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Energy price hikes: which European solutions?

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As energy prices rise around the world, against the backdrop of the post-Covid economic recovery, the 27 EU leaders discussed what Europe could do to ease the pressure on consumers at the European Council on 21-22 October. The increase in prices is due to a particular international context and is affecting all countries: China is facing electricity shortages in many provinces due to insufficient coal supply, and in the United States the price of natural gas has risen by more than 150% since the beginning of the year. However, this increase raises questions about Europe's energy strategy and its impact on climate objectives, just a few days before the opening of COP26 in Glasgow.

EUROPEAN COMPETENCES IN ENERGY

While cooperation in the energy field has been the basis of European integration, the European Union does not have exclusive competence in this field. Article 194 of the Treaty on the Functioning of the European Union (TFEU) provides a legal basis for the Union's competence in energy matters in three areas: ensuring the proper functioning of the energy market; ensuring the security of energy supply; promoting energy efficiency and network interconnection.

The European energy policy has five specific objectives:

- Diversifying the Union's energy sources and ensuring energy security;
- Ensuring the free movement of energy through adequate infrastructure and the removal of technical or regulatory barriers;
- Improving energy efficiency and reducing import dependency, lowering emissions and boosting jobs and growth;
- Decarbonising the economy and moving towards a low-carbon economy, in line with the Paris Agreement;
- Promoting research into low-carbon and clean

energy technologies and prioritising research and innovation to drive the energy transition and improve competitiveness[1].

Although [article 194 TFEU](#) considers that certain elements of energy policy are a shared competence, which constitutes a move towards a common energy policy, each Member State nevertheless retains the right "to determine the conditions for exploiting its energy resources, its choice between different energy sources and the general structure of its energy supply". Member States have sovereignty to determine their energy mix, while taking into account their climate commitments in the context of their nationally determined contribution and in accordance with the objectives decided at European level: a 55% reduction in greenhouse gas emissions by 2030 compared to 1990 and carbon neutrality by 2050.

Energy mix and supply security

At European level, the energy mix is still dominated by fossil fuels, with 38% of energy consumption coming from oil, 23% from natural gas and 13% from coal. Nuclear power accounts for only 11%. Although they are increasing significantly, renewable energies still represent a small share of the Union's energy consumption: 19.7% in 2019[2].

The Member States' own choices in terms of energy mix, which combine strategic priorities - to ensure energy security, for example, by aiming to reduce dependence on external sources - with national and/or social considerations - protection of certain industrial sectors, protection of jobs, exit from nuclear power - can lead to a fragile situation. The energy dependence of EU Member States has increased significantly in recent years, reaching 55.7% in 2018, compared to 53.6% in 2009[3]. For example, in 2019, 43.5% of coal, 26.8% of

[1] European Parliament, Thematic factsheets on the European Union, The energy policy: general principles.

[2] The Schuman Report on the State of the Union 2021, statistics chapter.

[3] Ibid.

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unrefined oil and 34.3% of natural gas imported into Europe was of Russian origin. In this context, we should remember what Ursula von der Leyen [said](#): "*While Gazprom has honoured its long-term contract with us, it has not responded to the increase in demand as it did in previous years. And this is driving prices up. The energy issue is geopolitical par excellence, and Russia knows this only too well.*"

Differences between Member States are considerable, for example, [in terms of renewable energy](#). With more than half of its gross final energy consumption coming from renewable sources, Sweden (56.4%) had by far the highest share among Member States in 2019, ahead of Finland (43.1%), Latvia (41%), Denmark (37.2%) and Austria (33.6%). At the other end of the scale, the lowest percentages of renewable energy were recorded in Luxembourg (7%), Malta (8.5%), the Netherlands (8.8%) and Belgium (9.9%).

The increase in electricity generated from renewables between 2009 and 2019 has been largely due to the development of three main sources: wind and solar power and solid biofuels. In 2019, renewables accounted for 34% of gross electricity consumption in the EU, compared to 32% in 2018. Wind and hydro power accounted for two thirds of the electricity generated from renewable sources (35% each). The remaining third came from solar energy (13%), solid biofuels (8%) and other renewable sources (9%). Solar energy is the fastest growing source of electricity, as in 2008 it represented only 1% of the mix. The growth of electricity generated from solar energy has been spectacular, from 7.4 TWh in 2008 to 125.7 TWh in 2019.

The energy mix in Central and Eastern European countries is still dominated by fossil fuels (almost 80% of the electricity produced in Poland comes from coal) and nuclear power (46% of the electricity produced in Hungary and 18-20% in Romania).

