## Syllabus

## **Political Economy of Energy Transition**

#### Instructors:

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#### Introduction:

This course will cover characteristics and challenges of energy transition. It will examine political economy of transition, focusing on major changes which transfer to green/renewable energy will bring in global economy, politics and geopolitics.

#### **Course overview:**

The energy transition which is driven by climate change is likely to bring fundamental transformation challenging political and economic status quo across geographic areas. This course builds knowledge and provide critical tools for analysis of these changes, first of all its effects on development, governance and stability. To examine the effect of transition we will cover various case studies demonstrating major common and specific trends in politics and economy caused by the decline of fossil fuels and development of renewables.

#### Learning objectives:

By the end of this course, participants will be able to understand:

- ✓ The basics of the political economy of energy resources and rentier states, economic approaches for achieving energy transition;
- ✓ Assessments of energy markets and their functions, classification of energy sources and energy transition;
- ✓ Analysis of global policy of energy transition: key aspect of Paris agreement, climate change conference (COP28/29) and global methane pledge;
- Economic, social and political implications of energy transition at national and global levels;

- ✓ To critically analyse the influence of various kind of resources (fossil fuels, renewables) on geopolitics, democracy building, stability and sustainable development;
- ✓ Strategy thinking and perspective analysis on energy transition and energy security.

### **Teaching methods:**

Presentations with PowerPoint, short videos/film clips, initiation of group discussions, encouragement to follow media and read related literature.

### **Target audience:**

The target audience of this course is bachelor's, master's, and Ph.D. students studying in the field of the economics, economic policy and global economic relations, energy economy, political economy, environmental sciences and political sciences, independent researchers, representatives of NGOs specialized in the field of energy transition, environment and climate change, experts in both fields, environmental defenders, journalists and investigators from the field of fossil fuel.

### **Bibliography:**

- Mitchell, C. (2008). The Political Economy of Sustainable Energy, Publisher: Palgrave Macmillan London, XI, 236
- Moe, E., and P. Midford (2014). The Political Economy of Renewable Energy and Energy Security: Common Challenges and National Responses in Japan, China and Northern Europe, Publisher: Palgrave Macmillan; 2014th edition
- Smil V., (2017). Energy and Civilization. A History, Publisher: MIT Press, 552 pages
- D. Acemoglu *et al.* (2003), Institutional causes, macroeconomic symptoms: volatility, crises and growth, Journal of Monetary Economics Volume 50, Issue 1, January 2003, Pages 49-123

#### Seminar structure:

The class will meet over 10 seminars meeting every week. The seminar will consist of two parts - first -a lecture, and second- a discussion and critical dialogue.

Seminar 1. Political economy of hydrocarbons: petro - states and rentier economies.

## **Objectives**:

- Introduce students to the concepts of petro-state, rentier state and economy.
- Examine formation of a rentier state in the oil rich economy.
- Analyse the effect which the decline of fossil fuel dependence will have on rentier states- decline or reinforcement.

# **Required readings**

- Beblawi, Hazem, Luciani, Giacomo The Rentier State. (London, Croom Helm, 1987)pp.
- Karl, Terry Lynn, "The Perils of the Petro-State : Reflections on the Paradox of Plenty", pp.

# **Optional reading**

- Al-Sarihi, Aisha, Cherni, Judith A. Political Economy of Renewable Energy Transition in Rentier States: the case of Oman (Environmental Policy and Governance, 2022,1-17)
- Malik, Adeel (2017) 'Rethinking the Rentier Curse' in G. Luciani (ed.) Combining Economic and Political Development : The Experience of MENA, International Development Policy series 7 (Geneva: Graduate Institute Publications, Boston: Brill-Nijhoff), pp. 41–57
- Yates, Douglas, Rise and Fall of the Rentier States in Africa. American Graduate School in Paris, 7<sup>th</sup> June 2012.
- Li Chen Sim Low Carbon Energy in the Gulf: Upending the Rentier State? (Energy Research and Social Science 70 (2020).

