



COURSE OFFERED IN THE DOCTORAL SCHOOL

Code of the course	4606-ES-000000N-0330	Name of the course	Polish	Konkurencja w unijnym sektorze energii: pomiędzy innowacją, digitalizacją i ochroną środowiska i klimatu		
			English	Competition in the EU Energy Sector: Between Innovation, Digitalisation, and Environmental and Climate Protection		
Type of the course	specialized/ researcher's workshop					
Course coordinator	dr hab. Robert Zajdler, prof. uczelni		Course teacher	dr hab. Robert Zajdler, prof. uczelni		
Implementing unit	WAINS	Scientific discipline / disciplines*	Law			
Level of education	doctoral studies	Semester	summer / winter			
Language of the course	English					
Type of assessment	Constant assessment including one reaction papers and a group presentation	Number of hours in a semester	30	ECTS credits		2
Minimum number of participants	10	Maximum number of participants	20	Available for students (BSc, MSc)		Yes/ No
Type of classes		Lecture	Auditory classes	Project classes	Laboratory	Seminar
Number of hours	in a week	3		4		3
	in a semester	9		12		9

* does not apply to the Researcher's Workshop

1. Prerequisites
Understanding basic legal concepts, English language proficiency (at least B2 level)
2. Course objectives



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This doctoral-level classes critically invites the students to deepen their knowledge on the evolving regulatory landscape governing competition rules in energy sector within the European Union influenced by new technologies, climate and environmental protection and global constraints. The course reflects on the concerns of overregulation highlighted in the Draghi Report, emphasizing the need for a balanced regulatory environment that fosters innovation while safeguarding public interest.

Students will explore the theoretical foundations of regulation and the complex interplay between energy market and technological innovation, market power, climate nad environmental protection, also as a human right issue. They will engage in an analysis of some provisions of EU legislative frameworks—such as the Clean Energy Package (CEP), Competition Rules, Artificial Intelligence Act (AI Act), Net-Zero Industrial Act —and discuss the challenges of their interpretation and practical implementation at the national level.

Understanding these measures is increasingly essential not only for practitioners and policymakers but also for engineers and economists who engage with, develop, or research emerging technologies. A solid grasp of the regulatory environment ensures that scholarly work is contextually informed, ethically grounded, and can meaningfully contribute to policy debates and the responsible shaping of the competition rules in different sectors of the economy.

Students will engage with texts (not limited to legal materials) that explore various challenges related to innovation and new technologies. Building on this foundation, the lecturer will introduce relevant legal aspects.

Each meeting will be geared to discussing different aspects of regulations and policy issues focusing especially on new regulatory regimes and competition law. At the end of the course, by means of an essay and their own research, students will critically discuss a current framework. During the course, each topic will be actively discussed.

By the end of the course, participants will have a nuanced understanding of the regulatory aims, enforcement mechanisms, and societal implications of these measures, equipping them with the analytical tools needed to contribute meaningfully to contemporary debates on competition on highly innovative energy markets.

3. Course content (separate for each type of classes)

Lecture



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1. Session 1: The guiding principles of competition law. This session introduces the foundational theories underlying the regulation of markets, with a focus on the energy sector. It begins by examining the concept of market failures—such as natural monopolies, externalities, and information asymmetries—that justify regulatory intervention. At the same time, the session explores the notion of regulatory failures, where overly rigid or poorly designed rules may hinder efficiency, competition, or innovation. Students will then analyse the inherent tension between promoting innovation and maintaining stability in regulated sectors, particularly in the context of technological change and the green transition. The discussion will conclude with an overview of the key insights from the Draghi Report, especially the risks associated with excessive regulation, and the importance of designing a regulatory framework that supports competitiveness and innovation without compromising public interest.
2. Session 2-3: Disruptive Technologies and Their Competitive Impact. This module explores how emerging technologies are reshaping the structure and functioning of energy markets in the European Union and how these developments intersect with competition rules. It will enclose: Digitalisation of energy systems and AI Regulation, Green Hydrogen, Batteries, and Emerging Infrastructures, Nuclear Innovation and the Market.

Project classes

Session 7-9 (Project classes): Based on case-studies proposed topics: (1) Designing a Competition-Compliant Support Scheme for Emerging Energy Technologies; (2) Simulated Policy Hearing on Innovative and Digital Energy Markets, (3) Climate, Competition, and Fundamental Rights – A Strategic Approach.



