

**ASSESSING THE EUROPEAN UNION'S
REPOWEREU PLAN**

ENERGY TRANSITION MEETS GEOPOLITICS

Marco Siddi

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The European Union (EU) has been facing an energy crisis since the autumn of 2021, which has been exacerbated by Russia's attack on Ukraine, geopolitical tensions and the climate crisis. Russia's military escalation in February 2022 radically changed European perceptions of energy trade with Moscow. In May 2022, the EU announced the REPowerEU agenda, which aims at cutting imports of Russian energy by diversifying trade partners, increasing energy efficiency and saving and accelerating the energy transition.

This Working Paper analyses the main developments in EU climate and energy policy since 2021, with a focus on the REPowerEU plan. The paper argues that the war in Ukraine has led to an acceleration in policies to implement the energy transition in the EU, but numerous challenges and contradictions exist. These include the EU's quest for alternative and more polluting fossil fuel supplies, constraints on renewable energy production posed by climate change, and disruptions to supply chains of critical materials. While geopolitical tensions undermine global climate action, a faster EU energy transition can make a positive contribution to multilateral efforts to tackle climate change.



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INTRODUCTION

A protracted energy crisis has affected Europe since the second half of 2021, leading to substantial increases in the price of gas, electricity, other fossil fuels and, consequently, many basic consumer goods. Initially, the crisis was caused by a combination of factors including a tight global energy supply during the post-Covid economic recovery, lower domestic energy production (for instance, of hydropower) and lower gas supplies from Russia since the autumn of 2021. This situation was exacerbated by Russia's attack on Ukraine in February 2022 and the military escalation that has continued until now.

As Russia was the main supplier of gas, oil and coal to the European Union up to the conflict, as well as an important provider of nuclear fuel and several critical minerals (notably palladium, nickel, platinum, molybdenum, vanadium and aluminium, among others),¹ the war posed an unprecedented conundrum for European policymakers. Before the conflict, many European politicians, particularly in Central and Western Europe, saw energy trade with Russia as a mutually beneficial and reliable relationship, or as the last bridge for cooperation between the EU and Moscow. After February 2022, the discourse changed radically and energy trade with Russia became synonymous with European vulnerability, supporting Russia's war effort and Putin's regime. Hence, in the six months following the outbreak of war, the EU imposed a ban on coal imports and a partial ban on oil imports from Russia, whereas Russia cut off gas supplies to several EU member states that refused to adopt a new payment mechanism in roubles, and reduced gas exports to others.

The ensuing energy crisis has led to an acceleration in the already ongoing discursive and policy shift in the EU's energy and climate agendas. The climate agenda and the energy transition had already been raised to high priority issues with the launch of the European Green Deal in December 2019, the adoption of the 2030 climate and energy framework and the European Climate Law, as well as the 'Fit for 55

Agenda' in 2021.² Russia's attack on Ukraine induced European policymakers to draw up plans to further accelerate the energy transition by reducing reliance on Russian fossil fuels in particular. As reflected in the REPowerEU plan presented on 18 May 2022, the EU's energy and climate agenda appears to have aligned with the geopolitical goal of reducing ties to Russia and Moscow's income from trade with the Union.³

At the same time, tensions and risks exist within the REPowerEU plan. While the European Commission carefully worded the plan as an instrument to accelerate the energy transition, in the short and medium term the policy of phasing out Russian fossil fuels and the decrease in Russian gas supplies have led to a switch from gas to coal in some contexts, and especially to a rapid increase in imports of liquefied natural gas (LNG) over long distances. Coupled with plans to build additional infrastructure for LNG imports and new pipeline connections, these developments risk delaying the climate agenda by distracting resources and, at worst, producing new dependencies and carbon lock-in.

As global energy supply tightened and imports to the EU decreased, EU gas and electricity prices skyrocketed, affecting entire economic sectors and especially the welfare of poorer citizens. What is worse, geopolitical confrontation – which also increased in Asia during the summer of 2022, with serious tensions between China, Taiwan and the US – is highly likely to impact negatively on the global climate agenda, where multilateral cooperation is essential. Political tensions can also affect global supply chains of minerals that are critical for the energy and digital transition in Europe and elsewhere.⁴

This Working Paper traces the recent discursive and policy shifts in the EU's energy and climate agenda by analysing developments in 2021–2022, with a focus on the REPowerEU plan. After providing a summary of the key steps in the implementation of the European Green Deal so far, the paper investigates the ongoing energy crisis and the energy-related aspects of the war in Ukraine. The main elements of the REPowerEU plan

1 Some of these minerals are also critical for the energy transition and digital technologies. See Rizos and Righetti, 2022.

