

**KÁROLI GÁSPÁR UNIVERSITY OF THE REFORMED  
CHURCH IN HUNGARY  
FACULTY OF LAW**



**MASTER OF ENERGY LAW MASTER PROGRAMME  
STUDY GUIDE**



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## **KÁROLI GÁSPÁR UNIVERSITY OF THE REFORMED CHURCH IN HUNGARY**

### **FACULTY OF LAW**

1042 Budapest, Viola street 2-4.

Phone: +36 (1) 370-86-01

Fax: +36 (1) 231-6026

Institutional ID: FI 44189



### **FACULTY WELCOME**

#### **Dear Student!**

Károli Gáspár University of the Reformed Church in Hungary is committed to professional renewal programmes. The wide range of postgraduate specialisation programmes at the Faculty of Law offers new directions and opportunities for professional development. Our University combines the traditions of Reformed education and openness to professional renewal by blending the old with the new. Our aim and task are to continue the traditions of Reformed colleges and, in addition to pastoral training, to offer postgraduate specialisation programmes in a Christian spirit in several disciplines and fields of studies.

The aim of the programmes is to provide professionals in the legal, economic, foreign affairs and pedagogic fields with continuous professional development and up-to-date knowledge to enable them to perform their tasks more professionally and, as a result, more effectively.

**Prof. Dr. Zoltán J. Tóth**

**Dean**



## **MANAGEMENT OF THE FACULTY**

**Dean:**

**Prof. Dr. Zoltán J. Tóth,**

Professor, Dean

**Vice-Deans:**

**Prof. Dr. Sándor Tibor Udvary,**

Professor, Vice-Dean for Education and Training

**Prof. Dr. Ádám Boóc,**

Professor, Vice-Dean for International Relations and Science

**Prof. Dr. Andrea Domokos,**

Professor, Vice-Dean for Talent Management

office: building A, Mezzanine floor 9.

office hours: by appointment

e-mail: [dekanihiv.ajk@kre.hu](mailto:dekanihiv.ajk@kre.hu)

phone: 370-8601/110

## **PROGRAM DIRECTOR OF MASTER OF ENERGY LAW MASTER PROGRAMME**

**Annamária Csilla GYÜRE, PhD, senior lecturer**

e-mail: [gyure.annamaria.csilla@kre.hu](mailto:gyure.annamaria.csilla@kre.hu)

office hours: by appointment

## **CENTRE FOR POSTGRADUATE SPECIALISATIONS**

**Dr. habil. Sándor Móré PhD,**

Associate Professor, Leader of the Center

office hours: by appointment

**Viktória Rákos,**

Administrator of Educational Affairs

e-mail: [ajk.szakirany@kre.hu](mailto:ajk.szakirany@kre.hu)

phone: (+36-1) 370-8601 / extension 345

office: building A, T11

website: <https://ajk.kre.hu/index.php/oktatas/kepzesi-formak/tovabbkepzesi-kozpont.html>



## STUDENT REGISTRY

Mária Vas, Head of Student Registry

phone: +36 1-370 8601 (extension: 102; 165)

e-mail: [ajk.tanulmanyi@kre.hu](mailto:ajk.tanulmanyi@kre.hu)

office: building „A”, mezzanine floor 7.

website: <https://ajk.kre.hu/index.php/hallgatoinknak/tanulmanyi-osztaly.html>

Student administration is available at the Student Registry of the Faculty of Law according to the following office hours:

Office hours	
MONDAY:	09:00 – 12:00 13:00 – 15:00
TUESDAY:	Closed
WEDNESDAY:	13:00 – 15:00
THURSDAY:	09:00 – 12:00
FRIDAY:	09:00 – 12:00 13:00-14:00
SATURDAY:	8:30-12:00

*\*On Saturdays, the Student Registry is open only **during the study period**.*



## **SPORTS, LEISURE TIME**

For more information on sports activities at the University, please visit the following website:

<http://www.kre.hu/sport/>

## **FACULTY LIBRARY**

The Library of the Faculty of Law started its operation in 2001, and currently it provides its users, lecturers, researchers and students with nearly 20,460 items, including more than 118 periodicals in Hungarian and in foreign languages, electronic documents and databases. The library's main focus is on literature in the fields of law and political science, and development is concentrated in this area. In addition, there is literature in related and supplementary disciplines as well as works to enrich general culture. In our reading rooms, thousands of thematically arranged documents are available on free shelves for on-site use.

We provide access to the University's database (E-Corvina Online Catalogue), EISZ and EBSCO databases. Our additional services: information on general and specialised literature, for a fee: printing and photocopying. (Registration and prior balance top-up required. Details: [kre.printelek.hu](http://kre.printelek.hu))

The library which is open during the academic year welcomes readers with 60 seats and 7 computers. Its services are available after registration (free of charge).

Further information can be found in the Library Use Regulations and on the Faculty's website.

Availability: +36 1 370 8601/128

[ajk.konyvtar@kre.hu](mailto:ajk.konyvtar@kre.hu)

### **Opening hours:**

Monday	<b>9:00-16:30</b>
Tuesday	<b>9:00-13:00</b>
Wednesday	<b>9:00-18:30</b>
Thursday	<b>9:00-16:30</b>
Friday	<b>Closed</b>
Saturday	<b>9:00-13:00</b>

The library is closed during school holidays.



## MASTER OF ENERGY LAW MASTER PROGRAMME

**To whom we recommend the programme:**

1. The training is open to all applicants who, in addition to fulfilling the admission requirements, wish to work in an energy company or at a public authority involved in the field of energy as lawyers.
2. **Title of the postgraduate specialisation programme:** MASTER OF ENERGY LAW MASTER PROGRAMME
3. **Title of professional qualification in the diploma attainable in the postgraduate specialisation programme:** MASTER OF ENERGY LAW
4. **Field of study:** law
5. **Conditions for admission:**
  - at least a bachelor's degree in law
  - at least intermediate (B2) level, complex, state-recognised language examination in a foreign language, or an equivalent school-leaving certificate or diploma.
6. **Duration and form of the training programme:** The duration of the Master programme is 2 semesters, starting in the autumn semester of 2025/2026.  
This is full-time university Master programme, but it is also possible to follow the courses on-line.
7. **The number of credits to be completed for the professional qualification:** 60 credits
8. **Competences, knowledge elements, skills, personal attitudes and abilities to be acquired during the training and the application of the qualification in a particular context and activity system:**  
**Competences to be acquired:**
  - acquire the skills needed to apply energy law and energy regulatory knowledge;
  - acquire the knowledge on the efficient use of natural resources;



- knowledge and ability to apply international dimensions of energy law;
- mastering the administrative frameworks of energy;
- understanding and practising contracts and obligations in the field of energy law.

**Knowledge elements, skills to be acquired:**

Participants in the postgraduate specialisation programme

- will acquire the main regulatory frameworks of energy and energy law at both international and national level;
- will gain an insight into the regulation of electricity, natural gas and renewable energy regulation;
- will acquire key knowledge of international energy systems and energy policy for the more efficient use of natural resources.

**Personal skills development:**

- insight and creativity;
- the ability to prepare analyses based on sound knowledge and to form an independent professional opinion;
- a problem-focused approach and problem-solving in practice;
- professional and systematic task management.

