## Kristina Govorukha



Summary:

5 years of working experience

Areas of expertise:

# energy sector # European energy policy # German electricity market # renewables

# energy-intensive industries (steel sector) # data analysis and visualization

# communications, policy and technical discussions

Publications in international

iournals:

Presentations:

■ Energy, ■ Applied Energy, ■ Climatic Change, ■ The Energy Journal

International Association of Energy Economists IAEE: Rome, Athens

Symposium Energieinnovation: Graz

### Career

12.2020 - now

## The World Bank External consultant

Joined the team of excellent researchers and experts to analyze the impact of climate change on the developing countries, the subsequent distributional economic impacts, and the resulting policy recommendations.

- Responsible for the visualization and final presentation of the economic and spatial climate data supporting the main findings of the report.
- Conducting economic analyses.

02.2020 - 05.2021

### **TU Bergakademie Freiberg**

Chair of Economics especially Environmental and Resource Economics Research associate

- Lead of research project assessing effects of EU Member States' national policies on the
- investments in their electricity sectors in the near-term.
  Lead of research project assessing effects of extreme weather events on the German electricity market: fossil-fuel capacity phase-outs, volatility of wholesale electricity prices.
  © Code
- Preparation of scientific publications and presentations on the analysis of the long-term developments of the European electricity market and energy-intensive industries.
- Elaboration of digital materials and teaching Energy Economics (SS 2020) and Microeconomic (WS 2020-2021), in German.
- Chair administrative work, maintenance of the study courses, provision of barrier-free digital learning media.
- Preparation of project applications, seeking funding opportunities for future research projects.

04.2016 - 02.2020

**Research associate: 4NEMO project:** Research Network for the Development of New Methods in Energysystem Modeling\*

\*Funded by the German Ministry of Economic Affairs and Energy (BMWi)

- Carrying out scientific research within the Work Package 3: Development of sociotechnical context scenarios for the European energy system until 2050.
- Coordination and organization of scientific workshops and seminars at the chair within the activities of the package.
- Presentation of the results and progress at the annual Project meetings, regular participation in group workshops and bilateral meetings.

- Reporting on the financial and research progress of the Project from the start to its end phase.
- Teaching: Energieökonomik (SS 2019) Microeconomics (WS 2016-2017), Macroeconomics (SS 2017).
- Apart from work in the 4NEMO, I have pursued my own research projects in the topic of long-term electricity market scenarios, scenario construction methods, analysis of developments in the energy intensive industries. This research led to successful results and was published in the top-notch international scientific journals.

08.2014 - 10.2014

Institute of Energy and Climate Research, Systems Analysis and Technology Evaluation (IEK-STE), **Forschungszentrum Jülich** 

### Research stay

- Carrying out research on the topic of steel market developments and primary raw
  materials requirements; preparation of the market review data, and technical data for the
  steel market model.
- I participated in the elaboration of the techno-economic steel market model.

### Education

01.2017 – 10.2021

TU Bergakademie Freiberg: PhD (summa cum laude)

Thesis: "Transition Pathways for the European Electricity Sector: Uncertainties, Risks and their

Implications on Costs"

Supervisors: Prof. Dr. Dirk Rübbelke, Prof. Dr. Heike Wetzel

10.2013 - 03.2016

TU Bergakademie Freiberg: MBA\*

\*Financed by the Deutscher Akademischer Austauschdienst (DAAD)

Key courses: International management of resources and environment, Microeconomics,

Macroeconomics, International Economics, Investment and finances.

Thesis: "New Energy Policy of France: Its consequences to the European Electricity Market".

Supervisor: Prof. Dr. Dirk Rübbelke, Dr. Stefan Vögele (Forschungszentrum Jülich).

09.2007 - 02.2013

Zaporizhzhia National Technical University, Ukraine: Diploma in Finances

**Key courses**: Macroeconomics, Microeconomics, Audit, Accounting.

09.2011 - 12.2012

**Zaporizhzhia National Technical University, Ukraine:** MSc Honours Degree **Key courses**: Advanced mathematics, Control theory, Materials science, Electricity networks and appliances.

## Scholarships and certificates

DAAD

R

Python

MS Excel

MS Office

Deutscher Akademischer Austauschdienst: scholarship for talented international

TU Dresden

"Qualitative Comparative Analysis" Doktorandenseminar, 04.2018.

TU Dresden

"Lineare Modelle und Strukturgleichungsmodelle in R" Doktorandenseminar, 10.2020.

