

EU Green Transition in Times of Geopolitical Pressures: Accelerating or Slowing the Pace Towards Climate Neutrality?

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ABSTRACT:

The current climate emergency and the war in Ukraine have placed climate action and energy security at the top of the EU's agenda. The 'Fit for 55' legal package and REPowerEU Plan set out short- and medium-term measures to end EU dependence on Russian fossil fuels and address climate change. The new targets and policy instruments have the potential to accelerate decarbonization of the continent. However, from the perspective of the environment and social equity, serious concerns remain as to the sustainability of the transformation. For example, difficulties in achieving immediate independence from Russian fuels has led some EU countries to increase their use of coal. The accelerated roll-out of renewable energies has increased the demand for materials and land, sparking territorial conflicts and impacting biodiversity. Support from the Social Climate Fund will not meet all the demands of the most vulnerable sections of society for assistance with the costs derived from the energy transitions, such as cleaner heating systems and transport. This paper offers an overview of the EU's new measures to step up the energy transformation and assesses them through the lens of environmental sustainability and fair transition.

Keywords: renewable energy, energy autonomy, REPowerEU, fair transition

1. Introduction

The European Union (EU) has been at the forefront of the international fight against climate change since the late 1990s. Energy transition was introduced as a core component of its climate agenda in the 2000s. Since then, this agenda has been structured around three main objectives: reductions in greenhouse gas (GHG) emissions, improved energy efficiency and increased use of renewable energy. In this process, the transition towards renewable energy has gradually become one of the key mechanisms of the EU's environmental policy and climate action to counter the impacts of global warming and meet GHGs reduction targets (Skaersth et al., 2016).

In December 2019, the European Commission announced a significant shift in its environmental and climate priorities, with the publication of the "European Green Deal" (EGD). As a comprehensive policy framework and new growth strategy, the EGD aims to transform the EU into a sustainable, resource-efficient and carbon-neutral economy by 2050 (European Commission, 2019). Among the most relevant measures to be implemented, the EGD includes a new EU industrial strategy, a circular-economy action plan, a new biodiversity strategy for 2030 and a sustainable "farm to fork" agriculture strategy. The EGD Communication identifies three main principles required for the deal's successful implementation: active public participation; effective enforcement by

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facilitating access to justice for the general public and NGOs; no significant harm should be done in achieving the EU's goals (i.e. a green oath) (Fetting, 2020; Jendroška and Anapyanova, 2023).

The outbreak of the Covid-19 pandemic in March 2020 and the ensuing economic crisis threatened to pose a serious setback to implementation of the EGD. By contrast, however, the EU decided to use the process of recovery from the Covid-19 crisis as an opportunity to accelerate decarbonisation of the economy and reinforce climate policies (Colli, 2020). In December 2020, the European Council agreed to increase the EU's GHGs reduction target for 2030 from 40% to 55%. The new mitigation target was also communicated as the EU's updated National Determined Contribution under the Paris Agreement (European Council, 2020). In June 2021, the European Climate Law was adopted. As the first legal instrument implementing the EGD, the European Climate Law makes the 2050 climate neutrality goal and the 55%-by-2030 target legally binding. In line with these new targets, fifteen days before the European Climate Law came into force on 14 July 2021, the European Commission presented the "Fit for 55" package. This includes a broad array of legislative and strategic proposals that amend and extend the 2030 climate and energy framework initially established in 2014. Specifically, the "Fit for 55" legal package envisages adjusting the Emission Trading Scheme (ETS) to reduce emission allowances, increasing renewable energy production and energy efficiency, raising emission standards for cars, limiting maritime and aviation emissions, regulating land use and forestry and creating a Social Climate Fund to support businesses and citizens most affected by the green transition (Schlacke et al, 2022).

