dave Jones, a lead analyst at the climate think tank Ember in London.

Once renewables are installed they're basically free to produce, which means they'll be prioritised over coal. The moment that new clean energy generation outpaces new power demand is when coal use begins to fall, he said.

China is by far the world's largest renewables market, and its expansion continues to accelerate. Spending in the first half of this year more than doubled to \$98bn, compared to \$12bn in the US. As wind, solar and hydropower all charted strong growth over the period, mostly coal-based thermal power generation dropped 3.5%.

Although the historic drought in the summer curtailed hydropower so much that coal is back on track for a year-on-year increase, it won't be long before new clean energy capacity puts the fuel into permanent decline, Jones said.

"There is so much wind and solar being built and generating clean electricity," he said. "As long as China's not inventing a whole new use for thousands of terrawatt-hours of power, then from a demand perspective it's got to be reducing coal power, because there's nowhere else for that electricity to go."

**QatarEnergy announces
hydrocarbon discovery in**

Brazil's Sepia field



QNA/Doha

QatarEnergy Monday announced an oil discovery in the 4-BRSA-1386D-RJS well in Brazil's world class Sepia oil field, which is located in the prolific Santos Basin in water depths of about 2,000 meters off the coast of Rio de Janeiro.

QatarEnergy acquired a working interest in the Sépia Co-Participated Area in December 2021 during the 2nd Transfer-of-Rights Surplus Bidding Round, which was organized and managed by Brazil's National Agency for Petroleum, Natural Gas and Biofuels (ANP). The Area is operated by Petrobras (with a participating interest of about 52 percent) in partnership with TotalEnergies (19.2 percent), QatarEnergy (14.4 percent) and Petronas Petrleo Brasil Ltda (14.4 percent), with Pre Sal Petroleo S.A. (PPSA) as manager. The Sepia shared reservoir is currently producing about 170,000 barrels of oil per day.

Commenting on this occasion, HE the Minister of State for Energy Affairs, the President and CEO of QatarEnergy, Saad bin Sherida Al Kaabi, said: "We are encouraged by this discovery,

which comes as a result of strategic cooperation with reputable partners in our effort to unlock more global energy resources as part of our comprehensive growth strategy. On this occasion, I would like to congratulate our partners, and I look forward to more future achievements.”

The discovery is significant in that the well penetrated a net oil column, which is one of the thickest ever encountered in Brazil. Partners will continue operations to characterize the conditions of the discovered reservoirs and verify the extent of the discovery by conducting well tests. (QNA)

Golden Pass to procure gas from US market; export-oriented LNG project to start production by end-2024: Al-Kaabi



aramco,athens,athensenergydialogues,baroudi,carbon,climate,climate change,climateaction,climatechange,Closure Of Nuclear,Power,Plants,C02,cyprus,decarbonising,decarbonization, democracy,doha,eastmed,egypt,embargo,emissions,ENERGY,Energy Market,energy,peace,energyindustry,europe,European Fuels,Russian Gas,Oil And Gas,Natural Gas,GAS,gazprom,greece,greenenergy,international,Maritime,disputes,LEBANON,Liquefied Natural Gas,maritime boundaries,east,mediterranean,Maritime disputes,offshore,OIL,opec,pollution,poveity,alleviation,Putin ,QATAR,Renewable Energy,Rosneft,roudi,russia,Russia In The European Energy Sector,Russian Sanctions,saudi,solar,solar power,Straddling,hydrocarbons,reserves,sustainability,total,trump,turkey,ukrain,UNCL0S,usa

QatarEnergy in talks with

Asian buyers for “small equity participation” in North Field expansion: Minister



Doha

QatarEnergy is in talks with several Asian buyers for “small equity participation” in the North Field expansion, HE the Minister of State for Energy Affairs Saad bin Sherida al-Kaabi said Sunday.

“That discussion is still ongoing with several Asian buyers, who will come in as buyers to have small equity participation (in the project). We call them value-added partners,” HE al-Kaabi told reporters here yesterday.

“One of those will be hopefully signed shortly,” al-Kaabi noted.

