ENERGY POLICY TOPICS - WHAT IS COMING UP IN 2022?

Energy policy debates in light of decarbonisation efforts and high energy prices

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Energy policy debates in light of decarbonisation efforts and high energy prices

After a year that will be remembered for a surge in the price of energy to record highs[1], we ask Frontier energy experts what 2022 might hold in store for energy policy in the EU and UK. Michaela Unteutsch speaks to:

- Vikram Balachandar (Brussels);
- Christoph Riechmann (Cologne/Berlin/London);
- Claire Thornhill (London);
- Catherine Galano (Paris);
- Pablo Gonzalez (Madrid).

Q: DECARBONISATION TARGETS AND TACKLING HIGH PRICES MARKED ENERGY POLICY IN 2021. WILL WE STILL BE TALKING ABOUT ENERGY PRICES IN 2022?

CR: Unfortunately, it seems likely we will be. The initial view in the market appeared to be that high gas and electricity prices were a mere blip in the winter of 2021-22. However, fundamentals and market observations now seem to suggest otherwise.

In the first instance CO2 prices have been rising since the EU and the UK have made strong commitments to a tightened emission trading regime. EU CO2 Prices have risen from about €24/tCO2 in January 2020[2] to over €80 t/CO2 in January 2022[3]. This directly affects the cost of power production from fossil fuels. It improves the attractiveness of using gas over coal in power generation and thereby tends to increase gas demand in Europe.

EXEC SUMMARY

Decarbonisation targets and tackling high prices marked energy policy in 2021. Looking ahead at 2022, energy experts from different Frontier offices share their insights on what 2022 might hold in store for energy policy in the EU and UK.

High energy prices and the question whether and how policy makers should react to it is a topic that will still be on the agenda in 2022. While some countries would like to radically alter the model for spot wholesale electricity prices, others are opposing significant changes to the current electricity market design model. An important staging post in this debate during 2022 will be in April, when ACER will be delivering its final recommendations to the Commission on whether the current EU electricity market design is working well.

Other energy policy topics we will likely be discussing in 2022 include the role of nuclear and natural gas in achieving climate protection targets as well as the future role of electrification and hydrogen in the heating and mobility sector.

[1] See https://www.frontier-economics.com/media/4855/gas-prices-whipsaw-across-europe.pdf.