The question of [taxonomy](#). Gas and nuclear power, compromise energies?

This price increase also comes at a time when the question of the place of nuclear energy and gas in the energy transition in Europe is a source of division between Member States. Natural gas, the least polluting fossil fuel, with its combustion emitting no dust, little sulphur dioxide (SO₂), little nitrogen oxide (NO₂) and less carbon dioxide (CO₂) than other fossil fuels, is the compromise energy for many states, including Germany.

Nuclear energy does not emit CO₂, but there are concerns about waste disposal and, more generally, about controlling it. Several countries such as Romania, Poland, Hungary, Finland and France are banking on the possibility of accelerating their transition, in part, through nuclear power.

The role of nuclear power in the transition is the subject of intense confrontation in the context of the definition of the "green taxonomy", which aims to create a standardised classification of economic activities on the basis of their contribution to the fight against climate change and which could therefore have a determining role on investments.

While a decision was expected in the autumn, it will most likely be postponed until the end of the year. However, a compromise solution seems to be emerging. According to Mairead McGuinness, European Commissioner for Financial Services, an "amber" label could be granted to activities that have not obtained the "green" label, but which have a role to play in the fight against climate change[4].

THE WAY TO A EUROPEAN ELECTRICITY MARKET?

In this context of rising electricity prices, the functioning of the single European electricity market is at the centre of the debate. Bruno Le Maire, French Minister for the Economy and Finance, [declared](#) that the latter is "not working" and that its mechanisms should be thoroughly reviewed. The main complaint is that electricity prices are not determined by the cost of production, but by the marginal cost of production.

The [European electricity market](#) was historically imagined as "the most efficient way to ensure a secure and cheap supply of energy to European citizens". It is structured around "a pricing system based on marginal prices", which works by putting power plants on the market in order of price, starting with the cheapest, up to the last plant needed to meet consumer demand. It is this last plant that sets the overall price and is often one that is (at times of high demand) gas or coal fired[5]. All electricity producers therefore charge the same price for electricity. The European electricity market has ensured cheap prices for consumers over the past decades and, for the time being, the Commission has no plans to review it. However, the Agency for the Cooperation of Energy Regulators is expected to propose a series of recommendations in the coming months.

[4] Mehreen Khan, Sam Fleming, Brussels to delay decision on how to classify nuclear power for green finance, *Financial Times*, 20 October 2021.

[5] European Commission, [Questions et réponses: communication de la Commission sur les prix de l'énergie](#), 13 October 2021.

POSSIBLE RESPONSES TO RISING PRICES

According to [Thierry Breton](#), the EU's Internal Market Commissioner said rising energy prices were directly affecting 36 million Europeans. Emergency measures have been deployed at national level to ease the pressure on consumers. These include immediate assistance such as the €100 "energy vouchers" distributed in France to 5.8 million households. In Italy, Mario Draghi, President of the Council, has announced a series of measures to a total cost of €3 billion, including the elimination of "gas infrastructure costs". In Spain, following measures adopted at the end of July which included a temporary reduction in VAT on electricity from 21% to 10% and the suspension of the tax on the sale of electricity production, the Spanish government announced in October a temporary reduction in the special tax on electricity from 5.11% to 0.5%. The Polish government is studying the introduction of compensation measures for households whose energy costs represent more than 10% of their income, i.e. 6% of Polish households. In the UK, several weeks ago the government announced a £500 million fund to help the poorest people pay their energy bills, particularly heating bills.

At the same time, several proposals have been sent to the European Commission by Member States such as France, Greece, the Czech Republic and Romania calling on their European partners to coordinate on the subject, suggesting group purchases of gas to obtain more advantageous tariffs or envisaging the withdrawal of gas from the marginal pricing system as long as prices remain high. On the other hand, countries such as Luxembourg and the Netherlands, considering that the price increase is linked to the post-Covid recovery, would rather let the market regulate itself.

On 13 October, [the European Commission unveiled some temporary measures](#) that the Member States could introduce in the face of rising prices whilst remaining within the framework of European legislation notably in terms of the competition policy. Among the solutions proposed, Member States could "*mitigate the impact of rising prices through price caps and temporary tax reductions for vulnerable energy consumers, or vouchers and subsidies for consumers and businesses*". "*These immediate measures could be financed in part by the revenues generated by the auctioning of allowances under the EU ETS.*" Germany currently considers these tools to be sufficient for Member States to cope with rising prices.

