TECHNISCHE UNIVERSITÄT BERLIN

ENERGY MANAGEMENT MBA

PROGRAM

Winter Semester 2023/24

Intake 2023-2025

Last update on: 13 March 2024

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

TUBS GmbH
TU Berlin ScienceMarketing
Hardenbergstraße 19
10623 Berlin
Deutschland

CONTENT

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 WU
Academic Program Manager

Sandra LUBAHN
Administrative Manager

OVERVIEW

The Energy Management Team

Prof. Dr.-Ing. Joachim MÜLLER-KIRCHENBAUER

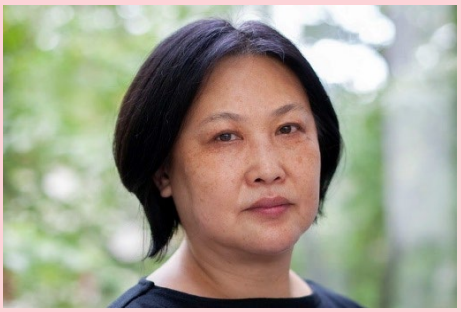
Academic Director MBA Energy Management

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

Gernot BOHMANN, M.Sc.

Academic Program Manager

gernot.bohmann@campus.tu-berlin.de



Dr. Jing WU

Academic Program Manager

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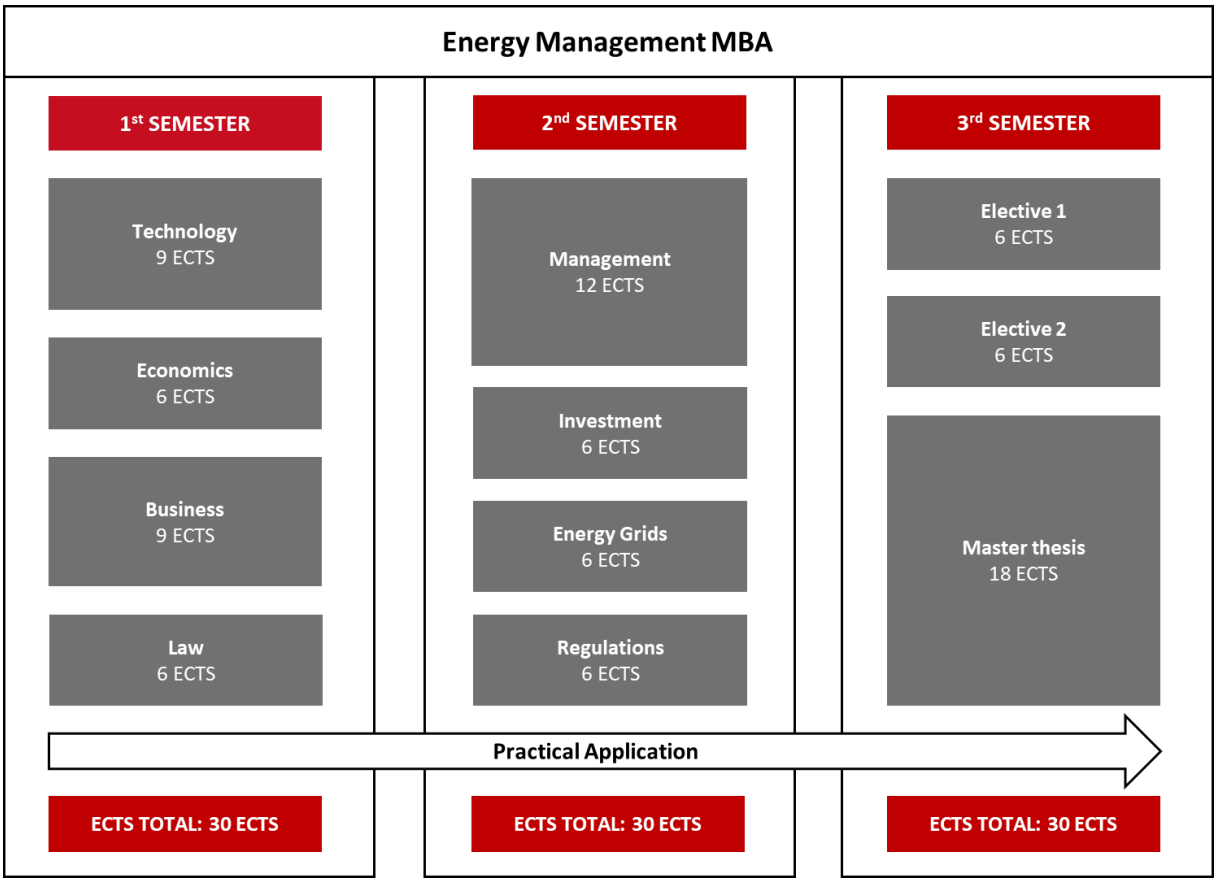