2 Von Homeyer, Oberthür and Dupont 2022; Siddi 2020; Siddi 2021.

3 European Commission 2022.

4 ABC News, 5 August 2022; Siddi 2021.

are analysed, including a preliminary assessment of its possible outcome. The paper argues that Russia's attack on Ukraine has led to an acceleration in plans to implement the energy transition in the EU. However, numerous challenges exist, such as the difficult quest for alternative gas suppliers and the risk of creating new fossil fuel partnerships that contradict the climate agenda. Moreover, while the EU has taken a more strategic stance on energy and climate policy,⁵ broader geopolitical confrontation runs the risk of undermining the multilateral climate agenda, for example in the UN.

1. MAIN DEVELOPMENTS IN EU CLIMATE AND ENERGY POLICY IN 2020–2021

Following the launch of the European Green Deal in December 2019, European institutions worked on two overarching goals in particular: agreeing on a new, ambitious greenhouse gas reduction target for 2030 and drafting a European Climate Law that codified the climate neutrality target for 2050. In parallel, strategies and plans were prepared with the goal of mainstreaming the energy transition in numerous policy areas, from agriculture to finance and external trade, while discussions also took place on new renewable energy and energy efficiency targets. Despite the negative economic effects of the Covid-19 pandemic and resistance from some Eastern member states, especially Poland, the energy transition remained central to EU politics. This is reflected in the announcement to devote 30% of the EU's 2021–2027 Multiannual Financial Framework (MFF) and of the NextGenerationEU recovery package to climate action.⁶

The European Climate Law was adopted in June 2021. It enshrined the climate neutrality target by 2050 and upgraded the EU's 2030 target of reducing greenhouse gas emissions to 'at least 55%' compared to 1990 levels (from an earlier target of 'at least 40%'). The new 2030 target was presented as the EU's Nationally Determined Contribution at the 26th Conference of the Parties (COP) of the UN Framework Convention on Climate Change (UNFCCC) in Glasgow in December 2021. Together with the European Climate Law, this reiterated the EU's pursuit of leadership in global climate action.

Also in 2021, the Commission put forward the Fit for 55 Package to implement the emission reduction target for 2030. This included 15 legislative proposals to amend directives and regulations on renewable energy, energy efficiency, the Emissions Trading System (ETS), emissions in non-ETS sectors (agriculture, buildings, transport), land use and forestry, and emission standards for cars. Targets in renewable energy and energy efficiency improvement were raised from 32% to 40% and from 32.5% to 36% respectively (in terms of final energy consumption), whereas areas covered by the ETS were expanded to include maritime transport. A Social Climate Fund was proposed, with the goal of lessening the social impacts of the energy transition on more vulnerable societal groups. The European Commission also tabled a Carbon Border Adjustment Mechanism to tax imports of high emission products such as steel, aluminium, cement and electricity.⁷

Nonetheless, the EU's new climate targets and commitments have continued to fall short of the ambition that is necessary to achieve the goal, enshrined in the Paris climate agreement, to limit the increase in the average global temperature to 1.5°C compared to the pre-industrial era.⁸ Moreover, the energy crisis that began in the second half of 2021 put growing economic and social pressure on the EU's green agenda.

As argued, the crisis was initially caused by the concomitance of post-Covid economic recovery, and hence higher energy demand, and a tight global energy supply. In the autumn of 2021, Russian state company Gazprom – the only supplier to the EU with substantial capacity to ramp up exports – decided to simply provide gas volumes agreed upon in long-term contracts and reduce sales on spot markets, halting them altogether on 13 October 2021.⁹ The design of the EU gas market, where earlier reforms had promoted a shift away from long-term contracts to spot purchases (against the wishes of long-term suppliers such as Russia), showed its serious faults in a situation of weak supply.

At this stage, Russia appeared to be using the situation to reap profits from higher prices and to pressure the EU into allowing the opening of the Nord Stream 2 pipeline, which had been delayed with legal and political motivations. Another factor that emerged more clearly in the weeks preceding Russia's attack

5 On the strategic turn, see also Siddi and Kustova 2021.

6 However, in the previous MFF for the period 2014–2020, the EU largely overstated its actual spending on climate action, which – according to the European Court of Auditors – was around 13% of the budget, rather than the declared 20%. See Simon 30 May 2022.