Together, these initiatives clearly set out the EU's intended path for the post-pandemic recovery process. The purpose is to align climate and environmental goals with economic stimuli and packages with a view to laying the foundations for lasting, socially inclusive and environmentally sustainable recovery (Molho, 2021). In this context, Next Generation EU (NGEU) is the cornerstone of the EU's recovery policy. This temporary financial instrument provides €750 billion (in 2018 prices) to help address the economic and social effects of the Covid-19 crisis, while fostering a greener, more digital and resilient Europe. Together with the Multiannual Financial Framework (MFF) 2021-2027, the NGEU is the largest stimulus package ever financed by the EU, with a total budget of €1.8 trillion (2018 prices). Thirty percent of the funds available under the two mechanisms will be earmarked for climate-related activities, which must proactively contribute to the EU's 2030 GHGs reduction target and its 2050 climate neutrality objective (Skjaereth, 2021).

In autumn 2021, just as the EU appeared to have overcome the risks that the pandemic had posed to its EGD climate and energy ambitions, an energy supply shortage emerged, driving up fossil fuel prices and provoking high inflation across Europe. This new crisis was initially caused by a combination of economic and climate factors. Increased global energy demand following the gradual lifting of pandemic restrictions, reduced precipitation with a resulting drop in hydropower production, as well as lower output from wind energy all placed additional pressure on energy production in several regions of Europe. France's older nuclear plants were taken offline for maintenance and the country began to buy electricity from Germany. This, in turn, led Germany to increase its coal-fired power generation, given the shortage of gas and the country's progressive abandonment of

domestic nuclear power — a decision taken in 2011, following the Fukushima nuclear accident in Japan (McHugh *et al.*, 2021).

Russia's invasion of Ukraine on 24 February 2022 and its consequences further exacerbated the situation, turning an energy crisis into a broad structural economic crisis (Siddi, 2023). The war led to a major hike in gas prices, with an immediate impact on the electricity market. The rise in prices also extended to oil products, of which Russia was the EU's main provider. The conflict also aggravated problems in the supply of raw materials, which had already emerged during the pandemic, making the EU still more dependent on Russia and China as the main providers of certain critical materials. Moreover, after the outbreak of war, the EU adopted several packages of sanctions against Russia, including a reduction in fossil fuel imports from the Russian Federation. These sanctions were intended to reduce Russia's energy revenues to finance the war, but the country managed to redirect its exports to other markets, such as China and India, whilst the EU had to find alternative suppliers (Council of the EU, 2022). The EU energy crisis worsened in spring 2022 when the Russian Federation reduced its supply of gas —the only energy source exempt from EU sanctions— to some EU countries, finally halting supplies to the whole EU in September 2022. By then, the EU had already launched its REPowerEU plan (presented on 18 May 2022), a new strategy to end EU dependence on imports of fossil fuels from the Russian Federation by 2027 and stepping up climate action towards a green economy (European Commission, 2022). In this context, a recent measure taken by the EU is the Regulation (EU) 2023/851, of 19 April 2023, which bans the sale of petrol and diesel cars and vans from 2035. As of that year, new cars and vans sold in Member States will run on alternative fuels. This is a significant step that also demonstrates the EU's determination to keep on implementing the EGD (Carroll, 2023).

Implementation of the REPowerEU involves amending existing energy-related goals. Specifically, it proposes to increase the share of renewable energy to 45% by 2030, rather than the 40% initially tabled by the European Commission in the “Fit for 55” package. REPowerEU also proposes to raise energy efficiency goals, making Member States reduce their energy consumption collectively by at least 13% in 2030, as compared to 2020 levels. The Energy Performance of Buildings Directive will also be amended to ensure that new and existing buildings can include solar energy installations between 2027 and 2030 (Wilson, 2022).

The European Commission estimates that €300 billion will be required to finance the investments needed to implement the REPowerEU measures by 2030. By 2027, €210 billion is expected to be invested in renewable energy projects and infrastructures. As of 2023, following amendment of the regulations governing the Recovery Resilience Facility (RRF) —the main instrument of the NGEU— all REPowerEU investments must be included in a specific chapter of national recovery plans. Most of the REPowerEU investments (€225 billion) will therefore be covered by the RRF and the rest by the structural funds, revenues from the ETS and the Common Agricultural Policy (García-Arenas and Sánchez Soliva, 2022).