The master's program is taught over a period of three semesters. The first semester covers the technical, economic, entrepreneurial, and legal foundations for management decisions in the energy sector; the second semester deepens this view and looks at business practices, primarily of grid-based utilities, 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 2023/24)
  Duration of semester: 01.10.2023 - 31.03.2024
  Lecture period: 16.10.2023 - 27.02.2024
  Lecture-free period: 28.02.2024 - 31.03.2024 as well as public holidays

- **Second semester** (Summer semester 2024)
  Duration of semester: 01.04.2024 - 30.09.2024
  Lecture period: 19.04.2024 - 24.07.2024
  Lecture-free period: 25.07.2024 - 30.09.2024 as well as public holidays

- **Third semester** (Winter semester 2024/25)
  Duration of semester: 01.10.2024 - 31.03.2025
  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 │ 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 **S**ystem for **I**nstructors and **S**tudents (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 2023/24

Social and Academic Events

Orientation Week 2023

9 – 13 October 2023

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

Official Opening

13 October 2023 – 4:00 pm

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

Christmas Get-Together

15 December 2023

Venue: 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. 12 Oct 2023	
13:45 – 17:00	**Tutorial Conflict Management: (online via Zoom) only for students who are not in Berlin by Oct. 18.** Katharina Yombi / Carla Vollert
Tue. 17 Oct 2023	
All day (exact time tba)	**Excursion 1 (2023TECH-CORE-X1-EM):** Neue Energien Forum Feldheim e.V.
Wed. 18 Oct 2023	
09:30 - 17:00	**Lecture 1 (2023TECH-CORE-L1):** Prof. Dr.-Ing. Joachim MÜLLER-KIRCHENBAUER
Thu. 19 Oct 2023	
09:30 – 12:45	**Tutorial Conflict Management: (EUREF, S5) only for students who are in Berlin by Oct. 18.** Katharina Yombi / Carla Vollert
Sat. 21 Oct 2023	
09:30 – 17:00	**Lecture 2 (2023TECH-CORE-L2):** Prof. Dr.-Ing. Joachim MÜLLER-KIRCHENBAUER Prof. Dr. Gioia FALCONE

Fri. 27 Oct 2023
09:30 – 12:45 **Tutorial 1 (2023TECH-CORE-T1-EM):**
Benjamin GROSSE, M.Sc./Maximilian EVERS
13:45 – 17:00 **Tutorial 2 (2023TECH-CORE-T2-EM):**
Benjamin GROSSE, M.Sc./Maximilian EVERS

Schedule Specialized Part

Wed. 01 Nov 2023
10:00 – 12:00 **Excursion 2 (2023TECH-SPEC-X2-EM):**
Energy Museum Berlin
14:00 – 16:00 **Company Presentation 1 (2023TECH-SPEC-X3-EM):**
Federal Maritime and Hydrographic Agency (BSH)

Fri. 10 Nov 2023
09:30 – 17:00 **Lecture 3 (2023TECH-SPEC-L3-EM):**
Renewable Energy Sources,
Prof. Dr.-Ing. Joachim MÜLLER-KIRCHENBAUER

Sat. 11 Nov 2023
09:30 – 17:00 **Lecture 4 (2023TECH-SPEC-L4-EM):**
Energy Grids: Electricity Grids, Gas Grids,
Prof. Dr.-Ing. Joachim MÜLLER-KIRCHENBAUER

Wed. 15 Nov 2023
13:45 – 17:00 **Tutorial 3 (2023TECH-SPEC-T3-EM):**
Benjamin GROSSE, M.Sc./Maximilian EVERS

Wed. 22 Nov 2023
13:45 – 17:00 **Tutorial 4 (2023TECH-SPEC-T4-EM):**
Benjamin GROSSE, M.Sc./Maximilian EVERS

Sat. 25 Nov 2023
09:30 – 17:00 **Lecture 5 (2023TECH-SPEC-L5-EM):**
Hydrogen, Sector Coupling, and Integration; Q&A & Outro,
Prof. Dr.-Ing. Joachim MÜLLER-KIRCHENBAUER

Tue. 28 Nov 2023
13:45 – 17:00 **Tutorial 5 (2023TECH-SPEC-T5-EM):**
Benjamin GROSSE, M.Sc./Maximilian EVERS

Fri. 01 Dec 2023
09:30 – 17:00 **Lecture 6 (2023TECH-SPEC-L6-EM):**
Student Presentations,
Prof. Dr.-Ing. Joachim MÜLLER-KIRCHENBAUER/Maximilian EVERS

Mon. 04 Dec 2023
13:00 - 15:00 **Tutorial Q&A (2023TECH-Q&A-EM):**
Benjamin GROSSE, M.Sc./Maximilian EVERS

