

PROGRAM
Winter Semester 2024/25

Intake 2024 - 2026

Last update on: 14 August 2024

THIS PUBLICATION REFLECTS THE STATE OF PLANNING AT THE TIME OF ANNOUNCEMENT.

TUBS GmbH TU Berlin ScienceMarketing Hardenbergstraße 16-18 10623 Berlin Deutschland

# CONTENT

The Energy Management Team	6
Location and Times	8
Lectures	8
Company Visits/Tutorials	8
German Classes	9
E-Learning Platform 'Moodle' and WirelessLAN	9
Exams	9
Social and Academic Events	11
Module Technology (9 ECTS)	12
Module Business (9 ECTS)	14
Module Economics (6 ECTS)	17
Module Law (6 ECTS)	20
Other information	22
Module Management (12 ECTS)	24
Module Investments (6 ECTS)	25
Module Energy Grids (6 ECTS)	26
Module Regulation (6 ECTS)	27
Elective Modules (6ECTS + 6ECTS)	29
Alumni Program	31
Faculty	32
Lecturers & Tutors	33

Dear Students,

The energy market is one of today's most fast-paced, decisive, and profitable industries and is crucial to the global economy, the environment, and our future society as a whole.

Climate and economic changes, public opinion, technological progress, and regulation shape unforeseen challenges and opportunities. This situation calls for new solutions to be delivered by highly skilled and appropriately trained experts with an all-embracing overview, an international outlook, and the will to create a true impact. Due to its economic, entrepreneurial, and industrial strength as well as its successful and progressive energy policies, known as the —Energiewende—, Germany stands out as a front-runner in the global energy transition. The industry, therefore, requires broadly skilled individuals who are experts in the field.

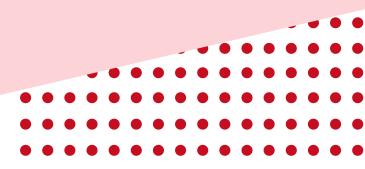
We are delighted to welcome you to this exciting TU program, where faculty and industry experts convey the latest scientific and practical insights in the field, discuss today's challenges, and prepare students for leading roles in shaping the industry, and society, for the future ahead.

Prof. Dr.-Ing. Joachim MÜLLER-KIRCHENBAUER
Academic Director

Gernot BOHMANN Academic Program Manager

Dr. Jing W∪ nager Academic Program Manager Sandra L∪BAHN Administrative Manager

# **OVERVIEW**



## **The Energy Management Team**



Prof. Dr.-Ing. Joachim MÜLLER-KIRCHENBAUER

Academic Director MBA Energy Management

Professor for Management of Energy and Resources, School for Technology and Management, Faculty for Economics and Management of Technical University Berlin <a href="https://www.er.tu-berlin.de/">https://www.er.tu-berlin.de/</a>

Gernot BOHMANN, M.Sc.

Academic Program Manager

gernot.bohmann@campus.tu-berlin.de

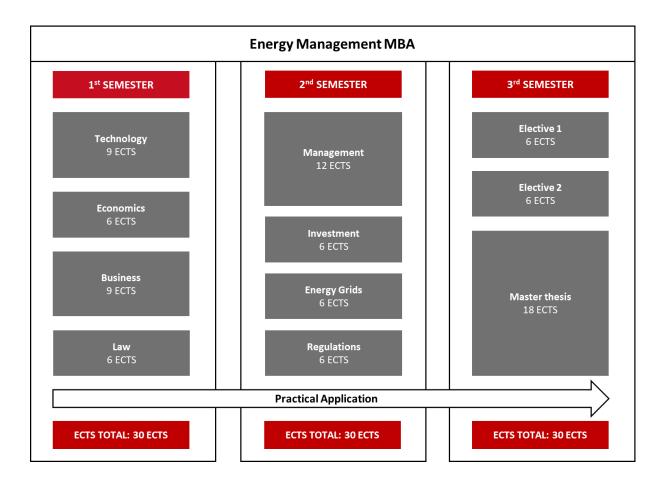


**Dr. Jing Wu**Academic Program Manager
<a href="mailto:jing.wu.1@campus.tu-berlin.de">jing.wu.1@campus.tu-berlin.de</a>



Sandra LUBAHN
Administrative Manager
<a href="mailto:sandra.lubahn@campus.tu-berlin.de">sandra.lubahn@campus.tu-berlin.de</a>





The master's program is taught over a period of three semesters. The first semester covers the technical, economic, entrepreneurial, and legal foundations for management decisions in the energy sector; the second semester deepens this view and looks at business practices, primarily of grid-based utilities, and investment; the third semester broadens the perspective while simultaneously focusing on practices according to students' individual interests. All semesters include lectures, tutorials, seminars, company visits, online materials related to practice, and extracurricular activities. The master thesis, due in the third semester, concludes the program.

#### **Location and Times**

Unless otherwise announced, lectures, tutorials, consultancy, and peer group meetings take place at EUREF-Campus, 10829 Berlin, House 9, Room S3/at the TUB Main Campus, Main Building H, Room 3010 – or as announced on Moodle. The time is CET.