The REPowerEU plan has undoubtedly brought renewed impetus to the EU's energy transformation. Individual Member States have announced big changes. For example, Germany has committed to 100% renewable electricity by 2035 and France, Denmark, Italy and the Netherlands have decided to accelerate the deployment of renewable projects

(Kuzemko et al., 2022). Nonetheless, presentation of the plan did not succeed in preventing a major rise in electricity and fuel prices, provoking high inflation and posing enormous difficulties to citizens and economic agents during the second half of 2022. This situation persisted throughout 2023.

This article aims to provide a brief overview of the new measures adopted by the EU to address the current energy crisis, in particular those included in the REPowerEU and to assess them through the lenses of environmental sustainability and the just transition. It argues that although the various measures included in the REPowerEU have the potential to accelerate the EU's energy independence from Russia, some of them have proved to be at odds with the EU's goal of reducing GHGs, while other components are in conflict with major principles and priorities of the EGD, all of which may slow down or even reverse the move towards climate neutrality by 2050.

2. Methodology and literature review

The article assesses the consistency of REPowerEU and the accelerated energy transformation that it promotes with respect to the main goals and principles laid down by the EGD. The analysis focuses chiefly on climate neutrality and just transition targets. It covers the period 2020-2023.

The study draws on EU institutional and legal documents, as well as academic literature. There is abundant scholarly literature about the EGD and implementing measures, such as the European Climate Law or the "Fit for 55" legal package (Jensen, 2020; Skjaereth, 2021; Schlacke et al., 2022). Academic discussion on the fair transition has generally focused on the path towards a just energy transition, as a process that aims to ensure that action to mitigate climate crisis does not increase social and environmental disparities (Goldthau and Sovacool, 2011; McCauley and Heffron, 2018). Specifically, the academic literature broadly builds the concept of energy justice on two principles, distributional and procedural justice. These, respectively, involve ensuring that all citizens enjoy a fair share in the outcomes of the energy transition and equitable participation in the decision-making process for achieving a low-carbon society (McCauley et al., 2013; Maguire and Shaw, 2021; Lonergan et al., 2022).

The main results of the article are drawn from a combination of these different sources and references.

3. Results

The measures taken by the EU to address the energy crisis have the potential to contribute to the green transition by promoting, in particular, the use of renewable energies. However, some decisions made in this context fly in the face of the EU's carbon neutrality target for 2050 and represent a shift in political focus on geopolitical supply security.

Concerns about short-term energy security are increasing the use of coal in EU Member States and adding international tensions to green transitions in third countries just when more ambitious global action is needed to address the climate emergency.

Proposals made under the REPowerEU plan boost the energy transformation in the EU, but certain measures jeopardize implementation principles established under the EGD, such as public participation and access to justice. The result is a reduction in transparency and participatory democracy in decision-making on environmental matters. Concerns have also been raised about their compatibility with other EU environmental standards, including international instruments.

Energy prices continue to rise, but the burden is not distributed evenly across the European population. The REPowerEU's goal of ensuring more affordable and sustainable energy has yet to be sufficiently accompanied by additional relief measures in keeping with the principles of energy justice that would help preserve social cohesion and public support for the green transition.

In the current geopolitical scenario, it is crucial for the EU to design flexible policy frameworks in order to adjust its joint responses to emerging challenges on the road to climate neutrality.

4. Discussion

The REPowerEU plan aims to achieve energy independence from Russian fossil fuels, which would benefit both the EU's energy security and climate action. This chiefly involves speeding up the deployment of renewable energies, including an acceleration of permission procedures. In light of these trends, some authors have questioned whether it is right to tackle the current energy challenge at the expense of other environmental policies.

