



# Forschungskolloquium | Research Seminar

*Vortrag im Rahmen dieses Seminars*

Titel:

**Essays in Energy Economics**

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Abstract:

This research proposal consists of three potential papers that address current topics in energy economics. The focus of the research ideas lies in the understanding of the balancing energy market, regulatory effects on hydrogen demand and supply, and the financing of hydrogen storage. The first paper investigates price formation in the German balancing energy market with a specific focus on a reform of the market in June 2022. Our empirical approach employs an econometric analysis to assess whether the reform has achieved a decrease in the balancing energy price level. The second paper looks at the supply- and demand-side effects of the RED II criteria of the EU with a specific focus on the GHG quota in Germany. A market equilibrium is investigated for the interaction between electrolyzers as agents on the supply side and refineries as agents on the demand side. The third paper aims to develop whether it is beneficial for hydrogen storage to reserve some capacity, alongside long-term contracts, for the provision of short-term hydrogen demand from the electricity system and to benefit from short-term price arbitrage.