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Seminar			
1. Session 4: (Seminar): Environmental Objectives as Constraints and Drivers in Competition Policy. The session explores how sustainability goals are being integrated into EU competition policy, particularly in merger control and antitrust investigations. It reflects on the evolving approach of the European Commission, including its consideration of climate impacts in assessing the compatibility of corporate behaviour with competition rules. 2. Session 5: (Seminar): The Role of Data, the Digital Markets Act, and Energy Platforms. Students will explore the growing importance of data and digital platforms in the energy sector, including their role in energy service provision and consumer interaction. The session analyses the regulatory challenges posed by platform dominance, particularly in light of the Digital Markets Act, and addresses concerns around interoperability, data access, and market asymmetries. 3. Session 6: (Seminar): Climate Protection and Energy Access as Fundamental Rights. This session examines how environmental protection and equitable access to energy are increasingly recognised as fundamental rights under the European legal framework. It considers relevant legal instruments such as the European Convention on Human Rights (ECHR), the EU Charter of Fundamental Rights, and the Aarhus Convention. Students will assess how these frameworks influence competition enforcement, especially in relation to energy poverty, public participation, and procedural safeguards.			
4. Learning outcomes			
Type of learning outcomes	Learning outcomes description	Reference to the learning outcomes of the WUT DS	Learning outcomes verification methods*
Knowledge			
K01	After this course the student has knowledge and understanding of the recently introduced EU legal instruments regarding new technologies.	SD_W01	presentation evaluation, homework, active participation during classes
K02	Understand the basic concepts of competition law including market power, relevant market, prohibitions of anti-competitive practices, mergers, and acquisitions.	SD_W02	presentation evaluation, homework, active participation during classes
K03	Understanding the main enforcement models of major competition law systems.	SD_W03	presentation evaluation, homework, active participation during classes
Skills			



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S01	By the end of the course, students have developed the ability to locate, comprehend, apply, and critically evaluate secondary literature. The student is able to present and discuss, concisely and precisely, points of view on a legal case or question.	SD_U02, SD_U03	presentation evaluation, homework, active participation during classes
S02	Cooperate with classmates. Student has the ability to take his/her own position on the basic problems of competition law.	SD_U02	presentation evaluation, homework, active participation during classes
S03	The student is aware of the continuous development of the science of law and the related need for further professional and personal development in the construction of competition law.	SD_U03	presentation evaluation, homework, active participation during classes
Social competences			
SC01	Cooperate with classmates. Student has the ability to take his/her own position on the basic problems of competition law.	SD_K02, SD_K04	presentation evaluation, active participation during classes
SC02	The student is aware of the continuous development of the science of law and the related need for further professional and personal development in the construction of competition law.	SD_K03	presentation evaluation, active participation during classes
SC03	The student is capable of engaging in interdisciplinary dialogue, taking into account legal, economic, technological, and ethical dimensions of competition law in the energy sector.	SD_K03	active participation during classes
*Allowed learning outcomes verification methods: exam; oral exam; written test; oral test; project evaluation; report evaluation; presentation evaluation; active participation during classes; homework; tests			
5. Assessment criteria			



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Outcomes verification methods:

- During the course, the students work on their portfolio cloud environment on the basis of the reading and their own findings (20% of the grade)
- Students are expected to participate actively during discussion activities (20%)
- Students write an essay (max. 2000 words) on topics in project classes (40% of the grade) annexed with a one-page reflection on their research process.

6. Literature

Primary references:

- [1] Kim Talus (ed.) – Research Handbook on EU Energy Law and Policy (2021, Edward Elgar)
- [2] OECD (2022) – Competition and Climate Change: What Role for Competition Policy?
[[https://one.oecd.org/document/DAF/COMP/WP2\(2022\)4/FINAL/en/pdf#:~:text=As a result, there are,, 2020\[28\]\].](https://one.oecd.org/document/DAF/COMP/WP2(2022)4/FINAL/en/pdf#:~:text=As a result, there are,, 2020[28]].)]
- [3] Veugelers, Reinhilde – Building a Competitive, Green and Digital Europe: the Role of Industrial Policy (Bruegel, 2021),
[https://www.bruegel.org/sites/default/files/private/wp_attachments/Bruegel_Blueprint_31_Complete_151220.pdf]

Secondary references:

- [1] Crawford Kate, Atlas of AI, (2021, Yale University)
- [2] Xavier Groussot, Gunnar Thor Petursson, & Alessandro Rosanò – *Balancing Fundamental Rights with the EU Competition Rules* (2022, Hart Publishing)

7. PhD student's workload necessary to achieve the learning outcomes**

No.	Description	Number of hours
1	Hours of scheduled instruction given by the academic teacher in the classroom	30
2	Hours of consultations with the academic teacher, exams, tests, etc.	5
3	Amount of time devoted to the preparation for classes, preparation of presentations, reports, projects, homework	20
4	Amount of time devoted to the preparation for exams, test, assessments	5
Total number of hours		60
ECTS credits		2

** 1 ECTS = 25-30 hours of the PhD students work (2 ECTS = 60 hours; 4 ECTS = 110 hours, etc.)

8. Additional information

Number of ECTS credits for classes requiring direct participation of academic teachers	2
Number of ECTS credits earned by a student in a practical course	0



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