Certain measures adopted during the energy crisis by the EU and Member States have proved to be inconsistent with the EU's main goal of reducing GHGs swiftly. For example, coal-fired power plants have been reopened in a number of Member States, including Germany, France, Austria and the Netherlands. Likewise, in March 2022, the European Commission decided to reclassify investments in nuclear energy activities and gas infrastructure as "green", enabling them to receive political and economic support (Shuller and Hieminga, 2022). These measures are expected to be temporary, but they are at odds with long-term climate goals. In addition, they are clearly opposed to the EGD's "do no harm" principle (formulated as "do no significant harm" (DNSH) in EU documents implementing the tenet (Jendroška, Reese and Squintani, 2021). According to this principle, economic activities that contribute to climate change mitigation and adaptation should cause no significant harm to any of the other environmental objectives.

Another controversial measure is the REPowerEU plan's call for greater diversification of energy suppliers. The primary effect of this move has been to increase imports of liquid natural gas (LNG) from distant countries, such as the US and Qatar. Apart from being more expensive, these imports are more polluting, due to the high methane emissions associated with LNG transport. In addition, use of LNG in the EU requires the construction of new gas infrastructure, including LNG import terminals and interconnectors. Currently, LNG infrastructure is unevenly distributed across the EU territory, most of it located on the Mediterranean and Atlantic coasts (Iberian Peninsula). Some other Member States, like Germany or those in south-eastern Europe have no operational LNG import capacity (Boehm and Wilson, 2022). However, investments in

these new infrastructures can have perverse effects beyond the short-term need to replace the Russian gas, since they threaten to prolong the use of fossil fuels in the EU (Vezzoni, 2023). Similarly, the increase in gas imports via pipelines from alternative suppliers—such as Algeria and Azerbaijan—entails greater EU dependence on other unreliable countries. Moreover, both the EU's LNG imports and its increased demand for fossil fuels are leading supplier countries to increase their production and investment in fossil fuel infrastructure, thus hindering their own green transitions (Siddi, 2023). These actions undermine the EU's credibility as a leading international actor on climate change. Indeed, Member States are seeking for new gas deals and providers, however there are few international agreements to foster renewable and clean energy sources (Pastukhova, 2022). To accelerate the promotion of renewable energies, the REPowerEU plan envisages an increase in green hydrogen and biomethane, two renewable energies that will require large-scale deployment of infrastructure and interconnections, as well as huge investments (Bonciu, 2022). Biomethane is renewable natural gas produced from biomass. However, the Renewable Energy Directive (RED) does not specify what types of biomass should be considered renewable and carbon neutral. This has led more trees and crops to be burned, raising emission levels to a far greater extent than the use of fossil fuels, whilst also posing a risk to food security in third supplier countries (Camia et al., 2021).

As already discussed, of the €300 billion it is estimated will be required for REPowerEU investments, the EU intends to finance €210 billion through the RRF. The rest of the funding will come from other sources, such as the auctioning of additional ETS emission allowances. Specifically, the plan provides for €20 billion through this instrument, which in practise means authorising higher GHG emissions. These additional ETS emission allowances undermine trust in the EU's carbon market (Von Homeyer et al., 2022; Simon, 2022).

As well as adequate funding, though, successful achievement of REPowerEU goals will also require large imports of raw materials and rare minerals that are crucial for renewable energy equipment in particular (solar panels, wind generators, electrolysers, batteries, etc). Most of these materials come from China, a country that is currently closely aligned with Russia and whose role as a mediator in the Ukraine war, as requested by the EU, has yet to bear fruit. In addition, China has a significant share of concessions in African countries, as it is the case of the cobalt in the Democratic Republic of Congo, where two thirds of the global production of this resource is located. The question, then, must be whether the EU will be able to find alternative suppliers to import sufficient quantities of these necessary materials for its energy transformation (Krecké, 2022). Dependence from these imports can generate security risks similar to reliance on fossil fuels, since an interruption or drastic reduction in the supply of the materials can slow down the energy transition and increase its costs. The REPowerEU plan incentivises the development of mining activities. To this end, a Critical Raw Materials Act was proposed by the European Commission in March 2023 to boost mining capacity. However, this is expected to be a lengthy process due to authorisation procedures and social acceptability, given the environmental impact of mining operations. In the short-term, the scale and pace of the energy transformation presented in the REPowerEU plan will require the EU economy to outsource part of its mining and processing activities. For this purpose, strategic partnerships and agreements

with new suppliers are being negotiated or have already been concluded, such as those with Chile, Mexico, Namibia and Kazakhstan (Sarno and Colantoni, 2023).

