

## **Editorial foreword**

### *Legal Challenges and Opportunities in the Energy Transition*

The international scientific community has reached a consensus that limiting global warming to well below 2°C, and striving to limit it to 1.5°C, above pre-industrial levels is essential to avoid the most severe impacts of climate change. As a result, the energy sector is undergoing significant transformation as the world shifts towards a more sustainable, low-carbon energy system. As outlined in the 2015 Paris Agreement on climate change, the objective of halving global greenhouse gas emissions by 2030, and reaching net zero emissions by 2050, serves as a guiding principle in this transition.

The global goal set out in the Paris Agreement was upheld by the resolutions of the United Nations' COP28 climate summit in Dubai (United Arab Emirates) held at the end of 2023. One of its results is the indication that, for the first time in UN documents, the international community's goal is to move away from fossil fuels by 2050. The UN reviewed global climate actions and outlined the steps to be taken in coming years. It should also be stressed that during the summit, twenty-two countries signed the Declaration Recognizing the Key Role of Nuclear Energy in Keeping Within Reach the Goal of Limiting Temperature Rise to 1.5 Degrees Celsius<sup>1</sup>. Nuclear energy was thus recognised for the first time in the UN as an essential element for the transformation of climate-changing energy, considering that nuclear power provides a quarter of the world's clean electricity. Importantly also, the International Atomic Energy Agency issued on 1 December 2023 a Statement on Nuclear Power, which reflects the critical role of nuclear power in the net zero transition – the IAEA Statement is supported by +50 nuclear operating and newcomer countries. A discussion on the ways forward in paving the way for nuclear energy in the overall pathway to net zero is ongoing<sup>2</sup>.

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<sup>1</sup> Declaration Recognizes the Key Role of Nuclear Energy in Keeping Within Reach the Goal of Limiting Temperature Rise to 1.5 Degrees Celsius (<https://www.energy.gov/articles/cop28-countries-launch-declaration-triple-nuclear-energy-capacity-2050-recognizing-key>).

<sup>2</sup> Nuclear Energy Agency, COP28 recognises the critical role of nuclear energy for reducing the effects of climate change, 21.12.2023 ([https://www.oecd-nea.org/jcms/pl\\_89153/cop28-recognises-the-critical-role-of-nuclear-energy-for-reducing-the-effects-of-climate-change](https://www.oecd-nea.org/jcms/pl_89153/cop28-recognises-the-critical-role-of-nuclear-energy-for-reducing-the-effects-of-climate-change)).

The potential power of energy justice is clear when one considers that research shows the energy sector is responsible for the majority of carbon dioxide emissions. It has taken far too long for society to realise this and to take action. There are of course many barriers ahead that arise from corporate and personal greed, corruption and misinformation, as well as political inaction about the price and/or subsidies of and for sustainable energy sources, to name but a few.

When taking energy related decisions, the initial debate should begin with the principle of justice. Unfortunately, until now, that has not been the case as the energy field was driven primarily by corporate profiteering, revenue raising and exploitation. Energy justice ensures that all people have access to clean and affordable energy, so this issue has great impact on social prosperity<sup>3</sup>. This can be achieved by promoting renewable energy sources such as solar, wind, and hydropower that are sustainable and do not harm the environment. The notion of energy justice aims to distribute energy equally regardless of income, race, or location. This can be achieved by implementing policies prioritising low-income communities and those of colour, which are often disproportionately suffering from energy poverty<sup>4</sup>.

The energy transition presents a range of legal challenges and opportunities, as policy makers, regulators, and industry leaders work to develop and implement policies that support the transition to a more sustainable energy future.

This volume of the *Yearbook of Antitrust and Regulatory Studies (YARS)* explores the specifics of national and global energy law. The issue opens with the article “Emerging Clean Energy Choices in Canada’s Net-Zero 2050 Transition: The Role of Nuclear in the Low Carbon and Clean Hydrogen Context” written by Rudiger Tscherning. The paper argues that nuclear energy could play a significant role in decarbonizing the production of hydrogen from natural gas feedstock, with associated carbon storage. It examines regulatory readiness for Small Modular Reactors (SMRs) and in light of it, together with an increased emphasis on “net-zero” in the natural resources value chain, anticipates an opening for SMR deployment in Western Canada, specifically within the oil, gas, and mining sectors.

In the paper entitled “Energy security of Ukraine: external threats from the Russian Federation”, Valeria Lymarow analyzes the main threats to Ukraine’s energy security, conducts a Strengths, Weaknesses, Opportunities

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<sup>3</sup> Yunpeng Sun, Jin Wang, Xiuhui Wang, Xinyu Wei, Achieving energy justice and common prosperity through green energy resources. *Resources Policy*, 2023; 81:103427, <https://doi.org/10.1016/j.resourpol.2023.103427> (<https://www.sciencedirect.com/science/article/pii/S0301420723001356>).

