



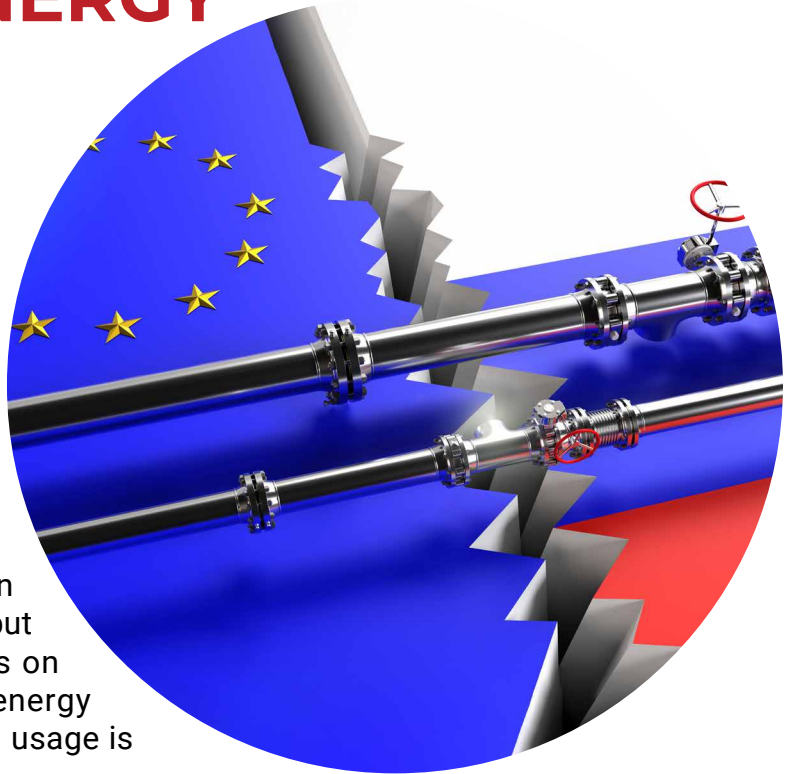
THE RUSSIA-UKRAINE WAR: AN INFLECTION POINT FOR SUSTAINABLE ENERGY TRANSITIONS

SUMMARY

Russia's war on Ukraine has led to a reorientation of EU energy policy towards phasing out Russian fossil fuel imports. This, in turn, has necessitated an ambitious and highly complex restructuring of EU energy systems, markets and infrastructures. For this reason, a considerable number of new policies are in place to accelerate clean energy production and usage within the EU, but the knock-on effects of the EU's new focus on security of supply is making high-carbon energy phase-out more complicated, whilst EU coal usage is expected to grow in 2022.

High energy prices within the EU are being addressed through a series of social policies that focus on certain EU energy justice concerns, but greater coordination and support for EU-wide demand-side policies would do much more to insulate citizens from high energy costs in the long term. EU policies on supply security also raise important questions about North-South energy and climate change relations – not least by placing the EU in direct competition with Global South countries for liquefied natural gas (LNG) and by contributing to high global prices.

In recognition of the complex global knock-on effects of its policies, this Policy Brief proposes that the EU's global climate diplomacy strategy should include measures to assuage Global South countries – like increased commitment to loss and damage, and support for renewable energy development. Furthermore, the European Commission should use this moment of crisis to develop EU-level coordination on high-carbon energy phase-out.



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This Policy Brief was produced with the financial support
of the European Parliament. It does not represent the view
of the European Parliament.

1. Introduction

Russia's second invasion of Ukraine has sent shock waves throughout the EU, leading to claims that the "geopolitical holiday" is over.¹ This has clear implications for energy, which lies at the heart of the EU's response at a crucial time for sustainable transitions. The EU has committed to phasing out dependence on Russian fossil fuel as soon as possible, with the objective of reducing imports significantly in 2022.² At the same time, Russia initially cut gas supplies to Poland, Bulgaria, Finland, Denmark, and the Netherlands and then indefinitely closed the Nordstream gas pipeline to Germany, which was later damaged and may now be decommissioned completely. The crisis has highlighted two uncomfortable sustainable energy facts. Firstly, although energy systems are undergoing a sustainable transition, fossil fuels still form the basis of most energy consumption in Europe. Secondly, the EU has traditionally maintained high levels of dependency on Russian fossil fuels – for example in 2021, 45.3% of EU gas imports came from Russia, much of it through pipelines.³ To make things politically more complicated, Europe had already been experiencing painful spikes in prices for gas and electricity, thus contributing to a cost-of-living crisis and raising industry costs.

The need to phase out Russian imports completely has necessitated a difficult, complex and rapidly evolving energy policy programme at the EU and member state level, which was unlikely to have been attempted had it not been for this crisis situation. There are essentially three pillars to the overall RePowerEU strategy – saving energy; diversification of fossil fuel supply; and acceleration of clean energy deployment.⁴ Achieving the goals of each pillar will require considerable, dedicated, and ongoing political commitment, not least because the

scale of the task is enormous: the EU needs to radically alter energy supply and demand in a very short space of time. There are some early indications of success - by September 2022 Russian pipeline gas imports into the EU had fallen to 9%, by October 2022 EU gas demand had fallen 10%,⁵ and estimates are that this will be a record year for solar power.⁶ However, certain industries have been heavily affected by high prices and the need to reduce demand, and this contributes to a more tense politics of energy. More worryingly, given the need for rapid acceleration of wind phase-in and fossil fuel phase-out, demand for wind turbines in the EU fell by 23% in Q3 2022 versus Q3 2021,⁷ whilst EU coal demand has grown this year.⁸

