



## Bachelor Thesis

# Changes in energy consumption for energy imports due to disruptions in the global energy supply chains

In the past year, countries in Europe were forced to reconsider where to source energy. The reorientation towards sources that are further away from the European continent led to a change in energy consumption for transportation.

This is exemplified by coal imports from Columbia to Germany, which tripled between 2021 and 2022. These imports compensate in part for coal that was previously sourced from the Russian Federation. Coal from Columbia has to undergo a longer journey than coal from the Russian Federation. Apart from these unforeseen changes, there are insidious trends, e.g., increasing oil imports from the USA.

The goal of this thesis is to determine how the energy consumption for importing energy has changed and whether these changes are tangible. In order to do so, relevant data for the different energy carriers has to be gathered and made comparable. In a final step, the data has to be analysed.

## Key tasks and objectives of the thesis

- Get an overview of global energy supply chains
- Familiarisation with embodied energy
- Gathering and interpreting essential data

## Your profile

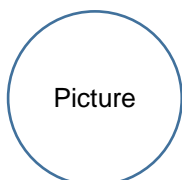
- Economics major, best with a focus on energy
- Interested in working with data and making it comparable

## Literature

- Zakeri, B., Paulavets, K., Barreto-Gomez, L., Echeverri, L.G., Pachauri, S., Boza-Kiss, B., Zimm, C., Rogelj, J., Creutzig, F., Ürge-Vorsatz, D. and Victor, D.G. (2022): Pandemic, War, and Global Energy Transitions. *Energies*, 15(17), p.6114.

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## Contact



Picture

**Frederike Fitza**

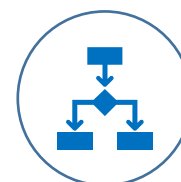
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## Topics



- Energy Supply Chains
- Energy Transition

## Methods



- EROI
  - Data Processing
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