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ANALES de DERECHO

THE CHALLENGES OF ENERGY MARKET REFORM:

What can the Spanish Presidency achieve?

LEIGH HANCHER
Tilburg University

SERVICIO DE PUBLICACIONES UMU



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The challenges of energy market reform: what can the Spanish Presidency achieve?i Abstract

The contribution examines the achievement of the three core objectives of European energy policy in the aftermath of the energy crisis of 2022. Energy security, sustainability and competitiveness have been at the root of European energy policy for many decades but progress in achieving them has been mixed. Member states can rely on their rights to choose their own energy mix. The European Union's initial response to the energy crisis was to invoke a little used Article 122(1) of the Treaty on the Functioning of the European Union (TFEU) to adopt a series of rapidly enacted emergency legislation to promote solidarity between the 27 member states.

This article questions whether that response has led to an increased centralization of powers for the EU institutions at the expense of national governments? Can the EU institutions now set the policy agenda for the energy transition more efficiently? Are the EU state aid rules likely to be implemented more strictly to ensure a transition away from fossil fuels before 2050 or do national governments remain firmly in the driving seat? In the alternative, are there any emergent trends from the management of the crisis that are likely to be perpetuated in the longer term as Europe seeks to transition as rapidly as possible to a net zero carbon economy?

Keywords: Competences; demand aggregation; demand side management; energy crisis; energy transition; emergency legislation; fossil fuel phase out; market design; REPowerEU; renewable energy production; state aid; solidarity; storage.

Los desafíos de la reforma del mercado energético: ¿qué puede lograr la Presidencia española? Resumen

La contribución examina el logro de los tres objetivos fundamentales de la política energética europea tras la crisis energética de 2022. La seguridad energética, la sostenibilidad y la competitividad han sido la base de la política energética europea durante muchas décadas, pero el progreso en su consecución ha sido mixto. Los estados miembros pueden confiar en sus derechos para elegir su propia combinación energética. La respuesta inicial de la Unión Europea a la crisis energética fue invocar el poco utilizado Artículo 122(1) del Tratado de Funcionamiento de la Unión Europea (TFEU) para adoptar una serie de legislaciones de emergencia rápidamente promulgadas para promover la solidaridad entre los 27 estados miembros.

Este artículo cuestiona si esa respuesta ha llevado a una centralización de poderes para las instituciones de la UE en detrimento de los gobiernos nacionales. ¿Pueden ahora las instituciones de la UE establecer la agenda política para la transición energética de manera más eficiente? ¿Es probable que las normas de ayuda estatal de la UE se implementen de manera más estricta para garantizar una transición de los combustibles fósiles antes de 2050 o los gobiernos nacionales permanecen firmemente al mando? Alternativamente, ¿existen tendencias emergentes de la gestión de la crisis que probablemente se perpetuarán a largo plazo mientras Europa busca transitar lo más rápidamente posible hacia una economía de carbono neto cero?

Palabras clave: Competencias; agregación de demanda; gestión de la demanda; crisis energética; transición energética; legislación de emergencia; eliminación de combustibles fósiles; diseño de mercado; REPowerEU; producción de energía renovable; ayuda estatal; solidaridad; almacenamiento.



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I.INTRODUCTION

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The contribution will explore how the achievement of the three core objectives energy security, sustainability and competitiveness which have been at the root of European energy policy for many decades have evolved during and after the energy crisis of 2022. It considers whether the 2022 crisis and its aftermath have impacted on the division of legal competence between the European institutions and the member states on matters of energy and climate policy². Has the initial response to the energy crisis of 2022 led to an increased centralization or sharing of powers in the EU institutions at the expense of national governments? Can the EU institutions now set the policy agenda for the energy transition more efficiently? Are there any emergent trends from the crisis that are likely to be perpetuated in the longer term as Europe seeks to transition to a net zero carbon economy?

This contribution first looks back to the EU's response to the crisis in March 2022. That response included a series of initial crisis measures, adopted on the basis of hitherto little used emergency powers as provided for Article 122(1) TFEU. REpowerEU³ has set higher targets for non-fossil production. This means a much greater reliance on electrification⁴. This in turn has led to proposals for fundamental energy market reform,

¹ This article has been realized on the context of the Jean Monnet Chair on The Transformative Power of European Union Law (TEULP), research funded by the European Commission (Project: 101047458 - TEULP - ERASMUS-JMO-2021-HEI-TCH-RSCH) and led by Juan Jorge Piernas López, Professor at the Faculty of Law of the University of Murcia.

² To this end, the European Climate Law entered into force on 29 July 2021. It includes a legal objective for the EU to reach climate neutrality by 2050, and a target of at least 55% reductions in the net greenhouse gas emissions compared with 1990 levels by 2030. Regulation (EU) 2021/1119 of the European Parliament and of the Council of 30 June 2021 establishing the framework for achieving climate neutrality and amending Regulations (EC) No 401/2009 and (EU) 2018/1999 ("European Climate Law"), OJ L 243, 9.7.2021, pp. 1–17.

³ COM/2022/230 final: https://eur-lex.europa.eu/legal-: content/EN/TXT/?uri=COM%3A2022%3A230%3AFIN&qid=1653033742483

⁴ The REPowerEU plan has also placed a firm emphasis on just transition and distributional goals – but this aspect of the Plan is beyond the scope of this paper.

in the light of the changing structure and functioning of the European electricity market, as the share of intermittent renewable generation in overall electricity supply increases. Have any of the measures adopted in 2022 provided the basis for a new European approach to energy and climate matters?

Section 1 will sketch out the regulatory initiatives first launched in 2019 in pursuit of the EU's climate goals, and subsequently revamped in 2022 in the EU's'REPowerEU plan' in the wake of the energy crisis. It explains that currently energy security in the EU still relies on fossil fuels supply, especially the role of gas as a 'transition fuel', even if this seems at odds with the Union's climate objectives. The European Union remains committed to transforming Europe into a highly energy efficient, carbon-neutral economy.