He said: “The final signature today is relating to international oil companies (IOCs) participation in the North Field South (NFS) expansion project, which comprises two LNG mega trains with a combined capacity of 16mn tonnes per year (MTPY).

“Today marks the closure of IOCs participation in the North Field expansion project,” he added.

Under-investment spurs imbalance in global gas supply-demand



Under-investment spurs imbalance in global gas supply-demand
The supply-demand imbalance in the global gas market has been caused mainly by under-investment in the industry since 2015 on the back of very low gas prices and misguided calls to stop investing in natural gas projects.

This has only been exacerbated by geopolitical tensions and as Europe became the preferred destination for LNG cargoes to

compensate for reduced pipeline flows.

Industry experts say market tightness is expected to continue in the medium-term, as the majority of new projects will come on stream only after 2025.

At a recent media event in Doha, HE the Minister of Energy Affairs Saad bin Sherida al-Kaabi told Gulf Times: “Higher gas prices are caused by many factors. One of these is the Ukraine issue, which has made it a much bigger problem.

“If you go back a little bit, it was due to everybody pushing for green and demonising oil and gas companies and there were not enough investments (in the sector). And that caused higher price, which started before the Ukraine issue. The Ukraine issue has just made it a much bigger problem.

“You cannot take a short-term view of what’s happening today. Gas prices, which you see in Europe today are due to circumstances there.”

Due to the impact of geopolitical challenges, global energy supplies have been disrupted, energy prices impacted, and created concerns over energy security as well as accessibility.

Inflationary pressures are impacting the oil and gas industry through rising production costs, delays in investment decisions, and increased policy uncertainty, al-Kaabi had earlier said at the Asia Green Growth Partnership Ministerial Meeting.

Such developments caused a setback in the kind of serious energy transition the world needs in order to address the immediate challenges of climate change.

“This has caused a serious erosion in public support for reducing carbon emissions in many countries, which had earlier campaigned for greener energy and a carbon-free future – thus negating years of environmental achievements,” al-Kaabi said.

As the cleanest hydrocarbon fuel, natural gas is seen as the perfect solution that strikes the right balance, and will continue to play a key role in the future energy mix.

According to the ‘Global gas outlook’ by the Gas Exporting Countries Forum, natural gas share in the energy mix will

increase from 23% today to 26% in 2050, underpinned by population growth, doubling of world GDP, improved standards of living, and policies and technology aimed at improving air quality and mitigating climate change.

Natural gas will continue to play a pivotal role in sustainable development and in a just and inclusive energy transition. It constitutes a key lever to meet the UN Sustainable Development Goals (SDG) and the Paris Agreement's long-term objectives.

But the security of demand and supply, as well as open, transparent, unhindered, and non-discriminatory gas markets can be achieved only through continuous producer-consumer dialogues.

Clearly, huge investments are required to satisfy the growing world energy demand. Therefore, the importance of timely investments for market stability, and the crucial need for unhindered flow of financial resources and access to technology in a non-discriminatory manner cannot be overlooked.

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 (\$40.7bn) 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.

**Wars aren't won with
peacetime economies**



By Joseph E Stiglitz/New York

Politically, the G7 and likeminded countries around the world have adopted a war footing to stop Russian aggression. Russian President Vladimir Putin violated the most fundamental principle of international law by launching an unprovoked attack on another member of the United Nations – an institution created explicitly to prevent such aggression. The dangers of appeasement should be obvious. Even a little empathy should make us shudder in horror at the prospect of having to live under Putin's rule.

It is a peculiar war. While Putin has described his project as a confrontation with the entire West, Ukrainians alone are doing all the fighting and bearing the full brunt of Russian attacks on civilians and civilian infrastructure. Meanwhile, Europe and America have provided economic and military assistance, and the rest of the world has been dealing with the war's fallout, including higher energy and food prices.

But it is a mistake to think that the war can be won with a peacetime economy. No country has ever prevailed in a serious war by leaving markets alone. Markets simply move too slowly for the kind of major structural changes that are required. That's why the United States has the Defence Production Act,

which was enacted in 1950 and invoked recently in the “war” against Covid-19, and again to address a critical shortage of baby formula.

