

Rachel Guyet - 14 April 2023

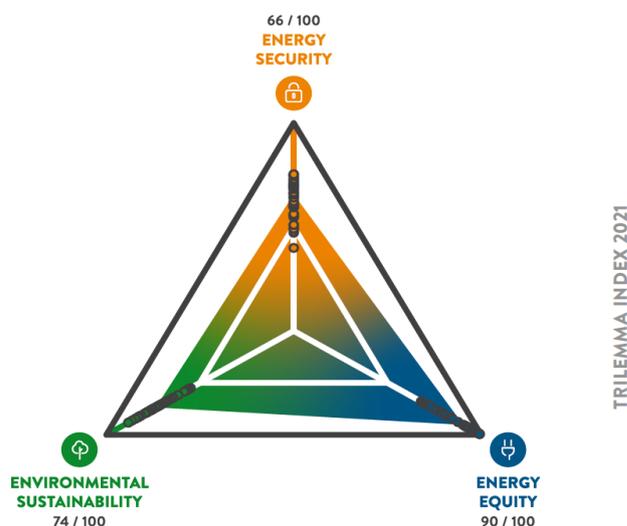
The Justice Challenges of the EU Energy Trilemma

There is no doubt that uncertainties are increasing in the energy sector which are leading to policy contradictions in Europe. While activists underline the need for urgent climate action, fossil fuel subsidies amounted to one trillion dollars worldwide in 2022, which is twice as high as in 2021. While the war in Ukraine worsened the energy crisis that broke out in summer 2021 exposing millions of households to energy poverty, large energy suppliers gained record profits. While the climate crisis requires more investments in renewable energies and a change in energy consumption behaviour, the current crisis has revealed the high EU dependence on Russian gas and its energy security risks. While secure, reliable, clean and affordable energy is needed more than ever in Europe in the long-term, EU member states have managed to agree on short term emergency measures but long-term agreements on how to prevent similar crises and protect investments and consumers are harder to reach. While the EU emphasizes the importance of a “just” transition in its EU Green Deal, there is no clear definition of “justice” or of “energy poverty” which is misleading when it comes to effective policymaking. Looking back at the acute period of the energy crisis between July 2021 and February 2023, was “justice” put at the heart of European and national decisions to ensure a secure, clean and affordable energy for all Europeans?

The Energy trilemma in Europe: did Europe strike a balance before the crisis?

Energy policies in Europe are embedded in the three dimensions of the so-called energy trilemma, for which the World Energy Council publishes an index every year. As illustrated by the figure below, in 2021, in the middle of the pandemic, but before the current energy crisis, Europe presented some flaws in the balance of the energy trilemma, questioning the level of compatibility of its competing priorities.

Figure 36: Europe Trilemma Balance



Source: World Energy Council

The energy security dimension of the trilemma assesses the capacity of European countries to make energy secure, reliable and resilient to meet the demand of the economies and societies. According to WEC, in 2021, Europe wasn't performing so well in the energy security “indicator”. This reflects the high dependency of Europe on gas imports, of which roughly 45% were coming from Russia in 2021. Improvement is needed but efforts have been made at EU level over time since the 20x20 objectives set in 2009 to diversify energy sources and reduce energy consumption, and therefore fossil fuel imports. Since the outbreak of the energy crisis, further action has been implemented to diversify the suppliers and the transport routes to limit the dependency on Russian oil, gas, and coal. This contradicts the aim to improve energy independence and to address the climate crisis, since it is likely to create new fossil fuel dependences with Norway, the USA, Africa, Central Asia and the Middle East. Other actions are being taken towards facilitating the deployment of renewables, supporting interconnection capacity between the EU member states or investing in storage, but the implementation is taking time.

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The sustainability factor of the trilemma refers to the ability of governments to decarbonise energy production and consumption and to reduce the negative climate and environmental externalities of the energy system. This is illustrated by the political will expressed at EU level to reduce CO₂ emissions and improve the uptake of renewables, as stated in 2009 and now reinforced by the [EU Green Deal](#) presented by the Commission in 2019. In 2021, it translated into the “Fit for 55” package of proposals designed to contribute towards achieving the 55% target of CO₂ emissions by 2030 and reaching climate neutrality by 2050, now enshrined in the [European Climate Law](#) of 2021. The EU aims at becoming a leader in climate neutrality but also depends on the willingness of the Member States to transpose the directives nationally and to implement the objectives, fossil-fuel dependent states being more reluctant to act quickly. Such tensions have been illustrated by the debates surrounding the EU green taxonomy that now involves all possible energy sources, including nuclear and gas.

The third dimension relates to energy equity and illustrates whether energy is accessible, reliable, secure, and affordable to all Europeans. The 2021 energy trilemma index regarding the equity dimension is rather optimistic in Europe considering the fact that between 33 and 82 million Europeans are exposed to energy poverty, depending on the [indicator](#) used. It is also true that during the pandemic, the EU and Member States quickly implemented emergency measures to ensure continuous access to energy for all Europeans throughout the [lockdown](#) periods which led to an increase in consumer protection during this period. The positive performance of Europe in this dimension of the trilemma might also be explained by the focus on consumers promoted by the EU Green Deal and the willingness to “leave no one behind” during the energy transformation process. It might also be explained by the introduction of a [Social Climate Fund](#) to mitigate the potential impacts of EU ETS₂. By putting citizens and affordability at the centre of the European strategy, the EU institutions hope to secure political and social acceptance of its climate action. However, European and national decisions are still dominated by the lack of a clear definition of a “just transition” and the failure to recognise the multidimensional character of energy poverty, thus resulting in short term and inadequate policies in addressing both issues.