Section 2 looks to the medium term and the role of market reform in delivering the energy transition and the current debate on the reform of electricity market design. The REPowerEU initiative called for an acceleration of the roll-out of renewable energy to complete the energy transition and to replace the use of fossil fuels, contributing to the further reduction of dependence on energy supply from Russia. This means, *inter alia*, building more renewable energy generation capacity, building it quicker and ensuring wider integration of renewable energy sources into final energy uses⁵. The Plan assumes a phase out of Russian fossil fuels by 2027. It aims at tripling the installed capacity of solar and wind energy by 2030⁶. Its proposed hydrogen targets for 2030 and 2050 are equally ambitious⁷.

An important question is whether the planned reforms might lead to more state intervention into the operation of the energy market and at what level? Has the Spanish presidency of the

Council between 1 July 2023 to December 2023 inherited more problems than solutions in trying to steer the internal electricity market reform process through the legislative

⁵ Communication on REPowerEU: Joint European Action for more affordable, secure and sustainable energy, COM(2022) 108 final, (8.3.2022), with Annexes; and Communication on Options.

⁶ COM/2022/230 final.

⁷ The European Commission has proposed to produce 10 million tonnes of renewable hydrogen by 2030 and to import 10 million tonnes by 2030.

process before the end of 2023.

II. SECTION 1: THE 2022 CRISIS AND THE WEAPONIZATION OF ENERGY

With a market size of about 250 million consumers, the European energy sector is characterised by a strong disparity between its member states' access to energy resources, energy production, and energy consumption. In 2021, the EU imported 155 billion cubic meters (bcm) of Russian gas, i.e., 45% of EU's gas imports and almost 40% of EU total gas consumption. The EU's dependence of fossil fuel imports allowed Russia to use energy as a weapon, reducing pipeline gas flows to Europe by 80% over the course of 2022 and further fueling an energy price crisis, as prices for gas and electricity rose by up to ten times in 2022 compared to historical averages. The threatened gas supply shortage rapidly transformed into an energy price crisis, with sharp increases in retail prices for households and businesses, raising national concerns over cost-of-living and competitiveness.

Thanks to a mild 2022/2023 winter, energy savings and industrial production curtailments, gas storage levels are higher than expected for winter 2024. European gas consumption was down by some 15 percent compared to pre-crisis levels⁸⁶.

Nevertheless, large amounts of public money have been spent on national price subsidies to shield consumers from high prices, however, putting a strain on public budgets - not to mention their effects on the EU's competition rules. Between September 2021 and January 2023, national governments earmarked several billion euros to shield citizens and businesses from the high prices⁹. This support was not evenly distributed across the EU, however, and price measures were mostly untargeted. According to the Agency for the Cooperation of Energy Regulators – ACER - just three countries account for 70% of the total support: Germany (40%), Italy (14%) and France (14%)¹⁰. This also raises the

⁸ MCWILLIAMS, B., TAGLIAPIETRA, S., ZACHMANN, G., and DESCHUYTENEER, T (2023) 'Preparing for the next winter: Europe's gas outlook for 2023', Policy Contribution 01/2023, Bruegel.

⁹ The IEA has tracked more than USD 500 billion in extra spending to reduce energy bills in 2022, mainly in advanced economies, with around USD 350 billion of this in Europe - https://www.iea.org/reports/fossilfuels- consumption-subsidies-2022.

https://www.acer.europa.eu/news-and-events/news/acers-inventory-400-energy-emergency-measures-seeks-aid-policy-makers-going-forward.

- have been applied in practice. complex questions about how best to manage or guide the energy transition and who is best placed to do so continue to emerge. Eager to maintain economic competitiveness of their national companies, Member States were quick to ensure that their energy intensive industries could benefit from billions in national subsidies in 2022 to weather the price impact of the energy crisis. They also took measures to protect generators. France, for example fully renationalised EDF to reinforce its financial position during the crisis and to ensure its ability to complete planned and

unplanned maintenance work on its nuclear fleet. Germany provided a EUR 13 billion

credit line to Uniper, which operates thermal power generation assets, to secure the

company's short-term liquidity. The Commission had indeed substantially relaxed the

application of the Treaty state aid rules and adopted a Temporary Crisis Framework (TCF)

related issue of how effectively the Treaty rules on state aids – Articles 107 and 108 TFEU

Even if pressure on wholesale energy prices has receded since December 2022, and production of renewable energy such as wind and solar has jumped, the energy crisis is not resolved. Russia's weaponisation of energy was a major wake-up call for the EU to focus on security of supply and external dependency but it has also underlined the fragility of industrial competitiveness in the Union.

1. The 2022 Emergency Response – Reliance on Article 122(1) TFEU

to allow for extensive national support measures on 23 March 2022¹¹.

The initial short-term response to the energy crisis of 2022 was the adoption and with unprecedented speed, of a series of interventionist, EU-wide emergency measures to limit demand for gas and electricity, to bolster solidarity between the Member States and to contain electricity and gas price rises.

Given natural gas's transitional status, the series of emergency regulations adopted under REPowerEU were not aimed so much as phasing out natural gas as responding to the threatened supply crisis by boosting gas storage obligations, supporting diversification of gas supply, ensuring solidarity within and between Member states and albeit reluctantly

¹¹ The TCF was published in November 2022: C/2022/7945, OJ C 426, 9.11.2022. It was subsequently amended on 20 July 2022 and 28 October 2022 and has been replaced by the Temporary Crisis and Transition Framework - the TCTF - in March 2023, OJ 2023, C 101/3.

and belatedly, imposing wholesale gas price caps.

As an initial step to increase the Union's level of preparedness to face a major gas supply disruption, Regulation 2022/1032 was adopted on 29 June 2020 to ensure the filling of underground gas storage sites for the coming winter seasons¹². This regulation was 'fast-tracked'. Consultation procedures were waived, and the European Parliament acted on the basis of expedited procedures¹³. Previous EU regulation had not focused on gas storage, so that it was now seen as a neglected tool¹⁴ Some member states such as Italy and France had already set up strategic gas storage facilities whereas others such as German and the Netherlands preferred to leave storage to the market. It had already become evident in the autumn of 2021 that the Russian giant Gazprom had built up important commercial and strategic positions in this market segment and that it appeared to have deliberately reduced its gas held in its storage facilities to record low levels, thus creating more scarcity and pushing up commodity prices further¹⁵.