#### **Semesters**

• First semester (Winter semester 2024/25)

**Duration of semester: 01.10.2024 - 31.03.2025** Lecture period: 14.10.2024 - 15.02.2025

Lecture-free period: 17.02.2024 - 31.03.2024 as well as public holidays

Second semester (Summer semester 2025)

**Duration of semester:** 01.04.2025 - 30.09.2025 Lecture period: 14.04.2025 - 19.07.2025

Lecture-free period: 21.07.2025 - 30.09.2025 as well as public holidays

Third semester (Winter semester 2025/26)

**Duration of semester:** 01.10.2025 - 31.03.2026

Lecture period: tba

Lecture-free period: tba as well as public holidays

#### Lectures

Lectures are held by professors and academic staff of TU Berlin and other universities, as well as energy industry professionals. The lectures are divided into core and specialized lectures. Core lectures teach the basics and are relevant for students of all MBA programs; specialized lectures are designed for students of the Energy Management program to dive deeper into energy-related content. Group work is frequent. Homework may be assigned. **Lectures start** *sin tempore*, i.e., sharp.

$$9.30 - 12.45 \mid 13.45 - 17.00$$

#### **Company Visits/Tutorials**

Tutorials	Company Visits
08.00 - 12.00, 13.00 - 17.00	14.00 – 16.00 or Day Trip

Tutorials are mainly held by research associates and assistants of the respective chairs. Of a generally more interactive nature, they repeat lecture material, supply supportive information, offer additional training, and help prepare for lectures and exams.

Company Visits/Presentations are regularly scheduled on Wednesdays or Thursdays. Company Presentations and Cases take place on EUREF Campus, House 9, Room S3. In contrast, Company Visits provide the opportunity to experience course content in person by visiting the company on-site. Registration before attendance may be required.

#### **German Classes**

Language classes are offered on campus and incur a small additional fee. Advanced language classes are available, for which taking a test is mandatory. For more information, visit the website of Sprach- und Kulturbörse here.

#### E-Learning Platform 'Moodle' and Wireless LAN

Information System for Instructors and Students (ISIS)/Moodle is a software platform for online learning, announcements, distribution of material, registration to events, etc. An introduction will be given in the first week. Please log on frequently, even in lecture-free times. The TU Berlin offers Wireless LAN (WLAN) with full coverage across its campus. Students can access the internet from any point on the campus. Moreover, it makes sense to have a stable internet connection at your home as well in order to participate in digital lectures or online meetings without problems and to study and learn in case campus is not open.

#### **Exams**

A written (e-) exam, paper, presentation, or portfolio concludes each module. Everything taught in the lectures, tutorials, and compulsory company visits within the module may be subject to examination. Exams start on time! A failed examination may be repeated twice. For further details, please refer to the official Study and Examination Regulation. **Attendance is obligatory.** 

#### **Grading Scale**

Grade	Assessment	Definition
1.0 / 1.3	Very good	Outstanding performance
1.7 / 2.0 / 2.3	Good	Performance above average requirements
2.7 / 3.0 / 3.3	Satisfactory	Complies with the average overall requirements
3.7 / 4.0	Adequate	Performance which, despite some flaws, still
		complies with performance requirements
5.0	Inadequate	Performance with significant flaws which does not
	·	comply with requirements

A grade of 0,0 indicates the course was not graded but rather given a mark of "pass" or "fail".

#### 1 ECTS is equal to a workload of 30 hours

## FIRST SEMESTER

**WISE 2024/25** 



### **Social and Academic Events**

### **Orientation Week 2024**

7 - 11 October 2024

TU Main Campus
EUREF Campus
E-Learning Introduction
Library Insights, Meet Up,
Administrative Duties





## **Official Opening**

11 October 2024 - 4:00 pm

Venue: TU Main Campus
Welcome Addresses Academic Directors
Academic & Administrative Staff

### **Christmas Get-Together**

More information tba



## **Module Technology (9 ECTS)**

#### Prof. Dr.-Ing. Joachim MÜLLER-KIRCHENBAUER

Institute Technologie und Management (ITM)
Faculty Wirtschaft und Management
sec. H 69, Room H 6118
Straße des 17. Juni 135, 10623 Berlin
+49 (0) 30 314-23214
energymanagement@master.tu-berlin.de



#### **Aims and Scope**

This module revisits and broadens students' knowledge of energy technologies and systems in the context of today's changing world, preparing the ground for the coming modules. Students are taught to apply this knowledge independently to selected cases. Module 2, Economics, runs in parallel.

#### Keywords

Renewable energy sources; bio energy; hydro energy; geothermal energy; fluctuating renewable energy sources; wind onshore; wind offshore; solar thermal; solar PV; energy grids; electricity grids; gas grids; hydrogen; subsurface; sector integration; heating technologies; HVAC drives fuels, and systems.

#### **Examination (9 ECTS, graded)**

Core & Specialized Part: Written exam, 120 minutes, graded

#### Schedule

Mon. 14 Oct 2024

All day **Excursion 1 (2024TECH-CORE-X1-EM-1):** 

(exact time tba) Neue Energien Forum Feldheim e.V.

Tue. 15 Oct 2024

All day **Excursion 1 (2024TECH-CORE-X1-EM-2)**:

(exact time tba) Neue Energien Forum Feldheim e.V.