Balancing supply, demand and affordability while energy systems are restructured is just one part of the energy policy complexity faced by the EU because the bloc is also committed to achieving net zero greenhouse gas (GHG) emissions by 2050, under the 2020 European Green Deal. Carbon dioxide emissions from energy use accounted for 75% of man-made GHG emissions in the EU in 2021,⁹ whilst GHG emissions crept up in 2021.¹⁰ At the same time, the EU has accepted and worked hard to maintain its role as a leader in global climate change mitigation – which is only fitting given the EU's historic level of emissions. What it achieves, or not, in terms of emissions, renewables, energy efficiency and fossil fuel phase-out is globally visible – and indeed the EU has often led by example. Arguably, then, what the EU now does on decarbonising energy sustainably is of importance to global climate leadership. Many countries will be interested to see whether the EU can meet its own ambitious targets during this difficult energy period. At the same time, of course, the outcomes of the EU's climate and energy policy decisions extend far beyond the borders of the EU, with particular implications for sustainable energy in the Global South.¹¹

What happens with emissions between this moment of energy crisis and 2030 really matters. The International Panel on Climate Change (IPCC) estimates that in order to limit global warming to 1.5°C above pre-industrial levels, global GHG emissions need to be reduced by 43% by 2030 versus a 2010 baseline.¹² Under its Fit-for-55 package, the EU has committed to cutting GHG emissions by at least 55% by 2030 compared to the 1990 benchmark year. These are huge tasks given that at the height of worldwide Covid-19 lockdown restrictions in 2020, CO₂ emissions only fell by 5.8%,¹³ whilst they then rose by 6% in 2021 to the highest ever recorded levels.¹⁴ In 2022, the world is on track for another increase in emissions compared to the previous year.¹⁵ This decade, then, marks an inflection point for the EU, and the world, both in terms of rapid EU policy change and in terms of limiting global warming.

This paper explores important questions around whether, and how, current processes of sustainable energy transition are being affected by EU policy. Section 2 defines energy as a multidimensional policy area where policymakers seek to balance multiple complex objectives. Geopolitics and climate and energy justice are raised as key issues that shape EU and global sustainable energy politics. Section 3 explores the implications of both the Russia-Ukraine war and European policy responses for just and sustainable energy transitions within and beyond the EU. Key questions are raised: will the EU's rapidly shifting energy policy strategy accelerate decarbonisation this decade or not? Will it exacerbate North-South energy and climate tensions or improve the relations between actors in the Global North and the Global South?

2. Geopolitics, just and sustainable energy transitions

2.1. Energy policy, secure and affordable access, and energy dependence

Energy has emerged as a complex policy issue of multidimensional social concern, not least because over the centuries of modernisation it has become one of the essential bases of everyday social and commercial life. Since the industrial revolution, societies around the world have become increasingly dependent on inanimate forms of energy, largely fossil fuel based, to power industry, transport, communications, agriculture, health services and militaries. Indeed, it has long been assumed that modern industrialisation and economic growth are driven by delivering reliable access to affordable energy. Historically, this thinking underpinned state-sponsored construction of electricity infrastructures across many OECD countries in the middle part of last century, in order to enable 'universal access'. This assumption now underpins energy-related UN Sustainable Development Goals (SDGs) – SDG7 in particular – as middle- and low-income countries follow similar development trajectories.¹⁶ It is estimated that 770 million people still have no access to electricity today, whilst 2.5 billion people need access to clean and safe cooking solutions. The policies in place to start addressing these energy inequities mean that global energy consumption will continue to rise for decades to come.

Energy geopolitics, that is the location of energy sources in relation to where they are used, has long shaped possibilities for energy access and affordability. Fossil fuels, which continue to dominate global energy systems and trade, are unevenly distributed around the world. This means that only some 'producer' countries have direct access, while most countries are net

primary energy importers dependent on supplies from other countries for their energy.¹⁷ This is one reason why energy security has become such a significant foreign policy consideration over the years. Supply chains and transit are also important considerations in energy geopolitics. Fossil fuels need to be extracted, refined, and transported to become usable and this, in turn, depends on complex supply chain systems made up of extensive pipelines and shipping routes connecting sites of production and conversion to end users. Oil has long been a globally traded product but gas markets, through the development of liquified natural gas (LNG), are also becoming global.¹⁸ These are the markets into which the EU is currently tapping in order to diversify away from Russian imports.

The unevenly distributed nature of fossil fuels combined with increasing energy dependencies has historically made certain countries rich and powerful. Famous examples are the UK whose coal assets underpinned its industrial revolution, and Saudi Arabia whose global political standing is based on its access to the world's largest, and least cost, oil resources. On the other hand, however, being dependent on fossil fuel imports, as has long been the case for the EU, can and has exposed importers to certain supply and pricing vulnerabilities. The 1970s oil price shocks, which also led to significant shifts in energy policy, clearly revealed that dependence on others for vital resources can be economically and politically painful. Although Russian fossil fuel imports flowed consistently during the cold war, the gas transit disputes between Russia and Ukraine in the 2000s, and Russia's annexation of Crimea in 2014, caused the European Commission to focus more political resources on energy issues. New policy measures focused on ensuring security of supply, establishing EU energy solidarity, and investing public funds in new pipelines and gas infrastructure.

2.2. Implementing sustainable transitions

Ensuring reliable and affordable energy access are therefore difficult public policy goals, but alongside these goals the EU and its member states must increasingly deliver on decarbonisation goals too. This is what many who are active in energy governance refer to as the energy policy trilemma.¹⁹ It presents new policy challenges given that sustainable transitions infer high degrees of change in energy systems, in transit and in markets that are often already precariously balanced. Put simply, transitions that are both sustainable and just require rapid accelerations in clean energy technologies and a global phase-out of high carbon energy, while *also* maintaining reliable supply, affordability, and continued improvement of access.

