

Course syllabus: International Energy Markets

Uniwersytet
Ekonomiczny
we Wrocławiu

Print date: 22.07.2023
Year: 2023/2024
Field: International Business

Description of the course

This course aims to give the students the fundamental knowledge of how the international energy markets function, precisely in the context of transnational corporations and their operations in individual market segments. The scope of this course covers the topics related to the structures and models of international energy markets, analysis of the factors affecting the external and internal environment of the organizations' functioning on selected national energy markets, as well as the international trade of leading energy carriers and cooperation in the field of transnational power grid interconnections. Besides, this course offers the students an opportunity to develop their market analysis skills by introducing various methods to gather the energy market data, process it, and analyze it using different statistical techniques. Furthermore, this course offers the chance to develop the student's knowledge about environmental protection issues, which influence and shape some aspects of international energy markets' functioning. By undertaking this course, students will be allowed to develop the characteristics of the international energy market segments based on the evidence from the self-conducted projects, which are the outcome of this course.

Basic information

English name:	International Energy Markets
Course code:	
Course status:	Obligatory
Coordinator:	Paweł Brusilo
Syllabus author:	Paweł Brusilo
Study level:	2
Semester:	III
Form of study:	Full-time / Part-time
The course is associated with research activity and is aimed at developing students' research knowledge and skills.	

Class form	Hours	Semester	ECTS points
Lectures	15/8	III/III	3.0/3.0
Tutorials	15/8	III/III	
Computer lab	0/0	-/-	
Seminar	0/0	-/-	
Science lab	0/0	-/-	

Form of credit:	Pass
-----------------	------

Prerequisites
Course-related Intende Learning Outcomes
BA curriculum, International Economics, International Business Databases, Law regulating functioning of transnational corporations

Teaching methods

Lecture, case study, research project, group work discussion.

Effects and goals

Learning objectives for the course

Code	Description
C1	Presenting political, socio-economical, technical, legal, and environmental determinants that shape international energy markets.
C2	Providing a theoretical and methodological framework for the international energy market analysis.
C3	Presenting the case studies of individual energy market segments and the most successful companies operating on them.

Intended Learning Outcomes for the Course

Knowledge

Symbol	Description	ILO	Objectives
W1	Possesses knowledge about global trends, determinants, and challenges in the international energy markets and their segments.	K_K01, K_K03	C1, C3
W2	Understands the rationales behind the domestic and international energy policies, legal regulations and strategies that impact the energy markets.	K_K01, K_K02, K_K04	C1
W3	Knows the methods and techniques to analyze characteristics and structure of the energy markets and individual segments.	K_K01	C1, C2
W4	Knows the examples of transnational firms that operate on the individual energy market segments and understands the determinants of their position.	K_K01, K_K02, K_K03, K_K04	C1, C2, C3

Skills

Symbol	Description	ILO	Objectives
U1	Can determine the main trends and factors shaping the energy demand and supply in the global economy.	K_U01, K_U03	C1, C2, C3
U2	Demonstrates the ability to analyze international and national energy policies and strategies critically.	K_U03	C1, C2
U3	Identifies the sources of international energy market data and performs fundamental analysis of energy supply and demand on various energy market segments.	K_U01, K_U02	C2, C3
U4	Explains the differences between individual energy market segments by presenting their specific determinants and issues.	K_U02, K_U03	C1
U5	Can study the cases of firms operating on international energy markets with the use of appropriate techniques and tools.	K_U01	C2, C3

Social competences

Symbol	Description	ILO	Objectives
K1	Shows an interest in international energy market transformations under the influence of global challenges, determinants, and trends.	K_K01, K_K02	C1, C2
K2	Demonstrates the ability to determine the impact of energy policies and strategies on the international energy markets.	K_K02, K_K03	C1, C2
K3	Logically reasons and effectively presents findings from the self-conducted energy market analysis.	K_K02, K_K03	C2, C3

