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Exiting the Energy Crisis: Lessons Learned from the Energy Price Cap Policy in France

Starting in September 2021 and greatly reinforced by the war in Ukraine, the energy price crisis has strongly affected all European member states. In France, the conjunction of crises has been even stronger, with a national electricity supply crisis piling up on top of the international energy price crisis, due to large parts of the nuclear fleet being unavailable.

In order to respond to this crisis, France has been one of the first EU member states to implement a stringent "energy tariff shield". Starting in October 2021, France has blocked regulated tariffs for electricity and gas, flanked by a myriad of successive measures aimed at reducing the impact of energy price surges on consumers.

After over one year, the French "tariff shield" has proven to be rather successful from an economic standpoint, considering the comparatively lower inflation rate and resulting macroeconomic costs. However, it has been much less efficient in addressing the other two key dimensions of the policy trilemma: social justice and environmental sustainability.

This article aims at providing a first assessment of the French response to the energy crisis, by measuring its effectiveness from an economic, social and environmental perspective. To put the French experience into perspective, the article then outlines some recommendations regarding the challenge of simultaneously addressing all three dimensions of the well-known policy "trilemma" of economic, social and environmental goals in the context of the energy crisis.

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The French response to the crisis: A whatever-it-takes approach to limit price impacts?

In 2020, while facing the worst public health crisis in a century, French President Macron insisted on the need to overcome this crisis by "whatever it takes", a slogan that had been famously coined by Mario Draghi and widely used to describe the massive effort to keep the economy on track in times of crises (Conesa, 2021).

Many have argued that the French response to the energy price crisis has indeed become a continuation of this approach, citing a comparison of public expenditures: €150 billion to face the COVID-19 crisis compared to an estimated €100 billion to cover the impact of the energy price crisis between the end of 2021 and 2023 (La Tribune, 2022).

A brief summary of the main measures can help to understand the scope of the French response to the energy crisis:

- In October 2021, a tariff shield on electricity and gas was announced, effectively blocking the levels of regulated tariffs (and for those indexed on the regulated tariffs for gas).

- This was achieved through a succession of initiatives: a reduction of the main tax on electricity (TICFE, passing from €22.5 per MWh to €0.5-€1 per MWh); an increase in the volume of the "regulated access to historic nuclear electricity"[1] from 100 to 120 TWh to help alternative suppliers access cheaper generation; a subsidy scheme for gas and electricity providers to compensate the difference between gross market prices and retail tariffs; and a legal obligation for the incumbent suppliers of the regulated tariffs (Engie for natural gas, EDF for electricity) to block the tariffs at their current levels.

1 The so-called ARENH scheme (accès régulé à l'électricité nucléaire historique) was created in 2010 to foster market liberalisation by enabling alternative suppliers to propose competitive retail offers. Without such access to the largely amortised and low-cost nuclear generation, no actor could possibly compete with the market power of the state-owned company EDF.

- These direct price measures have also been flanked by two direct subsidies to households: firstly, an additional "energy cheque" of €100 for the 600,000 low-income households that already benefitted from the energy cheque scheme; secondly, a €100 "inflation premium" paid to 38 million citizens (those under the median income level).

- The measures targeted at energy consumption in buildings have been complemented by a state-subsidised reduction of road fuel prices of 10 to 30 cents per litre between April and December 2022. Additionally, the largest French oil company Total Energies reduced prices by 10 cents per litre at all company-owned gas stations.

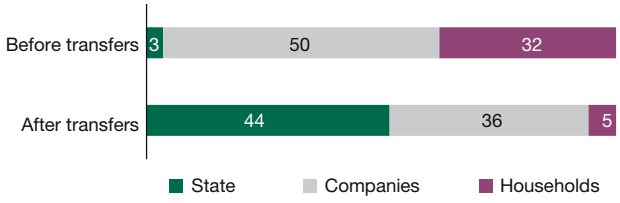
- In early 2022, a subsidy scheme was deployed to help the private sector and local authorities pay their significantly higher energy bills. Initially based on very complex criteria, this scheme later applied to all companies experiencing an energy bill increase of at least 50%, with energy costs representing at least 3% of gross revenues, and aims at covering approximately 25%-35% of the total bill increase.