Wars inevitably cause shortages and generate windfall gains for some at the expense of others. Historically, war profiteers have typically been executed. But today, they include many energy producers and traders who, rather than being marched to the gallows, should be subjected to a windfall profits tax. The European Union has proposed such a measure, but it would come too late, and it is too weak and too narrow for the challenge at hand. Similarly, while several members of Congress have put forward bills to tax Big Oil’s superprofits, the Biden administration has so far failed to move on the issue.

That is understandable, given that US President Joe Biden has been busy enlisting support for signal achievements like the Inflation Reduction Act and the CHIPS Act. Moreover, in seeking the private sector’s cooperation in limiting price increases, he has been at pains not to appear “anti-business.” But taxing windfall profits and using the proceeds to finance the necessary war spending and support for those hurt by high prices is not anti-business; it is responsible wartime governance, which is necessary to maintain popular support for the war effort. Such temporary taxes hurt neither investment nor employment, and there is nothing unjust about taxing exceptional gains that companies did nothing to deserve. (Besides, more generally, taxes on corporate profits are not distortionary, because costs, including capital, are deductible.)

Even more comprehensive measures are needed in Europe, where today’s electricity market was not designed to deal with wartime conditions. Instead, it follows the principle of marginal-cost pricing. That means the electricity price reflects the highest-cost source of production needed to meet current demand. As gas prices have soared, marginal costs have risen far above average costs. The cost of renewable energy has, for instance, changed little.

As such, many sellers of low-cost electricity are making a killing, as are the traders who bought energy at the lower pre-war prices. While these market players reap billions of euros in profits, consumers' electricity bills are soaring. Electricity prices in energy-rich Norway, with its enormous gas and oil reserves and hydro capacity, have increased nearly tenfold.

Meanwhile, households and small businesses are being pushed to the brink, and even some big companies have already gone bankrupt. Last month, Uniper, a large company supplying one-third of Germany's gas, was "nationalised," effectively socialising its massive losses. The European principle of "no state aid" has been thrown aside, mainly because European leaders moved too slowly in changing a market structure that was not designed for war.

Economists love marginal-cost pricing because it provides appropriate incentives, and because its distributive consequences tend to be small and easily manageable in normal times. But now, the system's incentive effects are small and its distributive effects are enormous. In the short run, consumers and small businesses will have to turn down their thermostat in the winter and turn it up in the summer, but comprehensive energy-saving investments take time to plan and implement.

Fortunately, there is a simpler system (already under discussion in some countries, and already being partly implemented in others) that would retain most of marginal-cost pricing's incentive effects without the distributive effects. Under a non-linear pricing framework, households and firms could be allowed to purchase 90% of their previous year's supply at the previous year's price, and 91-110% of supply at, say, 150% of the previous year's price, before the marginal-cost price kicks in.

While non-linear pricing can't be used in many markets – owing to the possibility of "arbitrage" (buying a good at a low price and immediately reselling it at a much higher price) – electricity is not one of them. That is why some economists

(like me) have long advocated its use in cases where large market failures are having important distributive effects. It is a powerful tool that governments can and should use, especially when confronting wartime conditions.

Something also must be done about soaring food prices. After a half-century of paying US farmers not to farm (an old method of agricultural price support), we now should pay them to produce more.

Such changes have become imperative. As the Vietnamese understood, wars are won as much on the political front as on the battlefield. The purpose of the 1968 Tet Offensive was not to gain territory but to change the political calculus of the war, and it worked. Defeating Russia obviously will require more help for Ukraine. But it also will require a better economic response on the part of the West more broadly. That starts with sharing more of the burden through windfall profit taxes, controlling key prices – such as those for electricity and food – and encouraging government interventions where necessary to alleviate critical shortages.

Neoliberalism, based on simplistic ideas about how markets should operate that fail to comprehend how they actually operate, didn't work even in peacetime. It must not be allowed to stop us from winning this war. – Project Syndicate

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