## Practice, skills and experience

### Working experience in:

GAMS Fund

Fundamental knowledge: Project-related use, research and teaching

Good knowledge:

Basic knowledge:

Data analysis and visualization

Data visualization, hobby projects

Fundamental knowledge:

Data analysis, visualization

Fundamental knowledge: Writing reports, creating presentations

Languages:

Ukrainian Native Fluency Russian Native Fluency

English Fluent, Academic Writing course

German Fluent

## For recommendations, please refer to:

Professor Dr. D. Rübbelke, TU Bergakademie Freiberg Dr. Vögele, Forschunszenrum Jülich Dr. Wolfgang Habla, ZEW, Mannheim

# Kristina Govorukha CV attachment: academic work

## Scientific publications: work in progress

2021 book chapter (in revision)

Vögele S., Govorukha K. Impact of Germany's Phase-Out of Coal Power Plants on Developing Countries.

2021
Environment,
Development and
Sustainability (in
revision)

Vögele S., Govorukha K., Mayer P., Rhoden, I., Rübbelke D. Co-benefits of the Phase-Out of Coal in Europe.

## Scientific publications in the peer-reviewed journals

2021 The Energy Journal Govorukha K., Golub A., Mayer P., Rübbelke D. (2021). *Climate Change and the Vulnerability of Germany's Power Sector to Heat and Drought*. The Energy Journal, Vol. 43 (3): 153-179.

### GITHUB | WORKING PAPER | PUBLICATION

2021 Mitigation and Adaptation Strategies for Global Change Govorukha K., Mayer P., Rübbelke D. (2021) *Fragmented Landscape of European Policies in the Energy Sector: First-Mover Advantages.* In revision in the Journal of Mitigation and Adaptation Strategies for Global Change. CESifo Working Paper No. 9093, CESifo, Munich, 2020.

### **WORKING PAPER**

2020 Energy

Govorukha K., Mayer P., Vögele S., Rübbelke D. (2020). *Economic Disruptions in Long-Term Energy Scenarios – Implications for Designing Energy Policy*. Energy, 212:118737.

### PUBLICATION | WORKING PAPER

2020 Applied Energy

Vögele, S., Grajewski, M., Govorukha, K., & Rübbelke, D. (2020). *Challenges for the European Steel Industry: Analysis, Possible Consequences and Impacts on Sustainable Development*. Applied Energy, 264, 114633.

#### **PUBLICATION**

2019 Climatic Change Vögele, S., Rübbelke, D., Govorukha, K., & Grajewski, M. (2019). *Socio-technical scenarios for energy-intensive industries: the future of steel production in Germany*. Climatic Change, 1-16.

**PUBLICATION** 

## Selected presentations and conference contributions

12.2019 Rome, Italy

How does climate change affect the transition of power systems: The case of Germany with D. Rübbelke, A. Golub und P. Mayer

4th AIEE Energy Symposium – Current and Future Challenges to Energy Security, Rom, 2019.

**PRESENTATION** 

05.2019, Athens, Greece

Macroeconomic Cycles as a Source of Uncertainty in Long-term Energy Scenarios with P. Mayer, D. Rübbelke und S. Vögele

4th Annual Symposium – Energy Transition IV SE and beyond, Athens.

**PRESENTATION** 

02.2018, Graz, Austria

Application of the Analytic Hierarchy Process to Facilitate the Cross-Impact Balance Analysis

with P. Kunz and P. Mayer

Published in: Kurzfassungsband 15. Symposium Energieinnovation: Neue Energie für unser bewegtes Europa, Technische Universität Graz, 46-47.

PRESENTATION | CONFERENCE PAPER

03.2017, Freiberg.Germany Dark clouds hovering over steel production in Germany. Only temporarily? with S. Vögele, D. Rübbelke und M. Grajewski

Workshop of GOR Working Group "OR im Umweltschutz" and the Network of Industrial Ecology, Technische Universität Bergakademie Freiberg, 2017.

**PRESENTATION** 

Selected project-related presentations

07.2018, ifo München 04.2018, Freiberg Electricity market 2050: Scenarios for the EU. Project Meeting "4NEMO", TU München

The Future Development of the European Electricity Market: Dash for Gas 3. Workshop "Cross-Impact Balance Analysis" in the framework of the 4NEMO project, TU Bergakademie Freiberg

Intermediate results of AHP for the CIB scenario development 04.2018, Freiberg

2. Workshop "Cross-Impact Balance Analysis" in the framework of the 4NEMO project, TU Bergakademie Freiberg

03.2017, DLR Stuttgart

Application of the Analytic Hierarchy Process in the context of the Cross-Impact Balance analysis. Opportunity for a methodological improvement

Project Meeting "4NEMO", Deutsches Zentrum für Luft- und Raumfahrt (DLR), Stuttgart

03.2017, Freiberg

Factors that influence the European electricity market and their hierarchy 1. Workshop "Cross-Impact Balance Analysis" in the framework of the 4NEMO project, TU Bergakademie Freiberg

## Lectureships

Lectures

**Tutorials** 

Seminars

- Energy economics SS 2019 (DE)
- Microeconomics WS 2016-2017 (ENG)
- Microeconomics SS 2017 (ENG)
- Energy economics SS 2019, SS 2020 (DE)
- Energy economics WS 2019-2020 (DE)