The renewed urgency with which REPower EU's goals to reduce fossil fuel dependency in the short term had to be achieved was only underlined by the eventual suspension of Russian gas exports in mid-2022. A serious supply crisis coupled with record high gas and electricity prices loomed, with the imminent prospect of a major emergency across the EU. This prompted calls by the European Council for legislative intervention to impose wholesale price caps on both gas and electricity. Across Europe, national governments felt obliged to protect domestic and business users from the high prices; and also place windfall taxes on domestic producers of primary energy to pay for it. These interventionist measures threated to undermine the workings of the EU internal energy market by creating new barriers to trade and distortions of competition.

Despite heated discussions and protracted negotiations during the Croatian presidency of the Council, as a final result five successive Regulations were adopted based on Article

¹² Regulation 2022/1032 of the European Parliament and of the Council of 29 June 2022 amending Regulations 2017/1938 and 715/2009 with regard to gas storage, OJ 2022, L 173/17.

¹³ Article 163 of the EP Rules of Procedure.

¹⁴ SESINI, M., et al, Solidarity measures: Assessment of strategic gas storage on EU regional risk groups natural gas supply resilience, Applied Energy 308(1-2):118356.

See the EC's response to the question for written answer, E-004781/2021, https://www.europarl.europa.eu/doceo/document/E-9-2021-004781_EN.html

122(1) TFEU. Article 122(1) TFEU enables the Council to decide on a proposal from the Commission and in a spirit of solidarity between Member States, upon the measures appropriate to the economic situation, in particular if severe difficulties arise in the supply of certain products, notably in the area of energy.

The forerunner of that article had been used to adopt emergency powers to set up mechanisms to deal with the oil crises of the 1970s. ¹⁴ It allows the Council to adopt the appropriate "measures" (including Regulations) to deal with severe supply difficulties such as the energy crisis based on a qualified majority voting and based on a Commission proposal. In derogation from the ordinary legislative procedure, however the European Parliament is merely informed.

Earlier case law had confirmed that the Council has a wide margin of discretion when acting on the basis of Article 122(1) TFEU¹⁶. That discretion is however not unlimited. Recourse to Article 122(1) TFEU presupposes the existence of a situation of urgency or of exceptionality leading to severe difficulties in the economic situation of the Member States. These "appropriate" measures must be commensurate to the gravity of the situation and that they must be temporary¹⁷.

Yet even temporary measures can impact a member state's choice of energy mix as guaranteed by Article 194(2) TFEU. This in turn raises the question of whether emergency measures could nevertheless be justified as being necessary and proportionate to uphold solidarity between the Member States¹⁸. Issues concerning the interaction between Article 122(1) TFEU and the competence limitations on the energy mix of Member States enshrined in Articles 192(2)c) and 194(2) TFEU are raised in pending Case C-675/22 *Poland* v. *Council*¹⁹. Poland submits that the main objective of the emergency regulation

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¹⁶ See, e.g., Council Regulation 1893/79 of 28 August 1979 introducing registration for crude oil and/or petroleum product imports in the Community, OJ 1979, L 220/1.

¹⁷ C-5/73 BALKAN-IMPORT-EXPORT GmbH [1975] ECR 1092. Paragraphs 13 to 17.

¹⁸ The Court suggested that Article 122(1) TFEU was inappropriate to provide financial aid (para. 116); while Article 122(2) TFEU was appropriate to provide such aid but only in temporary and in a targeted manner (para. 65). See also Huhta, K', 'The Scope of State Sovereignty under Article 194(2) TFEU and the Evolution of EU Competences in the Energy Sector' (2021) 70(4) ICLQ 991;

¹⁹ The General Court has clarified that "the spirit of solidarity between Member States that must inform the adoption by the Council of measures appropriate to the economic situation, within the meaning of Article 122(1) TFEU, indicates that such measures must be founded on assistance between the Member States"

at issue²⁰ - on coordinated demand-reduction measures for gas - Regulation 2022/1369 - is to have a significant effect on the conditions for exploiting energy resources, the choice between different energy sources and the general structure of a Member State's energy supply. Since that regulation significantly affects the freedom to shape the energy mix, it could only have been adopted by unanimous vote on the basis of Article 192(2)(c) TFEU, to which the second subparagraph of Article 194(2) TFEU refers²¹.

2 The Five Council Regulations in brief

The first Regulation 2022/1369 of 5 August 2022 on coordinated measures for gas demand reduction was adopted with the aim to increase security of energy supply, by reducing gas demand voluntarily by 15% between August 2022 and March 2023. The Union had to anticipate a risk of major supply shortages "and prepare, in a spirit of solidarity, for the possibility of a full disruption of gas supply from Russia at any moment" (recital 5). The Regulation foresees the possibility for the Council to make the gas demand reduction compulsory by declaring a "Union alert" on the security of supply. Regulation 2023/706 of 30 March 2023 has prolonged the application of Regulation 2022/1369 for another 12 months, until 31 March 2024²².

The second Regulation 2022/1854²³ of 6 October 2022 on an emergency intervention to address high energy prices recalls that "disruptions of gas supplies, reduced availability of certain power generating plants, and that the resulting impacts on gas and electricity prices, constitute a severe difficulty in the supply of gas and electricity energy products within the meaning of Article 122(1)" (recital 7). It underlines that the context of its adoption is one of a "crisis situation which requires the adoption of a set of urgent, temporary, exceptional measures of economic nature".

⁽Case T-450/12, Anagnostakis v. Commission, EU: T:2015:739, para 42).

²⁰ OJ 2023, C 7/18.

²¹ Regulation 2022/1369, discussed below.

²² Council Regulation 2023/706 of 30 March 2023 amending Regulation 2022/1369 as regards prolonging the demand-reduction period for demand-reduction measures for gas and reinforcing the reporting and monitoring of their implementation, OJ 2023, L 93/1.

²³ Council Regulation 2022/1854 of 6 October 2022 on an emergency intervention to address high energy prices, OJ 2022, L 261/1.