Are emergency measures ensuring the security of a clean and affordable energy supply?

Since February 2022, the era of cheap and abundant energy has come crashing down to be replaced by a world of increased energy vulnerabilities and uncertainties, by the risk of shortage and high prices. This directly impacts the balance of the energy trilemma. Security of supply has been central to EU and national emergency interventions. This translated into the [REPowerEU](#) plan that aims to make energy secure, affordable and sustainable while reducing the dependence on Russian gas. This plan is aimed at the short and medium term and is supposed to stimulate investments in low carbon energies, among others. Its main purpose is to diversify energy sources (LNG) and gas suppliers, to save energy and to accelerate the deployment of clean energy. However, in 2022 coal represented 16% of EU electricity, gas 20% and wind and solar 22% in the [last quarter of 2022](#), thus emphasizing the domination of fossil fuels in the EU electricity mix despite the EU decarbonisation objectives.

The current energy crisis also places the affordability dimension at the forefront of the political agenda and is framed by the dilemma developed in the narratives of the “Gilets Jaunes” movement in France, with the slogan: “the end of the month versus the end of the world”. If “the end of the month” is massively addressed with more than [350 billion dollars](#) invested in Europe in emergency measures mitigating the consequences of the energy price hike in 2022, the “end of the world”, that is, the climate crisis, seems to have come second in the short term actions taken. In the acute period of the crisis, most subsidies granted to consumers contributed to maintaining the consumption of fossil fuels (petrol and gas use as well as coal briquettes were subsidized), few schemes addressed the structural dimensions of energy poverty (energy efficiency of housing for example). Since energy poverty is not defined and not recognized in terms of injustices in the energy transition process, it means that the actions taken to mitigate the energy crisis are misaligned with the energy trilemma. They may even lead to new vulnerabilities as illustrated by the current cost-of-living crisis.

Are relief measures socially and environmentally just?

As in previous crises (the financial crisis in 2008 or the COVID crisis in 2020), low-income households are disproportionately hit by the impact of the energy crisis. But they benefit the least from relief measures. Let's illustrate this with the [German case](#). In March 2022, the better off German households had to bear an additional cost of 2.1% for their energy expenses, while the additional burden amounted to 4.0% for the poorest households. The German government heavily subsidized consumers thanks to three packages of relief measures between March and September 2022, amounting to over 60 billion euros for residential energy consumers only. Part of the support was based on universal measures, part of it was targeted at the most disadvantaged households. However, according to the [DIW](#), the first two packages of measures reduced the additional cost of energy expenditure on average from 3.4% to 2.1%. Nevertheless, the burden remains higher for low-income households (3%) compared to 2.4% for average households, and to 1.3% for those with the highest incomes. The German case illustrates a more common situation in Europe whereby emergency relief measures help to support the consumption of households able to absorb the rise in prices, whereas they are insufficient in terms of compensating for the additional burden on the budgets of those households that need them most, thus limiting their distributional effects. The price situation is changing so rapidly that the short term or emergency schemes implemented become obsolete very quickly and do little to ease the burden on the poorest households over time.

Across Europe, environmental NGOs have denounced the counterproductive effects of these mitigation measures on demand reduction and dependence on Russian hydrocarbons. According to them, they are likely to create a windfall effect for the most affluent and delay their commitment to reduce their consumption of fossil fuels. In the end, the relief packages indirectly contributed to the record profits of large companies. However, most countries have also

introduced energy saving measures. While a reduction in consumption is in line with climate policies, it is likely to generate some frustration insofar as it will not lead to a reduction in energy bills due to rising prices. Moreover, such campaigns target all households, regardless of income and won't do any good to the most vulnerable households. Indeed, the potential for energy savings is much more limited among low-income households, who had already set up coping strategies to reduce their consumption well before the crisis, sometimes to the detriment of their well-being. The potential of energy and CO₂ savings is way higher among the high-income households, considering their way of living (house size, travels etc.) but this has not been addressed.

Clearly, short-term mitigation measures were necessary but by treating everyone on an equal footing, they fail to address inequalities and fail to support those with the greatest need. Most cushioning measures do not target the poorest populations based on their energy needs but on traditional income poverty criteria and end up being neither socially nor environmentally just. More structural measures are needed to address the security, sustainability and affordability dimensions of the energy trilemma. However, as long as the concepts of justice in the energy transition or energy poverty are not clearly framed, public policies can't address the structural roots of the inequalities that do not only [intersect](#) with the three dimensions of the energy trilemma but also with many other policy areas such as housing and energy markets, climate policies, labour markets and welfare policies. Quite the opposite. They can even contribute to creating new vulnerabilities and worsening inequalities, thus resulting in a deep feeling of injustice and frustration among the population. This is what many protests across Europe are expressing. Failing to recognize and address this discontent may threaten social cohesion, democratic stability and the acceptance of climate measures.