Wed. 16 Oct 2024

09:30 - 17:00 **Lecture 1 (2024TECH-CORE-L1):** 

Prof. Dr.-Ing. Joachim MÜLLER-KIRCHENBAUER

Fri. 18 Oct 2024

09:30 – 17:00 **Lecture 2 (2024TECH-CORE-L2):** 

Prof. Dr. Gioia FALCONE

Wed. 23 Oct 2024

09:30 – 12:45 **Tutorial 1 (2024TECH-CORE-T1-EM):** 

Benjamin GROSSE, M.Sc./Maximilian EVERS

13:45 – 17:00 **Tutorial 2 (2024TECH-CORE-T2-EM):** 

Benjamin GROSSE, M.Sc./Maximilian EVERS

#### Schedule Specialized Part

Fri. 25 Oct 2024

09:30 – 17:00 **Lecture 3 (2024TECH-SPEC-L3-EM):** 

Prof. Dr.-Ing. Joachim MÜLLER-KIRCHENBAUER

Fri. 01 Nov 2024

09:30 – 17:00 **Lecture 4 (2024TECH-SPEC-L4-EM):** 

Prof. Dr.-Ing. Joachim MÜLLER-KIRCHENBAUER

Wed. 06 Nov 2024

09:30 – 12:45 **Tutorial 3 (2024TECH-SPEC-T3-EM):** 

Benjamin GROSSE, M.Sc./Maximilian EVERS

13:45 – 17:00 **Tutorial 4 (2024TECH-SPEC-T4-EM):** 

Benjamin GROSSE, M.Sc./Maximilian EVERS

Sat. 16 Nov 2024

09:30 – 17:00 **Lecture 5 (2024TECH-SPEC-L5-EM):** 

Prof. Dr.-Ing. Joachim MÜLLER-KIRCHENBAUER

Wed. 20 Nov 2024

09:30 – 12:45 **Tutorial 5 (2024TECH-SPEC-T5-EM):** 

Benjamin GROSSE, M.Sc./Maximilian EVERS

Fri. 29 Nov 2024

09:30 – 17:00 **Lecture 6 (2024TECH-SPEC-L6-EM):** 

Student Presentations,

Prof. Dr.-Ing. Joachim MÜLLER-KIRCHENBAUER

Mon. 09 Dec 2024

10:00 - 12:00 **Tutorial Q&A (2024TECH-Q&A-EM):** 

Benjamin GROSSE, M.Sc.

Fri. 13 Dec 2024

09:30 – 11:30 **Exam written, 120 minutes, graded (2024TECH-EXAM-EM):** 

#### Literature

<sup>[1]</sup> Robert L. Jaffe and Washington Taylor. The Physics of Energy. Cambridge University Press, 2018.

<sup>[2]</sup> P. Zweifel et al. Energy Economics. Springer Texts in Business and Economics, Springer 2017.

<sup>[3]</sup> Y. Demirel. Energy. Springer 2012.

<sup>[4]</sup> W Shepherd and D W Shepherd. Energy Studies. Imperial College Press, 2008.

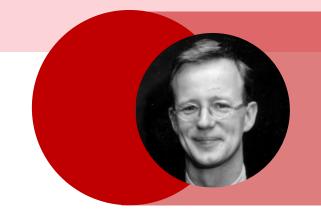
<sup>[5]</sup> Volker Quaschning. Understanding Renewable Energy Systems. Earthscan, 2005.

### **Module Business (9 ECTS)**

#### Prof. Dr. Dodo zu KNYPHAUSEN-AUFSEß

Strategic Leadership and Global Management T.U. Berlin Sec. H 92, Room H 9166 Straße des 17. Juni 135, D-10623 Berlin +49-(0)30-314-28744

knyphausen@strategie.tu-berlin.de



#### **Aims and Scope**

The students will understand the fundamentals of management and business administration/business functions: accounting, marketing and sales, organization, industry analysis, business units, and strategy. The students will get acquainted with the concepts of supply chain management, distribution and logistics, production and quality, HR/Personnel, public relations, and R&D.

#### **Keywords**

Fundamentals of management and business administration; management and leadership; shareholder and stakeholder value approach; the concept of strategy; Porter's Five Forces; SWOT-Analysis; etc.; strategic business units; industry analysis; generic strategies; vertical integration; portfolio analysis; diversification; strategy process; case studies.

#### **Examination (9 ECTS, pass/fail)**

Core Part: online quiz, 60 minutes, pass/fail Specialized Part: group presentation, pass/fail

#### Schedule Core Part

Wed. 09 Oct 2024

09:30 – 12:45 **Tutorial** 

Conflict Management Katharina Yombi

Sat. 19 Oct 2024

09:30 – 17:00 **Lecture 1 (2024BUSI-CORE-L1):** 

Basics of Business Administration & Corporate Governance.