**Application of the qualification in a particular context and activity system:**

Graduates will be qualified for jobs in energy-related business companies (e.g. companies with energy trading licences) and in energy-related fields of the public sector (e.g. at regulatory authorities).

**9. Knowledge areas relevant to the qualification and the credit value assigned to the main knowledge areas**

**Basic knowledge:** 20-30 credits

Basics of energy law, energy policy, competition law, project management.

**Professional knowledge:** 25-35 credits



Sectoral regulation, energy market contracts, the public law framework for regulation, international energy policy, the role of energy in foreign relations, consumer protection, international dispute resolution, final exam consultation.

**9. Credit value of the thesis: 5 credits**



## APPLICATION

### How to apply:

Applications should be submitted only electronically, by filling in the application form on the website of the postgraduate specialisation programmes:

<https://english.kre.hu/index.php/study-programmes-in-foreign-languages/study-programmes-in-foreign-languages.html>

### Tuition fee:

1<sup>st</sup> semester: EUR 3,000

2<sup>nd</sup> semester: EUR 3,000

The tuition fee may be covered by the employer.

### Registration fee:

The amount of the registration fee is EUR 50. Proof of payment of the registration fee should be attached to the application.



## **ORDER OF THE ACADEMIC YEAR**

The regular semester will be between September and December, February and May. Exams will be taken in December-January, May-June. However, due to the international lecturers and students, in-person lectures shall be organized in weekly blocks to economize the appearance. The semesters' lectures shall be divided into four blocks, one held in each month of the semester, exact dates selected upon commencement of the programme.

### **Daily lectures on later specified weeks shall be held between**

- 8:00 and 9:30 (2x45 mins)
- 9:45 and 11:15 (2x45 mins)
- 11:30 and 13:00 (2x45 mins)
- 13:15 and 14:45 (2x45 mins)
- 15:00 and 16:30 (2x45 mins)

(Concrete lecture may vary in accordance with the requests of lecturers and students.)

### **Location of the training:**

Building "A" of the Faculty of Law of Károli Gáspár University of the Reformed Church in Hungary  
(1042 Budapest, Viola street 2-4.)

The University has a separate parking lot which is available to both lecturers and students.



## **Lectures of the Programme**

<b>LECTURER</b>	<b>AVAILABILITY</b>
Prof. Dr. Róbert Szuchy Vice-Rector, Professor	<a href="mailto:szuchy.robort@kre.hu">szuchy.robort@kre.hu</a>
Prof. Dr. Ádám Boóc Head of Department, Professor	<a href="mailto:booc.adam@kre.hu">booc.adam@kre.hu</a>
Dr. Gyula Balázs Csáki-Hatalovics Associate Professor	csakihatalovics.gyula@kre.hu
Dr. Krisztián Manzinger Head of Department	manzinger.krisztian@kre.hu
Dr. Péter Gordos Senior Lecturer	pgordos@mol.hu; gordos.peter@kre.hu
Dr. Annamária Csilla Gyüre Senior Lecturer	gyure.annamaria.csilla@kre.hu
Dr. habil. András Tóth Head of Department, Associate Professor	toth.andras@kre.hu



### MODEL CURRICULUM

No.	Course	Semester	Number of contact hours per semester (lecture / seminar)		Total number of contact hours per semester	Credit	Assessment
			lecture	sem.			
1	<a href="#">Introduction to energy law</a>	1 <sup>st</sup> semester	24	0	24	4	colloquium
2	<a href="#">Electricity market regulation</a>	1 <sup>st</sup> semester	24	0	24	4	colloquium
3	<a href="#">Natural gas market regulation</a>	1 <sup>st</sup> semester	24	0	24	4	colloquium
4	<a href="#">Regulation of the district heating market</a>	1 <sup>st</sup> semester	12	0	12	2	colloquium
5	<a href="#">Competition law in the energy market</a>	1 <sup>st</sup> semester	24	0	24	4	colloquium
6	<a href="#">Contracts in the energy market</a>	1 <sup>st</sup> semester	0	24	24	3	practical grade
7	<a href="#">Renewable Energy Law</a>	1 <sup>st</sup> semester	24	0	24	4	colloquium
8	<a href="#">Economics of the energy market</a>	1 <sup>st</sup> semester	0	24	24	3	practical grade
9	<a href="#">Elective module</a>	1 <sup>st</sup> semester	24	0	24	3	colloquium
	<b>Total in the first semester</b>		<b>156</b>	<b>48</b>	<b>204</b>	<b>31</b>	
10	<a href="#">Public administrative law and energy</a>	2 <sup>nd</sup> semester	24	0	24	2	colloquium
11	<a href="#">Energy project management</a>	2 <sup>nd</sup> semester	0	24	24	4	practical grade
12	<a href="#">Energy policy and environment</a>	2 <sup>nd</sup> semester	24	0	24	4	colloquium
13	<a href="#">Energy dispute resolution and arbitration</a>	2 <sup>nd</sup> semester	0	24	24	3	practical grade
14	<a href="#">International energy policy</a>	2 <sup>nd</sup> semester	24	0	24	4	colloquium
15	<a href="#">Regulation of nuclear energy</a>	2 <sup>nd</sup> semester	24	0	24	3	colloquium
16	<a href="#">Intelligent Systems in Energy Markets</a>	2 <sup>nd</sup> semester	24	0	24	2	colloquium
17	<a href="#">Energy social justice</a>	2 <sup>nd</sup> semester	24	0	24	2	colloquium
18	<b>Thesis Consultation</b>	2 <sup>nd</sup> semester	20	0	20	5	qualified signature
19	<b>Preparation for the final exam</b>	2 <sup>nd</sup> semester	0	20	20	0	signature
	<b>Total in the second semester</b>		<b>164</b>	<b>68</b>	<b>232</b>	<b>29</b>	
	<b>Total</b>	-	<b>320</b>	<b>116</b>	<b>436</b>	<b>60</b>	-



## SYLLABUS

### 1<sup>ST</sup> SEMESTER

## Introduction to Energy Law

**Name of the subject:** Introduction to Energy Law

**Language of Education:** English

**Department:** Department of Commercial Law and Financial Law

**Course type:** compulsory lecture

**Work schedule:** full-time

**Number of contact hours per semester:** 24 contact hours (lectures)

**Recommended semester:** odd semester

**Semester of announcement:** 1<sup>st</sup> semester

**Credit value:** 4

**Subject code:**

**Prerequisite:** none

**Course leader:** Prof. Dr. Róbert Szuchy

**Course instructor(s):** Prof. Raphael J. Heffron

**Assessment:** colloquium (written examination)

### Professional learning outcomes:

The energy law and energy industry course, as an introductory course and as an orientation, aims to provide participants with a basis for the further subjects of the entire programme. Through this course, students will learn about the actors in the energy sector, the technical, physical and economic background of its operation, and the meaning of the basic concepts of regulation and functioning. The course also includes the basic activities and obligations of the actors in the sector, as well as the basic economic contexts.

### Short course description, description of the knowledge to be acquired, (sub)skills and (sub)competences to be applied:

In the framework of the training, students will become familiar with, among others, the provisions for National Energy Strategy for electricity and natural gas, the structure and the main actors of the electricity



and natural gas market, the essential provisions of the main legislation on electricity and natural gas markets, as well as the main related competences of the authorities. The training includes an introduction to the electricity and gas market operating model.