<sup>4</sup> Marzena Czarnecka, Marcin Kraśniewski, “Solving Energy Justice in the European Union”, [in:] “The Power of Energy Justice & the Social Contract”, ed. Raphael J. Heffron, Louis de Fontenelle, Springer, Palgrave Macmillan 2024, p. 193.

and Threats (SWOT) analysis of the energy sector of Ukraine, and formulates recommendations on how to strengthen the resilience and potential of the Ukrainian energy system. The paper shows that fluctuations in Ukraine's energy imports can be explained by several factors, including: political; economic; technical; and climatic. Ukraine is a country that depends on imports of natural gas and other types of energy, which makes it vulnerable to changes in prices and supply volumes. Therefore, developing Ukraine's own renewable energy sources and improving energy efficiency is an important task to ensure the stability of the country's energy system and to reduce its dependence on imports.

Robert Zajdler takes an EU law perspective in his article entitled "EU energy solidarity as a way of implementing just transition in energy policy". The principle of EU energy solidarity, regulated by Article 194 of the Lisbon Treaty, has created a new dimension of energy sector developments. Indeed, the 2019 CJEU judgment in the OPAL case established energy solidarity as a principle of EU law, derived, *inter alia*, from the principle of justice. The concept of just transition sets out the directions of socio-economic transformation, based on a sustainable and low-carbon economy. Energy solidarity is a means of implementing the aims of a just transition, based on normative premises ensuring energy security, the competitiveness of the economy, and sustainable development.

The article "The road to energy justice as a result of interdisciplinary cooperation in the field of energy policy", by Michał Domagała and Katarzyna Maćkowiak, considers the role of law in regulating the energy market. The paper argues that justice and solidarity in this area require an extraordinary debate that cannot be disjointed but should take place in a comprehensive, interdisciplinary context. The analysis tackles the question of the role that the law should play in the area of energy transformation, and whether it should only be a tool for the implementation of political plans and strategies of energy actions, or whether it should, in itself, be a motivator, a framework setter, or a regulator of that transformation. Several problems, such as Demand Side Management (DSM), de-growth, energy poverty, Not-In-My-Backyard (NIMBY) initiatives as well as Contracts for Difference (CfD), call for interdisciplinary research and cooperation.

Jakub Kmieć analyses Energy Communities (ECs) in the next article entitled "Energy communities in EU energy regulation". The Clean Energy for All Europeans package adopted in 2019 has introduced Renewable ECs (RECs) and Citizen ECs (CECs) into the EU legal framework. Since the two instruments share some common features, but also have notable differences, the aim of this paper is to examine whether EU law provides for a single model of ECs or two distinct models, and to characterize ECs as new participants in the energy market. Interestingly, the paper contains also a case study that

puts the preceding legal analysis in a practical context. The author ultimately concludes that EU law does encompass two models of ECs (respectively for RECs and CECs); that the characterization of ECs as participants in the energy market is complex; and that the case study illustrates that significant differences can exist among different examples of existing ECs, influencing their legal characteristics.

The article “Online Platforms and Sustainable Market Regulation – a Smart Mix of Liability and Exemptions” by Katarzyna Klafkowska-Wasniowska and Katja Weckström discusses the challenge of achieving sustainable regulation in digital markets, emphasizing the need for coherence and clarity. In doing so, it explores the Digital Services Act’s role in balancing liability exemptions, examining how the CJEU navigates content removal obligations, while safeguarding fundamental and consumer rights, and discusses enforcement frameworks for securing rights within the DSA.

The legislative developments and case law review section of this YARS volume contains two papers: “The Court of Justice kicks around the dichotomy between data protection and competition law: Case comment on the upcoming preliminary ruling in Case C-252/21 *Meta Platforms v. Bundeskartellamt*” (by Alba Ribera Martínez) and “Dominant firms’ behavior and the principle of equal opportunities: lessons from the SEN antitrust saga” (by Laura Zoboli).

Finally, this volume closes with the review of a book written by Ioannis Lianos, Alexey Ivanov, Dennis Davis (ed.) entitled “Global Food Value Chains and Competition Law”, Cambridge University Press, 2022, 642 pages (by Magdalena Knapp).

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We also want to encourage those interested in energy law and regulatory matters to participate in scientific events organized by the University of Economics in Katowice within the European City of Science Katowice 2024 initiative.

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