It is hardly surprising, therefore, that the EU and many of its member states find delivering sustainable energy transitions difficult. Although the EU met its 2020 targets for emissions reduction, renewable energy, and energy efficiency – many member states struggled. France, for example, failed to meet its renewable target, while across all EU member states planning objections to the siting of onshore wind and solar generation remain a key barrier. Arguably, however, it is *high-carbon* energy phase-outs that are the most politically and economically contentious aspects of sustainable energy transitions in many parts of the EU. This brings us back to energy geopolitics – countries with fossil fuel resources face important political constraints when seeking to phase them out.²⁰ The highest profile example of this in the EU is Germany, which has found it politically problematic to phase out the highest emitting form of electricity generation – coal. Slow phase-out of coal was one of the main reasons why Germany was not on track to meet its 2020 emissions reduction target, even if emissions reduction caused by Covid-19 in 2020 meant that the

country narrowly stayed within the EU climate goal margin.²¹ The difficult politics of high-carbon phase-out rest partly on the fact that high carbon industries, and sometimes those they employ, stand to lose out and many companies actively resist the phase-out through lobbying and other forms of resistance.

At the same time, large fossil fuel corporations hold positions of economic and political power in most parts of the world. With EU populations being dependent on energy and being used to accessing it at certain prices, governments cannot afford to let the 'lights go out'. Indeed, in 15 EU member states, government fossil fuel subsidies remain higher than clean energy subsidies.²² Yet attempts to reform fossil fuel pricing and introduce carbon taxation in France, for example, have also met with stiff political opposition from 'the yellow jackets'. This clearly demonstrates the policy goal difficulties of balancing decarbonisation, security of supply, and affordability in this vital energy sector. Indeed, when push comes to shove, historic energy crises show us that sustainability goals are often relatively side-lined in the interests of energy security and affordability. This side-lining has slowed down sustainable change.²³

2.3. The new geopolitics of energy: global justice

When considering sustainable energy transitions on a global scale there are even more geopolitical and justice considerations to recognise. Countries are affected differently by climate change, and many are already experiencing severe weather impacts resulting in clear climate injustices. At the same time, due to the UN principle on common but differentiated responsibilities and respective capabilities, the pace of national and regional sustainable transitions differs considerably geographically. For example, the EU has committed to net zero GHG

emissions by 2050, China (and Russia) by 2060, and India by 2070. This, then, is a global process that is also highly heterogenous.

There will also be different winners and losers emerging from processes of energy system decarbonisation.²⁴ This is partly because sustainable energy policies do not just result in emissions reduction – they also infer a range of social and economic outcomes. Countries, and groups within societies, experience these changes differently, ultimately placing questions of justice at the heart of the politics of sustainable transitions. It is true to say that many, but by no means all, non-emissions related sustainable energy policy outcomes will be beneficial. Some policies, like energy efficiency, buildings standards and retrofits, contribute towards multiple policy goals across society: climate change, affordability, poverty reduction, health, and energy security. Other benefits are more unevenly distributed. For example, a green energy technology 'race' is already underway, with countries like China, the USA, Denmark, and Germany already leaders in new, multi-trillion-dollar markets.²⁵ At the same time, however, most countries in the Global South face considerable obstacles when seeking to enter the green energy 'race'. Examples of such obstacles are high costs of capital and limited access to patents and relevant institutional knowledge.

There are also new energy geopolitics, and associated geopolitical leverage points, associated with the rapid development of clean energy systems. These geopolitical leverage points are partly based on access to the metals and minerals required to make clean energy technologies.²⁶ Although the International Renewable Energy Agency (IRENA) has stressed positive geopolitical outcomes of sustainable transitions for importer countries, as they will be able to produce higher proportions of their own energy, there are also risks of resource conflicts over

access to clean-tech metals and minerals, which are, like fossil fuels, unevenly distributed.²⁷

There are other, less positive, non-emissions outcomes of climate policies, which are also unevenly distributed. Countries that currently enjoy high fossil fuel incomes clearly stand to lose out if fossil fuels are successfully phased out. But it is those countries that have low capabilities to adapt that will emerge as considerable economic and political losers.²⁸ Importantly, many low- and middle-income countries that possess unexploited fossil fuel resources have the right to access them – much in the same way as OECD countries have. However, the International Energy Agency (IEA) argues that no *new* fossil fuel extraction is needed on the way to net zero 2050.²⁹ Those arguing from a global justice perspective claim that if high percentages of fossil fuel reserves have to stay in the ground, then these should be situated in the Global North not the Global South.³⁰ This key question of *who* gets to access reserves raises the stakes considerably in the global politics of energy and climate coordination.

Sustainable energy transitions will take many decades to complete, both for the EU and globally. During this time the climate policy outcomes outlined above will form the bases of new political arguments, coalitions, contestations, and clean institutions. Implementing sustainable and *lasting* change therefore means actively balancing energy policy goals with these various considerations of just transitions. The EU increasingly recognises the value of justice within the process of governing for sustainable change – but it focuses on justice *within* the EU. For example, it introduced the EU Just Transition Mechanism as part of the Green Deal, the Social Climate Fund as part of the Fit-for-55 package, and legislation on supporting community energy and improving public participation in climate policymaking processes as part of the 2019

Clean Energy for all Europeans package.³¹ These are all designed partly to support improved distribution of the costs and benefits of sustainable transitions between groups within member states as well as between EU member states.