This Regulation also sets out exceptional measures to help lower overall electricity consumption, support households and businesses, to mitigate the effects of high energy prices. First, it requires Member States to reduce total electricity consumption by at least 10%. In parallel, it introduces an obligation to reduce gross electricity consumption by at least 5% during selected peak and high price hours covering at least 10% of all hours of the period between 1 December 2022 and 31 March 2023.

Second, an 'inframarginal' or 'revenue cap' is imposed on certain electricity generators. Under the so-called marginal pricing model which underpins the EU's internal electricity market, and is discussed in detail below, expensive gas fired generation sets electricity prices across the EU and into the EEA. This results in very high margins for operators of lower-cost generation technologies, such as wind or solar. The specific measures to redistribute such revenues will be taken at a national level. Given the differences between energy mixes, costs and prices in the EU-27 national electricity markets, this cap will allow some Member States to obtain far more revenues than others. The Regulation encourages – but does not mandate – solidarity agreements between Member States, to share the proceeds of the revenue cap. The primary aim of these solidarity agreements is to help countries that are highly dependent on electricity imports from their neighbours.

Third, a 'solidarity contribution'- in effect a windfall tax - from companies in the fossil fuel sector amounting to 33 percent of the tax base is imposed and justified as an appropriate means to tackle surplus profits in the event of unforeseen circumstances. If the methodology prescribed in the Regulation shows that the profits in the fiscal years 2022-2023 have increased by more than 20 percent, then the 'solidarity contribution 'must be paid, and the proceeds must be used for the objectives specified in the Regulation. Some Member States will earn far higher revenues than others, simply because they have large fossil fuel operators resident in their territory. The Regulation does not directly address this issue, however, and shies firmly away from mandating any cross-border funding requirements.

Despite intense political pressure from the European Council, the Commission backed by several Member states continued to resist imposing a wholesale gas price cap on the grounds that this would mean diversion of diminishing gas supplies away from the EU to

higher priced global markets. Moreover, higher gas prices should reduce demand for fossil fuels so that renewable substitutes would become more competitive.

Thus, a third set of emergency Regulations adopted in December 2022 establishes temporary rules on a range of issues:

- (a) the expedited setting up of a service allowing for demand aggregation and joint gas purchasing by undertakings established in the Union.
- (b) more transparent booking platforms for liquefied natural gas (LNG) facilities and for gas storage facilities.
- (c)) the introduction of a wholesale gas price cap a market correction measure and an ad hoc LNG price benchmark, to be developed by the Agency ACER²⁴;
- (d) temporary measures, to distribute gas fairly across borders and to safeguard gas supplies for the most critical customers and to ensure the provision of cross-border solidarity measures; and finally (e) expedited rules on permitting for renewable projects of overriding public interest²⁵.

3. Assessment

The EU has been fortunate to achieve its mandatory storage filing target for 2022. It benefitted from a mild winter and a beneficial global supply situation as demand in Asian markets was still slow. It would also appear that the Union is on track to meet the 2023 mandatory storage filling target of 90 per cent. The incoming Swedish presidency in the first half of 2023 declared a focus on the green transition and completing the adoption of the 'Fit for 55 package' as one of its priorities. Further resort to Article 122(1) TFEU measures was not considered desirable²⁶.

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²⁴ Regulation 2022/2578, enacted on 22 December 2022, introduces a market correction mechanism and price cap. The mechanism is designed to prevent excessive pricing in the gas market by allowing the European Commission to intervene in cases of market distortion. If the Commission identifies a market distortion, it can impose a price cap on natural gas, preventing prices from rising too high. The market correction mechanism also allows for the suspension of trading in cases of severe market volatility. This mechanism ensures that prices remain stable during periods of market stress, preventing panic buying and hoarding (OJ L335/45).

²⁵ Accelerating Deployment of Renewable Energy - Regulation 2022/2577, OJ 2022 L335/36

²⁶ https://swedish-presidency.consilium.europa.eu/en/programme/priorities/

Nevertheless, the Union remains dependent on imported gas. Importantly, contrary to the preceding filling season, the 2023 storage filling cannot count on the 60 bcm of Russian pipeline gas that was still imported into the EU in 2022. In order to limit the risks for security of supply and the corresponding market impacts, a continued demand reduction is still considered necessary²⁷. The Commission proposed on 20 March 2023 to prolong the measure and the Council backed this move to avoid security of supply issues for the coming winter 23/24, and a new Regulation was adopted on 30 March 2023²⁸.

As to the second emergency Regulation 2022/2854, the main criticism has been of is its diversity of impact. Only states with large oil and gas companies based in their territories were able to raise considerable revenues from windfall taxes²⁹. Several oil and gas companies have lodged challenges in the European Courts, contesting both the choice of Article 122(1) TFEU as the legal basis as well as the appropriateness of financial measures such as the 'windfall' tax³⁰ (as a 'one off tax on excessive profits' and the intramarginal levy (or revenue cap)³¹. as crises responses.

Another controversial issue at the time of the introduction of the infra-marginal revenue cap was its impact on new investment in renewable energy. As the cap applies to revenues (rather than profits), this caused financial difficulties for some energy companies³². In some cases the revenue cap undermined the financial viability of the very long-term commercial agreements, such as power purchase agreements (PPAs) that the Commission has also been promoting as an important tool to realize its medium- and longer-term objectives of increased renewable energy penetration. If the revenue cap applies to an "assumed" (fictitious) and not the actual income this leads to a paradoxical situation whereby the producer may be forced to sell electricity at a loss. Indeed, following the

 $^{^{27}}$ Report from the Commission on the review on the functioning of Regulation (EU) 2022/1369 on coordinated gas demand reduction; COM/2023/173 final.

²⁸ Council Regulation (EU) 2023/706 of 30 March 2023 amending Regulation (EU) 2022/1369 as regards prolonging the demand-reduction period for demand-reduction measures for gas and reinforcing the reporting and monitoring of their implementation, OJ L 93, 31.3.2023, p. 1–6.

²⁹ IEA, Renewables 2022 Chapter 4: Trends to watch Analysis and forecasts to 2027.