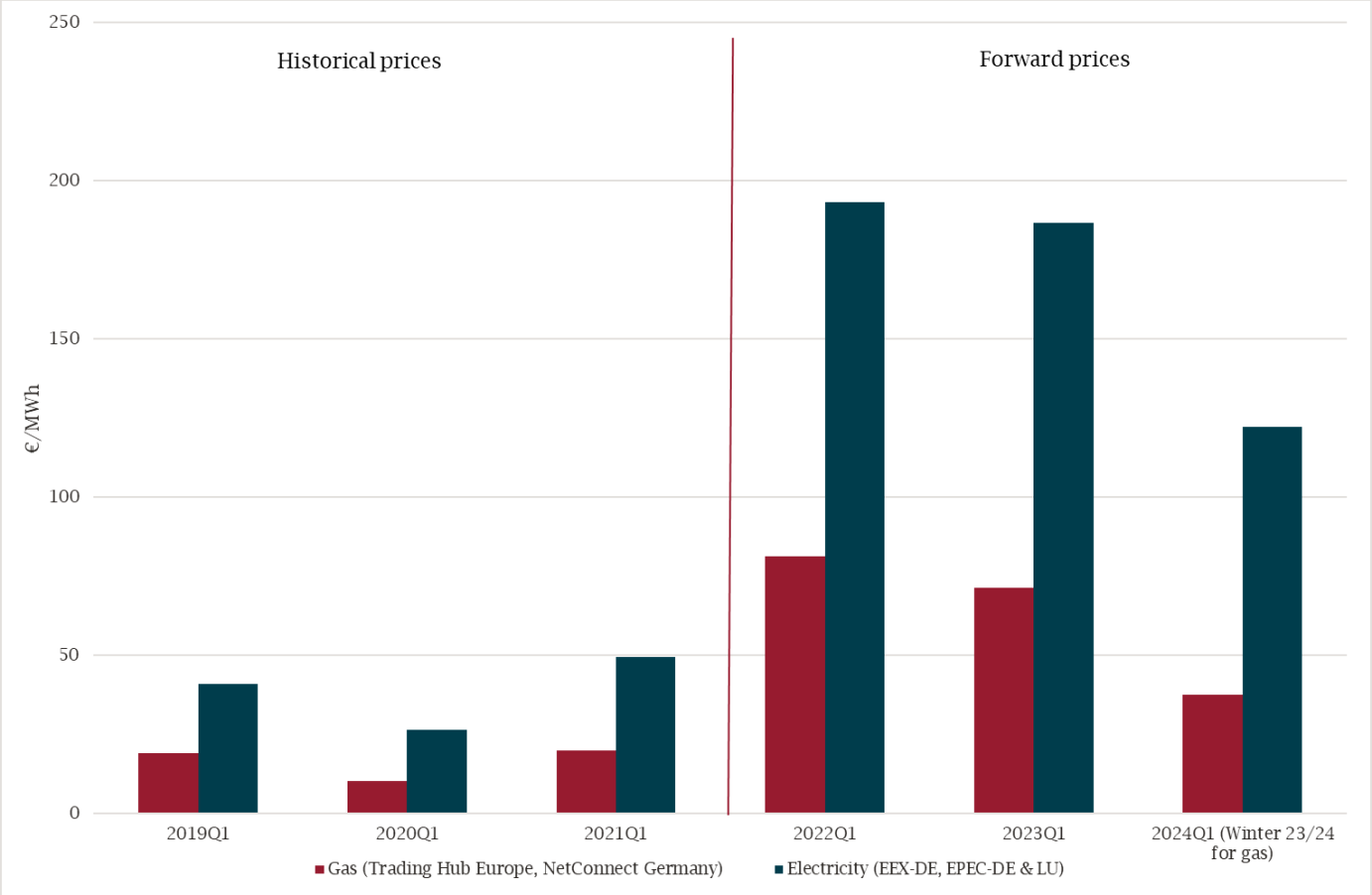
[2] ICE EUA Daily Futures, via Bloomberg.

[3] Energate Messenger.

Meanwhile, gas is not only in high demand in Europe but also in Asia, while European production is naturally declining. This leads to upward price pressure.

Higher gas and carbon prices mean higher electricity prices, as in many markets wholesale prices are frequently set by gas-fired generation. Electricity prices have increased from €27/MWh from the first quarter in 2020 to €193 MWh from the first quarter in 2022 (Figure 1). While the forward market signals some relief for deliveries in 2023 and 2024 we seem far from returning to low prices as observed in previous years.

FIGURE 1 HISTORICAL AND FORWARD PRICES FOR GAS AND ELECTRICITY (FOR THE EXAMPLE OF THE GERMAN MARKET)



Source: Gas day-ahead prices from NetConnect Germany; Gas forward prices from Trading Hub Europe; Electricity spot prices from EPEX for Germany/Luxembourg, Electricity forward prices from EEX for Germany. Data retrieved via Energate

Note: Historical gas (electricity) prices are calculated as average day-ahead (spot) prices in Q1 of each year. Forward prices as traded on January 11th, 2022. The forward for 2022 corresponds to the average of the forwards for the months January, February and March. For 2024, the forward for gas corresponds to the winter-forward (including the period from December 2023 to February 2024).

Q: WE'VE SEEN SOME SHORT-TERM POLICY RESPONSES TO HIGHER ENERGY PRICES, SUCH AS REDUCTIONS IN ENERGY EXCISE TAXES AND VAT, AND FINANCIAL SUPPORT FOR VULNERABLE CUSTOMERS. WHAT MORE WILL POLICYMAKERS COOK UP IN 2022?

VB: In October 2021, the Commission unveiled a 'toolbox' of measures clarifying what Member States could do to address the crisis, including some of the policies you mention. But the Commission's list of measures

essentially leaves the underlying wholesale market design intact, which is where some countries would like to see change.

