INSTITUTE OF INTERNATIONAL RELATIONS AND POLITICAL SCIENCE
VILNIUS UNIVERSITY

2022-02-04

Energy Security
2022

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Course description

The course provides with an in-depth knowledge on energy security and aims at developing skills enabling to analyse energy sector developments in the context of national and international challenges. Revealing practical aspects of energy security is a particular feature of the course.

Topics: the main energy terms and definitions, organization of energy sector, power and gas markets and systems; functioning of energy companies; definition and assessment of energy security; energy policies and their challenges (such as security of supply, climate change, transition, energy economics vs politics); coercive energy policy of Russian Federation and EU energy security strategy, interrelation between public politics and energy security.

Working methods: analysis of up-to date political agendas, case studies, exercises, work in groups, presentations, and discussions. Group paper to be developed and presented – case study – energy security assessment of a selected country.

Work programme is attached herewith.
List of required reading and additional materials attached herewith.

VU Moodle system contains programme, reading materials, tasks

VU MS Teams is used for online meetings.

Participation in the seminars is required. Level of tolerance – **max 3 seminars may be missed**.
The course is about practical aspects of energy security, thus it is more about presentations and discussions at the seminars, rather than text analysis. Therefore, absence at the seminars cannot be replaced and/or "compensated" by individual reading.

Exam will take place by the end of the course.

Grading. Evaluation:

1.	Performance at seminars	0,25
2.	Group paper (case study)	0,25
3.	Exam	0,5

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Course Programme

	Date	WD	H	Room	Topic
1.	2022-02-04	F	16:45	online	Introduction of the Course. Energy security – the problem.
2.	2022-02-09	W	16:45	online	What is energy. Main terms and definitions. **Exercise No. 1.**
3.	2022-02-11	F	16:45	online	Demystifying energy policy. Energy transition.
4.	2022-02-18	F	16:45	online	Electricity and gas TSOs. Synchronization of power grids. Nuclear. LNG. Hydrogen.
5.	2022-02-23	W	16:45	online	Case studies.
6.	2022-02-25	F	16:45	online	Conceptualizing energy security.
7.	2022-03-02	W	16:45	online	Assessing energy security. **Group paper: the task.**
8.	2022-03-04	F	16:45	online	Climate change and energy sector.
9.	2022-03-23	W	16:45	online?	World energy outlook. **Exercise No. 2.**
10.	2022-03-25	F	16:45	online?	Oil era – how long it will last? Energy policy and energy companies.
11.	2022-03-30	W	16:45	online?	EU energy island: case study of Lithuania.
12.	2022-04-06	W	16:45	online?	Russia's coercive energy policy. **Exercise No. 3 (1/2)**
13.	2022-04-08	F	16:45	online?	EU energy security strategy. **Exercise No. 3 (2/2)**
14.	2022-04-20	W	16:45	online?	Case studies.
15.	2022-04-22	F	16:45	online?	Group paper: presentations, groups 1 and 2.
16.	2022-04-27	W	16:45	online?	Group paper: presentations, groups 3 and 4.
	2022-05-04	W	16:45	online?	Exam.
	2022-05-11	*W*	*16:45*		*Extra day in case*
	2022-05-13	*F*	*16:45*		*Extra day in case*

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Reading and additional materials

	Seminar	Reading / additional materials
1.	Introduction of the Course. Energy security – the problem.	
2.	What is energy. Main terms and definitions. Exercise No. 1.	**Exercise No. 1** Additional materials: https://www.iea.org/sankey/ - important, pls, have a look! EU energy in figures 2021. Key World Energy Statistics, IEA 2021.
3.	Demystifying energy policy. Energy transition.	Reading: Friebert Pfluger , Seven megatrends in energy policy, 2012 (14 pages). Addition materials: Fostering Effective Energy transition, WEF, 2019
4.	Electricity and gas TSOs. Synchronization of power grids. Nuclear. LNG. Hydrogen.	References: https://www.litgrid.eu/ https://www.ambergrid.lt/ https://www.nordpoolgroup.com/ https://www.entsoe.eu/ https://www.entsog.eu/ https://pris.iaea.org/PRIS/home.aspx https://www.kn.lt/ https://www.iea.org/reports/the-future-of-hydrogen NB. In case of ".lt" English versions are available, too.
5.	Case studies	Tbd
6.	Conceptualizing energy security.	Reading: A.F. Alhaji, "What is Energy Security?" (21 page). Chr.Winzer, "Conceptualizing Energy Security", 2011 (1-26 pages). Addition materials: International Energy Security, Energy Charter Secretariat, 2015.
7.	Assessing energy security. Group paper: the task.	Reading: IEA, Measuring short-term energy security, 2011, (16 pages). B.K.Sovacool, "An international assessment of energy security performance", 2013 (1-5 pages out of 11). Additional materials: US GEI, International index of Energy Security Risk, 2020. WEC World Energy Trilemma Index (summary), 2020. https://www.globalenergyinstitute.org/energysecurityrisk Assessing Energy Dependency in the Age of Hybrid Threats, 2019 (19 pages).