³⁰ Case T-803/22, Case T-802/22.

³¹ Case T-759/22.

³² Indeed, the efficacy of this cap to recoup windfall profits has also been questioned by the IEA, 'Renewables 2022', Chapter 4: Trends to watch Analysis and forecasts to 2027.

Commission's own subsequent assessment, this measure will not be prolonged³³.

Finally, EC had originally taken the view that aggregating or pooling gas demand at EU level could ensure better leverage for the EU on global markets. Not all member states or market players have been convinced, however. Gas purchasing consortia must operate in compliance with the Union's competition rules. Although the Commission indicated that it might issue a decision on the inapplicability of Articles 101 and 102 TFEU, as well as informal guidance on the application of these Treaty competition rules to joint purchasing arrangements, this did not give sufficient comfort for the industry. Hence the joint purchasing approach was abandoned.

A mandatory aggregation platform - AggregateEU- is designed to match buyers and seller, while ensuring equal treatment and preventing market manipulation. The Commission considers this as an important response to the lingering energy crisis. Member States must submit a minimum volume for demand aggregation to a platform designated by the Commission for this purpose. This volume must be equivalent to 15% of their mandatory storage filling obligations but is up to each Member State to define how they will implement this obligation. For example, they may appoint a 'central buyer' to submit a tender on behalf of buyers³⁴. It is then for the individual companies to negotiate to subsequently purchase gas via AggregateEU.

In conclusion the impact of the EU's package of temporary energy crisis measures has been mixed, and only the demand-reduction Regulation has been extended for a further period.

Although the final set of Regulations provided for a series of interventionist measures – including a form of wholesale price caps³⁵ - the measures did not appear to undermine the

³³ Report from the Commission to the European Parliament and the Council on the review of emergency interventions to address high energy prices in accordance with Council Regulation (EU) 2022/1854, COM(2023)302 final, 5.6.2023.

https://energy.ec.europa.eu/topics/energy-security/eu-energy-platform/aggregateeu-questions-and-answers_en#cooperation-of-companies--central-buyer-and-agent shipper-on-behalf

³⁵ This is the so-called Market Correction Mechanism, which can be activated in case of spikes in gas prices. This dynamic price cap will apply as long as the prices remain high. The Agency for the Co-operation of Energy Regulator -'ACER will monitor the market, and the Commission will propose the activation of the cap to the Council, that will decide. It is a mechanism of last resort to prevent episodes of excessively high prices, and not a regulatory intervention by the Commission on prices.

basic foundations on which the internal electricity market - IEM - has been built. The recognition of the need to preserve the IEM as the basis for EU energy policy was due not least to the realization that continued energy flows across the member states had remained a vital solution to dealing with national shortages³⁶. For instance, electricity imports proved crucial for France during 2022 a year of record low nuclear and hydropower output³⁷. At the same time however, state support to shield end users from high prices reached exceptional levels throughout 2022 and early 2023³⁸.

4. Natural Gas as a Transition Fuel?

Currently, and as REPowerEU also recognizes, energy security in EU still relies on fossil fuels supply, especially gas. Fossil fuels will still need to feature in the EU energy mix in many member states, at least in the medium term. Natural gas therefore remains a 'transition fuel' even if does not contribute to climate objectives. State supported investment in gas production and infrastructure must however still comply with 'preenergy crisis' EU rules, such as the Taxonomy Regulation of 2020, the Treaty state aid rules, and related guidance such as the Climate Energy and Environmental Aid Guidelines (CEEAG)³⁹.

The CEEAG adopted in December 2021⁴⁰ allow member states to grant compatible state aid for the reduction and removal of greenhouse gas emissions ('decarbonisation aid'). New investment in natural gas supply and infrastructure including storage, even if for security of supply purposes, must be linked to clear conditions regarding its phase out, and especially the avoidance of 'lock in' effects and stranding of investments⁴¹.

ACER, 'Wholesale Market Monitoring Report', March 2023, https://www.acer.europa.eu/electricity/market-monitoring-report.

³⁷ JONES, D., 'European Electricity Review 2023'. https://ember-climate.org/insights/research/european-electricity-review-2023.

³⁸ https://www.bruegel.org/dataset/national-policies-shield-consumers-rising-energy-prices

³⁹ The CEEAG [*OJ C 317, 25.9.2020, p. 5–19]* are soft law guidelines on how the Commission will assess the compatibility of environmental protection, including climate protection, and energy aid measures subject to the notification requirement, under Article 107(3)(c) TFEU.

⁴⁰ Regarding the scale of investment needs, see Staff Working Document REPowerEU https://eurlex.europa.eu/legalcontent/EN/TXT/PDF/?uri=CELEX:52022SC0230&from=EN

⁴¹ It is estimated that around EUR 10 bn of investments is needed to complement existing PCIs, see: European Commission (2022) REPowerEU.

Investments in new LNG terminals are still permitted, for example and REPowerEU Plan foresees additional investments into gas infrastructure and LNG terminals⁴². As an example of how the CEEAG is currently applied, the Commission recently approved €40 million state aid for the construction and operation of a new liquefied natural gas (LNG) land terminal in Brunsbüttel (Germany). The measure would contribute to the security and diversification of Germany's energy supply and would help end dependence on Russian fossil fuels in line with the REPowerEU plan. The Commission also considered that certain plant components must be planned and constructed so that they can be used for operation with hydrogen or derivatives from 2044 at the latest, thus avoiding a "lockin 'of gas after that date.

The Commission has also approved major state support packages to energy intensive users under the CEEAG, including steel producers, with the aim of stimulating conversion to cleaner energy forms. The national support schemes allow for the conversion of production facilities first to natural gas and then eventually to renewable energy sources. Natural gas, initially used for the operation of the new direct reduction plant, will be gradually phased out and, as of 2037, the plant will be operated using only renewable hydrogen. A' conditional payment mechanism' will cover, during the first ten years of operation of the new direct reduction plant, the additional costs of procuring and using renewable hydrogen instead of low-carbon hydrogen. The application of the conditional payment mechanism is subject to yearly verifications by an independent expert on the actual volumes and price paid for the renewable hydrogen consumed⁴³.