Course topics

	Topic	Full-time studies					Part-time studies					Objectives	Effects
		L	T	CL	S	SL	L	T	CL	S	SL		
1.	Introduction to the international energy markets: global trends and challenges for the market entities and transnational corporations.	1	1	0	0	0	1	0	0	0	0	C1,C2,C3	W1, W2, U1, U2, K1, K2
2.	The theoretical background of the international energy markets analysis: theories and models of energy markets functioning.	1	1	0	0	0	1	0	0	0	0	C1,C2,C3	W1, W3, U3, U4, K1, K2
3.	Structure of the international energy markets: energy market segments (i.e., oil, coal, LNG, hydrogen and electricity), market entities, stakeholders, international institutions, legal and policy framework. Case studies of the most successful companies that dominate these segments globally and regionally in Poland and selected EU countries.	1	1	0	0	0	0	1	0	0	0	C1,C2,C3	W1, W4, U4, U5, K3
4.	Analysis of the factors determining a company's internal and external environment operating in the international energy markets.	2	2	0	0	0	1	1	0	0	0	C1,C2,C3	W3, W4, U3, U5, K2, K3
5.	Energy demand analysis: international and national data sources and basic analytical framework with the examples of techniques.	1	1	0	0	0	1	1	0	0	0	C1,C2,C3	W1, W2, W3, U1, U2, U5, K1, K3

6.	Energy supply analysis: international and national data sources and basic analytical framework with the examples of techniques.	1	1	0	0	0	1	1	0	0	0	C1,C2,C3	W1, W2, W3, U1, U2, U5, K1, K3
7.	International fossil-fuels markets (LNG, oil, hydrogen, and coal markets): market dynamics, the role of OPEC and other organizations, main suppliers and consumers, international trade relations and volumes, current and future market challenges, perspectives for fossil fuels.	1	1	0	0	0	0	1	0	0	0	C1,C2,C3	W1, W4, U1, U3, U4, K1, K2
8.	National and regional electricity markets: natural monopoly, examples of diverse national electric power generation-mixes, international electric power trade and transnational cooperation for the development of interconnected power-grids.	1	1	0	0	0	0	1	0	0	0	C1,C2,C3	W2, W4, U2, U3, U4, K1, K2
9.	Introduction to the environmental issues related to international energy markets: climate change mitigation, decarbonization of the energy sectors, economic and non-economic barriers and policy incentives imposed on the individual international energy market segments.	1	1	0	0	0	1	0	0	0	0	C1,C2,C3	W1, W2, U1, U2, K1, K2
10.	Impacts of the energy transition on international energy markets and strategies of transnational corporations: main areas of the energy transition impact on energy markets and strategies of corporations, key technologies, dynamics of the energy transition in Poland and the EU, critical challenges, and potential market opportunities – examples of the growing renewable energy sectors in Poland and the EU and analysis of individual successful companies operating on the renewable energy market segments.	1	1	0	0	0	1	0	0	0	0	C1,C2,C3	W1, W2, U1, U2, K1, K2
11.	Polish energy market: market structure and characteristics, international trade relations (fossil fuels) and infrastructural cooperation in the field of interconnected power-grid development, national policies that shape the Polish energy market, role of energy transition in the Polish energy market.	1	1	0	0	0	0	1	0	0	0	C1,C2,C3	W2, W3, W4, U2, U3, K1, K3
12.	EU energy markets: market structure and characteristics, international trade relations (fossil fuels) and infrastructural cooperation in the field of interconnected power-grid development, examples of EU policies that shape the EU energy markets, role of energy transition in the EU energy markets.	2	2	0	0	0	0	1	0	0	0	C1,C2,C3	W2, W3, W4, U2, U3, K1, K3
13.	Energy market crisis: types of crisis, supply- and demand-side shocks, phases, impacts on production and consumption, evidences from the past and perspectives.	1	1	0	0	0	1	0	0	0	0	C1,C2,C3	W1, W3, U3, U4, U5, K1, K2

	L	T	CL	S	SL	L	T	CL	S	SL
Total	15	15	0	0	0	8	8	0	0	0
Total hours	30					16				

Topics - projects

Topic	Full time	Part time	Objectives	ILO

Topics - research projects

	Topic	Full time	Part time	Objectives	ILO
1.	Analysis of the selected international energy market segment, considering the impact of national energy policies and strategies, market structure, as well as international trade relations and transnational cooperation between key market participants.	40	40	C1,C2,C3	W1, W3, W4, U2, U3, U4, U5, K2, K3
	Total:	40	40		