### Seminar 2. The Political Economy of the Energy Transition

### Objectives

- Understand political and economic drivers of the energy transition.
- Analyze the role of political institutions, power structures, and global governance in shaping renewable energy policies and implementation strategies.

- Explore how political ideologies and lobbying by incumbent industries influence the pace and scope of the transition.
- Examine challenges for the petro-states and rentier economies.

## **Required readings**

- Ann-Kristin Bergquist & Magnus Lindmark, Hanna Breetz, Matto Mildenberger, and Leah Stokes, The political logics of clean energy transitions, Business and Politics 2018; 20(4): 492–522
- Benjamin Sovocool, The history and politics of energy transition, Oxford University Press, 2017, Part 1.2.
- Jungwoo Lee, Jae-Suk Yang, Global energy transitions and political systems, Renewable and Sustainable Energy Reviews Volume 115, November 2019, 109370
- Jorge Blazquez, Rolando Fuentes, Baltasar Manzano, On some economic principles of the energy transition, Energy Policy Volume 147, December 2020, 111807

## **Optional readings**

- Oxford Institute for Energy Studies, The Geopolitics of Energy: out with the old, in with the new? February 2021: ISSUE 126
- Ann-Kristin Bergquist & Magnus Lindmark, Hanna Breetz, Matto Mildenberger, and Leah Stokes, The political logics of clean energy transitions, Business and Politics 2018; 20(4): 492–522

### Seminar 3. Energy transition: Dynamics and Prospects

### Objectives

- Overview of the Global energy transition market: opportunities and challenges
- Explore of the World Energy Transitions Outlook 2023: Energy Transition Index and Energy Transition Readiness Report
- Develop an Energy transition finance: Clean energy investments and prospects

### **Required readings**

 Seth Cothrun, Framing the energy transition: Market opportunities and challenges, October 2023, Available for download: <u>https://franklintempletonprod.widen.net/content/33texymyoj/pdf/energy-fra</u> <u>ming-the-energy-transition-a.pdf</u>

# **Optional readings**

- World Economic Forum, Fostering\_Effective Energy Transition 2024, Available for download: <u>https://www.weforum.org/publications/fostering-effective-energy-transition-2</u> 024/
- IRENA (2024), World Energy Transitions Outlook 2024: 1.5°C Pathway, International Renewable Energy Agency, Abu Dhabi. Available for download: <u>https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2024/Nov/IR</u> <u>ENA World energy transitions outlook 2024.pdf</u>
- Ana M. Camelo Vega, Financing Pathways for the Energy Transition: A Regional Approach (New York: Columbia Center on Sustainable Investment (CCSI), September 2024), pages 7-22 Available for download: <u>https://ccsi.columbia.edu/sites/default/files/content/docs/publications/ccsi-fina</u> <u>ncing-pathways-energy-transition.pdf</u>

# Seminar 4. The effects of energy transition on democracy

### Objectives

- Develop an understanding of effects of the fossil fuels on democracy.
- Introduce mechanisms of adverse effects of oil on democracy
- Examine how transfer to renewables will impact various aspects of democracy.

# **Required readings**

- Ross, Michael. Does Oil hinder Democracy? World Politics, Apr. 2001, Vol.53, No. 3, PP. 325-361
- Ivanov, Martin. Decarbonize and Democratize: How the European Green Deal Could Transform High Carbon Economies (European Council for Foreign Relations - ECFR, commentary, 19 January, 2022) 5 pages.