5. The TCTF

Natural gas investment can also be funded under the current Temporary Framework. Until 31 December 2023, the Temporary Crisis and Transition Framework - the TCTF -enables Member States to cushion the economic impact of Russia's aggression of Ukraine and to (i) grant limited amounts of aid to companies affected by the crisis; (ii) ensure that

⁴² It is estimated that around EUR 10 bn of investments is needed to complement existing PCIs, see: European Commission (2022) REPowerEU: A plan to rapidly reduce dependence on Russian fossil fuels and fast forward the green transition. See also https://www.e3g.org/news/when-is-gas-green-according-to-the-eu-taxonomy/.

⁴³ Press Release IP 3928.

sufficient liquidity remains available to businesses; (iii) compensate companies for the additional costs incurred due to exceptionally high gas and electricity prices; and (iv) incentivize additional reduction of electricity consumption. On 1 February 2023, the Commission launched its Green Deal Industrial Plan to enhance the competitiveness of Europe's net-zero industry and support the transition to climate neutrality. The Green Deal Industrial Plan was taken into account when drafting TCTF and the then pending amendments to the General Block Exemption Regulation ("GBER").

Until 31 December 2025, Member States may grant aid to foster the transition to a net-zero economy⁴⁴. Thus, aid may be granted to (i) accelerate the roll-out of renewable energy, storage and renewable heat relevant for REPowerEU (Section 2.5), and (ii) decarbonise industrial production processes (Section 2.6). In addition, Member States may also grant aid to accelerate investments in key sectors for the transition towards a net-zero economy, enabling investment support for the manufacturing of strategic equipment, namely batteries, solar panels, wind turbines, heat-pumps, electrolysers and carbon capture usage and storage as well as for production of key components and for production and recycling of related critical raw materials (Section 2.8). Unlike the CEEAG, the TCTF does not impose environmental protection requirements. At point 38 of the TCTF, Member States are merely invited to set environmental protection or security of supply requirements.

Thus, the framework now combines two regulatory regimes under one umbrella: a short-term frame- work for the acute crisis, and a medium-term frame- work that addresses the transition towards a net-zero age. The TCTF takes both Article 107(3)(b) and Article 107(3)c) as its legal basis. The substantive changes in Sections 2.5, 2.6 and 2.8 can be directly linked to the Green Deal Industrial Plan, adopted on 1 February 2023⁴⁵. Aid for

⁴⁴ See Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions – A Green Deal Industrial Plan for the Net-Zero Age, COM (2023) 62, 1.2.2023. See also the press release of 1 February 2023, and Commission Regulation (EU) No 651/2014 of 17 June 2014 declaring certain categories of aid compatible with the internal market in application of Articles 107 and 108 of the Treaty (OJ L 187, 26.6.2014, p. 1). Various aid measures for accelerated investments in sectors strategic for the transition towards a net-zero economy have been approved by the Commission on 19 July 2023 (SA.108068), on 28 July 2023 (SA.107689), on 26 May 2023 (SA.107094), and on 9 October 2023 (SA.108953).

https://commission.europa.eu/system/files/2023-02/COM 2023 62 2 EN ACT A%20Green%20Deal%20Industrial%20Plan%20for%20the%20Net-

accelerating the rollout of renewable energy and energy storage was already included in the first revision of the TCF in July 2022 but have had little success so far: not one of the measures approved under the TCF was based on those rules⁴⁶. Section 2.5 is now divided into a section dedicated to investment aid (Section 2.5.1) and another section dedicated to operating aid for accelerating the rollout of renewable energy and energy storage (Section 2.5.2). All these measures are limited to aid granted based on a scheme. This leaves no room for targeted projects. Ad-hoc aid measures with those goals are not subject to the TCTF and must be assessed based on the CEEAG.

In Section 2.6, the Commission lays out its assessment of aid for investment leading to (i) a substantial reduction of greenhouse gas emissions from industrial activities currently relying on fossil fuels as energy source or feedstock, or (ii) a substantial reduction of energy consumption in industrial activities and processes. The cumulation of aid with any other State aid and centrally managed fund is permissible.

The relationship between the CEEAG and TCTF is not entirely clear. The two sets of guidelines adopt different conditions for similar aid: The granting of aid for renewable energy is subject to considerably more lenient conditions under the TCTF than under the CEEAG. Aid for the decarbonisation of industry is also subject to a different set of conditions under the TCTF than under the CEEAG. In contrast to the CEEAG, the TCTF provides for a fast- track approval process despite the complexity of some of the aid categories in the TCTF. For the calculation of the aid, the TCTF reintroduces the concepts of investment and operating aid, linked to maximum aid intensities in comparison with the funding gap approach in the CEEAG. This could involve an inherent risk of overcompensation.

In conclusion, natural gas is likely to remain an important transition fuel - as a guarantee for security of supply and competitiveness. In the medium term at least, member states can continue to subsidize production and infrastructure, albeit that larger investments will be subject to conditionality as regards avoidance of lock in and stranding of assets. Yet

Zero%20Age.pdf.

⁴⁶ Overview of the list of Member State measures approved as of 24 March 2023: https://competition-policy.ec.europa.eu/state-aid/ ukraine_en> . List of approved measures adopted under the TCTF, October 2023: https://competition-policy.ec.europa.eu/system/files/2023-10/State_aid_TCTF_decisions_1.pdf

studies indicate that later repurposing of LNG terminals for example is complex and expensive or even technically or economically unfeasible. This raises questions as to the role of these assets in the longer term⁴⁷. This is now an important aspect of the discussion on electricity market reform, to which we now turn.

III. SECTION 2: ELECTRICITY MARKET REFORM

The energy crisis of 2022 prompted debate over the shortcomings and future role of the IEM, as well the right of Member States to continue to determine their own energy mix. The President of the Commission claimed that "We need a new market model for electricity that really functions and brings us back into balance⁴⁸". The organization and governance of the EU's electricity market is now the subject matter of an ongoing market reform. The Commission's proposals of March 2023 have attracted considerable controversy, and it remains to be seen if the Spanish presidency can accomplish this reform process by the end of 2023.