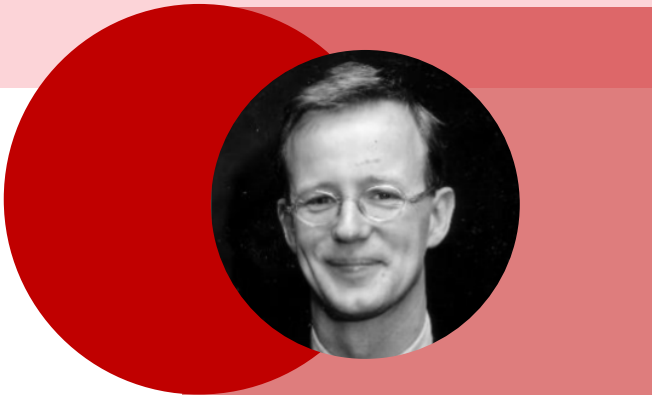
Fri. 08 Dec 2023
10:00 – 12:00 **Exam written, 120 minutes, graded (2023TECH-EXAM-EM):**
Benjamin GROSSE, M.Sc./Maximilian EVERS

Fri. 08 Dec 2023
14:00 – 17:00 **Excursion 3 (2023TECH-CORE-X4-EM):**
Vattenfall Cooling Centre at Potsdamer Platz

Literature

[1] Robert L. Jaffe and Washington Taylor. The Physics of Energy. Cambridge University Press, 2018.
[2] P. Zweifel et al. Energy Economics. Springer Texts in Business and Economics, Springer 2017.
[3] Y. Demirel. Energy. Springer 2012.
[4] W Shepherd and D W Shepherd. Energy Studies. Imperial College Press, 2008.
[5] Volker Quaschning. Understanding Renewable Energy Systems. Earthscan, 2005.

Module Business (9 ECTS)



Prof. Dr. Dodo zu KNYPHAUSEN-AUFSEß

Strategic Leadership and Global Management
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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

Fri. 20 Oct 2023
09:30 – 17:00 **Lecture 1 (2023BUSI-CORE-L1):**
Basics of Business Administration & Corporate Governance,
Prof. Dr. Dodo ZU KNYPHAUSEN-AUFSESS

Thu. 26 Oct 2023
09:30 – 17:00 **Lecture 2 (2023BUSI-CORE-L2)**:
Corporate and Business Management,
Prof. Dr. Dodo ZU KNYPHAUSEN-AUFSESS

Sat. 28 Oct 2023
09:30 – 17:00 **Lecture 3 (2023BUSI-CORE-L3)**:
Corporate and Business Management,
Prof. Dr. Dodo ZU KNYPHAUSEN-AUFSESS
Topic Assignment for Presentations

Wed. 08 Nov 2023
09:30 – 12:45 **Tutorial 1 (2023BUSI-CORE-T1-EM):**
Business Frameworks and Business Canvas,
Byron STUNTZ
13:45 – 17:00 **Tutorial 2 (2023BUSI-CORE-T2-EM):**
Business Ethics,
Sarah DROLL

Wed. 15 Nov 2023
08:00 – 12:00 **Tutorial 3 (2023BUSI-CORE-T3-EM):**
Presentation Techniques,
Bettina BROCKMANN

Fri. 17 Nov 2023
09:30 – 17:00 **Lecture 4 (2023BUSI-CORE-L4-EM)**:
Accounting and Finance,
Jun.-Prof. Dr. Karola BASTINI

Wed. 22 Nov 2023
09:30 – 12:45 **Tutorial 4 (2023BUSI-CORE-T4-EM):**
Accounting & Finance,
Dr. Maximilian WACHTER

Thu. 30 Nov 2023: Quiz multiple choice, online (available 24h)

Schedule Specialized Part

Sat. 18 Nov 2023
09:30 – 17:00 **Lecture 5 (2023BUSI-SPEC-L5-EM)**:
Management in the Energy Sector - Market Roles, Function & Participants in Liberalized Energy Markets,
Prof. Dr.-Ing. Joachim MÜLLER-KIRCHENBAUER

Fri. 24 Nov 2023
09:30 – 17:00 **Lecture 6 (2023BUSI-SPEC-L6-EM):**
Information Systems in the Energy Sector,
Dr. Volker BÜHNER

Wed. 29 Nov 2023
09:30 – 17:00 **Lecture 7 (2023BUSI-SPEC-L7-EM)**:
Marketing,
Prof. Dr. Justin BECKER