CG: Yes, there are several countries, France and Spain included, which would like to radically alter the model for spot wholesale electricity pricing. Currently (as mentioned earlier by Christoph), prices reflect the short-term marginal (or incremental) operating costs of providing power – which is often the variable cost of gas-fired generation. This can be confusing to explain to consumers why should prices be that high when the operating costs of low-carbon generation technologies (such as nuclear, wind and solar) are much lower? Some countries would instead prefer wholesale prices to reflect the long-run average cost of generating power (from renewables). It sounds like a nerdy detail but such a change could have potentially fundamental implications for incentives to invest and operate and, ultimately, for security of supply, emissions and energy bills.

PG: The perception of possible exercise market power is also a factor in the debate. In Spain the nuclear moratorium (approved in the 80s) and the lack of locations to build more hydro plants are used as arguments to claim that existing market arrangements are not totally competitive. While it's right to have processes in place to monitor potential market abuse, any loose talk will undoubtedly spook investors. This risk is increasing the costs of the energy transition.

CR: Germany and some other Member States, in contrast, are opposing significant changes to the current electricity market design model. That said, the two sides may not be as far apart as they seem. Increasing amounts of low-carbon capacity is already on long-term contracts linked to long-run average costs, the costs of which are paid for by consumers. And there are emerging signs that Germany is reversing its previous insistence on an 'energy-only' market model, with interest bubbling up again in introducing a 'capacity market' in addition to ensure security of electricity supplies.

VB: An important staging post in this debate during 2022 will be in April, when ACER – the European Union Agency for the Cooperation of Energy Regulators - will be delivering its final recommendations to the Commission on whether the current EU electricity market design is working well. This may fire the starting gun on a more fundamental reform to electricity market design across Europe to help ensure the transition happens at lowest cost. Similar questions are being asked in the UK, with National Grid (the GB system operator) and Ofgem (the GB regulator) having launched tenders on future market design.

Q: MIGHT HIGH ENERGY PRICES AFFECT POLICY GOALS IN THE MEDIUM- TO LONGER-TERM?

CT: In principle, the end-destination has not significantly changed. The EU and UK had already set 2050 net zero greenhouse gas emission targets in law (in 2019 and 2021 respectively). The UK legislated for tighter interim 2030 goals ahead of COP26.

PG: Indeed, higher energy prices may (counterintuitively) be spurring greater support for decarbonisation in some parts. For example, in Spain, some see renewable electricity as a way of reducing electricity prices. This means that people are more pro-decarbonisation than before - at least when it comes to the electricity sector.

CR: Such sentiments are not universally held, however. The EU's 2030 climate and renewable targets (which are due to be agreed this year) will need support from sufficient Member States and MEPs to get over the line. Countries with lower per capita incomes and strong coal lobbies – such as those in central and Eastern Europe - fear that rising energy and carbon prices could lead to social unrest. For these countries to tag

along with tighter climate and renewable goals, the amount of financial support coming from other EU countries will be an important determining factor. 2022 will see ongoing discussions about an EU 'Social Climate Fund' (linked to discussions on including transport and buildings in a separate carbon pricing scheme).

Q: WHAT OTHER ISSUES ARE WE LIKELY TO BE DISCUSSING IN 2022?

CG: If the start of 2022 is anything to go by, we'll be talking about nuclear! The European Commission recently published a draft regulation on taxonomy according to which nuclear power would be classified as 'sustainable', subject to certain conditions. France is one of the countries supporting this proposal as it is showing a renewed interest in expanding nuclear power, including developing long-hyped small modular reactors. However, other countries have strongly opposing opinions…

DRAFT COMPLEMENTARY DELEGATED ACT COVERING CERTAIN NUCLEAR AND GAS ACTIVITIES UNDER THE EU TAXONOMY FRAMEWORK

The "EU taxonomy" framework classifies which economic activities can be considered as environmentally sustainable[4]. A first draft of a complementary Delegated Act covering certain nuclear and gas activities was sent to the EU Member States on December 31, 2021. According to this draft, power from nuclear plants granted a permit before 2045 is considered as sustainable. Natural gas is considered as a bridging-technology towards a low carbon energy system. Investments in natural gas plants fall under the taxonomy framework up to 2030 if they meet certain emission criteria and are compatible for the use of low-carbon gases (such as hydrogen) from 2035 on.