**Grading:** grade on a scale of 1-5

**Learning aids for the acquisition of knowledge, skills and competences:**

Power point presentations provided by the lecturer to the students.

**Compulsory literature:**

- Heffron, R. J. (2021). *Energy law: An introduction* (2nd ed.). SpringerBriefs in Law. Springer.
- Talus, K. (2013). *EU energy law and policy: A critical account*. Oxford University Press.

**Recommended reading:**

- Course materials provided by the lecturer to the students.



## Electricity Market Regulation

**Name of the subject:** Electricity market regulation

**Language of education:** English

**Department:** Department of Commercial Law and Financial Law

**Course type:** compulsory lecture

**Work schedule:** full-time

**Number of contact hours per semester:** 24 contact hours (lectures)

**Recommended semester:** odd semester

**Semester of announcement:** 1<sup>st</sup> semester

**Credit value:** 4

**Subject code:**

**Prerequisite:** none

**Course leader:** Dr. Annamária Csilla Gyüre

**Course instructor(s):** Prof. Raphael J. Heffron, Dr. Annamária Csilla Gyüre and Prof. Dr. Róbert Szuchy

**Assessment:** colloquium (written examination)

**Professional learning outcomes:** The aim of the course is to introduce the participants to the main regulatory framework and operating principles of the Hungarian electricity sector, to familiarise them to their potential problematic elements and practical aspects.

**Short course description, description of the knowledge to be acquired, (sub)skills and (sub)competences to be applied:**

- History of electricity regulation
- Electricity regulation in the European Union, EU regulatory packages
- Overview of the Hungarian electricity regulation (Electricity Act and its implementing decree)
- Organisation and Operation of the Hungarian Energy and Public Utility Regulatory Authority
- Electricity production, transmission and distribution
- Electricity trade
- Electricity users
- Contracts in the electricity market



**Grading:** grade on a scale of 1-5

**Learning aids for the acquisition of knowledge, skills and competences:**

Power point presentations and/or teaching aids provided by the lecturer to the students.

**Compulsory literature:**

- Jones, C., & Ermacora, L. (2020). *EU energy law volume XII: Electricity market design in the European Union*. Claeys & Casteels Publishers BV.
- Winkler, D., Baumgart, M., & Ackermann, T. (Eds.). (2024). *European energy law: A handbook*, Beck Juristischer Verlag

**Recommended reading:**

Course materials provided by the lecturer to the students.



## Natural Gas Market Regulation

**Name of the subject:** Natural Gas Market Regulation

**Language of education:** English

**Department:** Department of Commercial Law and Financial Law

**Course type:** compulsory lecture

**Work schedule:** full-time

**Number of contact hours per semester:** 24 contact hours (lectures)

**Recommended semester:** odd semester

**Semester of announcement:** 1<sup>st</sup> semester

**Credit value:** 4

**Subject code:**

**Prerequisite:** none

**Course leader:** Dr. Annamária Csilla Gyüre

**Course instructor(s):** Dr. Csaba Attila Kiss, Dr. Annamária Csilla Gyüre and Prof. Dr. Róbert Szuchy

**Assessment:** colloquium (written examination)

**Professional learning outcomes:** The aim of the course is to provide an overview of the legal and economic aspects of natural gas market regulation. The course covers a comprehensive examination of the EU and domestic rules and strategies, and examines the existing framework in detail.

**Short course description, description of the knowledge to be acquired, (sub)skills and (sub)competences to be applied:**

### 1. lesson: Joint processing of EU energy policy and Hungary's energy strategy

Processing the Energy 2020, the Energy Union Package and the Natural Gas Directive (2009/73/EC), considering that the subjects *Introduction to Energy Law and Energy Industry* and *Sectoral Regulation – Electricity Market Regulations* are also based on these documents. The lesson will provide an overview of the characteristics of the Hungarian energy policy and the role of the major institutions and companies (government, MEKH [Hungarian Energy and Public Utility



Authority], MVM [Hungarian Electricity Ltd.], FGSZ [Hungarian Natural Gas Trade Ltd], NKM [National Utility Service Provider Company), Mining and Geological Survey of Hungary).

- 2. lesson: Price regulation – MEKH Decree 11/2016 (XI.14) on the rules of application of natural gas system use charges, separate charges and connection charges; MEKH Decree No 13/2016. (XII. 20) on the rate of natural gas system use charges, separate charges and connection charges, MEKH Decree 3/2018 (VI.1) on the framework rules for the determination of natural gas system use charges.**

During the lesson we will review the current regulation of gas supply, the most important elements of Hungarian price regulation and examples from abroad. Students will learn the basic concepts of pricing, the components of tariff elements, and the specific rules of universal service.

- 3. lesson: Security of supply, crises management – Regulation 994/2010/EU concerning measures to safeguard security of gas supply; Government Decree 296/2015 (X.13) on the procedure applicable when the natural gas supply of users is at risk in the event that the operation of the natural gas supplier of last resort and the natural gas trader becomes unfeasible; Act XXVI of 2006 on strategic storage of natural gas; Government Decree No. 265/2009 (XII.1) on the restriction of natural gas off-take, the use of the natural gas strategic reserve, and other measures required in case of emergency in natural gas supply.**

During the lesson, we will review the EU and Hungarian strategies for security of supply and compare the existing legislative frameworks. We will review plans and options for crises management. We will examine the Hungarian crises management rules in detail.

- 4. lesson: Network codes 1 – Operation and Business Code of the Hungarian Natural Gas System (OBS, Hungarian abbreviation ÜKSZ)**

Students will learn about the role of ACER [European Union Agency for the Cooperation of Energy Regulators), MEKH [Hungarian Energy and Public Utility Authority] and DG ENER (Directorate-General for Energy) in regulation. We compare the logic of the EU NC and the OBS (ÜKSZ). Students will gain an insight into the work and specific regulation of the FGSZ [Hungarian Natural Gas Trade Ltd], the distributors and storage facilities.

- 5. lesson: Network codes 2 – Regulation 715/2009/EC on conditions for access to the natural gas transmission networks; Regulation 984/213/EU on capacity allocation mechanism (CAM NC);**



**Decision 2015/715/EU on congestion management procedures; Regulation 2015/703/EU establishing a network code on interoperability and data exchange rules; Operation and Business Code of the Hungarian Natural Gas System (OBS, Hungarian abbreviation ÜKSZ)**

During the lesson, we will compare the EU legislation and the Gas Act, its implementing decree and the OBS (ÜKSZ) regulations in detail.

**6. lesson: Network codes 3 – System balancing (BAL NC) Regulation 312/2014/EU on gas balancing of transmission networks; OBS (ÜKSZ).**

During the lesson we will review the rules of system balancing and alternative options. We will learn about the role of FGSZ [Hungarian Natural Gas Trade Ltd] and CEEGEX (Central Eastern European Gas Exchange), and the role of wholesalers in system balancing.

**7. lesson: Regulation 1227/2011/EU on wholesale energy market integrity and transparency (REMIT) (1227/2011/EU)**

The lesson will provide an overview of theoretical and practical background of REMIT regulation.