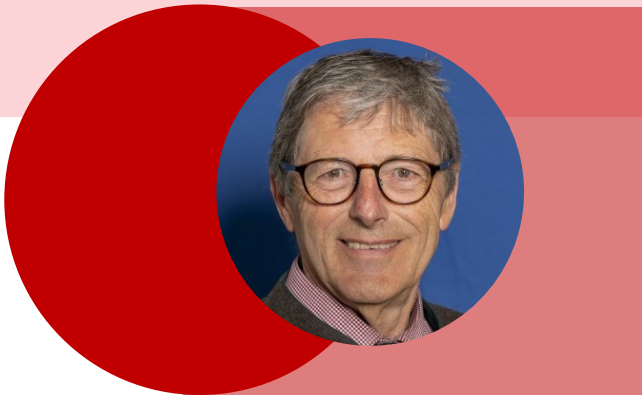
Thu. 14 Dec 2023
13:45 – 17:00 **Examination:** Presentations, in total 8 hours, pass/fail,
Fri. 15 Dec 2023 Prof. Dr. Dodo ZU KNYPHAUSEN-AUFSESS and Prof. Dr.-Ing.
13:45 – 17:00 Joachim MÜLLER-KIRCHENBAUER

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)



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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

Mon. 16 Oct 2023 E-Learning	**Tutorial 1 & 2 (2023ECON-CORE-T1/2):** Microeconomics, Macroeconomics Sarah ELSHEIKH, M.Sc.
Tue. 02 Jan 2024 10:00 – 13:00	**Tutorial 3 (2023ECON-CORE-T3-EM)**: Writing Workshop, Juliane Homann
Wed. 03 Jan 2024 09:30 – 12:45	**Tutorial 4 (2023ECON-CORE-T4-Mix1)**: Scientific Writing, Benjamin GROSSE, M.Sc.
13:45 – 17:00	**Tutorial 4 (2023ECON-CORE-T4-Mix2)**: Scientific Writing, Benjamin GROSSE, M.Sc.
Fri. 05 Jan 2024 09:30 – 17:00	**Lecture 01 (2023ECON-CORE-L1)**: General: Economics, Microeconomics, Macroeconomics, History of Economic Thought, Prof. Dr. Roland MENGES

Sat. 06 Jan 2024
09:30 – 17:00 **Lecture 02 (2023ECON-CORE-L2)**:
General: Economics, Microeconomics, Macroeconomics, History of Economic Thought,
Prof. Dr. Roland MENGES

Wed. 10 Jan 2024
09:30 – 12:45 **Tutorial 5 (2023ECON-CORE-T5-EM)**:
Microeconomics, Macroeconomics,
Sarah ELSHEIKH, M.Sc.
13:45 – 17:00 **Tutorial 6 (2023ECON-CORE-T6-EM)**:
Microeconomics, Macroeconomics,
Sarah ELSHEIKH, M.Sc.

Wed. 17 Jan 2024
09:30 – 12:45 **Tutorial 7 (2023ECON-CORE-T7-EM)**:
Microeconomics, Macroeconomics,
Sarah ELSHEIKH, M.Sc.
13:45 – 17:00 **Tutorial 8 (2023ECON-CORE-T8-EM)**:
Microeconomics, Macroeconomics,
Sarah ELSHEIKH, M.Sc.

Fri. 02 Feb 2024
15:00 – 17:00 **Tutorial Q&A (2023ECON-Q&A-EM)**:
Exam Q&A,
Sarah ELSHEIKH, M.Sc.
Prof. Dr. Aaron PRAKTIKNJO

Schedule Specialized Part

Tue. 02 Jan 2024 Econ Paper Announcement and start of the writing process **(2023ECON-SPEC-Paper Announcement)**

Fri. 12 Jan 2024
09:30 – 17:00 **Lecture 3 (2023ECON-SPEC-L3-EM)**:
Environmental Economics I,
Prof. Dr. Aaron PRAKTIKNJO

Sat. 13 Jan 2024
09:30 – 17:00 **Lecture 4 (2023ECON-SPEC-L4-EM)**:
Environmental Economics II,
Prof. Dr. Aaron PRAKTIKNJO

Fri. 19 Jan 2024
09:30 – 17:00 **Lecture 5 (2023ECON-SPEC-L5-EM):**
Fundamentals in Energy Economics,
Prof. Dr. rer. pol. Georg ERDMANN

Wed. 24 Jan 2024

09:30 – 12:45 **Tutorial 9 (2023ECON-SPEC-T9-EM):**
Environmental Economics
Prof. Dr. Aaron PRAKTIKNJO

13:45 – 17:00 **Company Presentation (2023ECON-SPEC-X1-EM):**
Energy Access and Development Program (EADP),
Dr. Dawud ANSARI

Mon. 02 Jan 2024- Sun. 21 Jan 2024 (23:59) **Paper (Spec. Examination), five pages** (Preparatory Exercise/Prerequisite)

Fri. 26. Jan 2024 **Econ Paper Feedback about permission to take the exam (2023-ECON-SPEC-Paper Feeback 1 EM_only)**

Wed. 07 Feb 2024

10:00 – 11:30 **Exam CORE & Spec. Part (2023ECON-EXAM) - Written, 90 minutes, graded (written Paper is a pre-requirement)**