The EU electricity market design is particularly complex. The pricing model on which the IEM model is based provides signals that not only inform an efficient economic dispatch but also facilitate medium-term planning⁴⁹. The wholesale market is based on a system of marginal pricing, also known as a **pay-as-clear market**, where all electricity generators get the same price for the power, they are selling at a given moment. As wholesale electricity prices are set by marginal gas fired plant this can lead to high electricity prices as occurred during the energy crisis of 2022.

Wholesale electricity prices are likely to remain volatile as long as gas prices continue to fluctuate. Enhanced renewable energy production also brings challenges, as the share of electricity produced by renewable energy sources (predominantly solar and wind) is

⁴⁷ RIEMER, M.; SCHREINER, F.; WACHSMUTH., J. (2022): Conversion of LNG Terminals for Liquid Hydrogen or Ammonia. Analysis of Technical Feasibility und Economic Considerations. Karlsruhe: Fraunhofer Institute for Systems and Innovation Research ISI. Available at https://www.isi.fraunhofer.de/content/dam/isi/dokumente/cce/2022/Report_Conversion_of_LNG_Termin als_for_Liquid_Hydrogen_or_Ammonia.pdf,

⁴⁸ URSULA VON DER LEYEN, Bled Strategic Forum, 29.9.2022

⁴⁹ BATTLE, C., et al., "The EU Commission's proposal for improving the electricity market design: Treading water, but not drowning", MIT-CEER Commentary, RC-2023-03; Meeus, L"Electricity market reform: what is (not) in the European Commission proposal", FSR Policy Brief, 2023/07, May 2023.

expected to grow from 37% in 2020 to more than 60% by 2030. Because they have zero marginal costs, wind and solar can cause massive price falls when they form a large part of the generation mix. But electricity must also be produced and delivered in sufficient quantities when there is no wind or sun. At the same time markets need to adapt to better integrate renewable energies and attract investment in fossil-free flexible technologies, such as demand side response and energy storage energy that can complement variable energy production. Thus, the electricity market must also provide the right incentives for consumers to become more active and contribute to keeping the electricity system stable.

1. The Commission proposal of 14 March 2023

The March proposal for a Regulation amending earlier EU electricity market rules⁵⁰ preserves the pricing mechanism in the short-term electricity markets (in all the various segments of the market including day-ahead, intra-day and balancing markets)⁵¹. It confirms that these markets are not the problem but are rather are part of the solution. A pricing signal is key to an efficient market, but consumers cannot be exposed to sudden price spikes or fluctuations. Hence the proposal complements the existing electricity markets with a number of interventionist measures to address the main concerns that emerged during the 2022 crisis and to protect household consumers. This includes especially concerns as to 'energy poverty⁵², - and inflation. To deal with price fluctuations and insufficient hedging by consumers and retailers, certain consumers should have the right to have a fixed-price retail contract, appropriate hedging strategies for suppliers, a supplier of last resort in each Member State and a harmonized and integrated market for long-term financial transmission rights.

In its draft Regulation on electricity market reform, the Commission considers that longer term contracts such as CfDs and PPAs could give stable prices to consumers and reliable revenues to renewable energy suppliers (lowering the financial risk and reducing the cost of capital), thus contributing to the objective of tripling renewables (RES) deployment,

⁵⁰ COM(2023) 148 final.

⁵¹ https://fsr.eui.eu/a-summary-of-the-proposal-for-a-reform-of-the-eu-electricity-market/

⁵² Energy poverty occurs when energy bills represent a high percentage of consumers' income, or when they must reduce their household's energy consumption to a degree that negatively impacts their health and well-being.

in line with European Green Deal goals.

Difficulties in accessing cheaper renewables by consumers are to be addressed with long term contracts such as PPAs, two-way contracts for differences (CfD), and energy sharing.

Whereas PPAs are commercial contracts, CfDs are likely to involve state aid and therefore trigger the application of Article 107 TFEU.

1.1 CfDs

CfDs are a form of public support through which the generator is guaranteed a minimum price by the government for the energy produced and is allowed to earn the full market price even when it is very high. This is why the proposal envisages '2-way CfDs', which imply setting a minimum that can be earned by the energy producer, but also a maximum price, so that any revenues above it are paid back to the public body in charge of administering the contracts, and then channeled to ease the effects of high prices for all electricity consumers proportionate to their consumption. In accordance with the first draft of the proposal, CfDs should be the preferential support scheme for new renewable projects including wind, solar, geothermal, hydro without reservoir, and nuclear power.

CfDs are not new instruments. The CEEAG specifically mentions revenue stabilisation mechanisms in the form of two-sided Contracts for Difference as a good model for governments to support the further expansion of renewables. The Commission had already approved a UK scheme for renewable support based on a CfD mechanism under Art $107(3)c)^{53}$. It also approved CfD mechanisms for individual projects in the UK, such as the Drax power station⁵⁴ and Hinkley Point⁵⁵. More recently, Danish support in the form of a 2- way CfD was approved for the Thor offshore wind farm project (2022) and state aid for a Lithuanian offshore wind project was approved in October 2023 under

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⁵³ State aid SA.36196 (2014/N) – United Kingdom Electricity Market Reform - Contract for Difference for Renewables

⁵⁴ The Commission concluded that the contract-for-difference (CfD)—a contract between a low-carbon electricity generator and the CFD Counterparty, the Low Carbon Contracts Company—received by Drax for the conversion of its coal power plant to biomass was in line with state aid rules-http://europa.eu/rapid/press- release_IP-16-4462_en.htm

⁵⁵ SA.34947, OJ L 109, 28.4.2015, p. 44.

TCTF⁵⁶. The Commission has also previously approved CCfDs. A CCfD offsets the difference between the market price for emissions allowances and the carbon avoidance costs. If the market price for emission allowances is lower than the carbon avoidance costs, the State pays the difference. If the market price for emissions allowances is higher than the carbon avoidance costs, the company pays the difference⁵⁷.