**8. lesson: Construction of natural gas pipes; Act XL of 2008 on natural gas supply (Gas Act)**

The lesson will cover the legislations required for the construction of natural gas pipelines, and analyse the legal difficulties of constructing LNG and transit pipelines.

**Compulsory literature:**

- Jones, C. (Ed.). (2017). *EU energy law volume XI: The role of gas in the EU's energy union*. Claeys & Casteels Publishers BV.
- Winkler, D., Baumgart, M., & Ackermann, T. (Eds.). (2024). *European energy law: A handbook.*, Beck Juristischer Verlag
- Leal-Arcas, R. (Ed.). (2024). *Research handbook on EU energy law and policy* (2nd ed.). Edward Elgar Publishing



**Recommended reading:**

- Kaderják, Péter és Kiss, András és Paizs, László és Selei, Adrienn és Szolnoki, Pálma és Tóth, Borbála (2015) *Natural gas market integration in the Danube region : The role of infrastructure development*. In: Competition and regulation, 2015. Institute of Economics, Centre for Economic and Regional Studies, Hungarian Academy of Sciences, Budapest, pp. 239-265



## Regulation of the District Heating Market

**Name of the subject:** Regulation of the district heating market

**Language of education:** English

**Department:** Department of Commercial Law and Financial Law

**Course type:** compulsory lecture

**Work schedule:** full-time

**Number of contact hours per semester:** 12 contact hours (lectures)

**Recommended semester:** odd semester

**Semester of announcement:** 1<sup>st</sup> semester

**Credit value:** 2

**Subject code:**

**Prerequisite:** none

**Course leader:** Prof. Dr. Róbert Szuchy

**Course instructor(s):** Dr. Orsolya Fazekas

**Assessment:** colloquium (written examination)

**Professional learning outcome:** The aim of the course is to familiarise participants with the main technical, legal and administrative regulatory frameworks and operating principles of the Hungarian district heating sector, to introduce them to their potential problematic elements and practical aspects. The training provides a brief overview of the thermal energy policy and the challenges that the Hungarian district heating sector is currently facing.

**Short course description, description of the knowledge to be acquired, (sub)skills and (sub)competences to be applied:** In the framework of the training, students will learn about, among others, the provisions of the National Energy Strategy and the Renewable Energy Action Plan for 2010-2020 related to heat energy, the structure and the main actors of the district heating market, the most important provisions of the legislation on the district heating market and the main related authority powers.

**Mid-term academic requirements:** participation in the lectures



**Grading:** grade on a scale of 1-5

**Learning aids for the acquisition of knowledge, skills and competences:**

Power point presentations provided by the lecturer to the students.

**Compulsory literature:**

- Borge-Diez, D., Colmenar-Santos, A., & Rosales-Asensio, E. (2017). *District heating and cooling networks in the European Union*. Springer International Publishing.
- Billerbeck, A., Breitschopf, B., Winkler, J., Bürger, V., Köhler, B., Bacquet, A., Popovski, E., Fallahnejad, M., Kranzl, L., & Ragwitz, M. (2023). Policy frameworks for district heating: A comprehensive overview and analysis of regulations and support measures across Europe. *Energy Policy*, 173, 113377.  
<https://doi.org/10.1016/j.enpol.2022.113377>

**Recommended reading:**

- [https://energy.ec.europa.eu/publications/district-heating-and-cooling-european-union\\_en](https://energy.ec.europa.eu/publications/district-heating-and-cooling-european-union_en)



## Competition Law in the Energy Market

**Name of the subject:** Competition Law in the Energy Market

**Language of education:** English

**Department:** Department of Infocommunication Law

**Course type:** compulsory lecture

**Work schedule:** full-time

**Number of contact hours per semester:** 24 contact hours (lectures)

**Recommended semester:** odd semester

**Semester of announcement:** 1<sup>st</sup> semester

**Credit value:** 4

**Subject code:**

**Prerequisite:** none

**Course leader:** Dr. habil. András Tóth

**Course instructor(s):** Dr. habil. András Tóth

**Assessment:** colloquium (written examination)

### Professional learning outcomes:

Ex-ante regulatory instruments to promote and protect competition, such as unbundling (TSO, DSO unbundling), conditions for TPAs (conditions for third-party access to public networks), obligations to sell resources and capacities by auction platforms (or other transparent means), etc. constitute a crucial part of the sectoral regulatory environment for regulated industries, such as natural gas and electricity industry. The EU legal requirements which largely determine the domestic regulatory scope and are mostly adopted on an internal market legal basis, are complemented by state aid law, the obligations of member states in the context of EU competition law, the Merger Control Regulation and the specific public procurement rules in the sector. Thus, in addition to the traditional ex-post competition law regulation applicable to undertakings, the energy competition law includes essential legal institutions, the knowledge and understanding of which in the context of regulatory objectives are crucial for the interpretation of the operation and legal framework of the energy sector.



**Short course description, description of the knowledge to be acquired, (sub)skills and (sub)competences to be applied:**

The main legal institutions and instruments of ex-ante competition law in EU law and in the domestic gas and electricity regulation:

- The ex-ante regulatory instruments to develop, promote and protect competition in the EU internal market regulation of the gas and electricity industries (unbundling, TPA, transparent sale of capacities, etc.) and the relationships of the exceptions granted with the competition protection instruments (universal service, public service exemption, new infrastructure exemption) in the EU sectoral internal market legislation and in the domestic legislation;
- State aid law and enforcement in the energy sector (Article 107 (1) TFEU [Treaty on the Functioning of the European Union], relevant exemptions, basic institutional and procedural rules, environmental and energy guidelines, GBER [General Block Exemption Regulation], key energy state aid cases in the case law of the EU Court of Justice)
- Requirements arising from the combined reading of Article 106 and 107 TFEU, DEI judgement
- Basics of public procurement in the energy sector
- Basic rules and application of the Merger Control Regulation in energy matters
- Rules of (classical, ex-post) competition law applicable for undertakings and their application in the energy sector

**Introduction:** EU company competition law (merger or agreement? – C-248/16 *Austria Asphalt*)

**Focal points of competition law enforcement in energy markets:**

- Gas distribution restrictions (Gazprom, Eon/GDF Suez, ENI/ENEL/GDF, Bulgarian energy holding)
- Infrastructure restrictions (“competition rules” in liberalised energy markets)
- Customer restrictions (Distrigaz)
- Access to customer databases (GDF Suez)
- Article 106 (DEI case)

**Competition law aspects of energy projects:**

- Sectoral TPA exemptions and competition law
- New infrastructure/capacity (Viking, MEGAL, Synergen)
- Long-term exclusive agreements (Gas Natural/Endesa, Synergen, Distrigaz)



- Aid for investments with restrictions on competition:
- Joint sales (GFU, DUC, gas fields in Western Ireland)
- Exclusive/reserved use (*Viking Cable*)
- Long-term customer loyalty (*Gas Natural/Endesa*)

**Assessment and grading:** written examination, grade on a scale of 1-5

**Compulsory literature:**

- Jones, C. (Ed.). (2019). *EU energy law volume II: EU competition law and energy markets* (5th ed.). Claeys & Casteels (now part of Edward Elgar Publishing).
- Cameron, P. (2007). *Competition in energy markets: Law and regulation in the European Union* (2nd ed.). Oxford University Press.