14:00 – 16:00 **Excursion (2023ECON-SPEC-X1-EM):**
Futurium Berlin

Thu. 15. Feb 2024 **Econ Paper deeper Feedback to support LAW paper (2023-ECON-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

Sat. 20 Jan 2024
09:30 -17:00 **Lecture 1 (2023LAW-CORE-L1):**
Introduction to Business Law,
Prof. Dr. Lydia SCHOLZ

Fri. 02 Feb 2024
09:30 – 12:45 **Tutorial 1 (2023LAW-CORE-T1-EM):**
Introduction to EU Energy Law,
Ebru TUNCEL

Schedule Specialized Part

Tue. 23 Jan 2024 **Excursion (2023LAW-SPEC-X1-EM):**
Whole day EEX Leipzig
(exact times tba)

Wed. 31 Jan 2024
09:30 – 17:00 **Lecture 2 (2023LAW-SPEC-L2-EM**):
Introduction to European Energy Law,
Lukas BIEBER

Sat. 03 Feb 2024
09:30 - 17:00 **Lecture 3 (2023LAW-SPEC-L3-EM):**
EU Energy Law and Policy,
Dr. Oliver KOCH

Fri. 09 Feb 2024	
09:30 -17:00	**Lecture 4 (2023LAW-SPEC-L4-EM):** The EU Legal Framework for Infrastructure Regulation, Dr. Carsten KÖNIG
Sat. 10 Feb 2024	
09:30 – 12:45	**Tutorial 2 (2023LAW-SPEC-T2-EM):** Academic Writing Law Paper Ebru TUNCEL
Wed. 14 Feb 2024	
09:30 – 12:45	**Tutorial 3 (2023LAW-SPEC-T3-EM):** Legal Framework for Energy Trading and Supply Agnieszka Ason
13:45 – 17:00	**Company Case (2023LAW-SPEC-X2-EM):** Case Study – ib vogt GmbH Hussein FAHMY
Sat. 17 Feb 2023-Tue. 27 Feb 2023 (23:59)	**Paper, (Spec. Examination) 10 pages, graded**

Literature

[1] Angus Johnston and Guy Block. EU Energy Law. Oxford University Press, 2012.
[2] Kim Talus. EU Energy Law and Policy. A Critical Account. Oxford University Press, 2013.
[3] Kate L. Turabian. A Manual for Writers of Research Papers, Theses, and Dissertations. The University of Chicago Press, 2013.

Other information

Exam Retakes

tba

Summer semester 2024

Duration of semester:	**01.04.2024 - 30.09.2024**
Lecture period:	**19.04.2024 - 24.07.2024**
Lecture-free period:	25.07.2024 - 30.09.2024 and public holidays
Re-registration:	tba

SECOND SEMESTER

SOSE 2024

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

Wed. 17 Apr 2024
09:30 – 17:00 **Tutorial 01 (2023MGMT-T1):**
Problem Scouting and Design Thinking,
Prof. Dr. Joachim MÜLLER-KIRCHENBAUER
Charleen von KOLPINSKI

Fri. 19 Apr 2024
09:30 – 17:00 **Lecture 01 (2023MGMT-L1):**
Technology and Innovation,
Prof. Dr. Søren SALOMO

Sat. 20 Apr 2024
09:30 – 17:00 **Lecture 02 (2023MGMT-L2):**
Technology and Innovation,
Prof. Dr. Søren SALOMO

TBC Wed. 24 Apr 2024
09:30 – 17:00 **Lecture 03 (2023MGMT-L3):**

Managerial Accounting,
Prof. Karola BASTINI

Fri. 26 Apr 2024
09:30 – 17:00 **Lecture 04 (2023MGMT-L4):**
Innovation Management,
Prof. Dr. Søren SALOMO
Dr. Birgit PEÑA HÄUFLER

Sat. 27 Apr 2024
09:30 – 17:00 **Lecture 05 (2023MGMT-L5):**
Innovation Management,
Dr. Birgit PEÑA HÄUFLER

Mon. 29 Apr. 2024
Exam 1a (2023MGMT-EXAM1) – Quiz 1, Online (8P)

Fri. 03 May 2024
09:30 – 17:00 **Lecture 06 (2023MGMT-L6):**
Data-driven decision making and operations,
Prof. Dr. Thomas VOLLING

Sat. 04 May 2024
09:30 – 17:00 **Lecture 07 (2023MGMT-L7):**
Data-driven decision making and operations,
Prof. Dr. Thomas VOLLING

Wed. 08 May 2024
09:30 – 12:45 **Tutorial 02 (2023MGMT-T2):**
Decision Psychology,
Dr. Felix GRÜN
13:45 - 17:00 **Tutorial 03 (2023MGMT-T3):**
Business Plan,
Dr. Karina CARGAMAN

Fri. 10 May 2024
09:30 – 17:00 **Lecture 08 (2023MGMT-L8):**
Communication and Leadership,
Bettina BROCKMANN