Prof. Dr. Dodo ZU KNYPHAUSEN-AUFSESS

Sat. 26 Oct 2024

09:30 – 17:00 **Lecture 2 (2024BUSI-CORE-L2)**:

Corporate and Business Management,

Prof. Dr. Dodo ZU KNYPHAUSEN-AUFSESS

Tue. 29 Oct 2024

13:45 – 17:00 **Tutorial 1 (2024BUSI-CORE-T1-EM):** 

Business Ethics, Sarah DROLL Wed. 30 Oct 2024

09:30 – 12:45 **Tutorial 2 (2024BUSI-CORE-T2-EM):** 

Business Frameworks and Business Canvas,

Byron STUNTZ

Sat. 02 Nov 2024

09:30 – 17:00 **Lecture 3 (2024BUSI-CORE-L3)**:

Corporate and Business Management,

Prof. Dr. Dodo ZU KNYPHAUSEN-AUFSESS

Topic Assignment for Presentations

Mon. 04 Nov 2024

09:30 – 17:00 **Lecture 4 (2024BUSI-CORE-L4-EM)**:

Corporate Finance,

Prof. Dr. Karola BASTINI

Fri. 08 Nov 2024

09:30 – 12:45 **Tutorial** 

**Intercultural Communication** 

Carla Vollert

Wed. 13 Nov 2024

09:30 – 12:45 **Tutorial 3 (2024BUSI-CORE-T3-EM):** 

Presentation Techniques,

**Bettina BROCKMANN** 

13:45 - 17:00 **Tutorial 4 (2024BUSI-CORE-T4-EM):** 

Accounting & Finance, Dr. Maximilian WACHTER

#### Tue. 19 Nov 2024: Quiz multiple choice, online (available 24h)

#### **Schedule Specialized Part**

Fri. 06 Dec 2024

09:30 – 17:00 **Lecture 5 (2024BUSI-SPEC-L5-EM)**:

Management in the Energy Sector - Market Roles, Function &

Participants in Liberalized Energy Markets,

Prof. Dr.-Ing. Joachim MÜLLER-KIRCHENBAUER

Fri. 24 Jan 2025

09:30 – 17:00 **Lecture 6 (2024BUSI-SPEC-L6-EM):** 

Information Systems in the Energy Sector,

Dr. Volker BÜHNER

Sat. 25 Jan 2025

09:30 – 17:00 **Lecture 7 (2024BUSI-SPEC-L7-EM)**:

Marketing,

Prof. Dr. Justin BECKER

Thu. 13 Feb 2025

**09:00 – 17:30 Examination:** Presentations, in total 8 hours, pass/fail,

Prof. Dr. Dodo ZU KNYPHAUSEN-AUFSESS
Prof. Dr.-Ing. Joachim MÜLLER-KIRCHENBAUER

#### Literature

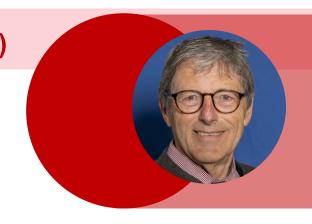
- [1] Robert M. Grant, Contemporary strategy analysis, Published by John Wiley & Sons Ltd. (2010).
- [2] Zott, C., Amit, R., & Massa, L. (2011). The business model: recent developments and future research. Journal of Management, 37(4), 1019-1042.
- [3] Casadesus-Masanell, R., & Tarzijan, J. (2012). When one business model isn't enough.
- [4] Robbins, Judge (2016): Essentials of Organizational Behavior, p. 118-125
- [5] Marketing: Malcolm McDonald; Alisa Kolsaker(2014), MBA Marketing, Red Globe Press; Auflage: 2014
- [6] Weygandt, J.J./Kieso, D.E./Kimmel, P.D. (2016), Financial Accounting, 10th edt., Wiley. (+ online course, videos, interactive tutorials on WileyPLUS).

Bebbington, J./Gray, R./Laughlin, R. (2001), Financial Accounting – Practice and Principles, 3rd edt., Thomson. Brealey, R.A./Myers, S.C./Allen, F. (2017), Principles of Corporate Finance,12th edt., McGraw-Hill.

## **Module Economics (6 ECTS)**

#### Prof. Dr. rer. pol. Georg ERDMANN

Department of Energy Systems T.U. Berlin Einsteinufer 25 (TA 8), 10587 Berlin FT Building, Room 025 +49 (0)30 314 24 656 georg.erdmann@tu-berlin.de



#### **Aims and Scope**

This module provides students with core knowledge of economics in the field of mobility, building a foundation for the coming modules. Students are taught to apply this knowledge independently to selected cases. It runs in parallel to Module 1, Technology.

#### **Keywords**

Welfare analysis; prices and markets; market forms; production and pricing decisions; natural resource economics; merit order effects; external effects; trading in allowances; fundamentals of investment decisions; market failures and regulation; sustainability; global commons; security of supply.

#### **Examination (6 ECTS, graded)**

Written exam, 90 minutes, graded (CORE & Specialized Part)
Written paper, five pages (Preparatory Exercise/ Prerequisite)

#### **Schedule Core Part**

Wed. 20 Nov 2024

13:45 – 17:00 **Tutorial 1A (2024ECON-CORE-T1A):** 

Academic Writing 1: Literature Review and Citation

Benjamin GROSSE, M.Sc. and Maximilian EVERS, M.Sc.