# **Optional readings**

- Franke Anja, Gawrich Andrea, Alakbarov, Gurban. Kazakhstan and Azerbaijan as post-Soviet rentier states (Europe-Asia studies, 61-1, 2009)
- Alieva, Leila, Pikulik, Alexey Rent Distribution Modes in Azerbaijan and Belarus: Implications for the Opposition. (Europe-Asia studies, published online 8 July 2022)
- Okruhlik, Gwenn Rentier Wealth, Unruly Law and the Rise of Opposition. The Political Economy of the Oil states (Comparative Politics, Vol.31, N.3, 1999)

# Seminar 5. Energy and climate: Lesson from COP29

## Objectives

- Examine of the Mitigating Climate Change: Phase Down and Phase Out of Fossil Fuels
- Develope of the carbon credit market and reduce gas emissions
- Explore of the Climate finance and justice: financial and technological support to vulnerable nations

# **Required readings**

- Irene Monasterolo, Marco Raberto, The impact of phasing out fossil fuel subsidies on the low-carbon transition, Energy Policy Volume 124, January 2019, Pages 355-370
- David M. Driesen, Phasing Out Fossil Fuels, Nova Law Review Volume 38, Issue 3 2014 Article 5

# **Optional readings**

• Carbon Credit Market Size, Share & Growth Report, 2030, Available for download:

https://www.grandviewresearch.com/industry-analysis/carbon-credit-marketreport#

Patrik Söderholm, The green economy transition: the challenges of technological change for sustainability, Söderholm Sustainable Earth (2020) 3:6 <u>https://doi.org/10.1186/s42055-020-00029-y</u>, Available for download: <u>https://www.norrbottenskommuner.se/media/3385/soederholm-the\_green\_economy\_transition\_the\_challenges\_of\_tech-2020.pdf</u>

- Chukwumerije Okereke, Philip Coventr, Climate justice and the international regime: before, during, and after Paris, 14 July 2016 https://doi.org/10.1002/wcc.419
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### Seminar 6. Resource nationalism in the era of renewables

### Objectives

- Introduce the concept of the resource nationalism in the fossil fuel era
- Analyse the new basis for resource nationalism in the energy transition
- Examine roots of resource nationalism in the Global South

### **Required readings**

- Karkare, Poorva. Resource Nationalism in the Age of Green Industrialization Discussion paper No.365, ECDPM, May 2024, 23 pages.
- Pryke, Sam, Explaining resource nationalism in Global Policy, Vol. 8, issue 4, Nov.2017. PP.474-482.

# **Optional Reading**

- Hansen, Susanne, Therese, Moe Espen Renewable Energy Expansion or the Preservation of the National Energy Sovereignty? Norwegian Renewable Energy Policy Meets Resource Nationalism. (Political Geography, 99, (2022)
- Kokh, Natalie, Perreault, Tom Resource Nationalism in Progress (Human Geography, 43(4), 2019.
- Nakhle, Carol. The Energy Transition and the Risk of Resource Nationalism. GISreports,May 12, 2023 <u>https://www.gisreportsonline.com/r/resource-nationalism/</u>.

### Seminar 7. Energy transition as a solution energy security risk

### Objectives

Introduce concept from the European Green Package to the new Green Deal

- Introduce concept on energy cooperation and European integration
- Explore an Energy transition as a solution for energy security risk: case of Russia invasion of Ukraine

## **Required readings**

- Fetting, C. (2020). "The European Green Deal", ESDN Report, December 2020, ESDN Office, Vienna.
- Atta Ullah, Haitham Nobanee, Saif Ullah, Huma Iftikhar, Renewable energy transition and regional integration: Energizing the pathway to sustainable development, Energy Policy Volume 193, October 2024, 114270
- Stefan Ćetković, Aron Buzogány, The Political Economy of EU Climate and Energy Policies in Central and Eastern Europe Revisited: Shifting Coalitions and Prospects for Clean Energy Transitions, Politics and Governance (ISSN: 2183–2463) 2019, Volume 7, Issue 1, Pages 124–138

# **Optional reading**

• Naveed Aslam, Wanping Yang, Rabia Saeed, Fahim Ullah, Energy transition as a solution for energy security risk: Empirical evidence from BRI countries, Energy, Volume 290, 1 March 2024, 130090

### Seminar 8. The future of resource driven conflicts

### Objectives

- Examine approaches to connection between the fossil fuels and conflicts.
- Develop understanding of sources and types of conflicts in the energy transition.
- ◎ Explore vulnerability of countries to the conflicts.