**Recommended reading:**



## Contracts in the Energy Market

**Name of the subject:** Contracts in the energy market

**Language of education:** English

**Department:** Department of Commercial Law and Financial Law

**Course type:** compulsory seminar

**Work schedule:** full-time

**Number of contact hours per semester:** 24 contact hours (seminars)

**Recommended semester:** odd semester

**Semester of announcement:** 1<sup>st</sup> semester

**Credit value:** 3

**Subject code:**

**Prerequisite:** none

**Course leader:** Prof. Dr. Róbert Szuchy

**Course instructor(s):** Prof. Dr. Róbert Szuchy

**Assessment:** practical grade

### Professional learning outcomes:

Each lesson will take a practical approach to typical contract types, from which a basic knowledge of contract law and background is essential. The aim of the course is to identify the types of contracts, understand their economic-business reasons, assess contractual risks and understand how to manage them. Through an overview of the contract types, the functioning of the energy market will also be presented. The course also provides an insight into possible contractual systems in the emerging regulatory areas (e-mobility, e-storage).

### Short course description, description of the knowledge to be acquired, (sub)skills and (sub)competences to be applied:

1. Introduction – essential elements of sectoral regulation and overview of certain types of contracts (electricity market, natural gas market, district heating market, network infrastructure funds in each sector)



2. Types of electricity market contracts: VEASZ (medium-term contracts), network access contracts (transmission and distribution), balancing group contracts, electricity trading contracts, user contracts (connection point)
3. Types of contracts in the natural gas market: contracts related to exploration and production activities, contracts related to the use of natural gas transmission infrastructure (shipping), storage service contractual elements, specifics of natural gas distribution and trading contracts
4. District heating market contracts (production and sales), specific provisions of renewable energy market contract types related to renewable energy markets (feed-in tariffs (in Hungarian KÁT [Government Decree 389/2007. (XII.23.) on mandatory feed-in and feed-in price of electricity generated using energy produced from renewable energy sources or waste and cogenerated electricity], renewable energy support schemes (in Hungarian METÁR) [Government Decree 299/2017 (X.17) on the feed-in tariff for renewable electricity and the premium tariff]), challenges of e-mobility and electricity storage contracts
5. Specific characteristics of contracts related to technical services and planned maintenance of energy infrastructures, solving court and regulatory cases related to energy markets and practical exercises based on the knowledge acquired in previous lessons, questions and answers

**Mid-term academic requirements:** participation in the seminars

**Assessment and grading:** solving practical exercises

**Learning aids for the acquisition of knowledge, skills and competences:**

Prior to the class, the relevant articles on the topics will be indicated, and reading them in advance is a condition for active participation in the classes.

**Compulsory literature:**

- Jones, C. (2020). *EU energy law volume I: The internal energy market* (5th ed.). Claeys & Casteels.
- Fabien Roques and Guillaume Duquesne: The return of long-term contracts for electricity  
<https://ceem-dauphine.org/wp-content/uploads/2024/06/PP3-1.pdf>



**Recommended reading:**

- <https://fsr.eui.eu/wp-content/uploads/2024/06/THE-EUROPEAN-ELECTRICITY-MARKET-REFORM.pdf>



## Renewable Energy Law

**Name of the subject:** Renewable Energy Law

**Language of education:** English

**Department:** Department of Commercial Law and Financial Law

**Course type:** compulsory lecture

**Work schedule:** full-time

**Number of contact hours per semester:** 24 contact hours (lectures)

**Recommended semester:** odd semester

**Semester of announcement:** 1<sup>st</sup> semester

**Credit value:** 4

**Subject code:**

**Prerequisite:** none

**Course leader:** Prof. Dr. Róbert Szuchy

**Course instructor(s):** Alicia E. Phillips

**Assessment:** colloquium (written examination)

**Professional learning outcomes:** The course aims to provide participants with the main regulatory frameworks of energy and energy law at both international and national level. The training will give students an insight into the world of electricity, natural gas and renewable energy regulation. It will also provide a basic understanding of international energy systems and energy policy, with a focus on the more efficient use of natural resources.

**Short course description, description of the knowledge to be acquired, (sub)skills and (sub)competences to be applied:**

1. **The basics of renewable energy regulation and EU renewable energy regulation** (regulatory structure, basic concepts, international trends)
2. **EU rules on the promotion of use of energy from renewable sources** (2009/28/EC Directive, requirements, support funds)



3. **Regulation and support system for renewable energy sources in Hungary** (feed-in tariffs – Hungarian abbr. KÁT, premium support)
4. **Certain legal provisions on renewable energy sources in Hungary**

**Assessment and grading:** written examination, grade on a scale of 1-5

**Learning aids for the acquisition of knowledge, skills and competences:**

- Course material for class lectures

**Compulsory literature:**

- Woolley, O. (2023). *Renewable Energy Law* (1st ed.). Hart Publishing. Retrieved from <https://www.perlego.com/book/3895109> (Original work published 2023)
- Jacobs, J. (2024). *Renewable energy law and policy* (2024 ed.). LexisNexis

**Recommended reading:**

- [https://scholar.google.hu/scholar?q=Renewable+energy+market+regulation&hl=hu&as\\_sdt=0&as\\_vis=1&oi=scholar](https://scholar.google.hu/scholar?q=Renewable+energy+market+regulation&hl=hu&as_sdt=0&as_vis=1&oi=scholar)
- [https://energy.ec.europa.eu/document/download/0c574279-b71d-4aa0-9403-daf9ea5a8491\\_en?filename=C\\_2024\\_5042\\_1\\_EN\\_ACT\\_part1\\_v8.pdf](https://energy.ec.europa.eu/document/download/0c574279-b71d-4aa0-9403-daf9ea5a8491_en?filename=C_2024_5042_1_EN_ACT_part1_v8.pdf)
- [https://ec.europa.eu/commission/presscorner/detail/en/IP\\_23\\_2061](https://ec.europa.eu/commission/presscorner/detail/en/IP_23_2061)



## Economics of the energy market

**Name of the Subject:** Economics of the energy market

**Language of education:** English

**Department:** Institute of Economics and Management

**Course type:** compulsory seminar

**Work schedule:** full-time

**Number of contact hours per semester:** 24 contact hours

**Recommended semester:** odd semester

**Semester of announcement:** 1<sup>st</sup> semester

**Credit value:** 3

**Subject code:**

**Prerequisite:** none

**Course leader:** Dr. Péter Gordos

**Course instructor(s):** Dr. Péter Gordos

**Assessment:** practical grade

### Professional learning outcomes:

Participants will learn the basic concepts, scientific and technical characteristics of the energy industry. They will gain an insight into the economics of optimal regulation of natural monopolies in the energy sector, thus enabling them to understand, among others, price regulation.

### Short course description, description of the knowledge to be acquired, (sub)skills and (sub)competences to be applied:

- Introduction to key concepts in the energy sector.
- History of the development of Hungarian energy policy, its main objectives.
- The three pillars of energy policy in practice.
- Understanding the subject, purpose and tools of regulatory economics.
- Examining the characteristics and welfare implications of natural monopoly.
- Exploring the behaviour of non-regulated and regulated companies.