7 Von Homeyer et al. 2022, pp. 2–4.

8 For an assessment of how EU policies fare in relation to the targets set by the Paris climate agreement, see <https://climateactiontracker.org/countries/eu/>.

9 Fulwood, Honoré and Sharples 2022.

on Ukraine was the willingness of the Russian political leadership to keep the EU on a tight gas supply while Moscow requested diplomatic and security concessions from the West and prepared for military action.¹⁰

2. RUSSIA'S ATTACK ON UKRAINE AND CONSEQUENCES FOR EU ENERGY POLICY

Russia's attack on Ukraine on 24 February 2022 transformed the European energy crisis into a structural one. The surge in gas prices had already spilled over into the electricity market; the war extended the rise in prices to oil and its derivatives, as well as to several critical minerals of which Russia is a major exporter. Together with tensions between the US and China, the war also aggravated the rise in prices of raw materials and disruptions to supply chains, factors that had already been at work in previous months due to the Covid-19 pandemic.¹¹

In the energy field, the European Commission responded to the military escalation by publishing the Communication 'REPowerEU: Joint European Action for more affordable, secure and sustainable energy' on 8 March 2022. The communication focused on plans to eliminate EU dependency on Russian fossil fuels, on addressing the economic emergency created by the war and on accelerating the energy transition.¹² This included a proposed reduction in gas imports from Russia by two-thirds by the end of 2022. As EU gas imports from Russia were around 155 billion cubic metres (bcm) in 2021, this practically implied cutting them by over 100 bcm within ten months.¹³

While the largest share of Russia's energy revenues comes from the export of oil and petroleum products, the European Commission placed particular emphasis on gas because of the technical and political features of gas trade. In Europe in particular, gas flows have relied primarily on supplies via pipeline from neighbouring countries such as Russia, Norway, and Algeria, and much less on LNG imports by tanker, as pipeline supplies were abundant until autumn 2021 and costs lower than for LNG. Therefore, the European gas market has remained mostly regional, with imports of LNG from other continents playing a marginal role until recently. This gave considerable leverage to large

pipeline suppliers such as Russia. Until mid-2021, the strategy of Russia's Gazprom had been that of adapting to EU market changes and supplying large volumes, not least in order to squeeze out of the market competing LNG suppliers that generally sold at higher prices. Abundant supplies seemed to correspond to the wishes of EU energy policymakers, who intended to turn the EU gas market into a "buyers' market" by fostering competition among producers. They also saw gas as a less polluting fossil fuel that could help decrease emissions thanks to a coal- and oil-to-gas switch in various sectors, as well as a back-up source for renewable energy-powered systems.

The energy crisis that began in mid-2021 challenged this logic. Russia's attack on Ukraine undermined it more fundamentally by turning mainstream perceptions – especially in the larger member states – of the EU's main gas supplier from a reliable energy provider to a security threat. Hence, security and geopolitical factors were essential drivers of a new EU policy that focused on immediate import diversification, energy savings and accelerated energy transition. Between April and June, the EU imposed an embargo on Russian coal and a partial embargo on oil and some petroleum products. The coal embargo became effective from August 2022. Temporary exceptions were foreseen for imports of crude oil by pipeline into EU members that have a specific dependence on Russian supplies and no viable alternatives. As most Russian oil deliveries to the EU were seaborne, the EU expected 90% of these supplies to be affected by the embargo, with a strong impact on Russia's revenues.¹⁴

While the volume of Russian energy sales to the EU did decrease drastically, Russia was able to increase coal and oil exports to other major consumers, such as China and India, at discount prices. Due to the concomitant surge in energy prices, Russia has continued to make substantial profits from energy sales abroad so far.¹⁵ The picture could change in the medium and long term, if the global economic recovery slows down, energy prices decrease and Russia continues to be cut off from its long-standing European market. In this scenario, losses for the Russian economy could become larger, coming on top of those caused by other Western sanctions, for example on the financial sector, gold, steel, iron, wood, liquor, and seafood. Meanwhile, the

10 Von Homeyer et al. 2022, pp. 5–6.

11 Tubiana et al. 2022, p. 2.

12 European Commission 2022, p. 2.

13 Fulwood et al. 2022, p. 2.

14 For an overview of sanctions, see European Council, <https://www.consilium.europa.eu/en/policies/sanctions/restrictive-measures-against-russia-over-ukraine/sanctions-against-russia-explained/>.

