# **Energy Policy in Europe: Security and Transition**

EURR 5106/PSCI 5609 Tuesdays, 8:30-11:30am Room TBC

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Office Hours: Tuesdays 1pm-3pm or by appointment

# Description

The course examines energy policy of the European Union and aims to provide an overview of the development and current situation in this policy area. The aim of the course is to examine intricacies of the policy and explain its complexity. The course analyses internal and external dimension of EU energy policy, its legal basis, the main issues connected to this policy (especially energy security and energy transition), and different types of energy and their utilization within the EU. The course examines also external energy supplies that are crucial for the Union as its member states do not produce enough energy domestically and they have to thus import energy from the third countries. Renewable sources of energy together with nuclear energy will be discussed along with different new sources of natural gas for the EU including the North America.

#### Content

- Week 1: Introduction (11 September)
- Week 2: Development of the EU energy policy 1950s-present (18 September)
- Week 3: Internal energy market of the EU (25 September)
- Week 4: External energy relations of the EU (2 October)
- Week 5: Fossil fuels (coal, natural gas and oil) in the EU (9 October)
- Week 6: Nuclear energy and renewables in the EU (16 October)
- Week 7: Energy security (30 October)
- Week 8: Climate policy of the EU (6 November)
- Week 9: Energy transition (13 November)
- Week 10: Energy poverty in the EU (20 November)
- Week 11: New energy policy topics (27 November)
- Week 12: Review session (4 December)

#### Requirements

- Participation 20%
- Presentation 30%
- Critical feedback 10%
- Term paper proposal 10%
- Term paper 30%

## **Participation**

Participation will be graded on the basis of attendance, the quality of regular contributions to the class discussion, and demonstrated familiarity with required course readings. Please consult with instructor if you are concerned about this element, as I will try to assist in facilitating your participation. Students who don't feel they have the opportunity to participate during the discussion may submit a one page (max 500 words) comment to the instructor within 24 hours of class to get participation credit. This option is only available if the student has attended the relevant class session.

#### Presentation

Students have to prepare a power point presentation for 15-20 minutes. The topics of the presentations will be distributed during the first introductory class of the course. The topics will be in a form of a question or in a form of an idea that will have to be answered/discussed by the student in the presentation. The student has to provide concise answer to the question/discussion of the topic. A missed presentation will be given a grade of 0 unless there is a valid medical or equivalent excuse. You must notify me as soon as possible if you will miss your presentation, as this requires adjustment of planning for the course session.

#### Critical feedback

For each paper that will be presented in the class, one discussant will be assigned (after the introductory week) to make comments and give feedback. The feedback has to summarize the strong and weak points of the presentation. Presenting students can distribute their presentations to the discussants prior to the seminar.

#### Term paper proposal

Students should prepare a one page long research design of their term paper. Topic, title, research question, theoretical background, assumptions/hypotheses, main arguments presented in the term paper, structure of the paper. Basic literature should be included. You should meet with me to discuss your topic at latest during week 9 (ending on Friday 16 November).

## Term paper

Additional research materials are required for this paper, including academic writings (articles, books, chapters) and, where appropriate, primary source documents (e.g., government documents). It is to be delivered both as an electronic copy (via email) and a hardcopy (at the class) no later than on Tuesday December 4. The paper should be about 10 pages long (3000 - 4000 words) with at least 20 references. Late papers will suffer a 1 pt penalty (weekends excluded) for each day late and will not be accepted after December 10.

# Course Outline and Reading List

Each week will consist of three sections: lecture, student presentation and discussion. Students are expected to have read the papers before they come to class (at least the required reading).

#### Week 1: Introduction to the course (11 September)

- General information about the course
- Course syllabus
- Requirements
- Allocations of topics for students presentations

## Week 2: Development of the EU energy policy 1950-present (18 September)

- Historical overview of the energy policy within the European Union and its predecessors
- The role of energy in the development of European integration
- The impact of the 1970s energy crises on the EU
- Liberalization process of the 1990s
- Eastern enlargement of the EU and energy policy

#### Required reading:

- Brutschin, E. (2016) Historical Background and Overview. In: EU Gas Security Architecture. The Role of the Commission's Entrepreneurship. Palgrave: London, pp. 5-25
- Maltby, T. (2013) European Union energy policy integration: A case of European Commission policy entrepreneurship and increasing supranationalism. Energy Policy, 55(4): 435-444.
- Högselius ,P. (2012) Conclusion. In: Red Gas. Russia and the Origins of European Energy Dependence. Palgrave: London, pp. 217-236.
- Talus, K. (2017) Decades of EU energy policy: towards politically driven markets. The Journal of World Energy Law & Business 10(5): 380-388.