		Group paper The task: to conduct energy security assessment of the selected country based on IEA MOSES.
8.	Climate change and energy sector.	Reading: IEA, Energy and Climate Change, 2015 (Executive summary 11-15 pages). Additional materials: UN FCCC COP 21 Paris Agreement. UN FCCC COP official site... https://unfccc.int/process-and-meetings/conferences/past-conferences/paris-climate-change-conference-november-2015/cop-21 ... go for "Next session" up to the las session. https://ukcop26.org/ Dr. Fatih Birol IEA Executive Director, Energy and Climate Change 2015 https://www.youtube.com/watch?v=xaW_0jZzY1Y
9.	World energy outlook. Exercise No. 2.	**Exercise No. 2.** Reading: IEA World Energy Outlook launch PPT presentations of 2016, 2017, 2018, 2019, 2020, 2021. Additional materials: Dr. Fatih Birol, IEA Executive Director, IEA World Energy Outlook 2020 launch presentation: https://www.youtube.com/watch?v=cqYdawFCG3g IEA World Energy Outlook 2019 launch presentation: https://www.youtube.com/watch?v=dxQy3vZ601I . IEA World Energy Outlook 2018 launch presentation: https://www.youtube.com/watch?v=SeXOH8xQFLE . IEA World Energy Outlook 2017 launch presentation: https://www.youtube.com/watch?v=n8gsipQrel8 . IEA World Energy Outlook 2016 launch presentation: https://www.youtube.com/watch?v=PZpqDxSDyLQ . US EIA Annual Energy outlook, 2021 (narrative). IRENA Global Renewables Outlook, 2020.
10.	Oil era – how long it will last? Energy policy and energy companies.	Reading: P.Stevens, "History of Oil", 2010 (21 page). Additional materials: P.Criqui and S.Rossiaud, "Peak Oil: Myth or "Impending Doom", 2010 (22 pages).
11.	EU energy island – case study of Lithuania.	Reading: R.Švedas, "EU Energy island – characteristics, threats, and how to break out of it: a case study of Lithuania, 2018 (30 pages). Z.Baran, „Central and Eastern Europe: Assessing the

		Democratic Transition", Hearing before the Committee on Foreign Affairs, US House of Representatives. One Hundred Tenth Congress, First Session, July 25, 2007, Serial No. 110-102 (10 pages).
12.	Russia's coercive energy policy. Exercise No. 3 (1/2)	**Exercise No. 3 (1/2)** Reading: Z.Nowak and others, "Russia's grand gas strategy – the power to dominate Europe?", 2015 (9 pages). Edward Lucas, "The Kremlin's 20 toxic tactics", 2017 (2 pages). Edward Lucas, "10 mistakes the West makes about Russia", 2018 (2 pages). Edward Lucas, "Ignorance, apathy, guilt, cynicism...", 2022 (2 pages). Additional materials: Edward Lucas, lecture "New Cold War and how to win it?", 2019 https://m.youtube.com/watch?v=BvXaxpXc25s Edward Lucas, "Russia is winning" 2014, (7 pages).
13.	EU energy security strategy. Exercise No. 3 (2/2)	**Exercise No. 3 (2/2)** Reading: Energy Union Package, Communication from the EC "A Communication from the EC on "European Energy Security Strategy, COM (2014) 330 final (24 pages). EU Green Deal https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_en A clean energy transition https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal/energy-and-green-deal_en Additional materials: A.Belyi, EU External energy policies, Polinares, 2012 (38 pages).
14.	Case studies.	Tbd
15.	Presentation of group papers, discussion	Groups 1 and 2
16.	Presentation of group papers, discussion	Groups 3 and 4