15 Gardner 9 June 2022.

willingness of many key non-Western actors to continue or in fact increase energy business with Russia – despite US and EU diplomatic pressure – can be seen as a sign of shifting geopolitical trends and of the erosion of Western power.

In the spring and summer of 2022, the energy crisis in the EU worsened. While the EU’s embargo on Russian oil contributed to the rise in oil prices, Russia cut off or reduced gas supplies to several EU members. Following sweeping Western financial sanctions, Russia demanded that European energy companies should pay for gas through a rouble-denominated bank account at Gazprombank (rather than accepting payments denominated in euros or dollars). EU members that did not comply with the system – starting with Poland and Bulgaria in April and Finland in May – saw their supply cut off. Some other members (Germany, Italy, France) that opened a rouble-denominated account as requested by Russia avoided a cutoff, but witnessed reductions or variations in supplies in the following months.

Russia maintained that reductions in flows were due to technical reasons, pipeline maintenance and Western sanctions that prevented the replacement of a turbine used by the Nord Stream pipelines, but Western politicians and companies rejected these allegations.¹⁶ Following a series of explosions of uncertain origin along the Nord Stream and Nord Stream 2 pipelines on 26 September 2022, the resumption of Russian gas supplies to the EU via this route is highly unlikely in the short term.

In order to confront supply shortages and soaring prices, EU members prepared contingency plans for the coming winter of 2022–2023 and channelled money into schemes meant to alleviate energy costs for consumers. While the goal of such schemes was to prevent the worst impact of the energy crisis on European society, they also resulted in large subsidies for the fossil fuel sector. Indeed this sector – together with the arms industry – has been the greatest beneficiary of the 2022 geopolitical and energy crises so far.¹⁷ As of mid-October 2022, intra-EU discussions on a gas price cap have not led to an agreement due to the different positions of member states and the complexities and uncertain outcome of imposing such a mechanism.¹⁸

Meanwhile, on 18 May the European Commission published the REPowerEU plan, updating and expanding

on the Communication published in March, together with a set of other documents – an External Energy Strategy, a Solar Strategy, a Save Energy Communication, a Solar Rooftop Initiative and a Biomethane Action Plan.¹⁹ The REPowerEU plan and the accompanying documents and strategies expanded on the goals already outlined by the Commission in March, shortly after the Russian attack began: phase out fossil fuel imports from Russia, diversify fossil fuel suppliers, and accelerate the energy transition. As we shall see below, achieving some of these goals involves numerous challenges and, just a few months after REPowerEU was launched, not everything is going according to plan. Geopolitical factors and market developments cannot always be reconciled with the climate agenda and, at times, overtly contradict it.

3. THE REPOWEREU PLAN: MAIN ASPECTS

The REPowerEU plan builds on the Fit for 55 agenda and develops it through an emphasis on reducing energy demand, diversifying fossil fuel suppliers, and accelerating the transition to renewable energy sources.

As the EU is almost completely dependent on imports to satisfy its demand for oil and gas, reducing demand will automatically lead to a reduction in import needs.²⁰ For this purpose, the REPowerEU plan proposes to increase the energy efficiency target and to update the national Energy and Climate Plans of member states accordingly. In conjunction with the Energy Performance of Buildings Directive, REPowerEU puts an emphasis on renovating buildings, an area where there is vast room for improvement in Europe. The current spike in prices and the shortage of construction materials make renovations a difficult and costly task; to compensate for this at least partly, the Commission recommends that member states lower value added tax on new efficiency heating systems and building insulation, for example. In addition to mid- and long-term infrastructural changes, REPowerEU and the Save Energy Communication highlight the importance of behavioural changes in the short term. Accordingly, European politicians have called on citizens to moderate the use of air conditioning in the summer and of heating in the winter. Based on

16 Liboreiro 7 July 2022; on the Nord Stream turbine issue, see Fulwood, Sharples, Stern and Yafimava 2022.

17 Zhdannikov and Payne 26 July 2022.; Phillips 10 June 2022.

18 Edwardes-Evans and Franke 7 October 2022.

19 European Commission 18 May 2022. https://ec.europa.eu/commission/press-corner/detail/en/IP_22_3131.

20 In 2020, EU import dependency was over 96% for oil and nearly 84% for gas; see Eurostat, <https://ec.europa.eu/eurostat/cache/infographs/energy/bloc-2c.html>.

the REPowerEU agenda, these energy saving measures would allow imports of Russian gas to be reduced by 10 bcm.²¹