### **Required readings**

- Collier, Paul, Hoeffler, Nike. Resource Rents, Governance and Conflicts ( Journalof Conflict resolution, Vol.49, issue 4, 2005, PP.1-9.
- Berman, Nicholas et al. This Mine is Mine. How Minerals Fuel Conflicts in Africa. American Economic Review. 2017, 107(6). PP.1564-1610.

# **Optional readings**

- The Global Risk Report 2023, 18<sup>th</sup> Edition Insight Report. World Economic Forum, 2023.
- Fairhead, James The conflict over natural and Environmental Resources in Nafziger, W, Stewart F., Vayrynen, Raimo (eds) War, Hunger and Displacement: Volume 1. Oxford University Press, 2001.
- Colgan, Jeff. Petro-Aggression: When Oil Causes War. Cambridge University Press, 2013.
- Kelanic, Rosemary. Black Gold and Blackmail: Oil and Great Power Politics, Degruyter, 2020.

### Seminar 9. Benefits and costs of energy transition and green economy

### Objectives

- Introduce the concept of Winners and losers
- Explore connection of a green economy and democracy
- ✤ Examine the Mitigation costs: What will it cost to get to net-zero?

### **Required reading**

• Eleonore Loiseau, Laura Saikku, Riina Antikainen, Nils Droste, Bernd Hansjürgens, Kati Pitkänen, Pekka Leskinen, Peter Kuikman, Marianne Thomsen, Green economy and related concepts: An overview, Journal of Cleaner Production Volume 139, 15 December 2016, Pages 361-371

### **Optional readings**

- Muthukumara Mani, Zekarias Hussein, Badri Narayanan Gopalakrishnan, Deepika Wadhwa, Paris Climate Agreement and the Global Economy: Winners and Losers, World Bank, Policy Research Working Paper 8392
- Jens Mehrhoff, Benefits of Accelerating the Climate Transition Outweigh the Costs, December 5, 2023, Available for download: <u>https://www.imf.org/en/Blogs/Articles/2023/12/05/benefits-of-acceler</u> <u>ating-the-climate-transition-outweigh-the-costs</u>
- Gregor Erbach and Martin Höflmayr, with Nela Foukalová, Economic impacts of the green transition, EPRS | European Parliamentary Research Service, September 2022, Available for download: <u>https://www.europarl.europa.eu/RegData/etudes/BRIE/2022/733623/EPRS\_BR</u> <u>I(2022)733623\_EN.pdf</u>

- Ciarán Nevin, Jamie Pirie, Jon Stenning, Cutting bills and creating jobs: the economic opportunities of the clean energy transition, Cambridge Econometrics, Cambridge, UK, Full report and modelling June 2022, Available for download: <a href="https://www.wemeanbusinesscoalition.org/wp-content/uploads/2022/06/Fullr">https://www.wemeanbusinesscoalition.org/wp-content/uploads/2022/06/Fullr</a> eport EconomicOpportunitiesCleanEnergy.pdf
- McKinsey Global Institute, The net-zero transition: What it would cost, what it could bring, January 2022
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### Seminar 10. The geopolitics of energy transition

#### Objectives

- Explore the trends of geopolitics shaped by fossil fuels
- Develop an understanding of qualities of renewables impacting geopolitics
- Examine how critical materials will affect geopolitics.

### **Required readings**

- Bordoff, Jason, O'Sullivan, Meagan L. The Age of Energy Insecurity. How the Fight for Resources is Upending Geopolitics. (Foreign Affairs, May/June 2023) 10 pages.
- Manberger, Andre , Johansson, Bengt, The geopolitics of Metals and Metalloids used for the Renewable Energy Transition. (Energy Strategy Reviews, 26, (2019)PP 1-10.

### **Optional readings**

- Stephens, Paul. The Geopolitical Implications of Future Oil Demand. ( Chatham House, Energy, Environment and Resources Department, August, 2019)
- A New World. The Geopolitics of the Energy Transformation, Global Commission on the Geopolitics of Energy Transformation. IRENA, 2019.