Some legal amendments included in the REPowerEU plan are at odds with EGD principles and diminish the effectiveness of certain environmental regulations. This is the case of the proposed amendment of the RED, providing for simplification of the procedures for permitting new renewable energy installations. Member States are required to designate “go-to areas” for renewables that could benefit from these accelerated processes. To simplify the procedures, the proposal removes the requirement for an environmental impact assessment imposed by Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment (EIA Directive). This exemption excludes the public from the process of challenging authorisations for projects in these areas and denies them access to justice. These provisions contravene the EIA Directive and the Aarhus Convention, concluded by the EU in 2005, on access to information, public participation in decision-making and access to justice in environmental matters. They also contradict the EGD implementation principles of active public participation and effective enforcement through the facilitation of access to justice for NGOs and the general public. Their application will also reduce transparency in the authorisation of renewable energy projects (Jendroška and Anapyanova, 2023).

Moreover, besides the exemption from the environmental impact assessment requirement, the new renewable energy plants can also be exempted from the assessment required under the Habitat Directive (Directive 92/43/EEC). The proposed amendment of the RED provides that such assessment is only required for plants “including artificial and built surfaces located in Natura 2000 sites” (Art. 15c.2 of the proposal). Likewise, the proposal does not clarify whether (or how) the assessment required under the Water Framework Directive (Directive 2000/60/EC) is to be applied. This means that hydropower plants could be installed in “go-to areas” with no assessment or public scrutiny, despite the fact that these hydropower installations have proved to be massive obstructions for migratory fish species. If these provisions are adopted, then, they would weaken biodiversity protection, one of the EU’s chief objectives under the EGD. Controversial aspects such as those discussed above risk increasing public opposition to renewables and slowing the energy transition (Jendroška and Anapyanova, 2023; Condon *et al.* 2022).

In order to achieve a swift transition to renewables, the EU and Member States are promoting renewable energy projects by providing companies with subsidies and incentives for power generation. However, these costs (or part of them) are transferred directly or indirectly to consumers, which can drive marginalised populations below the poverty line (Muhammad *et al.*, 2023). This poses an additional challenge: how to boost the EU’s energy transition without a public confrontation that would jeopardise climate goals and the cohesion of European society.

To support a just energy transition, current efforts must be redoubled to ensure that energy is accessible and affordable to everyone. This will require increased investment in education, upskilling and reskilling, and social measures to alleviate the impacts of the energy transformation for the most vulnerable. The Social Climate Fund, proposed as part of the “Fit for 55” legal package, will have an estimated budget of €72 billion for the period 2025-2032. This will not be sufficient to address the social impacts of the energy transition

(Rivera Albarracín, 2022). Energy prices are expected to remain high for the next decade due to geopolitical tensions and the transition to low-carbon energy sources.

In this scenario, although high energy prices are increasing the cost of living across Europe, the burden is not distributed evenly. According to recent EU statistics and economic analysis, the energy burden is about twice as high for the poorest than for the richest, although the latter group consumes significantly more energy (Menyhért, 2022). Over the last two years, Member States have tried to address the effects of rising energy prices on households by adopting a wide range of temporary support measures. Thus, Spain, Portugal and Greece have approved rules to cap natural gas prices, France has also limited the increase in the final prices of electricity and gas, while Romania and Germany have legally obliged electricity companies to reduce bills for consumers. These interventions show the asymmetries between the interests of vulnerable consumers and large energy companies and indicate a certain commitment to energy equity (Kuzemko et al., 2022). However, not all Member States have the same financial capacity to protect their citizens in the current circumstances. In addition, most of the support measures are untargeted. This is a significant drawback, since it means they do not encourage households to reduce their energy consumption, while at the same time subsidising high-income consumers the most, since they are usually the ones who consume most energy (Lausberg and Croon, 2023). In this context, efficiency programmes adopted at EU level for residential and commercial buildings could be a more effective support to protect citizens from high energy prices and reduce the need for future social spending (Kuzemko et al., 2022).

