



Bachelor Thesis

Impact analysis of the EU-ETS II in Europe

By 2027, the European Union will introduce the EU-Emission Trading Scheme II (EU-ETS II). While the original EU-ETS I encompass emissions in industry, electricity generation, and aviation, EU-ETS II shall include emissions in road traffic, buildings, and smaller scale industries. The EU-ETS sets a binding cap for the cumulated emissions in these sectors and permits the trading of emission allowances among the emitters.

The introduction of such an emission pricing increases the energy costs households across Europe must carry. Therefore, the EU plans to start a revenue recycling scheme with the Social Climate Fund (SCF) along the EU-ETS II to support low-income households. Since technological level, weather conditions, and income distributions vary among European countries also the burden of the EU-ETS and the benefits from the SCF vary.

The goal of this thesis is to assess the impact of the EU-ETS II on the energy expenditures of households across the EU and to highlight differences between countries. The analysis includes a familiarization with data on energy consumption efficiency levels, and income distributions in the EU, e.g., using the ODYSSEE database of energy efficiency or eurostats statistics on income distribution.

Key tasks and objectives of the thesis

- Familiarization with the EU ETS II and the SCF
- Gathering and cleaning data on energy demand and efficiency and making them comparable
- Interpreting the data with respect to emission pricing and the potential effects of the EU ETS II on households in Europe

Your profile

- Economics major, best with a focus on energy
- Interest in quantitative work and emission pricing

Literature

- German Environment Agency (2024). Supply and demand in the ETS 2. *Climate Change* 09/2024.
- Frondel, Manuel, and Stefanie A. Schubert. "Carbon pricing in Germany's road transport and housing sector: Options for reimbursing carbon revenues." *Energy Policy* 157 (2021): 112471.
- Enerdata (2024): ODYSSEE Database.
- Eurostats (2024): Distribution of income by quantiles – EU-SILC and ECHP surveys

Contact



Philipp Theile

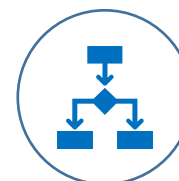
E-Mail: Philipp.theile@ewi.uni-koeln.de

Topics



- EU ETS II
- Energy expenditures
- Road traffic and heating

Methods



- Literature work
- Data processing