- Understanding corporate behaviour under rate-of-return and return-on-cost regulations. Ramsey pricing issues.
- Examining the welfare effects of multi-element tariffs. Characteristics of time-varying tariffs.

**Grading:** grade on a scale of 1-5

**Learning aids for the acquisition of knowledge, skills and competences:**

Lecture materials.

**Compulsory literature:**

- Mathis, K., & Huber, B. R. (Eds.). (2018). *Energy law and economics* (Vol. 5). Springer.
- Shy, O. (2001). *The economics of network industries*. Cambridge University Press.  
<https://doi.org/10.1017/CBO9780511754401>
- Gottinger, H.-W. (2006). *Economies of network industries* (1st ed.). Routledge.  
<https://doi.org/10.4324/9780415406444>

**Recommended reading:**

- [https://ec.europa.eu/economy\\_finance/publications/occasional\\_paper/2013/pdf/ocp129\\_en.pdf](https://ec.europa.eu/economy_finance/publications/occasional_paper/2013/pdf/ocp129_en.pdf)



## Elective Module

**Name of the subject:**

**Language of education:** English

**Department:**

**Course type:** compulsory lecture

**Work schedule:** full-time

**Number of contact hours per semester:** 24 contact hours (lectures)

**Recommended semester:** 1<sup>st</sup> semester

**Semester of announcement:** odd semester

**Credit value:** 3

**Subject code:**

**Prerequisite:** none

**Course leader:**

**Course instructor(s):**

**Assessment:** colloquium (written examination)



## SYLLABUS

### 2<sup>ND</sup> SEMESTER

#### Public administrative law and energy

**Name of the subject:** Public administrative law and energy

**Language of education:** English

**Department:** Department of Public Administration

**Course type:** compulsory lecture

**Work schedule:** full-time

**Number of contact hours per semester:** 24 contact hours (lectures)

**Recommended semester:** 2<sup>nd</sup> semester

**Semester of announcement:** even semester

**Credit value:** 2

**Subject code:**

**Prerequisite:** none

**Course leader:** Dr. Gyula Balázs Csáki-Hatalovics

**Course instructor(s):** dr. Tamás Cseh

**Assessment:** colloquium (written examination)

#### Professional learning outcomes:

By completing the course, students will become familiar with the domestic public administrative institutional system related to energy regulation and the competences required for the operation of this institutional system.

#### Short course description, description of the knowledge to be acquired, (sub)skills and (sub)competences to be applied:

1. Basic sectoral characteristics of energy administration;
2. Main directions of domestic energy policy;
3. Gas and electricity administration;
4. Nuclear energy administration;



5. Mining administration;
6. Environmental administration;
7. Nature conservation administration;
8. Property right restrictions in industrial administration.

**Mid-term academic requirements:**

The course may also be completed by fulfilling the mid-term requirement which can be an academic essay of at least half an author's sheet on a topic agreed with the course leader.

**Assessment and grading:** written or oral examination, grade on a scale of 1-5

**Learning aids for the acquisition of knowledge, skills and competences:**

Course material presented in the lectures.

**Checking questions, exam questions:**

1. Describe the system of bodies involved in energy regulation.
2. Describe the system of powers of the authorities in each sector.
3. Describe the specific competences of energy regulation.
4. Describe the specificities of legal remedy in the energy regulation system that differ from the general practice.
5. Describe the specific legal status of the regulatory authorities.
6. Describe the internal organizational structure of the regulatory authorities.
7. Describe the administrative provisions on extraordinary situations.

**Compulsory literature:**

-Heffron, R. J., & Talus, K. (2016). The evolution of energy law and energy jurisprudence: Insights for energy analysts and researchers. *Energy Research & Social Science*, 19, 1-10.  
<https://doi.org/10.1016/j.erss.2016.05.004>

- Tóth, M., & Vastag, G. (2020). Hungarian energy law as an example of using complex system viewpoints to understand risks in public administration normativity = *A magyar energijog mint a komplex rendszerek szemléletmódjainak alkalmazási példája a közigazgatási normativitás kockázatainak megértéséhez. Pro Publico Bono: Magyar Közigazgatás*, 8(2), 30-55.



## Energy project management

**Name of the subject:** Energy project management

**Language of education:** English

**Department:** Department of Commercial Law and Financial Law

**Course type:** compulsory seminar

**Work schedule:** full-time

**Number of contact hours per semester:** 24 contact hours (seminars)

**Recommended semester:** 2<sup>nd</sup> semester

**Semester of announcement:** even semester

**Credit value:** 4

**Subject code:**

**Prerequisite:** none

**Course leader:** Dr. Péter Gordos

**Course instructor(s):** Dr. Péter Gordos

**Assessment:** practical grade

### Professional learning outcomes:

The energy law not only provides the legal frameworks for making profits in a specific area, but also takes into consideration the interests of users. The course aims to raise awareness of this approach.

### Short course description, description of the knowledge to be acquired, (sub)skills and (sub)competences to be applied:

1. The purpose of consumer protection law;
2. The relationship between consumer protection law and the different branches of law (areas of law);
3. Description of the curriculum and requirements;
4. The system of consumer protection regulation;
5. History of the development of consumer protection law;
6. The economic basis of consumer protection;
7. The subject of consumer protection – the consumer;



8. The institutional system of consumer protection;
9. Product safety;
10. Consumer information;
11. Unfair commercial practices;
12. Unfair general terms and conditions – unfair contract terms;
13. Warranty, product warranty;
14. Guarantee, product responsibility;
15. General rules on consumer contracts;
16. Public service contracts, Article 6:256 of the Civil Code.

**Learning aids for the acquisition of knowledge, skills and competences:** presentation slides of the lectures.

**Assessment and grading:** written or oral examination, grade on a scale of 1-5

**Compulsory literature:**

- Schwacz, P. M. (2022). *Energy economics*. Taylor & Francis Ltd.
- Thapar, S. (2024). *Renewable energy: Policies, project management, and economics*. Springer Singapore.

**Recommended reading:**

Course materials provided by the lecturer to the students.



## Energy policy and environment

**Name of the subject:** Energy policy and environment

**Language of education:** English

**Department:** Institute of Economics and Management

**Course type:** compulsory lecture

**Work schedule:** full-time

**Number of contact hours per semester:** 24 contact hours

**Recommended semester:** 2<sup>nd</sup> semester

**Semester of announcement:** even semester

**Credit value:** 4

**Subject code:**

**Prerequisite:** none

**Course leader:** Dr. Annamária Csilla Gyüre

**Course instructor(s):** Dr. Annamária Csilla Gyüre

**Assessment:** colloquium (written examination)

### Professional learning outcomes:

Participants will learn about the concepts, functions and areas of energy projects. They will review the main tasks, management roles and functions related to planning, leading and managing different projects. Students will be able to define and perform various management tasks (mainly sponsorship and expertise) for different projects.