A later version as approved in Council in October 2023 would make two-way contracts for difference mandatory for state aid to extend the lifetime of existing power plants as well as to promote new projects. The inclusion of existing plants had controversy, led to with Germany, Luxembourg and Austria warning it will allow France to dominate the EU market thanks to the cheap electricity coming from its massive fleet of 56 nuclear reactors. A non-paper signed by nine EU countries – Bulgaria, the Czech Republic, France, Croatia, Hungary, Poland, Slovakia and Slovenia proposes further amendments to the draft to address this problem. This proposal includes giving powers to the Commission to prevent "any distortive effect" on generating facilities and markets, ensuring the remuneration is in line with the cost of the project and avoiding "undue distortions to competition and trade in the internal market, notably, where applicable, by determining remuneration amounts through a competitive bidding process that is open, clear, transparent and nondiscriminatory". The Spanish Presidency floated several ways of amending earlier drafts to address concerns from EU countries to reinforce monitoring and transparency provisions. One option was to allow the European Commission to make recommendations to address elements in proposed CfDs affecting the level playing field, while a second option went further, allowing Brussels to limit the share of revenues going back to final customers, if needed. The Council agreed a general approach to include stricter monitoring of national measures in late October 2023 so that, subject to the approval of the European Parliament, the amended Regulation could be adopted by the end of this

⁵⁶ SA.102871: The Commission concluded that the Lithuanian scheme is necessary, appropriate and proportionate to accelerate the green transition and facilitate the development of certain economic activities, which are of importance for the implementation of the REPower EU Plan and the Green Deal Industrial Plan, in line with Article 107(3)(c) TFEU and the conditions set out in the Temporary Crisis and Transition Framework.

⁵⁷ In December 2021 the EC concluded not to raise objections to the Dutch 'SED ++' scheme on the grounds that it is compatible with the internal market.

year⁵⁸.

1.2 PPAs

PPAs as private contracts do not raise state aid issues and are also unlikely to give rise to competition concerns under Art 101 TFEU. Long term contracts do not in themselves restrict competition. Nevertheless, it is argued that industrial companies often encounter challenges when accessing PPAs, as they struggle to compete with less price-sensitive sectors with better credit risk ratings. PPA developers naturally prioritize off-takers who are willing to pay higher prices and possess more substantial credit risk ratings. PPAs are currently mostly available only to large energy consumers and in only a handful of Member States.

One aim of the Electricity Market Reform proposal is to address this issue and encourage the broader implementation of PPAs in the EU market. The proposed measures would oblige Member States to ensure the availability of market-based guarantees that will reduce the financial risks associated with off-taker payment default, leaving the energy producer without a source of revenues. To promote the market for PPAs, renewable energy project developers should be allowed to reserve a share of the generation for sale through a PPA when participating in public support tenders. To incentivize customers to have access to the PPA market, evaluation criteria in some tenders could be adapted to allow participation of projects which reserve part of the electricity for customers that face entry barriers into the PPA market.

1.3 Capacity remuneration mechanisms (CRMs)

CRMs are a system in which operators of fossil-fueled power plants are paid for electricity produced, as well as for maintaining generation capacity during times of scarcity to ensure grid stability. Current EU regulation considers CRMS as temporary responses to resolve reliability concerns. to resolve security of supply concerns. If badly designed, they come with a risk of over-procurement, especially from large fossil power plants. This may lead to higher costs to consumers than necessary and risk locking in polluting fossil fuel power

^{58 2023/0077(}COD) Brussels, 19 October 2023 (OR. en) 14339/23 - see also https://www.powerengineeringint.com/policy-regulation/eu-council-reaches-landmark-agreement-on-electricity- market-reform/

plants. State support for CRMs is currently also subject to the CEEAG, which in turn is aligned with the relevant provisions in the Electricity Regulation of 2019⁵⁹.

As these mechanisms are also controversial and expensive many governments were reluctant to embrace them. For example, in 2015, the German federal government rejected proposals to introduce a full-fledged capacity market, saying it would be too costly. In summer 2016, Germany passed a law that will eventually transfer power plants with a total capacity of five percent of the average maximum power demand (5% is about 4.4 GW, according to current projections) into a "capacity reserve" for a period of five years. The power plants in this reserve would only be used "when all market-based options on the power market are exhausted" and must be decommissioned when exiting the reserve.

The current EU market design provides for CRMs to avoid disruptions, but it is considered not to be sufficiently robust to guarantee that the triad of renewable energy, affordability and supply security will succeed. Some member states now want the draft to include a more systematic basis for capacity markets to contribute in the mid- to long-term. Some propose that this market should be open to climate-friendly conventional plants (e.g. hydrogen-ready gas units) and facilities producing with renewable sources, electricity storage facilities, or power imports. The Council now seems intent on making capacity mechanisms into a permanent market feature, and even considered a derogation for coal and lignite plants to allow them to receive capacity subsidies beyond the current deadline of 2025, as provided for in the current CEEAG. This derogation would also entail revising the current regulation of CRMs as introduced by the Electricity Regulation 2019/943 as part of the Clean Energy Package of 2019 and only after heated and prolonged negotiation at the time.

IV. FINAL CONCLUSION

This contribution raised the question of whether the Spanish presidency of the Council has inherited more problems than solutions in trying to steer the internal electricity market reform process through the legislative process before the end of 2023. Although 2022 saw the adoption of a number of crises measures in response to the high electricity and gas

⁵⁹ See for example the 2021 Decision Belgium's CRMs: https://competition-cases.ec.europa.eu/cases/SA.54915.

prices as well as the threat of supply shortages, the EU has had to go back to the drawing board to consider whether more fundamental reforms are needed to secure the familiar triad of energy policy objectives: affordability, sustainability and security of supply. The 2022 measures as well as the relaxation of the state aid discipline allowed for considerable public intervention into the workings of the IEM. Even if the mechanism seemed to survive at that time, the current proposed reforms may threaten the survival of this market model in the longer term. State intervention through CfDs and capacity market remuneration mechanisms are bound to favour national production. Much of that could be fossil fuel based. The proposed reforms may take us even further away from the everelusive goals of achieving affordability, sustainability and ultimately, security of supply in the EU.

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