Fri. 22 Nov 2024

9:30 – 17:00 **Lecture 01 (2024ECON-CORE-L1):** 

General Economics, Microeconomics, Macroeconomics, History of

Economic Thought,

Prof. Dr. Roland MENGES

Sat. 23 Nov 2024

9:30 – 17:00 **Lecture 02 (2024ECON-CORE-L2):** 

General Economics, Microeconomics, Macroeconomics, History of

Economic Thought,

Prof. Dr. Roland MENGES

Wed. 27 Nov 2024

13:45 – 17:00 **Tutorial 1B (2024ECON-CORE-T1B)**:

Academic Writing 2: Objective and Problem Statement

Maike KALZ, M.Sc.

Sat. 30 Nov 2024

09:30 – 12:45 **Tutorial 2 (2024ECON-CORE-T2-EM):** 

Microeconomics, Macroeconomics,

Sarah ELSHEIKH, M.Sc.

13:45 – 17:00 **Tutorial 3 (2024ECON-CORE-T3-EM):** 

Microeconomics, Macroeconomics,

Sarah ELSHEIKH, M.Sc.

Wed. 04 Dec 2024

09:30 – 12:45 **Tutorial 4 (2024ECON-CORE-T4-EM):** 

Microeconomics, Macroeconomics,

Sarah ELSHEIKH, M.Sc.

13:45 – 17:00 **Tutorial 5 (2024ECON-CORE-T5-EM):** 

Microeconomics, Macroeconomics,

Sarah ELSHEIKH, M.Sc.

Mon. 20 Jan 2025

10:00 – 11:30 **Tutorial Q&A (2024ECON-Q&A-EM)**:

Exam Q&A Online via Zoom, Sarah ELSHEIKH, M.Sc. Prof. Dr. Aaron PRAKTIKNJO

#### **Schedule Specialized Part**

Thu. 21 Nov 2024 ECON Paper Announcement and start of the writing process

(2024ECON-SPEC-Paper Announcement)

Mon. 06 Jan 2025 ECON Paper (Spec. Examination), 5 Pages (Preparatory

Exercise/Prerequisite)

(2024ECON-Spec-Paper Handing In)

Wed. 08 Jan 2025

9:30 – 17:00 **Lecture 3 (2024ECON-SPEC-L3-EM):** 

Fundamentals in Energy Economics, Prof. Dr. rer. pol. Georg ERDMANN

Fri. 10 Jan 2025

09:30 – 17:00 **Lecture 4 (2024ECON-SPEC-L4-EM)**:

Environmental Economics I, Prof. Dr. Aaron PRAKTIKNJO

Sat. 11 Jan 2025

09:30 – 17:00 **Lecture 5 (2024ECON-SPEC-L5-EM)**:

Environmental Economics II, Prof. Dr. Aaron PRAKTIKNJO

Wed. 15 Jan 2025

09:30 – 12:45 **Tutorial 6 (2024ECON-SPEC-T6-EM):** 

Environmental Economics Prof. Dr. Aaron PRAKTIKNJO

TBA/TBC Company Presentation (2024ECON-SPEC-X1-EM):

Energy Access and Development Program (EADP),

Dr. Dawud ANSARI

Fri. 17 Jan 2025

Econ Paper Feedback about permission to take the exam

(2024ECON-SPEC-Paper Feedback 1 EM only)

Thu. 23 Jan 2025

10:00 – 11:30 Exam CORE & Spec. Part (2024ECON-EXAM)

Written, 90 minutes, graded (written Paper is a pre-requirement)

14:00 – 16:00 **Excursion (2024ECON-SPEC-X2-EM):** 

Futurium Berlin

Wed. 12 Feb 2025

Econ Paper deeper Feedback to support LAW paper (2024ECON-

**SPEC-Paper Feedback 2)** 

#### Literature

[1] Bhattacharyya, S.C. (2019), Energy Economics: Concepts, Issues, Markets and Governance, 2nd ed., Springer, London.

[2] Mankiw, N.G. (2021), Principles of Economics, 9th ed., Cengage Learning, Boston.

[3] Parkin, M. (2019), Economics, Global Edition, 13th ed., Pearson, Harlow, England. Chapters 1-3; 4-5; 8-9; 10-11; 12-13; 16-17; 21-22; 24, 27.

[4] Zweifel, P., Praktiknjo, A. and Erdmann, G. (2017), Energy Economics, Springer, Berlin, Heidelberg.

## **Module Law (6 ECTS)**

Prof. Dr. iur. Dr. rer. pol. Dres. h.c. Franz Jürgen SÄCKER Hon.Ph.D.(PCCC) Technische Universität Berlin



#### **Aims and Scope**

The students will learn about the fundamentals of Civil, Private and Commercial Law as well as core aspects of Public Law and Policy relevant to the energy industry. The module covers international, European and the interaction of those legal frameworks for a comprehensive and coherent energy transition.

#### Keywords

Energy law; energy trade and international contracts; UN conventions; WTO; ECT; contract law; EFET contracts; the legal system of the EU and the Third Energy Package; Germany's Energiewende and EEG; EU secondary law vs. regional developments; environmental law; state aid.

