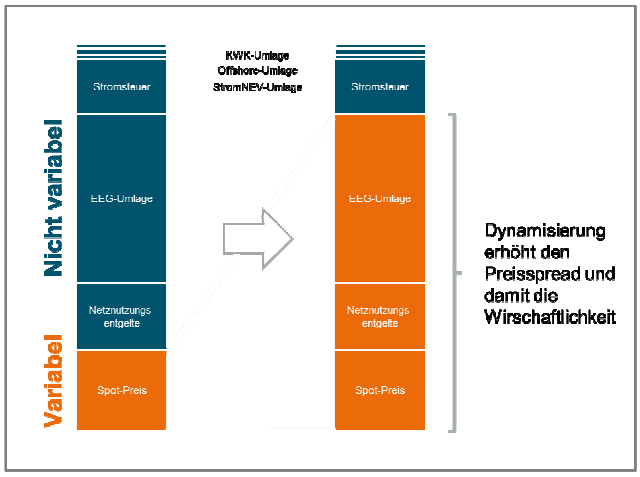
Study cooperation partner
BWE Bundesverband WindEnergie

Summary of the study „Flexibility in the electricity market – challenges and solutions“ (Malte Jansen, Christoph Richts, Norman Gerhardt, Thorsten Lenck, Marie-Louise Heddrich)

Results of the study

- In order to consolidate and promote flexibility options, **existing regulations must be consistently applied**. This includes:
  - Spot market: **Increased liquidity in quarter hour trading** prior to settlement date.
  - Compliance with the power generation schedule: Consistent **quarter-hourly operation** throughout all balancing groups.
  - Balancing power: Examining possible sanctions on systematic schedule deviations, insofar as it is possible to trace them.



- Flexibility should be made possible by **promoting profitability**. If sensibly organised, market-driven principles can enable an excellent composition of diverse flexibility options.
- **Control power market**: Reduction of gate closure times to daily tenders, limiting product lengths to one hour. Allowing prequalification for wind and photovoltaic units.
- **Data communication**: Real-time transmission of load profile recordings (RLM – registriedende Leistungsmessung) to the balancing group authority (BKV - Bilanzkreisverantwortlichen), in turn guaranteeing real-time scope for action.
- **Dynamising the EEG (German Renewable Resources Act) apportionment scheme on a cost-neutral basis**, in order to offer incentives to integrate renewables within the energy supply.
- **Dynamising grid charges on a cost-neutral basis** to bridge the gap between grid use and market development. This way, the market and grid-conform integration of renewables can, in agreement with the flexible EEG surcharge, be achieved. Distinguishing the unit price from the capacity charge should be maintained - at the same time, these could be adapted or at least have differentiated timing. Furthermore, they can be adapted to suit local grid situations using a **grid stoplight** as an indicator. Basically, different design variants are feasible and further studies should be made towards formalisation.
- Provision of **reactive power stemming from renewables** instead of from power stations. This reduces the must-run capacity.
- Forcing flexibility of **biomass systems** using a flexibility premium.
- In order to reduce the **must-run capacity** of CHP units, regulations have to be altered:
  - Decoupling the heating grid from CHP unit operation will enable lower hours of full utilization.
  - Dynamising the CHP bonus will lead to market-oriented behaviour.

For a more detailed analysis, please refer to the complete study available at www.bee-ev.de.