#### Additional reading

- Biesenbender, S. (2015) The EU's Energy Policy Agenda: Directions and Developments. In: Energy Policy Maing in the EU. Springer: New York, pp. 21-40.
- Krempin, D.(2016) Rise of Western Siberia and the Soviet-West German Energy Relations During the 1970s. In: Cold War Energy. A Transnational History of Soviet Oil and Gas. Palgrave: London, pp.253-271.
- Nosko, A. and Mišík, M. (2017) No united front: The political economy of energy in Central and Eastern Europe. In: Energy Union: Europe's New Liberal Mercantilism? Palgrave: London, pp. 201-222.

## Week 3: Internal energy market of the EU (25 September)

- Functioning of the internal energy market
- Liberalization
- Unbundling
- Diversification (interconnectivity)
- Exporting EU energy rules abroad

## Required reading:

- Bouzarovski, S. et al. (2015) Making territory through infrastructure: The governance of natural gas transit in Europe. *Geoforum* 64 (8): 217-228.
- Goldthau, A. and Sitter, N. (2014) A liberal actor in a realist world? The Commission and the external dimension of the single market for energy. Journal of European Public Policy 21(10): 1452-1472.
- Herweg, N. (2015) Against All Odds: The Liberalisation of the European Natural Gas Market—A Multiple Streams Perspective. In: Energy Policy Making in the EU. Springer: New York, pp. 87-105.
- Herweg, N. (2016) Explaining European agenda-setting using the multiple streams framework: the case of European natural gas regulation. *Policy Sciences* 49(1): 13-33.

#### Recommended reading

• Mišík, M. and Nosko, A. (2017) Eastring gas pipeline in the context of Central and Eastern European gas supply challenge. Nature Energy. Vol. 2, No. 11, pp. 844-848.

- Overland, I. (2017) The Hunter Becomes the Hunted: Gazprom. Encounters EU Regulation. In: Energy Union. Europe's New Liberal Mercantilism? Palgrave: London, pp. 115-130.
- Tulloch, et al. (2018) The impact of regulatory change on EU energy utility returns: the three liberalization packages. *Applied Economics* 50(9): 957-972.

## Week 4: External energy relations of the EU (2 October)

- External energy policy
- Dependency on external supplies
- Diversification of routes and sources
- Nord Stream I and II
- LNG

#### Required reading:

- Gritsenko, D. (2018) Explaining choices in energy infrastructure development as a network of adjacent action situations: The case of LNG in the Baltic Sea region. Energy Policy 112: 74-83.
- Herranz-Surralés, A. (2016) An emerging EU energy diplomacy? Discursive shifts, enduring practices. Journal of European Public Policy 23(9): 1386-1405.
- Kuzemko, C. (2014) Ideas, power and change: explaining EU–Russia energy relations. Journal of European Public Policy 21(1): 58-75.
- Siddi, M. (forthcoming) The EU's Botched Geopolitical Approach to External Energy Policy: The Case of the Southern Gas Corridor. Geopolitics.

## Recommended reading

- Heinrich, A. (2018) Securitisation in the Gas Sector: Energy Security Debates Concerning the Example of the Nord Stream Pipeline. In: Energy Security in Europe Divergent Perceptions and Policy Challenges. Palgrave: London, pp. 61-91.
- Mišík, M. (2016) On the way towards the Energy Union: Position of Austria, the Czech Republic and Slovakia towards External Energy Security Integration. Energy, vol.111, pp. 68-81.
- Mišík, M. and Prachárová, V. (2016) Before 'Independence' Arrived: Interdependence in Energy Relations between Lithuania and Russia. Geopolitics, vol. 21, no. 3, pp. 579-604.
- Tichý, L. (forthcoming) The diversification discourse of Russia and its energy relations with the EU.
  Asia Europe Journal.