The EC is expected to adopt the delegated act in January 2022. Then, Member States will have 4 to 6 months to organise a qualified majority (minimum of 20 MS who represent at least 65% of the EU population) in order to prevent that the delegated act is adopted. If neither the Council nor the European Parliament objects to the proposal, it will be adopted.[5]

CR: Indeed - other countries have recently been strongly opposed to the continued use of nuclear technology. Germany is completing its nuclear phase out in 2023. Austria is leading a charge against the preferential treatment of nuclear under the EU taxonomy. They argue that sustainability should be defined more broadly than just by the CO2 impact and concerns are raised about risks and uncertainties around nuclear decommissioning. Given how politicised nuclear technology has become it is clear that this technology will only be deployed where there is strong political backing and where commercial risks are backed through state guarantees..

VB: The draft Taxonomy proposal also mentions the potential transitional role of natural (i.e. fossil) gas. We see this as a recurring theme in EU debates – for example, the new climate and energy State aid guidelines that enter into effect this year also require Member States to justify how investment in fossil gas might be consistent with long-term climate goals. This will be an important question not just in Europe, but beyond, as countries work out how to bridge the gap between coal and net zero, and is an issue we've given some thought to.

[4] https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance/eu-taxonomy-sustainable-activities_en

[5] https://ec.europa.eu/commission/presscorner/detail/en/IP_22_2

In addition, EU countries and MEPs will also be deciding on files (for example, on standards for car and van emissions and the energy efficiency of buildings) that will have important bearings on how we heat our buildings and fuel mobility. Some stakeholders have argued for EU-wide bans on internal combustion engine (ICE) vehicles or on gas boilers.

CR: While we understand the motivation behind such calls, much of our analysis[6] highlights the importance of taking a holistic view of the energy system and – ideally - of leaving options open to consumers and national authorities alike. For example, such bans would categorically rule out technology solutions for certain applications that may ultimately prove to be sustainable and efficient, e.g. the production and use of low carbon synthetic (and defossilised) fuels, produced from renewable electricity. While electric vehicles and heat pumps prove efficient in certain applications, our analysis suggests that they are much less efficient and suitable in other applications (e.g. heavy goods transportation or the heating of old building stock).

CT: There's a similarly big debate in the UK about the potential role of hydrogen in heating buildings. At present the Government is planning to begin roll out of heat pumps anyway, focussing on areas where hydrogen is less likely to play a major role. The plan is then to make a strategic decision on the extent of the roll of hydrogen in heating buildings by 2026. But in the meantime, a lot of people have strong views!

Q: THERE SEEM TO BE SOME COMMON THREADS TO THE ABOVE DEBATES. WHAT WOULD YOU DRAW OUT AS THE KEY THEMES?

CR: Yes, while there is less disagreement on end-goals, views more fundamentally diverge on where the market can be left to deliver and where policymakers need to step in to direct things to ensure the 'right' outcomes. These decisions are not always easy, especially given the uncertainties associated with technology development and performance and the effectiveness of different policies. It is certainly raising some interesting questions for energy economists and we look forward to engaging with our clients and the wider energy sector on these issues in 2022!

[6] For example, see our work for Viessmann on the potential role of hydrogen in heating in
economics.com/uk/en/news-and-articles/news/news-article-i8293-hydrogen-in-the-heat-r

AUTHORS

MICHAELA UNTEUTSCH
Manager

VIKRAM BALACHANDAR
Manager

WANT TO KNOW MORE?

WWW.FRONTIER-ECONOMICS.COM

HELLO@FRONTIER-ECONOMICS.COM

+44 (0) 207 031 7000