Sat. 11 May 2024
09:30 – 17:00 **Lecture 09 (2023MGMT-L9):**
Communication and Leadership,
Bettina BROCKMANN

TBC Wed. 15 May 2024
09:30 – 17:00 **Lecture 10 (2023MGMT-L10):**
Strategy and Business in Energy Sector,
Prof. Dr. Joachim MÜLLER-KIRCHENBAUER

Wed. 22 May 2024

09:30 – 17:00 **Lecture 11 (2023MGMT-L11):**
Management in Energy Sector I – M&A,
Dr. Christian NABE

Fri. 24 May 2024
09:30 – 17:00 **Lecture 12 (2023MGMT-L12):**
Management in Energy Sector II,
Dr. Günter SCHWARZ

Fri. 25 May 2024
09:30 – 17:00 **Lecture 13 (2023MGMT-L13):**
Management in Energy Sector III,
Dr. Günter SCHWARZ

Mon. 27 May 2024
Exam 1b (2023MGMT-EXAM1) – Quiz 2, Online (12P)

Mon. 27 May 2024
Exam 2 (2023MGMT-EXAM2) – Written Assignment Submission (40P)

Tue. 28 May 2024
Masterclass (2023MGMT-Masterclass):
Masterclass of International Energy Contract Negotiation,
Agniezka ASON
Prof. Dr. Joachim MÜLLER-KIRCHENBAUER

TBC **Business Plan Competition Berlin-Brandenburg**

TBC **PDMA Global Students Innovation Competition**

Fri. 21 Jun 2024
Exam 3 (2023MGMT-EXAM3) – Business Plan Poster Presentation (40P)

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

Fri. 17 May 2024
09:30 – 17:00 **Lecture 01 (2023INV-L1-EM):**
Investments I: Introduction,
Prof. Dr. Christian VON HIRSCHHAUSEN &
Dr. Dipl.-Ing. Jens WEIBEZAHN

Sat. 18 May 2024
09:30 – 17:00 **Lecture 02 (2023INV-L2-EM):**
Investments II: Electricity Markets and Investment Simulations,
Dr. Dipl.-Ing. Jens WEIBEZAHN

Wed. 29 May 2024
09:30 – 17:00 **Lecture 03 (2023INV-L3-EM):**
Risk Management in Energy Markets and Investments in Renewables,
Dr. Florian LEUTHOLD

Thu. 30 May 2024

09:30 – 12:45 **Tutorial 01 (2023INV-T1-EM):**
Fundamental Modeling I: Introduction to Optimization,
Dispatch Modeling in Excel,
Dr. Jens WEIBEZAHN

13:45 – 17:00 **Tutorial 02 (2023INV-T2-EM):**
Fundamental Modeling I: Introduction to Optimization,
Dispatch Modeling in Excel,
Dr. Jens WEIBEZAHN

Fri. 31 May 2024

09:30 – 12:45 **Tutorial 03 (2023INV-T3-EM):**
Fundamental Modeling II,
Dr. Jens WEIBEZAHN

13:45 – 17:00 **Tutorial 04 (2022INV-T4-EM):**
Fundamental Modeling II,
Dr. Jens WEIBEZAHN

Sat. 01 Jun 2024

09:30 – 17:00 **Lecture 04 (2023INV-L4-EM):**
Investments III: Fundamental Modeling and Venture Capital,
Dr. Dipl.-Ing. Jens WEIBEZAHN

TBC Wed. 05 Jun 2024

09:30 – 12:45 **Company Presentation 01 (2023INV-X1-EM):**
Deusche Bank,
Amadé HIMMELRICH, Vice President

13:45 – 17:00 **Company Presentation 02 (2023INV-X2-EM):**
IEG Banking,
Mikro HEIDE, Managing Director

Wed. 11 Jun 2024

Take Home Exam Submission–Written (max. 10 pages), graded

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

Fri. 07 Jun 2024
09:30 – 17:00 **Lecture 01 (2023NETW-L1-EM):**
Introduction into Energy Grids, Energy Networks and Sector Coupling,
Prof. Dr.-Ing. Joachim MÜLLER-KIRCHENBAUER

TBC Sat. 08 Jun 2024
09:30 – 17:00 **Lecture 02 (2023NETW-L2-EM):**
Electricity Grids,
Prof Dr.-Ing. Kai STRUNZ

Wed. 12 Jun 2024
09:30 – 12:45 **Tutorial 01 (2023NETW-T1-EM):**
Energy Grids, Energy Networks and Sector Coupling,
M.Sc. Benjamin Grosse and M.Sc. Maximilian Evers
TBC 13:45 – 17:00 **Tutorial 02 (2023NETW-T2-EM):**
Electricity Grids
M.Sc. Christian WIEZOREK