Control matrix

Symbol	Topics	Projects	Research projects	Topics	Projects	Research projects	C1	C2	C3	C4	C5
W1	9	0	1	9	0	1	1	0	1	0	0
W2	8	0	0	8	0	0	1	0	0	0	0
W3	7	0	1	7	0	1	1	1	0	0	0
W4	6	0	1	6	0	1	1	1	1	0	0
U1	6	0	0	6	0	0	1	1	1	0	0
U2	8	0	1	8	0	1	1	1	0	0	0
U3	7	0	1	7	0	1	0	1	1	0	0
U4	5	0	1	5	0	1	1	0	0	0	0
U5	5	0	1	5	0	1	0	1	1	0	0
K1	11	0	0	11	0	0	1	1	0	0	0
K2	8	0	1	8	0	1	1	1	0	0	0
K3	6	0	1	6	0	1	0	1	1	0	0

Assesment of ILOs achievement

Symbol	Description	Exam	Control work	Projects	Activity in class	Research project
W1	Possesses knowledge about global trends, determinants, and challenges in the international energy markets and their segments.	-	+	-	+	+
W2	Understands the rationales behind the domestic and international energy policies, legal regulations and strategies that impact the energy markets.	-	-	-	+	+
W3	Knows the methods and techniques to analyze characteristics and structure of the energy markets and individual segments.	-	-	-	+	+
W4	Knows the examples of transnational firms that operate on the individual energy market segments and understands the determinants of their position.	-	-	-	+	+

Symbol	Description	Exam	Control work	Projects	Activity in class	Research project
U1	Can determine the main trends and factors shaping the energy demand and supply in the global economy.	-	+	-	+	+
U2	Demonstrates the ability to analyze international and national energy policies and strategies critically.	-	+	-	-	+
U3	Identifies the sources of international energy market data and performs fundamental analysis of energy supply and demand on various energy market segments.	-	-	-	+	+
U4	Explains the differences between individual energy market segments by presenting their specific determinants and issues.	-	+	-	+	+
U5	Can study the cases of firms operating on international energy markets with the use of appropriate techniques and tools.	-	-	-	+	+

Symbol	Description	Exam	Control work	Projects	Activity in class	Research project
K1	Shows an interest in international energy market transformations under the influence of global challenges, determinants, and trends.	-	-	-	+	-
K2	Demonstrates the ability to determine the impact of energy policies and strategies on the international energy markets.	-	+	-	-	+

K3	Logically reasons and effectively presents findings from the self-conducted energy market analysis.	-	-	-	+	+		
Weight in the overall verification of the ILOs [in%]		Total:	100%	0%	30%	0%	10%	60%

Workload

Forms of student activity	Full-time	Part-time
Hours of classes in accordance with the curriculum	30	16
Project	0	0
Project research	40	40
Preparing for tutorials	5	15
Getting to know the literature on the subject and teaching materials provided by the teacher	10	15
Total:	85	86

	Full-time		Part-time	
	min	max	min	max
Suggested number of ECTS for the course (min-max)	2	3	2	3
Hours of ECTS in accordance with the curriculum	3		3	

Basic literature

Title	Authors (Surname, initial of the name)	Publishing house	Place of issue	Year of issue
International energy markets: Understanding pricing, policies and profits (2nd ed.)	Dahl, C.A.	PennWell	Tulsa, OK	2015
Energy Economics. Theory and Applications	P. Zweifel, A. Praktiknjo, G. Erdmann	Springer	Berlin	2017
Energy Economics, Markets, History and Policy	R.L. Nersesian	Routledge	London and New York	2016

Supplementary literature

Title	Authors (Surname, initial of the name)	Publishing house	Place of issue	Year of issue
Key world energy statistics and individual market reports	International Energy Agency	International Energy Agency	Paris	2022-

Tutors

Academic title	Name	Surname	Form of classes	Phone number	Email	Website	Office (building and room)
mgr	Paweł	Brusilo	L, T	+48723237887	pawel.brusilo@ue.wroc.pl	https://pawelbrusilo.com/	107B