## Week 5: Fossil fuels (coal, natural gas and oil) in the EU (9 October)

- The role of fossil fuels in the energy mix of the EU member states
- Coal, electricity production and environmental concerns
- Why oil is smaller problem than natural gas?
- Natural gas as a bridging fuel

- Aalto, P. and Temel, D.K. (2014) European Energy Security: Natural Gas and the Integration Process. Journal of Common Market Studies 52(4): 758-774.
- Bianco, V. et al. (2015) Current situation and future perspectives of European natural gas sector. *Frontiers in Energy* 9(1):1-6.
- Claes, D.H. (2018) The Global Oil Market and EU Energy Security. In: Energy Security in Europe Divergent Perceptions and Policy Challenges. Palgrave: London, pp. 311-331.

• Manowska, A. et al. (2017) Economic and social aspects of restructuring Polish coal mining: Focusing on Poland and the EU. *Resources Policy* 52: 192-200.

## Recommended reading:

- Coady, D. et al. (2017) How Large Are Global Fossil Fuel Subsidies? World Development 91: 11-27.
- Frantál, B. (2016) Living on coal: Mined-out identity, community displacement and forming of anti-coal resistance in the Most region, Czech Republic. *Resources Policy* 49: 385-393.
- Kuchler, M. and Bridge, G. (2018) Down the black hole: Sustaining national socio-technical imaginaries of coal in Poland. *Energy Research & Social Science* 41: 136-147.
- van Moerkerk, M. and Crijns-Graus, W. (2016) A comparison of oil supply risks in EU, US, Japan, China and India under different climate scenarios. *Energy Policy* 88: 148-158.

## Week 6: Nuclear energy and renewables in the EU (16 October)

- Position of nuclear energy in the EU
- The impact of the Fukushima nuclear accident on the EU
- German decision to phase-out nuclear energy
- Central and Eastern European support for nuclear
- Employment of renewables and the electricity grid issues

## Required reading:

- Janda, K. et al. (2017) Influence of renewable energy sources on transmission networks in Central Europe. Energy Policy 108: 524-537.
- Osička, J. and Čenoch, F. (2017) Anatomy of a black sheep: The roots of the Czech Republic's pronuclear energy policy. *Energy Research & Social Science* 27: 9-13.
- Pacesila, M. et al.(2016) Analysis of renewable energies in European Union. *Renewable and Sustainable Energy Reviews* 56: 156-170.
- Siegrist, M. and Visschers, V.H.M. (2013) Acceptance of nuclear power: The Fukushima effect. *Energy Policy* 59 (8): 112-119.

## Recommended reading:

- Davidescu, S. et al. (forthcoming) Two steps forward, one step back: Renewable energy transitions in Bulgaria and Romania. *Public Administration*.
- Scarlat, N. et al. (2015) Renewable energy policy framework and bioenergy contribution in the European Union An overview from National Renewable Energy Action Plans and Progress Reports. Renewable and Sustainable Energy Reviews 51:969-985.
- Wittneben, B.B.F. (2012) The impact of the Fukushima nuclear accident on European energy policy. *Environmental Science & Policy* 15(1): 1-3.

## Week 7: Energy security (30 October)

- What is energy security and how to define it?
- Energy security as the top priority of the EU
- How to improve energy security of the Union?
- The importance of energy security for Central and Eastern European Countries

- Goldthau, A. and Sitter, N. (2015) Soft power with a hard edge: EU policy tools and energy security. Review of International Political Economy 22(5): 941-965.
- Johnsson, D.K. et al. (2015) Energy security matters in the EU Energy Roadmap. *Energy Strategy Review* 6(1): 48-56.
- Szulecki, K. (2018) The Multiple Faces of Energy Security: An Introduction. In: Energy Security in Europe Divergent Perceptions and Policy Challenges. Palgrave: London, pp. 1-30.

#### Recommended reading

- Boersma, T. and Choldthau, A. (2017) Wither the EU's Market Making Project in Energy: From Liberalization to Securitization? In: Energy Union. Europe's New Liberal Mercantilism? Palgrave: London, pp. 99-113.
- Chalvatzis, K.J. and Ionnidis, A. (2017) Energy supply security in the EU: Benchmarking diversity and dependence of primary energy. *Applied Energy* 207: 465-476.
- Matsumoto, K. et al. (2018) Historical energy security performance in EU countries. *Renewable and Sustainable Energy Reviews* 82(part 2): 1737-1748.