#### **Examination (6 ECTS, graded)**

Law paper, 10 pages, graded

#### **Schedule Core Part**

Fri. 31 Jan 2025

09:30 -17:00

Lecture 1 (2024LAW-CORE-L1):

Fundamental of European Business Law,

Prof. Dr. Lydia SCHOLZ

#### **Schedule Specialized Part**

Sat. 01 Feb 2025

09:30 – 17:00 **Lecture 2 (2024LAW-SPEC-L2-EM):** 

Sustainable Energy Transition: Boundaries between competition and

regulatory law in the Energy Sector in the context of the

Paris-Agreement, Dr. Oliver KOCH

Mon. 03 Feb 2025 Excursion (2024LAW-SPEC-X1-EM):

Whole day EEX in Leipzig

Wed. 05 Feb 2025

09:30 – 17:00 **Lecture 3 (2024LAW-SPEC-L3-EM)**:

The EU Legal Framework for Infrastructure Regulation,

PD Dr. Carsten KÖNIG

Fri. 07 Feb 2025

09:30 - 17:00 **Lecture 4 (2024LAW-SPEC-L4-EM):** 

Energy Security of Supply and Tensions with an Emission-Neutral

Future,

Dr. Anna Samuel VAN HAASTEREN

Sat. 08 Feb 2025

09:30 -12:45 **Tutorial 1 (2024LAW-SPEC-T1-EM):** 

Academic Law Paper Writing

Dr. Ebru TUNCEL

13:45 – 17:00 **Tutorial 2 (2024LAW-SPEC-T2-EM):** 

Introduction to EU Law Dr. Ebru TUNCEL

Wed. 12 Feb 2025

09:30 – 12:45 **Excursion 2 (2024LAW-SPEC-X2-EM):** 

Company Case+company visit (tbc)

Dr. Juliane STEFFENS

Sat. 15 Feb 2025

09:30 – 12:45 **Tutorial 3 (2024LAW-SPEC-T3-EM):** 

Legal Framework for Energy Trading and Supply (tbc)

Prof. Dr. Susanne WENDE

Sat. 15 Feb 2025 - Paper, (Spec. Examination) 10 pages, graded Tue. 25 Feb 2025 - 2024LAW Paper in due (23:59)

#### Literature

<sup>[1]</sup> Angus Johnston and Guy Block. EU Energy Law. Oxford University Press, 2012.

<sup>[2]</sup> Kim Talus. EU Energy Law and Policy. A Critical Account. Oxford University Press, 2013.

<sup>[3]</sup> Kate L. Turabian. A Manual for Writers of Research Papers, Theses, and Dissertations. The University of Chicago Press, 2013.

## Other information

#### **Exam Retakes**

tha

#### **Summer semester 2025**

 Duration of semester:
 01.04.2025 - 30.09.2025

 Lecture period:
 14.04.2025 - 19.07.2025

**Lecture-free period:** 21.07.2025 - 30.09.2025 & public

holidays

Re-registration: tba

## SECOND SEMESTER

**SoSE 2025** 



#### **Module Management (12 ECTS)**

#### Prof. Dr. Søren SALOMO

Chair of Technology and Innovation Management

Sekr. H71, Room H 7104

Straße des 17. Juni 135 | 10623 Berlin

Phone: 0049-30-314-26728

salomo@tu-berlin.de



#### **Aims and Scope**

Students are able to independently identify, analyze, and design strategic and operational approaches to managing technologies and innovation, taking into account the consequences of environmental changes for planning, management, and controlling. They do this by incorporating interdependent technological, economic, business, and legal processes in companies and organizations while considering social responsibility and sustainable development. Students will be able to define the main features of energy management, apply problem-solving skills to case studies using different fields of knowledge, and present options for optimizing the energy sector.

#### Keywords

Business models & plans; small group communication; leadership; environmental communication; corporate social responsibility (CSR); conflict management; change management; risk management; operational excellence; system services and energy services; Germany's energy transformation; management of reactive power; energy storage and transformation; links to the energy sector; energy management.

#### **Examination (12 ECTS, graded)**

Two quizzes (each 12P)
Business plan poster presentation (40P)
Written assignment (40P)

#### Schedule

#### Literature

- [1] Kerzner, H. (2013) Project Management A Systems Approach to Planning, Scheduling, and Controlling, Wiley, New York
- [2] Cooper, R. (2008)
- [3] Christensen, C. et al. (2016)

#### **Module Investments (6 ECTS)**

Prof. Dr. Christian VON HIRSCHHAUSEN
Chair Workgroup for Infrastructure Policy (WIP)
Berlin University of Technology
Straße des 17. Juni 135, D-10623 Berlin
+49-(0)30-314 25 048
cvh@wip.tu-berlin.de



#### **Aims and Scope**

This module looks at investment decisions in the context of long-term energy infrastructure (generation, storage, transport/distribution) from a decision-maker perspective. The students master the basic methods of investment calculation and the common financial instruments and forms of financing. They apply problem-solving skills in a critically reflective manner to investment decisions and determine strategic approaches to solving complex problems. The knowledge acquired enables them to assess the advantages and disadvantages of various financing instruments and make advantageous decisions in the context of investment projects. They are also able to plan infrastructure projects and analyze their risks.

#### Keywords

Investments in energy infrastructure (networks, storage facilities, and power plants); determining capital costs; capital structure decisions; investment calculations; risk assessment and management; behavioral economics; financial instruments and forms of financing; principles of safeguarding liquidity; cost of capital rate; capital structure decisions; special purpose vehicles; portfolio management; asset management.

