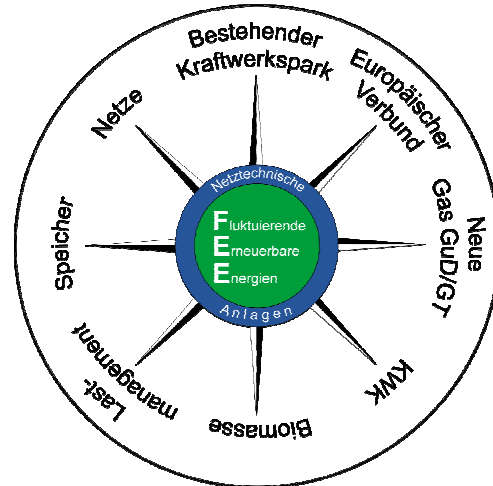


**Summary of the study „Compass study market design: Guidelines for designing a power system with high shares of variable renewable energy“**

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**Results of the study**

- Variable renewable energy (VRE) presents a cost effective option for the core segment of the power system of the future
  - Substantial potential for wind and PV
  - At the same time almost no negative external impact
  - Greatest decreasing trend in costs with a substantiated prospect of continuation
  - Decentralised nature
  - Diversity in stakeholders due to a broad mid-sized energy sector
  - Direct public involvement
  - High level of acceptance
- VRE still requires adequate and reliable tools for refinancing (merit-order effect); excellent investment security through degressive compensation for the fed-in energy
- In the future, renewables should take on more and more system responsibility („operate-and-serve“). Renewables can provide these must-run functions and ancillary services (see ancillary service bonus for wind power, provision of reactive power via PV inverter, 50.2 Hertz regulation)
- Dispatch markets must be adapted to closer suit the nature of VRE
  - (Various, specifically set) capacity mechanisms can, in principle, contribute to supply safety in the long term. They should not, however, generate any windfall profits nor incite any lag in the capacity of the flexible VRE supply.



**Three key requirements of the compass:**

- To formulate robust statements in terms of system guardrails and no-regret options
- To ensure all adaptation recommendations in terms of further development of the existing power system gain their place within an overall vision of a future power system
- To ensure all adaptation recommendations in terms of development of the existing power system are arranged along a time axis

**A roadmap for system transformation must:**

- Position flexibility options within the time and cost axes and take constraint scenarios into consideration
- Distinguish implementation and research requirements and gauge transition areas
- Set priorities in terms of implementation and research requirements
- Consolidate these considerations within a system roadmap.

**For a more detailed analysis, please refer to the complete study available at [www.bee-ev.de](http://www.bee-ev.de).**