### Short course description, description of the knowledge to be acquired, (sub)skills and (sub)competences to be applied:

- The concept of a project, its characteristics and the specificities of its definition in energetics. Classification and management terminology according to IPMA and PM Workbook
- The essence, objectives and functions of energy projects with different functions (investment-construction, development, operation-maintenance, ESCO model), project portfolio



- Project process, phases, management steps, overview. Structure design, roles in different projects, management models, project organisations
- The main process and life cycles of project management (PDCA and EPC model). Leadership and management in different phases. The PMI and IPMA methodology.
- Project design, set-up, preparation, launch and decision points (situation analysis, target analysis, stakeholder analysis, time, resource and risk management)
- Project implementation, specificities of energy projects (scope management, WBS, scheduling, phases, performance planning, risk management, change management)
- Closing and evaluating the project, integrating the results into the strategy and the operation of the organisation
- Main issues in project communication
- Project documentation (the functions of documentation throughout the project). support systems, software for PM functions.
- Controlling in projects (CAPEX and OPEX approach)

**Mid-term academic requirements:** participation in seminars, submission of an essay on a chosen topic, based on a given theme

**Assessment and grading:** written / oral examination / essay, grade on a scale of 1-5

**Learning aids for the acquisition of knowledge, skills and competences:**

**Compulsory literature:**

- Gravey, V., & Jordan, A. (2021). *Environmental policy in the EU: Actors, institutions and processes* (5th ed.). Taylor & Francis Ltd.

**Recommended reading:**



## Energy dispute resolution and arbitration

**Name of the subject:** Energy dispute resolution and arbitration

**Language of education:** English

**Department:** Department of Civil Law and Roman Law

**Course type:** compulsory seminar

**Work schedule:** full-time

**Number of contact hours per semester:** 24 contact hours (seminars)

**Recommended semester:** 2<sup>nd</sup> semester

**Semester of announcement:** even semester

**Credit value:** 3

**Subject code:**

**Prerequisite:** none

**Course leader:** Prof. Dr. Ádám Boóc

**Course instructor(s):** Prof. Dr. Ádám Boóc

**Assessment:** practical grade

### Professional learning outcomes:

The aim of the course is to provide students with a basic knowledge about arbitration, in particular the importance and characteristics of arbitration in the energy sector.

### Short course description, description of the knowledge to be acquired, (sub)skills and (sub)competences to be applied:

1. Introduction to arbitration law;
2. Main characteristics of arbitration;
3. Description of the main arbitration institutions;
4. The relationship between arbitration and energetics.

**Mid-term academic requirements:** Writing a homework paper

**Assessment:** report



**Learning aids for the acquisition of knowledge, skills and competences:** Slides of the presentation in the lectures.

**Compulsory literature:**

- Scherer, M. (Ed.). (2018). *International arbitration in the energy sector* (1st ed.). Oxford University Press
- Tuna, M. O. (2022). *Alternative dispute resolution in energy industries* (1st ed.). Routledge

**Recommended reading:**



## International Energy Policy

**Name of the subject:** International Energy Policy

**Language of education:** English

**Department:** Department of Civil Law and Roman Law

**Course type:** compulsory lecture

**Work schedule:** full-time

**Number of contact hours per semester:** 24 contact hours

**Recommended semester:** even semester

**Semester of announcement:** 2<sup>nd</sup> semester

**Credit value:** 4

**Subject code:**

**Prerequisite:** none

**Course leader:** Dr. Krisztián Manzinger

**Course instructor(s):** Dr. Pál Kovács

**Assessment:** colloquium (written examination)

### Professional learning outcomes:

The aim of the course is to provide participants with an overview of global and domestic energy policy trends, energy sources, energy consumption and the state of electricity in the world, the European Union and Hungary. During the course, participants will learn the basics of nuclear energy, and get answers to major questions about the safety of nuclear power plants and their role in climate protection. Within the framework of the course, the Paks Nuclear Power Plant and Paks II project will also be presented.

### Short course description, description of the knowledge to be acquired, (sub)skills and (sub)competences to be applied:

On the basis of the following course description, students will get a comprehensive overview of international energy policy issues and current topics:

- World energy sources, energy consumption and electricity in the European Union (fossil fuels, renewable energy sources, climate change and climate protection issues)
- Energy policy based on IEA Key electricity trends 2018



- domestic energy policy, electricity situation and challenges of the electricity system in Hungary
- Presentation of the WWER type reactor family, current situation of Paks 2 project (presentation of the Paks Nuclear Power Plant and the Paks II reactor)
- IAEA (International Atomic Energy Agency) and nuclear knowledge export (possibilities for international exchange of experiences, education at the Paks Nuclear Plant)
- Nuclear power plant safety (nuclear power plant safety design, safety functions, safety culture, safety analyses)
- Presentation of floating nuclear power plants

**Assessment and grading:** written examination, grade on a scale of 1-5

**Learning aids for the acquisition of knowledge, skills and competences:** Slides of the presentation in the lectures

**Compulsory literature:**

- **Eicker, U., & Bourassa, R. (2021).** *Energy security and green energy transition: The geopolitics of energy.* Springer.
- **Scholten, D. (2021).** *The geopolitics of renewables: The energy transition and the transformation of energy markets.* Edward Elgar Publishing.

**Recommended reading:**



## Regulation of Nuclear Energy

**Name of the subject:** Regulation of Nuclear Energy

**Language of education:** English

**Department:** Department of Commercial Law and Financial Law

**Course type:** compulsory lecture

**Work schedule:** full-time

**Number of contact hours per semester:** 24 contact hours

**Recommended semester:** 2<sup>nd</sup> semester

**Semester of announcement:** even semester

**Credit value:** 3

**Subject code:**

**Prerequisite:** none

**Course leader:** Prof. Dr. Róbert Szuchy

**Course instructor(s):** Dr. Orsolya Fazekas

**Assessment:** colloquium (written examination)

**Professional learning outcomes:** The aim of the course is to introduce participants to the main technical, authority and regulatory frameworks of the Hungarian nuclear sector, and briefly present the major international regulations related to the Hungarian nuclear sector, and the main rules and principles for the functioning of the international organisations involved. With the help of this course, students will gain insight into the framework for the peaceful use of nuclear energy in Hungary. At the same time, the course also includes, to the required extent, the acquisition of the essential technical and radiation protection knowledge essential for the use of nuclear energy.

**Short course description, description of the knowledge to be acquired, (sub)skills and (sub)competences to be applied:** During the training, students will learn, among others, the main provisions of the Atomic Energy Act and the Nuclear Safety Regulations, the basic principles of the use of nuclear energy, the main rules on the regulatory supervision and management of nuclear energy, nuclear safety, security, storage and disposal of radioactive waste, spent fuel as well as the major rules on nuclear liability and compensation for nuclear damage.



**Assessment and grading:** written examination, grade on a scale of 1-5

**Learning aids for the acquisition of knowledge, skills and competences:** Slides of the presentations

**Compulsory literature:**

- Cook, H. (2022). *The law of nuclear energy* (3rd ed.). Sweet & Maxwell
- Heffron, R. J. (2015). *Deconstructing energy law and policy: The case of nuclear energy* (1st ed.). Edinburgh University Press.

