



University of Cologne

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

**Business Administration**

**Corporate Development – Master of Science**

Winter Term 2025/2026

**(14289.0807) Business Models in the electricity market of the energy transition**

<b>Credits</b>	6
<b>Language</b>	English
<b>Examiner</b>	Dr. Marcus Eul
<b>Allocated Modules</b>	Modulkennung: 1253MSSIC3 Modulname: SM Elective Corporate Development III

**1. Topic - Business Models in the electricity market of the energy transition**

Since the first steps of deregulation in the late 90es the energy value chain is under continuous pressure and change. That development has been accelerated since decarbonization and decentralization of energy generation as well as digitalization – the big “Ds” - have come into play some years ago. Experts speak of “disruptive change” that heavily shocks the energy companies of all sizes.

Especially digitalization has driven the change significantly. Naturally, companies that are ahead in terms of digitization 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 business, 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 transition 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 and decarbonization wave. Energy companies have to find new strategic options in order to secure revenues and profits, even to justify their existence.

The seminar is intended to give a broad overview over the energy industry, changes and challenges driven by the energy transition. Digitization will be introduced with its major technologies and their application across the energy value chain. The impact on traditional business models and opportunities for new ones will be worked out. Students will learn how to develop winning business strategies based on recent literature and consulting best practices to address these challenges and turn them into growth opportunities. The entire lecture will be based on theoretical background as well as on practical cases that will be used for illustration.

Students are expected to build and deliver in-depth knowledge for one strategic seminar topic of the value chain, and to develop and answer a defined research question. Agile methods with focus on design thinking will be applied to shape and work out the seminar topics in a structured, sequential way to develop “spot on” seminar results.

## 2. Schedule

Date	Time	Room	Course
<b>Monday, October 13<sup>th</sup></b>	16:00 – 17:30	KFR1	Course Introduction I: Energy industry and digitization needs
<b>Wednesday, October 15<sup>th</sup></b>	16:00 – 17:30	KFR1	Course Introduction II: Impact on business models
<b>Thursday, October 16<sup>th</sup></b>	16:00 – 17:30	KFR1	Course Introduction III: Strategy development & agile basics
Sunday, October 19 <sup>th</sup>	17:59		Students apply for research topics by email to <a href="mailto:meul2@uni-koeln.de">meul2@uni-koeln.de</a>
Monday, October 20 <sup>th</sup>	18:00		Research topic allocation via ILIAS
<b>Wednesday, December 10<sup>th</sup></b>	16:00-17:30	KFR1	Slide drawing and presentation skills
Monday, December 15 <sup>th</sup>	23:59		Deadline for pitch submission via ILIAS
<b>Thursday, December 18<sup>th</sup></b>	16:00-17:30	KFR1	Proposal/ pitch presentations by students (1/2)
<b>Friday, December 19<sup>th</sup></b>	16:00-17:30	KFR1	Proposal/ pitch presentations by students (2/2) – <i>if required</i>
Wednesday, <u>February 18<sup>th</sup></u>			Deadline for <u>seminar paper submission</u> via ILIAS
Monday, <u>February 23<sup>rd</sup></u>			Deadline for <u>seminar presentation submission</u> via ILIAS
<b>Tuesday, February 24<sup>th</sup></b>	12:00-15:00	KFR1	Seminar thesis presentations by students (1/2)
<b>Wednesday, February 25<sup>th</sup></b>	12:00-15:00	KFR1	Seminar thesis presentations by students (2/2) – <i>if required</i>

KFR1 is equivalent of [827 Seminarroom x.EG.03] at the Institute of Energy Economics (ewi), Vogelsanger Str. 321a, 50827 Cologne.



### 3. Requirements and Expectations

The seminar is designed for students who have an interest in strategy development and in application of strategy development methods to specific questions of the energy industry. Prior experience in the sector and knowledge of energy economics is no prerequisite. Students will work on a strategic topic independently. They will receive information about how to write an academic paper 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 pitch document, seminar paper or who do not present their paper will receive a failing grade.

### 5. Mode of Examination

Combinations of examination components:

- 10% Pitch ppt (max 15 slides) and presentation (15 mins)
- 60% Seminar Paper (6,000 words)
- 30% Seminar paper ppt (max 20 slides) and presentation (20 mins)

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

### 6. Organisation

Dr. Marcus Eul, meul2@uni-koeln.de

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