Indeed, the most suitable way of avoiding this diversity of national support schemes and ensuring a just transition for all would be to design an EU framework providing examples of effective measures. This common framework could be built on the principles of the European Pillar of Social Rights Action Plan and the annual European Semester recommendations (Rayner and Fessler, 2022). The EU and Member States should therefore formulate equitable policies for both renewable energy providers and consumers in order to balance the costs of the green transition, with special support for the most vulnerable households.

5. Conclusions

The transition to renewable energies is one of the key instruments of climate action. The current energy crisis is seen by the EU as an opportunity to accelerate the energy transition towards a green economy. The REPowerEU plan is a clear expression of this approach.

The aim of the measures proposed under the REPowerEU is to achieve energy autonomy for the EU by 2027, while speeding up the green transition. Since its adoption, both the EU and Member States have taken significant steps aimed at reducing dependence on Russian fossil fuels. However, some measures have proved to be controversial and at odds with the EU's other major climate goals and implementation principles set out in the EGD. Thus, this paper has pointed out how some new policies increase the production of fossil fuels, by reactivating coal plants and incentivising investments in nuclear plants and new LNG terminals. The diversification of energy suppliers is tightening ties with unreliable states, such as Qatar, Azerbaijan and Algeria. Moreover, the accelerated energy

transformation increases EU's dependency on the mining and processing of raw materials in other countries, chiefly China. The exemption of environmental impact assessment for renewable installations in certain areas represents a step backwards in terms of transparency and climate democracy. These policy measures fly in the face of the EU's ultimate ambition of becoming the world's first climate-neutral economy by 2050. They also reflect the fact that accelerating energy transformation is currently more of a priority for the EU and Member States than the climate agenda. This shift in priorities, even temporary, undermines the EU's credibility as an international leader on climate change negotiations and policies.

The REPowerEU should be improved before its full implementation. In the current pressing geopolitical scenario, it remains essential to maintain long-term policy goals, such as reaching climate neutrality through increasingly sustainable paths. Specifically, a more integrated approach should be incorporated throughout the REPowerEU plan to consistently consider environmental, economy and social concerns, in line with the EU's overarching objective of promoting sustainable development (Arts.3.3 and 21.2d of Treaty on EU). The current energy security crisis is likely to have long-lasting consequences that call for a redefinition of the EU strategy and priorities beyond 2030. In this sense, the EU's quick shift towards an autonomous and cleaner energy model must go hand in hand with effective climate action, biodiversity restoration and socially targeted support to distribute the burdens equally.

Aligning energy security concerns with the ultimate goal of achieving climate neutrality is a challenging task. Yet, it could be the opportunity for the EU to accelerate its transition efforts and reach goals that, in less pressing circumstances, it could not have been able to achieve.

This challenge of consistency and balance will require the EU to adopt flexible policy frameworks and faster decision-making procedures in order to adjust suitable measures to emerging changes over coming years.

References

- Boehm, L. and Wilson, A. (2022). EU gas storage and LNG capacity as responses to the war in Ukraine. *Briefing*, European Parliamentary Research Service, PE 729.401.
- Bonciu, FL. (2022). The implications of the REPowerEU Plan in accelerating the implementation of the European Union's Hydrogen Strategy. *Romanian Journal of European Affairs*, 22 (1), 100-114.
- Camia A., Giuntoli, J., Jonsson, R., Robert, N., Cazzaniga, N.E., Jasinevičius, G., Avitabile, V., Grassi, G., Barredo, J.I., Mubareka, S. (2021). The use of woody biomass for energy purposes in the EU, Joint Research Centre. Publications Office of the European Union, Luxembourg.
- Carroll, S.G. (2023). EU countries approve ban on sale of petrol, diesel cars from 2035. *Euractiv*. Retrieved from <https://www.euractiv.com/section/road-transport/news/eu-countries-approve-ban-on-sale-of-petrol-diesel-cars-from-2035/>
- Colli, F. (2020). The end of business as usual? COVID-19 and the European Green Deal. *European Policy Brief*, 60, 1-5.
- Condon, J., Agapakis, I. and Heslop, A. (2022). REPower EU proposal for a REDII amendment. Expediting renewable technologies' permitting procedures. CleanEarth. Retrieved from https://www.clientearth.org/media/iteiqaby/clientearth_repowerEU-permitting-amendments-briefing_july-2022.pdf