The fact that the EU has been actively addressing the difficult politics of balancing sustainability with other socio-economic policy goals is commendable, but its focus on justice within the EU has perhaps distracted from emerging global justice issues. For example, questions have been raised about the negative GDP and welfare implications of the EU's proposed Carbon Border Adjustment Mechanism (CBAM) on countries of the Global South that have less capacity to decarbonise and are on different net zero trajectories.³²

3. Analysis: implications for just and sustainable energy transitions

This complex global context provides the backdrop for the analysis below of the implications of more recent policy changes and events for sustainable energy transitions. During Covid-19 lockdowns investments in gas production was scaled back, leaving gas markets under pressure when economies started to recover. Global gas markets have, as a result, been tight and prices high since 2021 – well before Russia's further invasion of Ukraine in February 2022. This, combined with Russia's invasion of Ukraine, presents a strong test of the EU's energy policy shift towards delivering just and sustainable energy transitions – not least given the observations above about security concerns tending to sideline sustainability in past crises.³³

It is notable, then, that the REPowerEU framework actively repurposes EU energy policy towards the overarching energy security objective of delivering an end to "dependence on Russian fossil fuels, which are used as an economic and

political weapon”.³⁴ Each of the three strategy pillars – saving energy, diversification of fossil fuel supply, and acceleration of clean energy deployment – are set out explicitly according to their role in delivering that overarching objective, even if other policy outcomes, such as climate action, are also recognised. In practice, the complex process of phasing out Russian fossil fuel imports and Russia’s decision to turn off its gas taps has placed further pressure on energy affordability. This, in turn, has necessitated a significant number of new social policies to support energy consumers at the EU and member state level. A clear example of one such policy is the European Commission’s announced intention of seeking a solidarity contribution from fossil fuel companies in order to fund programmes to support those energy users most vulnerable to high gas prices.³⁵ What, then, are the implications for just and sustainable transitions?

3.1. EU implications

3.1.1. Accelerating clean energy

There are a considerable number of measures underpinning the REPowerEU pillar of accelerating clean energy development and deployment. The 2030 renewable energy target has been increased from 40% to 45%; there are large increases in political support for solar and on-shore and offshore wind power, heat pumps, hydrogen, biomass and nuclear; and there is a particular emphasis on overcoming the slow and complex permitting processes for renewable energy. These measures are all designed to create EU-based energy alternatives to Russian fossil fuels but, if successfully implemented, they also clearly have positive sustainable energy implications. The extent of these energy policies has led some analyses, including by the International Energy Agency (IEA), to conclude that EU responses will significantly accelerate the production of low carbon energy systems

in Europe.³⁶ It is certainly the case that the EU’s decision to focus on accelerating *renewables* cements in policy practice the notion of renewable energy as secure. This is an interesting development which is, arguably, largely based on the notion of renewables being ‘homegrown’ in the EU, thereby reducing the need for dependence on others.

However, the notion of clean forms of energy being secure because they are homegrown has limitations. Indeed, these limitations differ according to the form of energy – each of which should be considered on its own merit. Renewables, such as wind and solar, are variable and therefore renewable expansion policies need to be backed up with grid improvement, storage, and demand-side response strategies – something that has not yet been emphasised much in the EU’s energy policy changes. The EU has, however, been working on policies to re-shore crucial renewable energy development infrastructures and leave itself less exposed to imports of these and other critical inputs. Large-scale expansion of biomass for energy raises serious land-use issues, whilst nuclear energy, although low carbon, has other negative outcomes for energy security and affordability, in addition to the more widely discussed environmental downsides associated with waste and contamination. Nuclear new builds are notoriously difficult, costly, and tend to take longer than planned. They do not therefore offer any short-term or even medium-term alternative to Russian fossil fuels.³⁷ At the same time, the EU relies to a great extent on Russian supplies of uranium to run its nuclear plants. Indeed, Russia supplied 20% of the EU’s uranium in 2021.³⁸

The REPowerEU pillar on saving energy – to avoid gas demand and to enable the EU to fill gas storage – should also have positive implications both for emissions reduction and for improving energy affordability. The European

Commission has proposed increasing the 2030 Energy Efficiency Directive target to 13%, from 9%, while it has agreed a voluntary EU-wide 15% gas demand reduction scheme, and a 5% mandatory reduction in peak electricity demand between 1 December 2022 and 31 March 2023. Reference is made to these measures in terms of the amount of Russian gas imports they will help to avoid. REPowerEU includes estimates, for example, that short-term demand-side behavioural changes would result in a 5% cut in gas and oil demand.³⁹ Demand reduction raises political questions around who should act – with the emphasis so far being on industry. It has been estimated that, thus far in 2022, EU natural gas demand has declined by 7%, peaking in August when demand fell by 23%.⁴⁰ Much of this fall in demand has taken place in the industrial sector, with significant implications for EU industrial output.⁴¹ Given the seasonality of residential gas demand, it will be clearer to see how households respond as winter progresses.

Energy affordability remains an increasingly contentious political issue. The policy of importing more LNG, which is both higher carbon and more expensive than natural gas, places longer-term pressures on gas prices, to which households and industry remain exposed. This has necessitated energy price caps and other forms of significant social policy spending at the EU and member state level. Some of this is being financed by windfall taxes on energy companies and by other contributions – but it represents a considerable cost to public purses. Energy efficiency measures, including large-scale roll out of household insulation and other retrofit upgrades, are comparatively under-developed at the EU level. Improved energy efficiency would, however, protect the EU member state governments from this kind of financial outlay in future years, and it would also contribute to reductions in emissions and energy poverty.⁴² Individual member states – Germany, Italy, and

Ireland – have announced considerable new energy efficiency and household renovation policies, but there are clear arguments for more EU coordination, support and commitment around this important policy area.

Lastly, when thinking in terms of just and affordable transitions in the EU, the recent announcement on reducing peak electricity demand is a potential, and exciting, turning point in EU sustainable energy policy. Scholars of sustainable energy transitions have long argued that, with energy increasingly being fuelled by renewables, demand-side measures and market offerings are needed.⁴³ Demand-side response would make electricity systems, for example, more flexible to match the variability of solar and wind power, while reducing peak demand means that less money needs to be invested in building expensive new electricity generation. If the 5% mandatory reduction policy is properly implemented, it should demonstrate that peak demand reduction leads to lower overall electricity system costs and, if lower costs are passed on to consumers, household energy affordability can be improved.