## Week 8: Climate policy of the EU (6 November)

- EU Climate policy and its connection to energy policy
- Development of EU climate and environmental policies
- EU energy and climate goals (2020, 2030, 2050)

## Required reading:

- Dupont, C. (2018) Climate Change: Adapting to Evolving Internal and External Dynamics. In: European Union External Environmental Policy. Rules, Regulation and Governance Beyond Borders. Palgrave: London, pp. 105-124.
- Ellerman, A.D. et al. (2016) The European Union Emissions Trading System: Ten Years and Counting. *Review of Environmental Economics and Policy* 10(1): 89–107.
- Fitch-Roy, O. and Fairbrass, J. (2018) Introduction and Context. In: Negotiating the EU's 2030 Climate and Energy Framework. Palgrave: London, pp. 1-20.

## Recommended reading:

- Dupont, C. and Oberthür, S. (2015) Decarbonization in the EU: Setting the Scene. In: Decarbonization in the European Union Internal Policies and External Strategies. Palgrave\_London, pp. 1-25.
- Eikeland, P.O. and Skjaerset, J.B. (2016) Evolution of EU climate and energy policies. In: Linking EU Climate and Energy Policies. Edward Elgar: Cheltenham, pp. 31-50.
- Ringer, M. and Knodt, M. (2018) The governance of the European Energy Union: Efficiency, effectiveness and acceptance of the Winter Package 2016. Energy Policy 112: 209-220.

## Week 9: Energy transition (13 November)

- What actually is energy transition
- Transition to what?
- How the EU supports the idea of energy transition

- Chapman, A.J. and Itaoka, K. (2018) Energy transition to a future low-carbon energy society in Japan's liberalizing electricity market: Precedents, policies and factors of successful transition. *Renewables and Sustainable Energy Reviews* 81(Part 2): 2019-2027.
- Markard, J. (2018) The next phase of the energy transition and its implications for research and policy. Nature Energy 3: 628-633.
- Proka, A. et al. (2018) Transition without Conflict? Renewable Energy Initiatives in the Dutch Energy Transition. *Sustainability* 10(6), 1721.

#### Recommended reading:

- Bridge, G. et al. (2013) Geographies of energy transition: Space, place and the low-carbon economy. *Energy Policy* 53(2): 331-340.
- Szulecki, K. and Kusznir, J. (2018) Energy Security and Energy Transition: Securitisation in the Electricity Sector. In: Energy Security in Europe Divergent Perceptions and Policy Challenges. Palgrave: London, pp. 117-148.

## Week 10: Energy poverty (20 November)

- Energy poverty as a concept
- Energy poverty within the European Union
- What causes energy poverty
- Tools to combat energy poverty

## Required reading:

- Bouzarovsi, S. (2018) Energy Poverty Policies at the EU Level. In: Energy Poverty. Palgrave: London, pp. 41-73.
- González-Equino, M. (2015) Energy poverty: An overview. *Renewable and Sustainable Energy Reviews* 47: 377-385.
- Maxim, A. et al. (2016) Implications and Measurement of Energy Poverty across the European Union. *Sustainability* 8(5): 483.

#### Recommended reading:

- Bouzarovski, S. and Herrero, S.T. (2017) The energy divide: Integrating energy transitions, regional inequalities and poverty trends in the European Union. European Urban and Regional Studies 24(1): 69-86.
- Bouzarovski, S. et al. (2016) Unpacking the spaces and politics of energy poverty: pathdependencies, deprivation and fuel switching in post-communist Hungary. *Local Environment* 21(9): 1151-1170.

#### Week 11: New energy policy topics (27 November)

- Shale gas
- Energy humanities
- Smart energy

- De Graaf et al. (2018) Fractured politics? The comparative regulation of shale gas in Europe. *Journal of European Public Policy* 25(9): 1276-1293.
- Dincer, I. and Acar, C. (2017) Smart energy systems for a sustainable future. *Applied Energy* 194: 225-235.

- Smith, B. (2017) Speculate, speculation, speculative: What can the Energy Humanities do? *Journal of Literature and Science* 10(2): 67-73.
- Lund, H. et al. (2017) Smart energy and smart energy systems. Energy 137: 556-565.