**Recommended reading:**



## Intelligent Systems in Energy Markets

**Name of the subject:** Intelligent Systems in Energy Markets

**Language of education:** English

**Department:** Department of Commercial Law and Financial Law

**Course type:** compulsory lecture

**Work schedule:** full-time

**Number of contact hours per semester:** 24 contact hours

**Recommended semester:** even semester

**Semester of announcement:** 2<sup>nd</sup> semester

**Credit value:** 2

**Subject code:**

**Prerequisite:** none

**Course leader:** Prof. Dr. Róbert Szuchy

**Oktató(k):** Prof. Dr. Róbert Szuchy

**Assessment:** colloquium (written examination)

### Professional learning outcomes:

Energy legislation and new technologies pose challenges not only for engineers but also for lawyers. In order for new technologies to fit into the existing regulatory environment and for the regulatory environment not to limit technological development, new challenges are imposed not only to legislators but also to law enforcers. The primary aim of this course is to provide an insight into the world of these new technologies and to provide an overview of the legal solutions and problems that these new technologies bring to the surface.

### Short course description, description of the knowledge to be acquired, (sub)skills and (sub)competences to be applied:

1. Definition of smart systems
2. Overview of technological options
3. Smart networks and related legal frameworks
4. Smart systems, smart measurement, smart distribution
5. Legal frameworks for smart system in the USA



6. Smart systems and the EU
7. Limitations and challenges of regulation
8. Domestic energy efficiency regulation
9. The energy audit and the energy officer

**Grading:** seminar – term grade, lecture – colloquium, grade on a scale of 1- 5

**Assessment:** written examination

**Learning aids for the acquisition of knowledge, skills and competences:**

- Teaching aids in classes

**Compulsory literature:**

- Kolhe, M. L. (Ed.). (2024). Smart grid and renewable energy systems: Proceedings of 14th International Conference on Renewable and Clean Energy (ICRCE2024). Springer.
- Priyadarshi, N., Bhoi, A. K., Padmanaban, S., Balamurugan, S., & Holm-Nielsen, J. B. (Eds.). (2021). *Intelligent renewable energy systems*. Wiley.  
<https://doi.org/10.1002/9781119786306>

**Recommended reading:**

Course materials provided by the lecturer to the students.



## Energy social justice

**Name of the subject:** Energy social justice

**Language of education:** English

**Department:** Department of Public Administration

**Course type:** compulsory lecture

**Work schedule:** full-time

**Number of contact hours per semester:** 24 contact hours (lectures)

**Recommended semester:** 2<sup>nd</sup> semester

**Semester of announcement:** even semester

**Credit value:** 2

**Subject code:**

**Prerequisite:** none

**Course leader:** Prof. Dr. Róbert Szuchy

**Course instructor(s):** Prof. Raphael J. Heffron

**Assessment:** colloquium (written examination)

### Professional learning outcomes:

The course aims to enhance the students' knowledge of environmental energy law and to provide them with useful knowledge. The presentations will support the understanding and overview of global and regional processes in a changing world, where environmental regulations are becoming increasingly dominant in the energy sector.

The topics discussed in the course deal with the part of the energy sector where environmental law and environment policy, energy policy and legal regulations meet, allowing for example the problems and responses to climate protection to be presented.

### Short course description, description of the knowledge to be acquired, (sub)skills and (sub)competences to be applied:

1. Challenges in the energy sector, the concept of environmental energy policy, its basic issues, its structure and a brief overview of its development;
2. The links, elements and legislation of EU environment policy and energy policy;



3. Challenges of the corporate and industrial sector in the light of environmental energy policy, legal requirements of certain legal institutions, e.g. energy audit;
4. An overview of environmental energy law solutions for climate protection.

**Assessment and grading:** written examination, grade on a scale of 1-5

**Learning aids for the acquisition of knowledge, skills and competences:** teaching aids

**Compulsory literature:**

- Heffron, R. J., & de Fontenelle, L. (Eds.). (2024). *The power of energy justice & the social contract* (1st ed.). Springer
- Heffron, R. J. (2021). *The challenge for energy justice*. Springer.  
<https://doi.org/10.1007/978-3-030-80096-3>

**Recommended reading:**

Course materials provided by the lecturer to the students.



## Thesis consultation

**Name of the subject:** Thesis consultation

**Language of education:** English

**Department:**

**Course type:** compulsory lecture

**Work schedule:** full-time

**Number of contact hours per semester:** 20 contact hours (lectures)

**Recommended semester:** 2<sup>nd</sup> semester

**Semester of announcement:** even semester

**Credit value:** 5

**Subject code:**

**Prerequisite:** none

**Course leader:** Dr. Annamária Csilla Gyüre

**Course instructor(s):** Dr. Annamária Csilla Gyüre

**Assessment:** qualified signature



## Preparation for the final exam

**Name of the subject:** Preparation for the final exam

**Language of education:** English

**Department:**

**Course type:** compulsory seminar

**Work schedule:** full-time

**Number of contact hours per semester:** 20 contact hours (lectures)

**Recommended semester:** 2<sup>nd</sup> semester

**Semester of announcement:** even semester

**Credit value:** 0

**Subject code:**

**Prerequisite:** none

**Course leader:** Dr. Annamária Csilla Gyüre

**Course instructor(s):** dr. Orsolya Fazekas

**Assessment:** signature



## THESIS TOPICS

- Options for the regulation of dynamic and safe storage of natural gas
- Regulation of new actors in the electricity supply chain in the Clean Energy Package – aggregators, energy communities, prosumers, etc.
- Detailed description of the provisions and contexts of the electricity trading contract
- Competition law aspects of customer and destination restrictions in the energy sector
- Supporting energy investments by recognising restrictions of competition in competition law
- Possibilities for introducing consumer-side regulation of natural gas consumption in the Hungarian market
- Canon Law
- “Competition law regulation” in liberalized energy markets
- Long-term exclusive energy contracts in competition law
- Other



### **GENERAL FORMAL REQUIREMENTS FOR THE THESIS**

- paper size: A/4
- style: normal
- font: Times New Roman
- font size: 12
- line spacing: 1,5
- tabulator: default value: 1,25 cm
- alignment: justified
- separating words at the end of the line (if necessary)
- paragraph indent: 1,25 cm to the right
- margin:
  - top: 2,5 cm
  - left: 3,5 cm
  - right: 2,5 cm
- references in footnotes

Minimum length: 80,000 characters with spaces



## **FINAL EXAMINATION TOPICS**

### **1 exam topic must be pulled out**

1. Documents, system, structure and basic concepts of electricity and natural gas market regulation in Europe
2. Comparison of models in the electricity energy sector (market actors, contractual relations, price regulation)
3. PPAs (long-term power purchase agreements), competition law, investment protection, arbitration
4. Comparison of models in the natural gas sector (market actors, contractual relations, price regulation)
5. Activities subject to authorization in the electricity and natural gas market, licensees and the basis for their operation
6. Basics of the regulation of the district heating market (basic concepts, main sources of law, actors, basic legal relations)
7. Regulation of renewable energy production
8. Legal status and tasks of the Hungarian Energy and Public Utility Authority (MEKH)
9. Basics of nuclear law, nuclear liability
10. Main regulatory directions of the European Union's Clean Energy Package (CEP)

## **Qualification of the Diploma**

- The average of the grade obtained from the arithmetic average of the thesis assessments and the grade received for the thesis defence, rounded to two decimals.
- The qualification of the diploma is the arithmetic average of the grade for the thesis and the grade for the final examination topics (to two decimals).

excellent, if the average: 4,51 – 5,00
good, if the average: 3,51 – 4,50
satisfactory, if the average: 2,51-3,50
pass, if the average: 2,00 – 2,5