Fri. 14 Jun 2024

09:30 – 17:00 **Lecture 03 (2023NETW-L3-EM):**
Grid Operation & Management,
Dr. Mattias MÜLLER-MIENACK

Sat. 15 Jun 2024
09:30 – 17:00 **Lecture 04 (2023NETW-L4-EM):**
Energy Networks Management,
Prof. Dr.-Ing. Joachim MÜLLER-KIRCHENBAUER

Wed. 19 Jun 2024
09:30 – 12:45 **Tutorial 04 (2023NETW-T4-EM):**
Energy Grids,
M.Sc. Sebastian WILLEMSEN
TBC 13:45 – 15:15 **Company Cases 01 (2023NETW-X1-EM):**
TransnetBW,
Kilian SEITZ, Affair & Energy Policy
TBC 15:30 – 17:00 **Company Cases 01 (2023NETW-X2-EM):**
DSO: Stromnetz Berlin
Michael DÖRING

Sat. 22 Jun 2024
09:30 – 12:45 **Tutorial 03 (2023NETW-T3-EM):**
Transport Grids & E-Mobility,
M.Sc. Benjamin Grosse and M.Sc. Maximilian Evers

Fri. 28 Jun 2024
09:30 – 11:30 **Exam (2023NETW-EXAM-EM) - Written, graded**

TBC Wed. 03 Jul 2024
09:30 – 14:30 **Excursion (2023NETW-X3-EM):**
Grid Operation & Management,
GridLab

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

TBC Wed. 26 Jun 2024

10:00 – 12:00	**GROUP A Excursion 01 (2023REGU-X1-EM):** Tennet Virtual Vision, Simone SCHMIDBAUER Felicia WUERMELING
12:30 – 14:30	**GROUP B Excursion 01 (2023REGU-X1-EM):** Tennet Virtual Vision, Simone SCHMIDBAUER Felicia WUERMELING

Sat. 29 Jun 2024

09:30 – 17:00	**Lecture 01 (2023REGU-L1-EM):** Introduction to Regulation, Prof. Dr.-Ing. Joachim MÜLLER-KIRCHENBAUER

Wed. 03 Jul 2024

Asynchronous	**Tutorial 01 (2023REGU-T1-EM):** Academic Writing Videos, Benjamin GROSSE, M.Sc.

Fri. 05 Jul 2024

09:30 – 17:00	**Lecture 02 (2023REGU-L2-EM):** Regulation of Energy Grids – the EU Level, Dr. Susanne NIES

Sat. 06 Jul 2024
09:30 – 17:00 **Lecture 03 (2023REGU-L3-EM):**
Regulation of Energy Grids – the National Level,
Dr. Bodo HERRMANN

Wed. 10 Jul 2024
09:30 – 11:00 **Company Cases 01 (2023REGU-X2-EM):**
CORESO,
Carole DERUYCK, Security Operator
11:15 – 12:45 **Company Cases 02 (2023REGU-X3-EM):**
ENTSO-E - European Network of Transmission System Operators Electricity,
Luca NUVOLI, Policy, and Communication Specialist

Wed. 10 Jul 2024
13:45 – 17:00 **Tutorial 02 (2023REGU-T2-EM):**
Academic Writing,
Dr. Simon SCHÄFER-STRADOWSKY

Fri. 12 Jul 2024
09:30 – 17:00 **Lecture 04 (2023REGU-L4-EM):**
Regulation of Energy Grids – the Business Level,
Dr. Oliver FRANZ

TBC Wed. 17 Jul 2024
09:30 – 11:00 **Company Cases 04 (2023REGU-X4-EM):**
ACER - European Agency of the Energy Regulators,
Ernst TREMMEL, Legal Officer
11:15 – 12:45 **Company Cases 05 (2023REGU-X5-EM):**
EASE – The Eruopean Association for Storage of Energy,
Jacopo TOSONI, Policy Officer

Fri. 19 Jul 2024
09:30 -17:00 **Student Presentations 1 (2023REGU-Presentation):**
Prof. Dr.-Ing. Joachim MÜLLER KIRCHENBAUER, M.Sc., Dr. Susanne NIES, Benjamin Grosse and M.Sc. Maximilian Evers

Sat. 20 Jul 2024
09:30 -17:00 **Student Presentations 2 (2023REGU-Presentation):**
Prof. Dr.-Ing. Joachim MÜLLER KIRCHENBAUER, M.Sc., Dr. Susanne NIES, Benjamin Grosse and M.Sc. Maximilian Evers

Wed. 31 Jul 2024
23:59 **Paper Submission (2023REGU-EXAM-EM)**

THIRD SEMESTER

WISE 2024/25

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

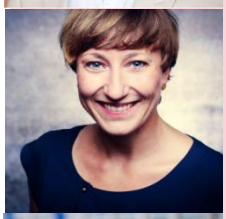
Dr. Dawud ANSARI
Economist at DIW Berlin
Director at EADP
Lecturer/Consultant