- For the year 2023, an additional price shock absorber has been introduced for small and medium enterprises by local authorities aimed at limiting the recent increase of tariff levels by approximately 25%.[2]

A policy approach focused on households to the detriment of companies and local authorities

The first conclusion that can be drawn from this overview is that the French policy response to the crisis has been concentrated particularly on households (and very small companies), for which the energy tariff shield has effectively absorbed the whole increase in prices since October 2021.[3] On the contrary, aid schemes for the private sector and local authorities have not only taken longer to emerge, but also shown less ambition.

Figure 1
Distribution of gross revenue losses linked to the energy import bill increase in France, 2022 vs 2019
in billion euros



Source: Clavères (2022).

The redistributive effects of this approach have been quantified in December 2022 by the French Treasury itself, indicating in a study that the loss of revenues due to surging energy import bills represented a total cost of €85 billion – 3% of GDP (Clavères, 2022). Without any aid or transfer measures, this burden would primarily have struck the private sector (59%) and households (38%), with very limited impact on the state (3%). However, taking into account the massive policy response to the crisis, the French state effectively assumed most of the costs, and almost all costs for households, as illustrated in Figure 1. Considering that this study only takes into account the cost of imports of fossil fuels, the total distributive effect of the policy response (including measures on electricity) to the benefit of households might be even higher.

The energy tariff shield: An effective measure to counter the inflationary spiral

Even though this has not been claimed as a political objective initially, it is probably on the macroeconomic level that the French response to the energy price crisis has been the most effective. This effect has notably been quantified by the French National Institute for Statistics and Economic Studies (INSEE) in September 2022. According to their calculations, the impact of the energy price surge on the total inflation rate has been divided by two, thanks to the energy tariff shield. Energy prices have contributed 3.1 percentage points of the total inflation rate of 5.3% between the second trimesters of 2021 and 2022. Without the energy tariff shield, the inflationary effect linked to energy prices would have doubled, leading to a total inflation rate of 8.4% (Bourgeois and Lafrogne-Joussier, 2022).

This result needs to be nuanced, however: in its calculations, INSEE has applied the effect of the tariff shield to all economic agents (not only households), which theoretically leads to a significant overestimation of the total

2 This shock absorber aims at bringing down the cost per MWh by up to €320 to a reference level of €180 per MWh, but only applies to 50% of the total consumption for each month, with an additional threshold to limit the total aid (maximum €160 per MWh of subsidy on the total consumption). This means that for a company consuming 15 MWh at an initial tariff of €600 per MWh, the initial bill reaches €9,000, while the reduction amounts to €2,400 (26%).

3 It must, however, be noted that the regulated tariff for natural gas is updated on a monthly basis, and thus had already increased by 40% compared to the levels of 2019, and 70% compared to the beginning of 2021. For electricity, the increase of regulated tariffs has been limited to only 4% compared to the level of early 2021.

impact, considering that companies are only benefitting to a very limited extent.

In line with this, another macroeconomic study has concluded that despite its significant cost of €110 billion (according to the authors), the policy response to the energy price crisis has generated a positive effect in 2022 by limiting the inflationary spiral, resulting in an additional 1.8 percentage points of economic growth, but with a limited reduction of only 1.1 to 1.8 percentage points on the total inflation rate (Langot et al., 2022).

The macroeconomic impact of the French tariff shield on the inflation rate is all the more visible when comparing France to other EU member states. The year-on-year inflation rate until December 2022 reached "only" 6.7% in France, compared to an EU average of 9.2%, and a rate of 9.6% in Germany (Eurostat, 2023).

All for one and one for all? Equality, equity and the just transition

The French government has insisted on providing the same level of protection for all French citizens. Indeed, the tariff shield guarantees the same price level for all, regardless of their actual levels of income or energy consumption, thus de facto setting aside the issue of social justice. As Xavier Ragot, president of the French economic think tank OFCE recently put it: "The advantage of a tariff shield is its simplicity of implementation, but it is far from solving the question of the effects of the energy crisis on inequalities between households" (Ragot, 2022).

Indeed, considering that the richest households consume up to twice as much energy as the poorest ones, they receive more than double the subsidy in absolute terms. Or, as stated clearly by the French statistical institute INSEE in a recent analysis, "the benefits of the tariff shield and the rebate for road fuels reach 420 euros for the richest 10%, against 180 euros for the poorest 10%" (Cornuet, 2022).