3.1.2. Phasing out high carbon energy

Achieving sustainable energy transitions, and meeting the UN 1.5°C global target, also requires a complete phase-out of high carbon energy – the thorny end of sustainable energy politics. This has arguably been complicated significantly by the EU's new security of supply strategy. Clean energy and demand reduction can only go so far in replacing Russian fossil fuels – hence the need to diversify fossil fuel imports, at least in the short to medium term. The EU's strategy of filling gas storage, which is now 94% full, has placed further pressure on finding replacement gas suppliers. In June 2022, the EU signed a new agreement with Norway focused on energy cooperation and improving Europe's

resilience⁴⁴ – with Norway now becoming the EU's largest gas supplier.⁴⁵ In addition, the UK has been acting as a 'gas bridge' – transporting LNG deliveries from its three LNG terminals and Norwegian pipeline gas into the EU. UK gas exports have grown significantly this year, whilst it also became a net exporter of electricity to the EU over Summer 2022.⁴⁶

The main element of the EU's gas supply diversification has been to enter significantly into global LNG markets. The bloc has extended existing LNG trading relations with the USA, and is in talks with Qatar, Algeria and other countries, whilst individual member states are also seeking new deals. Taken together, this has resulted in a scramble for gas and a willingness to pay above the odds for LNG imports, with negative implications for other importers of LNG, as discussed below. To improve its purchasing power, the EU has set up the Energy Platform to pool demand and negotiate with international partners over gas purchases.⁴⁷

The establishment of new trading relationships and agreements raises important questions about the role of gas in Europe's energy mix and how long it will take to phase it out. Prior to the Russia-Ukraine war the direction of travel had been towards exploring ways of phasing out gas use entirely, while the IEA now estimates that EU gas demand will fall by 10% this year.⁴⁸ Yet new gas contracts are likely to be valid for up to ten years, and importing more LNG requires the building of new infrastructure as there are limited LNG terminals and regasification plants in the EU. REPowerEU commits €10bn to gas Projects of Common Interest, such as infrastructure, but there is as yet no clear idea of how much this will amount to across the EU, whilst Germany is committing \$3bn to build floating LNG terminals. Such investments risk embedding gas use for the medium-term and locking investment into fossil

fuel infrastructure, thereby underpinning gas usage, although it might also lead to more stranded carbon assets.⁴⁹

Lastly, on the risks of locking gas into energy systems it is worth considering future oil and gas production levels on the continent of Europe. Although the Netherlands remains committed to phasing out gas production, the UK and Norway have both announced new oil and gas extraction licencing rounds in the North Sea – justified in part on the basis of the war and the EU's need to replace Russian gas imports.⁵⁰ As such, EU policies are explicitly focused on Russian gas import phase-out but not, crucially, on how to deliver the complex policy goal of phasing gas out completely. EU policies are being used, then, as an excuse for expanded fossil fuel production elsewhere in Europe.

When looking at coal there are further sustainable energy and short-term emissions risks associated with current EU energy policy and its knock-on effects. At the member state level, which is ultimately where decisions on the energy mix are taken under Lisbon Treaty rules, policy focus on keeping homes warm and keeping the lights on this winter has resulted in a series of announcements about lifting restrictions on coal-fired electricity generation, reopening closed plants or raising caps on their operating hours.⁵¹ Indeed, EU coal consumption is expected to rise by 7% in 2022.⁵² The core question then becomes whether any emissions reductions resulting from the acceleration of clean energy and energy savings can offset any emissions from increased coal use. What happens to EU emissions in 2022, and 2023, is fundamentally important in relation to the IPCC global emissions reduction targets and to the EU 2030 reduction targets. This outcome is also fundamentally important in relation to the EU's role as a global climate leader.

3.2. External implications

3.2.1. Energy affordability and access

Russia's invasion of Ukraine has pushed up energy and food prices on a global basis.⁵³ The EU's scramble for gas has, in addition, placed European countries in direct competition with other parts of the world for limited global LNG shipments. This has resulted in some countries not receiving vital fuel supplies, pressure on middle- and low-income economies that are import-dependent, electricity shortages, and further short- and medium-term spikes in consumer prices, often for those that can least afford them.⁵⁴ The EU moratorium on Russian coal further exacerbated these effects when it came into effect in August 2022 as it resulted in the EU increasing coal imports from Indonesia, with negative outcomes for energy prices and availability in the Asian region.⁵⁵ This matters because energy access and affordability are central political concerns in middle- and low-income countries that are seeking to develop their economies.

Some Global South economies, including Pakistan, Bangladesh, and Sri Lanka, have in recent years sought to reduce high-carbon oil and coal usage in electricity generation by replacing it with LNG. But now Pakistan, for example, has had to import more coal from Afghanistan to secure its electricity supply. Furthermore, the crisis in ensuring energy access, and associated spikes in prices, also contributed towards political instability in Pakistan and to the ousting of its prime minister, Imran Khan, in April 2022.⁵⁶ Indeed, it has been extremely hard for Pakistan to secure access to LNG and one recent tender actually received no bids.⁵⁷ Meanwhile, India turned to Russia's Gazprom for LNG supplies and invested in coal production to address its lack of fuel for electricity during the summer heatwave.⁵⁸ Clearly, Russia's invasion of Ukraine

has caused a series of knock-on effects, and not all non-EU countries agree with the stance that the EU has taken – especially given onward implications for their energy sectors.

