University of Cologne

Department of Economics – Chair of Energy Economics – Prof. Dr. Marc Oliver Bettzüge

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Bachelor Seminar in Energy Economics

Winter Term 2021/2022

Digitization of Energy Markets

Credits	6
Language	English
Examiner	Dr. Marcus Eul
Allocated Modules	[1287BSVo00] Bachelorseminar Volkswirtschaftslehre [1287BSVo01] Bachelorseminar Volkswirtschaftslehre sozialwissenschaflicher Richtung

1. Topic - Digitization of Energy Markets

Naturally, companies that are ahead in terms of digitisation are those that are already active (with their products) in the digital space - this applies, for example, to banks, media and telecommunications groups or retail. Often they are driven by new, hitherto non-industry players who use disruptive technologies to position themselves between supposedly established players and their customers - and in the process sometimes upset the existing value chain, if not completely break it down. Amazon, Airbnb, Uber, Netflix, Tesla - they all force the established players to further digital development. And that across all stages of the value chain.

Traditional utilities, and the energy industry, are still in the early stages of development. This may be due to the traditionally non-digital products, possibly also to the long lack of competition and the previously high barriers to market entry. But the energy turnaround and liberalisation are increasingly ensuring that digitisation also has an impact in the energy sector. Old business models are suddenly being questioned, new competitors are appearing, customers are changing their expectations, the regulatory framework is being developed further - the pattern, in other words, that is familiar from other industries. The industry is being swept up by the digitalization wave.

The seminar is intended to give a broad overview over the energy value chain components, their specific challenges and how digitization can be applied as a beneficial technology. Students are expected to build and deliver in-depth knowledge of one specific aspect of a value chain, and to develop and answer a research question.

2. Schedule

Date	Time	Room	Course
Tuesday, Nov 2nd	9:00am – 11:00am	KFR1	Introduction and Seminar Organization
Thursday, Nov 4th	5:59pm	Deadline for Research Idea/Topic by email to meul2@uni-koeln.de	
Friday, Nov 5th	6:00pm	Topic Allocation via ILIAS	
Sunday, Dec 5th	5:59pm	Deadline for pitch submission via ILIAS	
Thursday, Dec 9th	3:00pm-6:00pm	KFR1	Student Pitch (part of the examination)
Friday, Dec 10th	9:00am-12:00pm	KFR1	Student Pitch (part of the examination) + Skills Session for Seminar Paper
Sunday, Jan 16th	11:59:pm	Deadline for seminar paper submission via ILIAS	
Monday, Jan 17th	10:00am-11:30am	KFR1	Skills Session for Seminar Presentation
Sunday, Jan 23rd	11:59:pm	Deadline for seminar presentation submission via ILIAS	
Thursday, Feb 3rd	4:00pm-7:00pm	KFR1	Student Presentation (part of the examination)
Friday, Feb 4th	10:00am-1:00pm	KFR1	Student Presentation (part of the examination)

KFR1 is at the Institute of Energy Economics (ewi), Vogelsanger Str. 321a, 50827 Cologne

3. Requirements and Expectations

The seminar is designed for students who have already taken courses in Energy Economics and are thinking about writing their Bachelor thesis in this field. Students will work on an energy related topic independently. Students will receive information about how to write an academic paper in Economics and how to give a scientific presentation. Based on the input, students are expected to choose a topic provided by the chair, narrow down a research question and compose a literature review.

4. Application

The registration for examination should be done using KLIPS. The registration is binding and students who do not hand in a seminar paper or who do not present their paper will receive a failing grade.

5. Mode of Examination

Kombinierte Prüfung:

- 10% Pitch (10 mins)
- 60% Seminar Paper (3000 words)
- 30% Paper Presentation (15 mins)

All examinations must be graded at least 4,0 (ausreichend) in order to pass the course!

6. Organisation

Dr. Marcus Eul, marcus.eul@pwc.com

Please do not hesitate to contact me in case of further questions.