The absence of any indexation on income raises a serious question in terms of equity and efficiency, in particular when considering the massive levels (€30 billion in 2022, €45 billion in 2023) of public expenditure (Conesa and Tonnelier, 2022). It is one thing to justify that all households should get access to the same subsidy, regardless of their actual needs. But it becomes another when this effectively means that twice as much public aid is granted to the richest compared to the poorest.

Furthermore, beyond the lack of any income or wealth-related criteria, the inequality of this approach is further exacerbated by the absence of a cap in terms of energy consumption levels: the tariff shield (and fuel rebate at gas stations) applies from the first to the last kWh of electricity or gas consumption, regardless of the actual consumption level. This is surprising, insofar as other EU member states have managed to implement similar subsidies while maintaining a marginal incentive to save energy. In Germany for example, the subsidy on gas and electricity only applies to 80% of the consumption (compared to the previous year) for households, and 70% for companies (Kurmayer, 2022).

And the energy transition in all that?

The current energy crisis painfully illustrates our long-lasting addiction to cheap and imported fossil fuels. Many have thus argued that it will be a major catalyst to accelerate the transition to low-carbon energy sources. However, as can be illustrated by the French example, this is not necessarily the case. Indeed, doing so requires a strong balance between measures targeting the social and economic urgency of the crisis on one side, and measures aimed at massively accelerating the low-carbon transition on the other.

Concentrating all its efforts on relieving the short-term impacts of the crisis (and thus depressing the price signal for energy), the French state has clearly missed the opportunity to stimulate investments that would effectively improve the low-carbon transition and resilience to future crises.

The public support for energy retrofits in buildings remained constant between 2022 and 2023, despite households and companies being much more aware and willing to make energy efficiency improvements. In absolute figures, the main public support scheme for energy retrofits "MaPrimeRénov" will receive €2.5 billion in 2023, which equals only 5% of the total expenditure for the tariff shield of the same year.[4]

Despite corresponding discussions at the EU level, France has remained silent concerning a possible reinforcement of its renewable energy target for 2030, and no additional public funding has been earmarked for renewable energies in 2022 or 2023, even though renewable energies will reverse €31 billion to the public budget between 2022 and 2023 because of the massive surge in wholesale market prices (CRE, 2022).

4 In comparison, Germany announced a stark increase of public support for energy efficiency in buildings in July 2022, from €8 to €14 billion, with total commitments already reaching €9.6 billion between January and July 2022.

In a way, France is now paying the price for not having achieved its 2020 target for renewable energies (reaching a share of 23% of gross final energy consumption). The gap for 2020 amounts to 4% or 65 TWh, mainly in the sector of renewable heat (and to a lesser extent, electricity). This represents a cost of €5 to €9 billion per year, assuming that this lacking renewable production has been substituted with imported natural gas.[5]

Unlike other countries such as Germany or Austria, France has limited its support in the transport sector to a rebate on road fuels, without incentivising low-carbon solutions such as trains, public transports and electric vehicles.

Finding a way out of the crisis: Food for thought

The French approach to the energy price crisis is symptomatic of several patterns that can also be observed elsewhere and need to be addressed to develop a coherent and effective policy response.

First and foremost is the tendency of policymakers to follow the lure of short-term, "quick and dirty" measures in the face of urgency, losing track of any long-term objectives and associated investment needs, even though they represent the most credible solutions to the crisis itself.

The second pattern regards the great comeback of the energy policy trilemma in this crisis. Responding to the economic urgency while keeping in mind the imperatives of social justice and of the low-carbon transition requires careful thinking and calibration, which is incompatible with the political pressure for quick, simple and strong measures.

Last but not least, such crises tend to exacerbate the tendencies of policy fragmentation between member states, even if a common European response is more often than not the most effective option to resolve the crisis.

Striking the right balance between crisis relief and acceleration of the low-carbon transition

Tackling these challenges seems all the more important when considering that the current crisis might be here to stay for at least another few years. In this regard, assuming that France might just continue the current approach, i.e. spending another €40 billion each year to keep prices down, seems neither credible nor sustainable in any way.

Thus, a few priorities and recommendations can be put forward.