Lastly, on questions of energy justice, it is interesting to look at recent oil and gas licencing announcements by the UK and Norway. These have clear energy equity implications for Global South countries in terms of global un-burnable carbon limits, given that most fossil fuel assets will need to stay in the ground to meet the 1.5°C global targets. For Norway and the UK – developed countries that have already economically and politically benefited from fossil fuel exploitation – taking up even more share of burnable carbon runs completely counter to justice arguments that future fossil fuel production should be in Global South countries.

3.2.2. Environmental sustainability

On balance, the EU's actions may make it more complicated for the Global South to pursue clean energy transitions. On the one hand, EU investments in heat pumps, renewables, and associated electricity storage technologies, alongside research and development funding for less developed technologies such as green hydrogen, may exert downward pressure on clean technology deployment costs. Any EU success in meeting its new 2030 renewables target would also demonstrate that reaching ambitious targets through sustainable policy is possible. On the other hand, however, the EU's moves to speed up its roll-out of renewable energy may also accelerate recent increases in demand for critical minerals, whose global supply chains are already under pressure, and/or may generate new geopolitical issues over access.⁵⁹ In turn, any further upward pressures on critical mineral prices might also lead to higher costs for renewable energy infrastructure, like wind turbines and batteries, making it harder

for low- and middle-income countries, with high costs of capital, to transition to renewables. Aside from the (limited) emphasis on recycling raw materials, the EU's Critical Raw Materials Act will do little for security of supply or for affordability for much of the Global South.⁶⁰

Europe's scramble for non-Russian gas, and related incentives to invest in associated infrastructure, also further complicates domestic political choices for producers of fossil fuels. As has been seen, both Norway and the UK have experienced positive economic impacts of energy exports to the EU and have committed to oil and gas expansions. Algeria has also decided to continue to prop up its gas industry in a bid to secure long-term contracts with European importers.⁶¹ It is noteworthy that while European countries rapidly seek new international gas and hydrogen deals, there are as yet few new partnerships around EU support for renewables in low- and middle-income countries.⁶²

Given the EU's established role as a global climate leader (indeed, often leading by example) and its support within the UN COP system of reaching global agreement on fossil fuel phase-out, any delays in phasing out high carbon energy that result from current policies will be highly visible. One of the main outcomes of COP26 was the urgent need to commence coal phase-out beyond OECD countries, whilst phase-out of all fossil fuels was a central discussion point at COP27, but energy policies in Europe are making this much harder to achieve in practice. Together with estimates that coal usage will increase in 2022, this leaves the EU open to accusations of reduced credibility and even hypocrisy.⁶³

There is already a long-standing frustration that the Global North has failed to live up to financial promises to help low- and middle-income

countries mitigate climate change, whilst the creation of a loss and damage fund sat at the heart of COP27 negotiations but remain tense.⁶⁴ Further polarising effects of European policy outcomes are unlikely to set a positive backdrop for COP28 negotiations or, indeed, for the EU's credibility when pushing for ambitious global climate agreements. If, as a historic emitter with established institutions and a relatively low cost of capital, the EU cannot see its way to phasing out coal and gas, a negative global message is then sent about the actual feasibility of sustainable energy transitions.

It is also worth briefly noting that Russia has been flaring some of the natural gas that would have been exported to the EU. This action is highly methane-intensive. Russia, the world's fourth largest GHG emitter, meanwhile used the global gas demand situation to push for a new 'gas' coalition at COP27, while others note that sanctions may make it even less likely that Russia will meet its 2060 net zero target.⁶⁵ At the same time, however, the predicted 2022 Russian recession (the IMF estimates a contraction of 6%) will place downward pressure on emissions.

4. Conclusions and policy recommendations

Europe has found itself in an extremely awkward situation at a time when it had been re-orienting its energy and climate policy to take greater account of justice and sustainability goals. Thus far, it appears as if the emphasis on ensuring short-term security of energy supply comes at a cost to global energy and climate justice, although it is less clear whether it will come at a cost to meeting its emissions reduction target of 55% by 2030. On emissions reduction, what to watch in the short-term will be whether EU energy savings and clean energy acceleration can become effective enough

in time to offset emissions from the expected increase in coal use. Arguably, the geopolitical policy re-focus on *where* EU fossil fuels come from has distracted from the main, and extremely difficult, question of how to phase them out altogether. In the longer term what will matter, then, is whether EU member states can coordinate sufficiently well to devise a clear and workable EU-wide policy to phase out all high carbon energy usage. This is complex for the EU given internal politics and given that energy mix remains a member state policy issue, but a workable EU-wide policy to phase out all high-carbon energy usage would send a strong global leadership signal.

It has never been more critical for the EU, and the world, to find the right policies to place us on track to meet highly ambitious emissions reduction targets while ensuring that sustainable transitions are sufficiently fair and inclusive for all countries and their citizens. As soon as the EU finds the political breathing space to do so, perhaps as its new path to supply security becomes more settled, it should return its focus to questions of justice within the EU and beyond. Sustainable energy policies need to be positive enough in their socio-economic outcomes to keep climate mitigation on global and domestic political agendas for the decades to come. At the same time, the EU cannot risk alienating precisely those parts of the Global South that are so crucial to meeting global targets. Sustainable energy policymaking thus involves recognition of the varied costs and benefits of policies as well as active attempts to balance and better distribute them.

On this basis, the EU would be wise to enter COP28 negotiations next year with a clear understanding of the interconnected nature of energy and climate politics, and recognition of the knock-on effects of current policies. Greater commitments to renewables development,

clean-energy finance deals, and payments for loss and damage for the Global South might well go some way to assuaging concerns. The EU might also consider developing a clear narrative on how it will limit emissions this year and next as it seeks to improve energy security. In terms of justice within the EU, further emphasis on developing support for demand-side policies, such as household efficiency renovations, demand-side response, and limiting peak demand beyond March 2023, would lower overall system costs and leave citizens less exposed to high energy costs.