- Council of the EU (2022). EU restrictive measures against Russia over Ukraine (since 2014). Retrieved from <https://www.consilium.europa.eu/en/policies/sanctions/restrictive-measures-against-russia-over-ukraine/>
- European Commission (2019). The European Green Deal. COM (2019) 640 final, 11 December 2019.
- European Commission (2022). REPowerEU Plan, COM (2022) 230 final, 18 May 2022.
- European Council (2020). European Council meetings (10-11 December 2020) - Conclusions. EUCO 22/20, 11 December 2020.
- Fetting, C. (2020). The European Green Deal. ESDN Report. ESDN Office, Vienna.
- García-Arenas, J. and Sánchez Soliva, R. (2022). REPowerEU o cómo acelerar la transición energética para sobrevivir en el nuevo contexto geopolítico. Caixabank Research, *Dossier Europa en clave energética: de la guerra a la transición climática*, 471, 27-28.
- Goldthau, A. and Sovacool, B.K. (2011). The uniqueness of the energy security, justice and governance problem. *Energy Policy*, 41, 232-240.
- Jendrośka, J., Reese, M. and Squintani, L. (2021). Towards a new legal framework for sustainability under the European Green Deal. *Opolskie Studia Administracyjno-Prawne*, 19 (2), 87-116. <https://doi.org/10.25167/osap.4274>
- Jendrośka, J. and Anapyanova, A. (2023). Towards a green energy transition: REPowerEU Directive vs environmental acquis? *Environmental Law network International Review*, 23, 1-6. <https://doi.org/10.46850/elni.2023.001>
- Jensen, L. (2020). EU climate target plan. Raising the level of ambition for 2030. *Briefing*. European Parliamentary Research Service, PE 659.370.
- Krecké, E. (2022). 'Repowering' the European Union. GIS Report. Retrieved from <https://www.gisreportsonline.com/r/repower-eu/>
- Kuzemko, C., Blondeel, M., Dupont, Cl. And Brisbois, M.C. (2022). Russia's war on Ukraine, European energy policy responses & implications for sustainable transformation. *Energy Research & Social Science*, 93, 1-8. <https://doi.org/10.1016/j.erss.2022.102842>
- Lausberg, Ph. And Croon, T. (2023). Europe must fight energy poverty more effectively. EPC Commentary. Retrieved from <https://www.epc.eu/en/Publications/-/Europe-must-fight-energy-poverty-more-effectively~4da8dc>
- Loneragan, K., Gabrielli, P. and Sansavini, G. (2022). Energy justice analysis of the European Commission REPowerEU plan. Working paper. ETH Zürich. <https://doi.org.10.3929/ethz-b-000551952>
- Maguire, D. and Shaw, C. (2021). Fair energy transition for all-literature review. Report.
- Climate Outreach. Retrieved from https://fair-energy-transition.eu/wp-content/uploads/2021/02/FETA-Literature-Review_final.pdf
- McCauley, D. and Heffron, R. (2018). Just transition: integrating climate, energy and environmental justice. *Energy Policy*, vol. 119, 1-7.
- McCauley, D., Heffron, R.J. and Jenkins, S.K. (2013). Advancing energy justice: the triumvirate of tenets. *International Energy Law Review*, 32 (3), 107-110.
- Menyhárt, B. (2022). The effect of rising energy and consumer prices on household finances, poverty and social exclusion in the EU. JRC for Policy Report, Publications Office of the European Union, Luxembourg. <https://doi.org/10.2760/418422>, JRC130650
- Mchugh, D., Barry, C., McDonald, J. y Pollastri, T. (2019). Energy crunch hits global recovery as winter approaches. *AP News*. Retrieved from <https://apnews.com/article/coronavirus-pandemic-lifestyle-business-russia-health-70b97e36da53f62eba588b44f2b394bc>
- Molho, N. (2021). Delivering a sustainable, durable, and inclusive recovery for Europe. *Think 2030 policy paper*, 1-40.
- Muhammad, S., Pan, Y., Ke, X., Agha, M.H., Borah, P.S., Akhtar, M. (2023). European Transition toward climate neutrality: is renewable energy fueling energy poverty across Europe? *Renewable Energy*, 208 (1), 181-190. <https://doi.org/10.1016/j.renene.2023.03.090>
- Pastukhova, M. (2022). Europe's energy diplomacy in times of crises. Stronger through solidarity. E3G. Retrieved from <https://www.e3g.org/news/europe-s-energy-diplomacy-in-times-of-crises-stronger-through-solidarity/>
- Rayner, L. and Fessler, M. (2022) Fair energy transition for all-how to get there? EU wide Recommendations. Report. Retrieved from <https://www.epc.eu/en/publications/Fair-Energy-Transition-for-All-How-to-get-there~4c2df4>