Regarding the first two points, France clearly needs to find a balance between short-term crisis relief and investments aimed at reducing its vulnerability to future crises. This can be summarised under a very simple proposition: "€1 = €1". For each euro of public support aimed at reducing prices or bills, an additional euro should be earmarked to accelerate the low-carbon transition.

Considering constraints on public spending and debt, this implies that the funding for the tariff shield must be reduced to liberate funds for low-carbon investments. This could be achieved through a more effective targeting of existing measures, for example by concentrating direct subsidies on the first five income deciles, or by limiting it to a certain level of energy consumption, and ideally a mixture of both.

Conversely, public support should be massively increased to incentivise those households and companies that could actually invest to reduce their exposure to the energy crisis (through e.g. energy retrofits, heat pumps, electric vehicles, photovoltaic panels and self-consumption). For the sake of illustration: taking half of the current budget of the tariff shield for 2023 (€45 billion), the support for energy retrofits could be multiplied by five (for a cost of €10 billion) and the public support for electric vehicles could be multiplied by five (€5 billion), which would still leave another €5-€7 billion for other measures in the fields of renewable energies, public transportation and the like.

Provide a strong European response to avoid policy fragmentation

The risk of increasing policy fragmentation among member states remains of crucial importance. Fearing that the Union might be unable or too slow to react collectively, member states tend to revert to national approaches to face the energy crisis. In some cases, the European Union itself has become the scapegoat, as highlighted by the growing criticism targeting the alleged weaknesses of the European electricity market, sometimes referred to as the main culprit of the surge in electricity prices.

This tendency has become particularly vivid in France recently, with various members of the government and MPs asking for a massive overhaul of the EU electricity market to "decouple" gas and electricity prices, sometimes even referring to a "Frexit" of the integrated energy market.

This overly simplistic approach neglects that France has long been one of the main beneficiaries of the integrated

5 This depends on the assumption for the gas price (in this example: €75 to €140 per MWh).

electricity market, considering that it has been the greatest net exporter of electricity for years (with up to 60 TWh some years), while also heavily relying on imports during cold winters, because of its high share of electric heating.

The political focus on potential short-term fixes of the electricity market design might miss the point: the current crisis is and remains a crisis of (imported) fossil fuels, and the best way to address it is by limiting the price impacts through collective action and massively accelerating the transition towards low-carbon energy to reduce this dependency.

The former illustrates the crucial need for a new political narrative that insists on the fact that European integration and collective action is a solution to and not a reason for this crisis, and that all member states will greatly benefit from a common approach to resolving this crisis.

This could effectively be achieved through an EU-wide gas price cap, combined with binding gas saving targets to avoid an increase in consumption (as observed in Spain after the implementation of a price cap on gas in the electricity market),[6] which might be the most effective way to avoid costly national tariff shields and national subsidies altogether (see Fabra et al., 2022). This would also help to eliminate the risk of a "race to the bottom" and resulting political tensions between member states with different funding capacities, each trying to improve its economic competitiveness against its direct neighbours.

The latter point indicates that a massive upscaling of climate policy targets and investments is required, as indicated by the REPowerEU Plan,[7] with two essential conditions. Firstly, accepting that, beyond any short-term fixes, the existing energy market design needs to evolve in accordance with the current policy challenges of making low-carbon and particularly renewables the dominant source of energy across Europe.[8] And secondly, understanding that social justice is a key priority to make this transition happen in the coming decade.

By revealing the economic, social and environmental consequences of our dependency on fossil fuels, the energy crisis places us at a critical juncture: we can either remain stuck in the old world at the risk of suffering ever more violent crises, or find the courage to embrace opportunity to finally embark on the path to a more resilient society.

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6 According to data from the Spanish transmission grid operator, Red eléctrica, the electricity generated by combined-cycle gas turbines has increased by 42% between the second half of 2021 and the second half of 2022 (after implementation of the gas price cap), even though renewable output has been slightly higher.

7 The REPowerEU plan indicated a figure of €210 billion of additional investments needed to phase out Russian fossil fuel imports by 2027.

8 In its 2022 report on the state of the Energy Union, the EU Commission states that the share of renewable electricity should reach around 70% by 2030, which would imply a share of low-carbon generation (including nuclear) above 80%.