Endnotes

- 1 Menon, A. (2022) Europe and the war: the unity engendered by Russia's invasion may not last, UK and EU Online, 26 April
- 2 See: European Council (2022) Informal Meeting of the Heads of State or Government: Versailles Declaration, 10 and 11 March; and European Commission (2022) REPowerEU: 'A plan to rapidly reduce dependence on Russian fossil fuels and fast forward the green transition', a European Commission Press Release, 18 May
- 3 European Commission (2022) 'Quarterly report on European gas markets', Market Observatory for Energy DG Energy, 15:2
- 4 European Commission (2022) REPowerEU: 'A plan to rapidly reduce dependence on Russian fossil fuels and fast forward the green transition', a European Commission Press Release, 18 May
- 5 McWilliams, B; Zachmann, G. (2022) EU natural gas tracker, Bruegel Online 11 October 2022
- 6 European Commission (2022) 2022 State of the Energy Union report highlights challenges, COM(2022) 547 final, Brussels, 18 October
- 7 Wind Europe (2022) Low wind turbine orders call for step change in Europe's energy security strategy, Wind Europe Newsroom, 28 October
- 8 IEA (2022) Global coal demand is set to return to its all-time high in 2022, IEA Online News, 28 July
- 9 Eurostat (2022) CO2 emissions from energy use up by more than 6% in 2021, Eurostat Online, 24 June
- 10 European Commission (2022) 2022 State of the Energy Union report highlights challenges, COM(2022) 547 final, Brussels, 18 October
- 11 Kuzemko, C., Blondeel, M., Dupont, C. and Brisbois, M.C. (2022) Russia's war on Ukraine, European energy policy responses & implications for sustainable transformations, Energy Research & Social Science 93, November, 102842
- 12 IPCC (2022) The evidence is clear: the time for action is now. We can halve emissions by 2030, IPCC Newsroom, 4 April
- 13 IEA (2021) Global Energy Review: CO2 Emissions in 2020, IEA Online Newsroom, 2 March
- 14 IEA (2022) Global CO2 emissions rebounded to their highest level in history in 2021, IEA Press Release, 8 March
- 15 IEA (2022) Defying expectations, CO2 emissions from global fossil fuel combustion are set to grow in 2022 by only a fraction of last year's big increase, IEA Online News, 19 October
- 16 IEA (2022) SDG7: Data and Projections, IEA Flagship Report, April
- 17 For an in-depth exploration of energy geopolitics see: Bradshaw, M. (2009) 'The geopolitics of global energy security', Geography Compass 3:5, 1920-1937
- 18 Grigas, A. (2017) The New Geopolitics of Natural Gas, Cambridge MA: Harvard University Press.
- 19 World Energy Council (2022) World Energy Trilemma, WEC Online
- 20 For an exploration of governing for sustainable energy transitions and the role of domestic fossil fuels see: Kuzemko, C., Lockwood, M., Mitchell, C. and Hoggett, R. (2016) 'Governing for sustainable energy system change: Politics, contexts and contingency', Energy Research & Social Science 12: 96-105.
- 21 Appunn, K. (2022) Final 2020 emissions data out: Germany narrowly stays within EU climate goal margin, Clean Energy Wire Online, 20 January
- 22 Sanchez Nicolas, E. (2022) 15 EU states subsidise fossil-fuels more than renewables, EUobserver, 1 February
- 23 See: Bridge, G., Barr, S., Bouzarovski, S. and Bradshaw, M. (2018) Energy & Society: A Critical Perspective, London: Routledge; and Kuzemko, C. (2014) 'Politicising UK Energy: What Speaking Energy Security Can Do', Policy & Politics, 42:2, 259-274
- 24 For more reading on the (geo-)politics of energy transformations see: Blondeel, M., Bradshaw, M., Bridge, G. and Kuzemko, C. (2021) 'The geopolitics of energy system transformation: A review', Geography Compass 15:7
- 25 Lachapelle, E., MacNeil, R. and Paterson, M. (2017) 'The political economy of decarbonisation: from green energy 'race' to green 'division of labour'', New Political Economy 22:3, 311-327.