The second key component of the REPowerEU plan, diversifying energy imports, is arguably the most controversial in terms of climate policy. Together with the new External Energy Strategy, this part of the plan focuses on increasing imports of fossil fuels from various external suppliers in order to eliminate reliance on Russia. Most notably, the EU should increase supplies of LNG by 50 bcm and supplies of non-Russian pipeline gas by at least 10 bcm. This means that new fossil fuel infrastructure needs to be built, such as LNG import terminals, floating storage regasification units and interconnectors. Despite a clear intention to downplay the cost of this effort, which would otherwise cast doubt on its 'green credentials', the plan itself estimates that 10 billion euros will be required for new fossil fuel infrastructure.²² Moreover, the large increase in LNG imports should come from a group of distant countries, such as the US and Qatar, which would make transportation more environmentally impactful; this would add up to the higher methane emissions associated with LNG.²³ Other concerns regarding these imports are the fact that the US extracts shale gas and oil through fracking (using large amounts of pressurised water and chemicals to break rocks where gas and oil are trapped), a technique with heavy environmental impact that is banned in some EU member states (i.e. France). By substantially increasing imports of US gas, the EU also develops an energy dependence on an industrial and economic competitor.

Additional imports via pipeline from Algeria and Azerbaijan are constrained by limited gas availability and would entail both geopolitical risks and dependence on other non-democratic states.²⁴ Increased EU fossil fuel demand from these countries will also lead them to seek to increase production and to make related investments in exploration and infrastructure, thereby delaying their energy transition. Due to the exclusive geopolitical focus on Russia, the REPowerEU plan ignores these issues.

The REPowerEU plan also highlights the potential role of the EU Energy Platform, which the Commission

and member states set up in spring 2022 for the voluntary common purchase of gas, hydrogen and LNG. The Platform revamps the long-discussed idea of aggregating EU gas demand and leveraging the size of the EU market with suppliers. The idea was not implemented earlier due to the scepticism of several member states that preferred to rely on the free market and other contractual forms. Regarding green (renewable) hydrogen, the new External Energy Strategy advocates the production or import of an additional 15 million tonnes (mt) – on top of the 5.6 mt foreseen by the Fit for 55 initiative – until 2030 in order to replace around 27 bcm of imported Russian gas.²⁵ In order to facilitate the import of up to 10 million tonnes of renewable hydrogen, the Commission pledged to support the development of three major hydrogen import corridors via the Mediterranean, the North Sea area and, when conditions allow, Ukraine.

The third main component of REPowerEU concerns substituting fossil fuels with renewable energy sources and accelerating Europe's clean energy transition. The plan proposes to lift the 2030 renewable energy target from 40% to 45% of final energy consumption, sets targets for installing new solar photovoltaic capacity (320 GW by 2025 and nearly 600 GW by 2030) and introduces a European Solar Rooftop Initiative with a legal commitment for new buildings. It also proposes to double the current deployment rate of heat pumps and recommends simplifying permitting and planning procedures for renewable energy installations. Together with greater reliance on green hydrogen, the plan also advocates boosting biomethane production to 35 bcm by 2030.

From a geopolitical perspective, this requires increasing domestic renewable energy production, which implies less dependence on foreign imports – with the exception of green hydrogen, where the EU will be largely reliant on imports if it is to meet the stated target. At the same time, dependence on minerals that are critical to renewable energy production and storage will increase; hence, creating an international partnership with producers and securing supply chains will be essential. The creation of circular economies and 'recycling' critical minerals will be just as, if not more important.

As far as costs are concerned, the European Commission has stated that additional investments of 210 billion euros will be necessary until 2027 to implement

21 European Commission 2022, p. 6.

22 European Commission 2022, p. 13.

23 See also Von Homeyer 2022, p. 6.

24 To mention just two examples, Azeri gas provides a lifeline to the authoritarian government in Baku and gives leverage to Turkey as a transit country; one of the two pipelines transporting gas from Algeria to Spain has been closed since November 2021 due to a conflict between Algeria and Morocco concerning the Western Sahara. See also Siddi 2019.