#### **Examination (6 ECTS, graded)**

Written exam: Investment memo, max. ten pages

#### Schedule

#### Literature

- [1] Kirschen, Daniel and Strbac, Goran (2019): Fundamentals of Power System Economics
- [2] Stoft, Steven (2002): Power System Economics
- [3] Gatti, Stefano (2018): Project Finance in Theory and Practice: Designing, Structuring, and Financing Private and Public Projects
- [4] Yescombe, E. R. (2013): Principles of Project Finance
- [5] Barcelona, Ricardo G. (2017): Energy Investments An Adaptive Approach to Profiting from Uncertainties

#### **Module Energy Grids (6 ECTS)**

Prof. Dr.-Ing. Kai STRUNZ
Head of Chair Sustainable Electric Networks
and Sources of Energy
Secr. EMH 1
Einsteinufer 11, D-10587 Berlin
kai.strunz@tu-berlin.de



#### **Aims and Scope**

This module discusses the technical and organizational challenges of network management in the context of environmental changes. It looks at transformation processes between different forms and sources of energy and considers novel technological developments. Students will be able to identify highly specialized knowledge about energy networks, partly based on the latest technical developments and findings. They will also be able to critically evaluate fundamental problems of network management and present options for optimizing network management.

#### **Keywords**

Network management; liquid fuels and pipelines vs. power transmission; convergence; substitution and interoperability; redundancy principle; power-to-gas; power-to-heat; mobility-to-grid; combined heat and power (CHP); virtual power plants; demand response; smart meters; contracts; RES integration; network management technologies; prosumers; IT and network conversion; next-generation networks; micro smart grids.

#### **Examination (6 ECTS, graded)**

Written exam

#### **Schedule**

#### **Module Regulation (6 ECTS)**

Prof. Dr.-Ing. Joachim MÜLLER-KIRCHENBAUER

Academic Director

Institute Technologie und Management (ITM)

Faculty Wirtschaft und Management

sec. H 69, Room H 6118

Straße des 17. Juni 135, 10623 Berlin

+49 (0) 30 314-23214

energymanagement@master.tu-berlin.de



#### Aims and Scope

Students will be able to critically reflect on the current theory and practice of regulation in Germany and Europe in both the electricity and gas sectors, assess the significance and effects of regulation on both the energy system and companies, and present options for optimizing regulation management.

#### **Keywords**

Regulation and how it is formed; impact of electricity and gas regulations on energy and natural resource companies; unbundling; network access; tariff regulation; capacity markets; energy markets.

#### **Examination (6 ECTS, ungraded)**

Portfolio (presentation and REGU-Paper)

#### Schedule

## THIRD SEMESTER





## Elective Modules (6ECTS + 6ECTS)

#### Aims and Scope

In their last semester, students look at current energy-related practical issues and challenges. Students choose two elective modules out of 9 (priority for specialized courses). In parallel, students work on their master's thesis.

#### **Assessment**

You will receive 6 ECTS (credits) for each course.

Type of assessment: Portfolio

Students who do not pass may repeat at the end of the current semester.

#### Task and point allocation

(Learning process evaluation) Project - Contribution to the discussion, 25%

(Output evaluation) Oral presentation, 50%

(Output evaluation) Presentation materials/written composition

(term paper), 25%

Each course is limited to 25 students.

#### **Module Master Thesis**

**Supervisors** Individual.

#### **Aims and Scope**

Students demonstrate with the Master Thesis their capability of independently addressing a problem from their study program, based on scientific methods, within a specific deadline. Once registered for the thesis, students have four months to conclude.

#### Schedule

To start the master's thesis, 60 CP must have been earned; this equals successful completion of all mandatory modules M1-M8. Technically, the earliest starting date is therefore six weeks after the last exam. The thesis can be postponed but should be completed in the third term.

Contents Individual.

**Form** Fifty pages, plus introduction and annex(es); In English; Scientific

standards prerequisite; More detailed formal requirements to be

announced.

tba Tutorial/FAQ: Preparation for Master Thesis and Term III

Dr. Jing Wu & Gernot Bohmann, M.Sc.

**Graduation Ceremony MBA Energy Management 2023-24** 

Details to be announced

## **Alumni Program**

With your degree, you become part of the alumni network. Alumni receive invitations to participate in the further extension of the academic program and to events held on the campus and within the network.

As the program rolls over, you are cordially invited to participate in the curricular and extracurricular events of the following academic year(s).



## **Faculty**

### **Lecturers & Tutors**

Dr. Dawud ANSARI
Economist at DIW Berlin
Director at EADP
Lecturer/Consultant

Jun.-Prof. Dr. Karola BASTINI
Professor
Technische Universität Berlin
Faculty of Economics and Management
Institute of Business Administration

Kristian BÄNSCH Research Assistant Technische Universität Berlin Chair of Production and Operations Management

**Prof. Dr. Justin BECKER**Universität der Künste Berlin
Berlin Career College

**Dr. Nadja BERSECK**Trainer and Lecturer in Design Thinking and Business Model
Design

Lukas BIEBER

Head of department in the field of energy networks

Bundesverband der Energie- und Wasserwirtschaft (BDEW)

Gernot BOHMANN, M.Sc. Academic Program Manager MBA Energy Management

**Dr. Maren BORKERT**Professor
Technical University Berlin
Chair of Entrepreneurship and Innovation Management



Bettina BROCKMANN, M.A.