- 26 Downie, C. (2022) 'Geopolitical leverage in the energy transition: A framework for analysis and the case of Australian electricity exports', *Energy Research & Social Science* 93: 102826
- 27 For discussions of critical minerals and sustainable energy see: Hendrix, C. (2022) Shift to Renewable Energy Could Be a Mixed Blessing for Mineral Exporters, PIEE Policy Brief 22-1, January; and Overland, I. (2019) 'The geopolitics of renewable energy: debunking four emerging myths', *Energy Research & Social Science* 49: 36-40
- 28 Ivleva, D. and Taenzler, D. (2019) Geopolitics of decarbonisation: Towards an analytical framework. An Adelphi background paper (www.adelphi.de/en/publication/geopolitics-decarbonisation-towards-analytical-framework)
- 29 IEA (2021) Net zero by 2050: A roadmap for the global energy sector, Paris: IEA
- 30 Pye, S., Bradley, S., Hughes, N., Price, J., Welsby, D. and Ekins, P. (2020) 'An equitable redistribution of unburnable carbon', *Nature Communications* 11, Article number: 3968
- 31 Hoicka, C., Lowitzsch, J., Brisbois, M., Kumar, A. and Camargo, L. (2021) 'Implementing a just renewable energy transition: Policy advice for transposing the new European rules for renewable energy communities', *Energy Policy* 156, September, 112435
- 32 Xiaobei, H., Fan, Z. and Jun, M. (2022) The Global Impact of a Carbon Border Adjustment Mechanism: A quantitative assessment, Taskforce on Climate, Development & the International Monetary Fund.
- 33 See: Bridge, G., Barr, S., Bouzarovski, S. and Bradshaw, M. (2018) *Energy & Society: A Critical Perspective*, London: Routledge; and Kuzemko, C. (2014) 'Politicising UK Energy: What Speaking Energy Security Can Do', *Policy & Politics*, 42:2, 259-274
- 34 European Commission (2022) REPowerEU: A plan to rapidly reduce dependence on Russian fossil fuels and fast forward the green transition, Brussels, 18 May
- 35 European Commission (2022) EU action to address the energy crisis, European Commission Online
- 36 See: Tollefson, J. (2022) 'What the war in Ukraine means for energy, climate and food', *Nature* 5 April; Alvik, S. (2022) The Ukraine war will not derail Europe's energy transition, A DNV Report, 6 April; Osicka, J. and Cernoch, F. (2022) 'European energy politics after Ukraine: The road ahead', *Energy Research and Social Science* 91: 102757; IEA (2022) World Energy Outlook 2022, IEA Online 27 October 2022.
- 37 Mearns, E. (2022) How long does it take to build a nuclear power plant, *Energy Matters Online*, 27 July 2016
- 38 Eurostat (2022) Nuclear energy statistics, Eurostat Online, January
- 39 European Commission (2022) REPowerEU: A plan to rapidly reduce dependence on Russian fossil fuels and fast forward the green transition, Brussels, 18 May
- 40 McWilliams, B. and Zachmann, G. (2022) European natural gas demand tracker, Bruegel Online, 11 October
- 41 Denina, C. and Mcfarlane, S. (2022) Energy crisis chips away at Europe's industrial might, Reuters Online, 2 November
- 42 On the many benefits of energy efficiency and household retrofits see: Brown, S., Claeys, B., Vangenechten, D. and Lovisolo, M. (2022) EU can stop Russian gas imports by 2025, an E3G Policy Briefing; and IEA (2022) A 10-Point Plan to Reduce the European Union's Reliance on Russian Natural Gas, IEA Online Fuel Report, March
- 43 For a review of the role of demand-side-response in sustainable energy governance (in Germany) see: Kuzemko, C., Mitchell, C., Lockwood, M. and Hoggett, R. (2017) Policies, politics and demand side innovations: The untold story of Germany's energy transition, *Energy Research & Social Science* 28: 58-67
- 44 Cavcic, M. (2022) With energy security and high prices in mind, EU and Norway strengthen ties with new deal, *Offshore Energy News*, 27 June
- 45 This relationship is, however, becoming politically more difficult: Norway is expected to make \$100bn in 2022 from the petroleum industry, whilst some in the EU are now calling for a negotiated price for Norwegian gas – see here: <https://www.ft.com/content/0ae2d346-5862-474e-9668-36ad3c9ed12e>
- 46 Heynes, G. (2022) UK exports record-breaking 5.5TWh of power to Europe in Q2 2022, *Current Online*, 3 October
- 47 European Commission (2022) EU Energy Platform, Brussels
- 48 IEA (2022) Natural gas markets expected to be tight into 2023 as Russia further reduces supplies to Europe, IEA Online, 3 October

- 49 Livsey, A. (2022) Emergency rush to gas prompts question of stranded energy assets, Financial Times, 20 September
- 50 Kulovic, N. (2022) Norway launches licencing round for oil and gas exploration in predefined areas, Offshore Energy News, 14 June
- 51 IEA (2022) Global coal demand is set to return to its all-time high in 2022, IEA Online, 28 July
- 52 IEA (2022) Global coal demand is set to return to its all-time high in 2022, IEA Online, 28 July
- 53 Romei, V. and Smith, A. (2022) Global inflation tracker: see how your country compares on rising prices, Financial Times online, 29 September
- 54 For more focused discussions of the impact of EU policies on global gas markets see: Pastukhova, M. (2022) Europe's energy diplomacy in times of crisis, E3G Online, 29 April; and IEA (2022) Natural gas markets expected to be tight into 2023 as Russia further reduces supplies to Europe, IEA Online, 3 October
- 55 www.dw.com/en/how-the-eus-new-energy-plans-impact-southeast-asia/a-63256213
- 56 Bradshaw, M. and Blondeel, M. (2022) The EU's global scramble for gas, a UKERC Online Blog, 12 May
- 57 Sharma, R. (2022) Pakistan LNG Tender Gets Weak Response, Energy Intelligence Online, 22 April
- 58 Parkin, B. and Cornish, C. (2022) 'India boosts coal production to tackle power crunch amid searing heatwave', Financial Times Online, 4 May
- 59 Kolwezi, P. and de Atacama, S. P. (2022) Full metal jackpot: The transition to clean energy will mint new commodity superpowers, The Economist, 26 March
- 60 European Commission (2022) Critical Raw Materials Act: securing the new gas and oil at the heart of our economy, Blog of Commissioner Thierry Breton, European Commission Press Corner, 14 September
- 61 Bouckaert, R. and Dupont, C. (2022) Turning to Algeria to replace Russian gas: A false solution, a GovTran Policy Brief, May
- 62 Pastukhova, M. (2022) Europe's energy diplomacy in times of crisis, E3G Online, 29 April
- 63 Bouckaert, R. and Dupont, C. (2022) Turning to Algeria to replace Russian gas: A false solution, a GovTran Policy Brief, May; and Paquette, D. and Halper, E. (2022) Senegal sees opportunity and 'hypocrisy' in Europe's search for gas, The Washington Post, 13 May
- 64 Timperley, J. (2021) The broken \$100-billion promise of climate finance — and how to fix it, Nature, 20 October
- 65 Godzinska, K. and Pastukova, M. (2022) Russia's Climate Action and Geopolitics of Energy Transition: The Uncertain Future

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