25 European Commission 2022. According to the REPowerEU plan, 10 mt of hydrogen will be imported and another 10 mt produced in the EU.

the REPowerEU plan, on top of the funding necessary for the Fit for 55 initiative. This is a large sum, which will have to be financed mostly with existing funds, especially the Recovery and Resilience Facility originally created to mitigate the economic impact of the Covid-19 pandemic. Twenty billion euros are to be raised by auctioning additional ETS emission allowances, which would enable higher greenhouse gas emissions.²⁶ At the same time, costs could be partially offset by the reduced need for fossil fuel imports, which – according to Commission estimates – would allow saving over 90 billion euros by 2030.²⁷

4. REPOWEREU: A PRELIMINARY ASSESSMENT

While it is too early to make a comprehensive assessment of the REPowerEU plan, a preliminary analysis of challenges and risks – in addition to those already discussed above – and especially of its short-term goals is possible. The main short-term goal of the plan is that of achieving a drastic reduction in energy imports from Russia; this should happen without undermining, but rather accelerating the energy transition in the EU. The goal of reducing gas imports from Russia by two-thirds in 2022 (namely by around 100 bcm), which was outlined by the Commission in March, appears to have been scaled down to a 70 bcm reduction in the REPowerEU plan published in May.²⁸ Nonetheless, even this revised target is ambitious. The 70 bcm reduction would be the result of an expected reduction in demand for gas (10 bcm), additional LNG imports (50 bcm) and non-Russian pipeline imports (10 bcm).

Based on developments in the first half of 2022, the EU appears to be on track to achieve the target, but also due to factors and developments that are different from those it had expected. Thanks to a mild winter in early 2022 and high gas prices, the reduction in overall gas demand will be even higher than expected. LNG imports were 60% higher in the first half of the year, and the final rise could approach EU estimates (around 40–45 bcm).

However, the increase in imports in the first six months of 2022 was largely achieved thanks to diversion of flows from other regions; hence, the final outcome will also depend on the continuation of weak demand in China, South-East Asia and Central

and South America. The rise in non-Russian pipeline imports could be around 7–8 bcm by the end of the year, almost all from Norway (whereas supplies from Azerbaijan are already at full capacity, and flows from North Africa appear to be hindered by a lack of supply for export). This increase in imports, combined with lower demand, should also enable the EU to achieve its target of refilling 80% of its gas storage by 1 November. As for the planned 70 bcm reduction in gas imports from Russia, this can be achieved largely due to Russia's own curtailment in supplies.²⁹

A few issues must be noted in this respect. In climate policy terms, lower gas demand is a positive development if it is the result of energy saving and more renewable energy use, and not of gas-to-coal or gas-to-oil switching. There have been worrying signs that EU members will delay the phaseout of coal plants, and even increase coal consumption, in order to reduce gas use.³⁰ With regard to LNG imports, the main issues concern the environmental impact associated with methane emission and transport (as noted earlier), global competition to secure supplies, and new investments in infrastructure that lead to stranded assets or carbon lock-in. Further problems regarding economic feasibility, geopolitical issues and potential stranded assets arise from the ongoing European efforts to increase imports via pipeline from North Africa and Azerbaijan in particular. This diversification could produce new dependencies on highly problematic partners, such as the authoritarian Azeri regime (as a supplier) and Erdogan's Turkey (as a transit country).³¹ On the other hand, if it exceeds even EU plans, the reduction in Russian gas supply could lead to shortages in the EU market, further spikes in prices and the implementation of drastic measures to cut consumption in the winter of 2022–2023.

From an economic perspective, the war in Ukraine has led to a highly dysfunctional outcome for the European energy market. Russia is no longer seen as a reliable supplier by its EU customers, after half a century of growing trade and interdependence. As Russia reduces gas supplies and the EU implements its diversification policy, the thick network of pipelines connecting them becomes largely unused, and could turn into a gigantic stranded asset. Meanwhile, the EU is investing in expensive fossil fuel diversification projects and faces the prospect of high prices in the

26 Von Homeyer et al. 2022, p. 7.

27 European Commission 2022, p. 12.

28 Fulwood et al. 2022, p. 2.

29 Fulwood et al. 2022, p. 14.

30 Kinkartz 4 August 2022.

31 Cf. Siddi 2019.

long term and much fiercer competition on the global market to secure LNG supplies.