In terms of medium-term responses, the Commission emphasises an intensification of the climate transition as the best way to avoid further energy price spikes in the future. The European Commission has detailed in more detail the medium-term objectives:

"Strengthening investments in renewable energy, retrofitting and energy efficiency and speeding up auctioning and authorisation procedures for renewable energy;

- Development of energy storage capacity to support the evolving share of renewables, including batteries and hydrogen;
- Audit by the European Energy Regulator (ACER) to study the advantages and disadvantages of the current electricity market organisation;
- Possible revision of the Security of Supply Regulation to ensure better use and functioning of gas storage in Europe;
- Study of the likely benefits of voluntary joint procurement of gas stocks by Member States;
- Establishment of new cross-border regional gas risk groups to analyse risks and advise Member States on the design of their national prevention and emergency action plans;
- Strengthening the role of consumers in the energy market by empowering them to choose and switch suppliers, generate their own electricity and join energy communities"[6].

These priorities were also highlighted by the President of the European Commission [in her speech](#) to the European Parliament on 20 October.

At the European Council on 21 and 22 October, the Heads of State and Government [reiterated](#) their support for the measures presented by the European Commission on 13 October. A meeting of EU energy ministers is scheduled for 26 October, at which the ministers are tasked with taking the work forward. The European Council will take up the issue again at its meeting in December. In addition, the Commission will have to study the functioning of the gas and electricity markets and the Emissions Trading Scheme (ETS) so as to "assess whether certain trading patterns require further regulatory action". It will also have to present proposals in December on the joint purchase and storage of natural gas, which, according to its president, could be done on a voluntary basis.

[6] Commission Communication COM(2021) 660 final 13 October 2021.

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WILL THE EUROPEAN GREEN DEAL INFLUENCE PRICES?

One question remains: what will the impact of the measures announced under the European Green Deal be on energy prices? As Jean Pisani-Ferry explained, *"decarbonisation is basically putting a price on a resource that was previously free. This price can be explicit (through taxation) or implicit (through regulation), but both types of measures have the same effect of triggering an accelerated obsolescence of the existing capital stock"*[7].

To give an order of magnitude, carbon prices in Europe at the beginning of the year were around €30. We can take as an example the recommendations of the Stiglitz-Stern Commission, which concluded that the price of carbon should be between \$40 and \$80 in 2020, and then between \$50 and \$100 in 2030, if we want to contribute to reducing emissions.

Under the European Green Deal, carbon pricing is central and involves, as presented in the draft ["Fit for 55"](#), a reform of the emission quotas exchange system ([EU-ETS](#)) and an update of the directive on energy taxation[8]. Currently, the EU ETS covers 40% of greenhouse gas emissions in Europe. The cap on emission rights/allowances was set in 2013 at 2 084 301 856 allowances. In the third phase (2013-2020), this cap has been reduced each year by applying a linear reduction factor of 1.74% of the average total quantity of allowances issued annually over the period 2008-2012.

The package ["Fit for 55"](#) provides for a revision of the scheme to take into account the target of a 55% reduction in emissions by 2030 and to include the aviation sector, the shipping industry

and to create, from 2026, a mechanism for road transport and the building sector.

Following the rise in energy prices, which is driving the quest for diversification of sources and thus, in some cases, the restarting of coal-fired power stations, the price of a tonne of CO₂ in Europe has doubled over the year, exceeding €65 at the end of September.

The effects of the rising carbon price should eventually be offset by the establishment of a Social Climate Fund, financed by revenues from the road transport and building carbon markets. Moreover to prevent carbon leakage, the [carbon border adjustment mechanism](#) – which could become part of the EU's own resources in the years to come - should support these transformations.

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As COP26 opens in Glasgow on 31 October, energy prices, the cost of transition, the role of markets and different national strategies will be at the heart of the debate. In Europe, Member States such as Poland, Hungary and the Czech Republic are already partially questioning the climate objectives announced by the Commission. Some specialised organisations, such as the Energy Information Agency, estimate that global primary energy consumption could double between 2020 and 2050, due in particular to economic and demographic growth. The energy sector will face many economic, environmental, technological and geopolitical challenges. In this context, joint European responses are essential to ensure security of supply, access to energy for all and a successful ecological transition.

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[7] Jean Pisani-Ferry, [L'écologie a besoin d'une politique macroéconomique](#), le Grand Continent, 1st September 2021.

[8] [Le plan qui change tout ? 10 points sur le Fit for 55 Études Énergie et environnement ?](#)

Le Grand Continent, 15 July 2021.

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