



Master Thesis

Forecasting Market Outcomes in the German Intraday Power Market

Background

Amid increasing market shares of intermittent generation from wind and solar assets in the German power market, intraday markets have seen rising trade volumes in recent years. Market participants increasingly rely on intraday markets to balance their generation and consumption profiles. For instance, intraday markets allow generating companies to sell additional and unforeseen wind output only hours before delivery. Yet, despite the high relevance to market players, the different underlying market fundamentals that are driving price patterns observed on the intraday market are underresearched.

Research Question

What drives intraday market patterns? How can intraday prices and trade volumes be forecasted? And what are the best predictors that firms should rely on? To answer these questions, the student has to:

- Gather and prepare power market data (prices and volumes on day-ahead and intraday markets, weather data, demand data, etc...). Parts of the data can be provided for by the Center for Energy Markets or by SWM.
- Experiment with and design econometric strategies that can be used for forecasting market outcomes.
- Provide an analysis of the most important drivers of intraday market patterns and discuss possible caveats of the chosen method and their influence on the obtained results.
- Present an outlook on the development of the German intraday market for electricity.

The thesis is co-supervised by the *Stadtwerke München (SWM)*. The selection of a suitable candidate and the detailed specification of the project will take place in close cooperation with the SWM.

Qualified applicants are invited to send their electronic application to cem@wi.tum.de.