Furthermore, investments in new fossil infrastructure distracts the funding and policy focus from renewables and energy efficiency. The European Commission has tried to address this issue by arguing that new LNG terminals could later be used to import renewable hydrogen and ammonia. However, it is unclear whether this is realistic. The risk of spending public money on large fossil projects that become stranded assets after a few years, or at worst lock the EU into new fossil dependencies, remains considerable. This risk was made more acute by the Commission's decision to include investments in gas infrastructure in the EU's green taxonomy in 2022. This means that such investments can be labelled and marketed as green, and thus more easily obtain political and economic support, even if certain conditions apply.³²

Another critique of the REPowerEU agenda concerns the planned aggressive increase in biomethane production, which according to some could create competition for crops and pose a risk to food security. Some stakeholders also argue that the focus on hydrogen is excessive and, without careful regulation, it could absorb scarce renewable electricity resources.³³

Nuclear power plays a secondary role in the REPowerEU plan, which briefly states that nuclear power can be considered a domestic resource, next to coal and gas, and – in the future – could help boost the production of carbon-free hydrogen. Apart from this, nuclear power is only mentioned in the context of the dependence of some Eastern member states on Russian nuclear fuel, which is seen as a vulnerability requiring the EU to find alternative sources of uranium and to expand domestic conversion, enrichment and fuel fabrication capacities.³⁴

In fact, member states have different views on nuclear power. Germany has been at the centre of current debates on nuclear power due to its considerable reliance on Russian gas and Berlin's decision, made shortly after the Fukushima nuclear accident in 2011, to phase out its nuclear power plants by the end of 2022. A discussion has taken place about extending the lifespan of Germany's last three operational

nuclear power plants. Finance Minister Christian Lindner voiced his openness to this option. However, on 21 August 2022 Economy Minister Robert Habeck ruled out such an extension, arguing that the three plants would save 2% of Germany's gas use at most. The fact that Germany has had to supply France with electricity due to a drop in French nuclear output has played a role, too. As of late summer 2022, nearly half of the French reactors were offline due to corrosion problems and maintenance. Habeck mentioned this issue to corroborate his argument that the technology is problematic, while investing in it pushes up electricity prices more than renewables.³⁵

On the other hand, nuclear power has been included in the EU green taxonomy alongside gas, which shows that substantial support continues to exist in some European industrial and political circles for this energy source and the related technology. In addition to France and Germany (for the time being), another eleven member states rely on nuclear power to a varying extent.³⁶ Hence, views on nuclear in Europe are broadly split between two camps. Some member states – especially those that already operate nuclear power plants – see it as an important contributor to a green energy mix. Others highlight risks related to security and storing spent fuel and the unsuitability of new investments due to high costs and the long period necessary to build nuclear power plants, which contrasts with the urgency of the climate crisis.

Overall, despite the issues cited above, the REPowerEU plan does put an emphasis on accelerating the energy transition, boosting renewable energy production, energy efficiency and energy saving. If these aspects are given concrete priority, they can lead the EU to implement policies in line with the UN-level goal of keeping the increase in average global temperature within 1.5°C, and well below 2°C compared to the pre-industrial era.³⁷ A few caveats apply here as well. It is unclear whether the EU will actually adopt all the measures proposed by the Commission within the REPowerEU plan – for this to happen, both the European Parliament and the Council need to agree. For instance, last June, the Council adopted the 40% target for renewable energy proposed in the Fit for 55 package; however, it seems unlikely that

32 According to the proposed EU taxonomy, new gas-fired power or heat assets must have life-cycle emissions of below 100g CO₂/kWh, or meet a number of stringent conditions and obtain a construction permit by 2030. Gas plants must have plans to switch to renewable or low-carbon gases by the end of 2035. See Edwardes-Evans 6 July 2022.

33 Conti and Kneebone 2022.

34 European Commission 2022, pp. 2, 5, 8.

35 Reuters 21 August 2022

36 The 11 member states are Belgium, Bulgaria, the Czech Republic, Finland, Hungary, the Netherlands, Romania, Slovakia, Slovenia, Spain and Sweden; in 2020, nuclear power plants generated 24.6% of the total electricity produced in the EU. See Eurostat, https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Nuclear_energy_statistics.

37 See <https://climateactiontracker.org/countries/eu/>.

it will agree to the new 45% target proposed by the Commission in the REPowerEU plan any time soon. As member states focus on tackling the energy crisis, some EU diplomats argue that rediscussing the renewables target would be like opening “Pandora’s box”.³⁸

Moreover, the extensive implementation of energy efficiency policies and renewable energy deployment requires excellent planning and governance machinery, especially to allocate funding in a just way and to projects with minimal environmental impact. Recent evidence suggests that faults in planning and governance can lead to undesired outcomes in terms of funding allocation, economic impact and energy justice (namely equity of access to and participation in the energy system and energy transition).³⁹