- Rivera Albarracín, L. (2022). Necesidad de una transición energética justa con las personas y la naturaleza. Documento de Trabajo-Fundación Carolina& Oxfam Intermón, 14, 1-32.
- Sarno, G.S. and Colantoni, L. (2023). A changing energy diplomacy. The external dimension of the REPowerEU Plan. Paper. Istituto Affari Internazionali. Retrieved from <https://www.iai.it/en/pubblicazioni/changing-energy-diplomacy-external-dimension-repower-eu-plan>
- Schlacke, S., Wentzien, H., Thierjung, E-M., Köster, M. (2022). Implementing the European Climate Law via the 'Fit for 55' package. *Oxford Open Energy*, 1, 1-13. <https://doi.org/10.1093/ooenergy/oiab002>
- Shuller, M. and Hieminga, G. (2022). EU's controversial labelling of gas and nuclear energy as 'green' prompts backlash. ING, Think Economic and Financial Analysis. Retrieved from <https://think.ing.com/articles/eu-controversial-labelling-of-gas-and-nuclear-energy-as-green-prompts-backlash>
- Siddi, M. (2023). Europe's energy dilemma: war and the green transition. *Current History*, March 2023, 83-88.
- Simon, F. (2022). Trust in carbon market 'undermined' by EU's Russia plans, analysts warn. *Euractiv*. Retrieved from <https://www.euractiv.com/section/emissions-trading-scheme/news/trust-in-carbon-market-undermined-by-eus-russia-plans-analysts-warn/>
- Skjaerseth, J.B., Eikeland, P.O., Gulbrandsen, L.H., Jevnaker, T. (2016). Linking EU climate and energy policies: decision-making, implementation and reform. Edward Elgar, Cheltenham.
- Skjaerseth, J. B. (2021). Towards a European Green deal: the evolution of the EU climate and energy policy mixes. *International Environment Agreements*, 21, 25–41. <https://doi.org/10.1007/s10784-021-09529-4>
- Vezzoni, R. (2023). Green growth for whom, how and why? The REPowerEU Plan and the inconsistencies of European Union energy policy. *Energy Research & Social Science*, 101, 1-12. <https://doi.org/10.1016/j.erss.2023.103134>
- Von Homeyer, I., Oberthür, S. and Dupont, CL. (2022). Implementing the European Green Deal during the evolving energy crisis. *Journal of Common Market Studies*, (60) 1, 125-136. <https://doi.org/10.1111/jcms.13397>
- Wilson, A. (2022). REPowerEU: amending energy legislation. *At a glance*. European Parliamentary Research Service, PE 739.237.