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

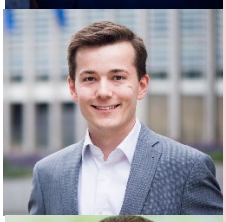
Kristian BÄNSCH
Research Assistant
Technische Universität Berlin
Chair of Production and Operations Management

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

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

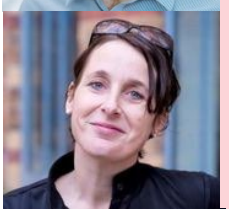


Lukas BIEBER
Head of department in the field of energy networks
Bundesverband der Energie- und Wasserwirtschaft (BDEW)



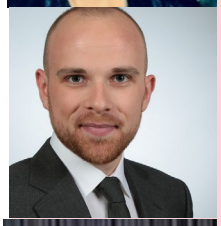
Gernot BOHMANN, M.Sc.
Academic Program Manager
MBA Energy Management

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)

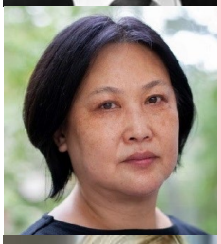
Maximilian EVERS, M.Sc., Ph.D. Candidate
Research Associate
TU Berlin, Energy and Resource Management



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

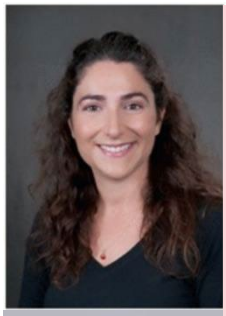


Sarah DROLL, MBA
Senior Manager Business Integrity and Corporate Compliance
EY

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

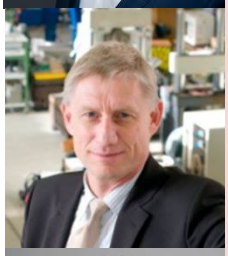
Prof. Dr. Gioia FALCONE
Rankine Chair - Professor of Energy Engineering
University of Glasgow, Imperial College London



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



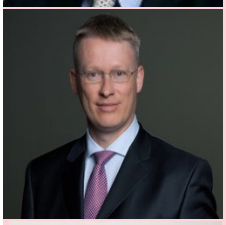
Benjamin GROSSE
Research Associate
Berlin University of Technology
Chair for Energy and Resource Management

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

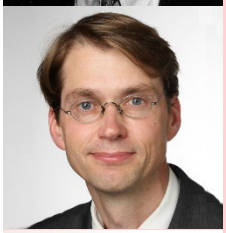
Peter HOHAUS
Senior Policy Advisor
Uniper SE



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

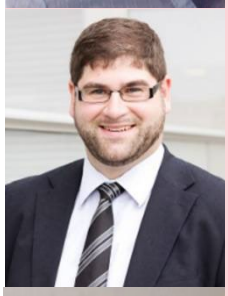


Dr. Carsten KÖNIG
Academic Officer
University of Cologne
Chair for Civil Law, Competition Law, Regulatory Law, Law of the Digital Economy

Dr. Armin KRAFT
CEO
EEB Enerko

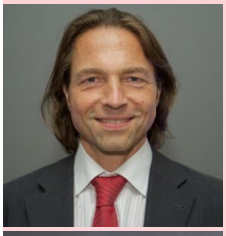
Dr.-Ing. Maren KUSCHKE
Research Associate
Berlin University of Technology
Sustainable Electric Networks and Sources of Energy

Dr. Florian LEUTHOLD
Vortex Energy Group,
COO TU Berlin

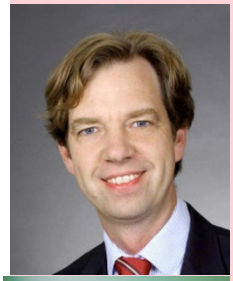


Prof. Dr. Roland MENGES
TU Clausthal, Institute of Management and Economics
Department of Macroeconomics

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. 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

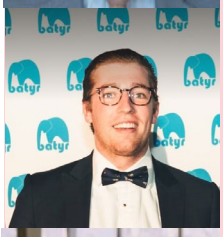
Dr. Simon SCHÄFER-STRADOWSKY
Head and CEO of ikem

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

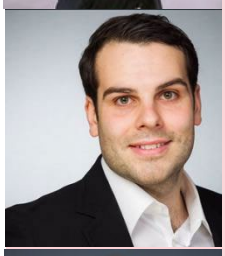
Prof. Dr.-Ing. Kai STRUNZ
Head of Department
Sustainable Electric Networks and Sources of Energy Berlin University of Technology

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



Dr. Jens WEIßEZAHN (Dipl.-Ing.)
Research Associate
Berlin University of Technology

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

Sebastian WILLEMSEN, M.Sc.
Consultant
Consentec GmbH