#### Recommended reading:

- Kujundžić, N. and Mišík, M. (2018) Powering up the Technodrome: Energy sustainability in the 1987 Teenage Mutant Ninja Turtles. The Journal of Popular Culture, vol.51, no. 3, pp. 575-594.
- Melikoglu, M. (2014) Shale gas: Analysis of its role in the global energy market. *Renewable and Sustainable Energy Reviews* 37: 460-468.

## Week 12: Review session (4 December)

- "Connecting the dots" between individual topics
- Providing a bigger picture of energy transition
- Discussion of the main issues
- Future of energy consumption and policy

#### **Academic Accommodations**

## **Requests for Academic Accommodation**

You may need special arrangements to meet your academic obligations during the term. For an accommodation request, the processes are as follows:

#### **Pregnancy obligation**

Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details, visit the Equity Services website: <a href="mailto:carleton.ca/equity/wp-content/uploads/Student-Guide-to-Academic-Accommodation.pdf">carleton.ca/equity/wp-content/uploads/Student-Guide-to-Academic-Accommodation.pdf</a>

#### **Religious obligation**

Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details, visit the Equity Services website: <a href="mailto:carleton.ca/equity/wp-content/uploads/Student-Guide-to-Academic-Accommodation.pdf">carleton.ca/equity/wp-content/uploads/Student-Guide-to-Academic-Accommodation.pdf</a>

#### **Academic Accommodations for Students with Disabilities**

If you have a documented disability requiring academic accommodations in this course, please contact the Paul Menton Centre for Students with Disabilities (PMC) at 613-520-6608 or <a href="mailto:pmc@carleton.ca">pmc@carleton.ca</a> for a formal evaluation or contact your PMC coordinator to send your instructor your Letter of Accommodation at the beginning of the term. You must also contact the PMC no later than two weeks before the first in-class scheduled test or exam requiring accommodation (if applicable). After requesting accommodation from PMC, meet with your instructor as soon as possible to ensure accommodation arrangements are made. <a href="mailto:carleton.ca/pmc">carleton.ca/pmc</a>

#### **Survivors of Sexual Violence**

As a community, Carleton University is committed to maintaining a positive learning, working and living environment where sexual violence will not be tolerated, and is survivors are supported through academic accommodations as per Carleton's Sexual Violence Policy. For more information about the services available at the university and to obtain information about sexual violence and/or support, visit: carleton.ca/sexual-violence-support

#### **Accommodation for Student Activities**

Carleton University recognizes the substantial benefits, both to the individual student and for the university, that result from a student participating in activities beyond the classroom experience. Reasonable accommodation must be provided to students who compete or perform at the national or international level. Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. <a href="https://carleton.ca/senate/wp-content/uploads/Accommodation-for-Student-Activities-1.pdf">https://carleton.ca/senate/wp-content/uploads/Accommodation-for-Student-Activities-1.pdf</a>

For more information on academic accommodation, please contact the departmental administrator or visit: <a href="mailto:students.carleton.ca/course-outline">students.carleton.ca/course-outline</a>

#### Plagiarism

The University Senate defines plagiarism as "presenting, whether intentional or not, the ideas, expression of ideas or work of others as one's own". This can include:

- reproducing or paraphrasing portions of someone else's published or unpublished material, regardless of the source, and presenting these as one's own without proper citation or reference to the original source;
- submitting a take-home examination, essay, laboratory report or other assignment written, in whole or in part, by someone else;
- using ideas or direct, verbatim quotations, or paraphrased material, concepts, or ideas without appropriate acknowledgment in any academic assignment;
- using another's data or research findings;
- failing to acknowledge sources through the use of proper citations when using another's works and/or failing to use quotation marks;
- handing in substantially the same piece of work for academic credit more than once without prior written permission of the course instructor in which the submission occurs.

All suspicions of plagiarism will be dealt with according the Carleton's Academic Integrity Policy (https://carleton.ca/registrar/academic-integrity/). The Associate Dean of the Faculty will conduct a rigorous investigation, including an interview with the student. Penalties are not trivial. They may include a mark of zero for the plagiarized work or a final grade of F for the course. Student or professor materials created for this course (including presentations and posted notes, labs, case studies, assignments and exams) remain the intellectual property of the author(s). They are intended for personal use and may not be reproduced or redistributed without prior written consent of the author(s).