Lecturer AY-A, Communication Studies Program Manager Executive Education, Technische Universität München (TUM)

Maximilian EVERS, M.Sc., Ph.D. Candidate Research Associate TU Berlin, Energy and Resource Management

**Dr. Volker BÜHNER**Head of Business Unit Energy
KISTERS AG



Dipl.-Wirtsch.-Ing. Lars DITTMAR
IKEM

Institut für Klimaschutz, Energie und Mobilität e.V.

**Dr. Jing WU**Academic Program Manager
MBA Energy Management

Sarah DROLL, MBA

Senior Manager Business Integrity and Corporate Compliance EY

Sarah ELSHEIKH, M.Sc. Field Protection Assistant Danish Refugee Council / Dansk Flygtningehjælp



Prof. Dr. rer.pol. Georg ERDMANN
Head of Department (a.D.)
Berlin University of Technology
Department of Energy Systems

Prof. Dr. Gioia FALCONE Rankine Chair - Professor of Energy Engineering University of Glasgow, Imperial College London

Dr. Oliver Helge FRANZ Regulatory Manager, Head of Regulatory Services and Regulatory Strategy RWE Deutschland AG, innogy SE



Dr. Clemens GERBAULET Project Manager Business Development HanseWerk AG

Prof. Dr.-Ing. Dietmar GÖHLICH Head of MPM Methods of Product Desgin and Mechatronics TU Berlin



Benjamin GROSSE Research Associate Berlin University of Technology Chair for Energy and Resource Management

Dr. Frank Peter HANSEN Senior Manager Tennet TSO GmbH Former Bundesnetzagentur

Dr. Bodo HERRMANN Head of Unit: Grid Development / Expansion Bundesnetzagentur - Federal Network Agency

Prof. Dr. Christian VON HIRSCHHAUSEN
Economic Policy and Infrastructure Policy
Berlin University of Technology
DIW Berlin (German Institute for Economic Research)
Massachusetts Institute of Technology



**Peter HOHAUS** Senior Policy Advisor Uniper SE



Steven HOTOPP, M.Sc. Research Associate Berlin University of Technology Chair for Energy and Resource Management



Prof. Dr. Dodo ZU KNYPHAUSEN-AUFSESS Strategic Leadership and Global Management Berlin University of Technology



**Dr. Oliver KOCH**Deputy Head of Section
DG Energy-European Commission



Dr. Carsten KÖNIG
Academic Officer
University of Cologne
Chair for Civil Law, Competition Law, Regulatory Law, Law of
the Digital Economy



Dr. Armin KRAFT CEO EEB Enerko



**Dr.-Ing. Maren KUSCHKE**Research Associate
Berlin University of Technology
Sustainable Electric Networks and Sources of Energy

Vortex Energy Group, COO TU Berlin



**Prof. Dr. Roland MENGES**TU Clausthal, Institute of Management and Economics
Department of Macroeconomics



Prof. Dr.-Ing. Joachim MÜLLER-KIRCHENBAUER
Academic Director
MBA Energy Management Energy and Resources
Management
Berlin University of Technology
Institute of Technology and Management
Energy and Resource Management
Dr. Christian NABE
Associate Director
ECOFYS
Energy Systems and Markets





**Dr. Susanne NIES** General Manager Germany SMART WIRES Inc.



Prof. Dr.-Ing. Aaron PRAKTIKNJO
Assistant Professor
RWTH Aachen University
Chair of Energy Resource and Innovation Economics/E.ON
ERC Energy Research Center

**Prof. Dr. Søren SALOMO**Institute of Technology and Management
Technology and Innovation Management



Prof. Dr. Dres. h.c. Franz Jürgen SÄCKER
Academic Director
Energy Law MBL
enreg Institute for Regulatory and Energy Law Berlin



**Prof. Dr. Lydia SCHOLZ** Economic and Business Law Hochschule Bremen



**Dr. habil. Hans-Günter SCHWARZ**Electricity Market Modelling New Business RWE Supply and
Trading
RWE



**Dr. Simon SCHÄFER-STRADOWSKY**Head and CEO of ikem



Dr. Stephan SEIM
Research Associate
TU Berlin, Energy and Resource Management
Stromnetz Berlin



Dr. Juliane STEFFENS, LL.M. (Harvard)
Freie Universität Berlin | FUB
Lecturer, Coordinator – Master of International and European
Energy Law, TU Berlin

Prof. Dr.-Ing. Kai STRUNZ

Head of Department
Sustainable Electric Networks and Sources of Energy Berlin
University of Technology



Byron STUNTZ, MBA

Energy Management Expert; passionate about technology, data and digital resources, consultancy, Environmental Law, Foreign Diplomacy, Policy Development, and International Relations

Prof. Dr. Thomas VOLLING

Head of Department

Technische Universität Berlin

Chair of Production and Operations Management



Dr. Maximilian WACHTER

Strategic assistant of the CEO at PHOENIX group - Integrated Healthcare Provider





Christian WIEZOREK, M.Sc. Research Assistants and Doctoral Candidate Berlin University of Technology

Sebastian WILLEMSEN, M.Sc. Consultant Consentec GmbH