Furthermore, the large-scale deployment of renewable energy infrastructure and storage systems will require reliable access to the necessary critical minerals and rare earth elements, for which the EU relies heavily on imports. Past geopolitical tensions and the supply chain disruptions caused by the Covid-19 pandemic have already highlighted relevant risks.⁴⁰ The EU has launched several initiatives in this regard, including a Critical Raw Materials Action Plan (2020), a European Battery Alliance (2017) and bilateral partnerships such as the EU-US Trade and Technology Council.⁴¹ Broad international cooperation will be essential to accelerate the energy transition in the EU and beyond.⁴²

CONCLUSIONS

European energy and climate politics finds itself at a critical juncture. Russia’s attack on Ukraine took place in the middle of an energy crisis, which the ensuing protracted conflict and the weaponisation of energy trade exacerbated. While the EU has attempted to cut its dependence on Russian energy supplies, the climate crisis constrained domestic energy production in several parts of Europe. Not only was hydropower

generation affected; in the late summer of 2022, droughts and high water temperatures threatened the normal operation of nuclear power plants and even hindered the transportation of coal in European waterways.⁴³

The European Commission was quick to react to the energy conundrum posed by the war in Ukraine. It published the REPowerEU Communication on 8 March 2022, which focused on reducing imports from Russia by accelerating the energy transition and diversifying fossil fuel suppliers. It then elaborated and expanded on this agenda in the REPowerEU plan published in May, together with a set of other policy documents concerning key topics such as energy efficiency, renewable energy deployment and a new external energy strategy. By the late summer of 2022, energy dependence on Russia was cut considerably, but the energy crisis in Europe continues and shows no sign of weakening. In early September, the proposal by G7 countries to impose a price cap on Russian oil led to further uncertainty in energy markets. While the cap will work only if it is accepted by large importers of Russian oil (China, India), it led Russia to react by halting gas supplies to the EU via Nord Stream, thereby worsening Europe’s energy crisis even further.⁴⁴

The implementation of the vast and comprehensive REPowerEU agenda requires years, a period during which European policymakers and society will surely have to face difficult moments and take difficult decisions. The main risk is that the economic and geopolitical crises lead the EU – as well as the rest of the world – to postpone the implementation of the climate agenda. So far, EU institutions have argued that the climate agenda and geopolitical priorities can be reconciled and are two sides of the same coin. As argued here, many of the planned European policies follow this spirit. However, the ongoing allocation of public funding to subsidise high energy bills (driven by spikes in fossil fuel prices) and plans to diversify fossil fuel suppliers (requiring new infrastructure to import costly and polluting energy sources) can hardly be seen as accelerating the energy transition in Europe.

What is worse, geopolitical tensions could undermine the multilateral efforts to fight climate change. The COP27 in Sharm el Sheikh in November 2022 will be an important test in this regard. Even before the

38 Pop 5 September 2022.

39 The case of Italy – the largest recipient of EU post-Covid recovery funds – is illuminating in this respect. Due to bureaucratic complexities, a disproportionate share of public funding for a major energy efficiency programme went to the richer echelons of society. This generous funding also drove up construction and raw material prices, while it had limited impact in terms of improving the energy efficiency of buildings on a national scale. See also Bertacche and Rotondi 23 February 2022.

40 Siddi 2021, p. 5.

41 Siddi 2021, p. 8.

42 See Grimm, Helwig, Rainers and Siddi 2022.

43 Horowitz 18 August 2022.

44 Foy 2 September 2022.

start of the war in Ukraine and current tensions between the US and China over Taiwan, several global players (most notably India and China) refused to clearly commit to the phaseout of coal. For the EU, a long-term leader in climate negotiations, it will be even more difficult to advance this cause internationally while it increases its own reliance on coal, even if only temporarily. Moreover, at COP26 in Glasgow in November 2021, the developed world had not yet met its declared climate finance target (100 billion US dollars, initially planned for 2020). The timeline for meeting this target, as well as for new commitments by the Global North to double adaptation funds, will need to be reviewed in Sharm el Sheikh.⁴⁵

EU climate diplomacy in multilateral fora will be more credible and impactful if it is backed up by concrete progress at home. Despite numerous constraints, issues and conundrums, the green agenda of REPowerEU has the potential to accelerate the European energy transition and thus support the EU's global climate action. In the best case scenario, 'leading by example' could be a key component of a strategy that compartmentalises the different ongoing crises and insulates progress in climate policy from confrontation in other fields. /

45 Henderson 2022, pp. 19-20.

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