

The Near-Optimal Feasible Space of a Renewable Power System Model

Fabian Neumann and Tom Brown

fabian.neumann@kit.edu

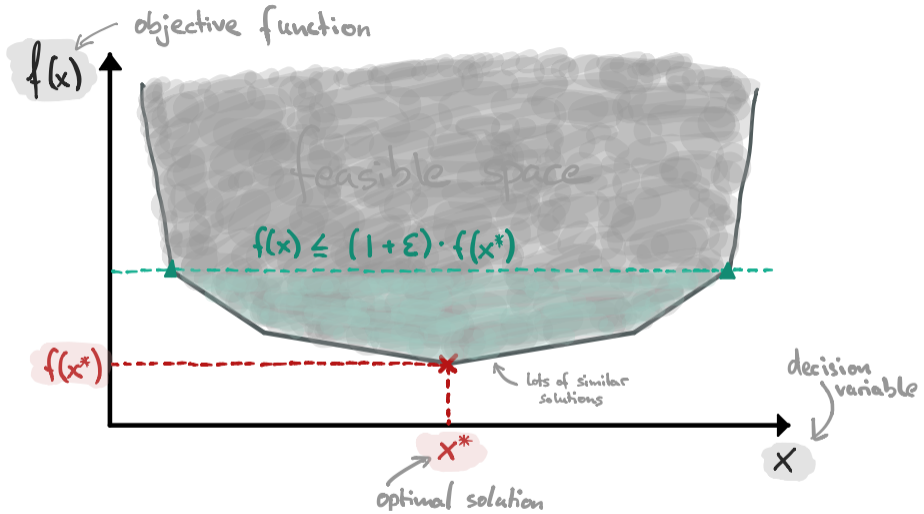
Institute for Automation and Applied Informatics
Karlsruhe Institute of Technology (KIT), Germany

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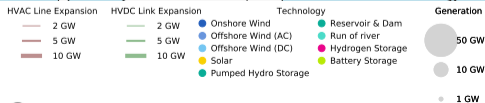
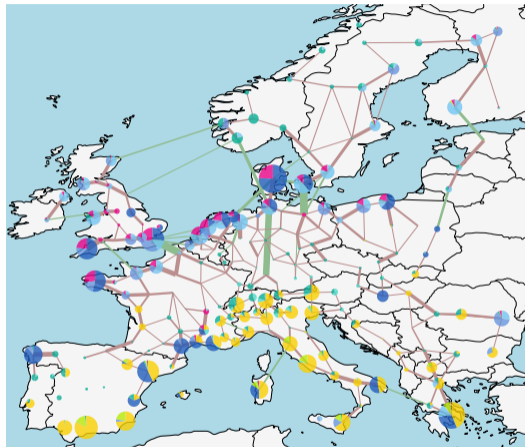
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RESEARCH FOR GRAND CHALLENGES

The logo for the Karlsruhe Institute of Technology (KIT) features a stylized green fan-like shape to the left of the letters 'KIT' in a bold, black, sans-serif font.
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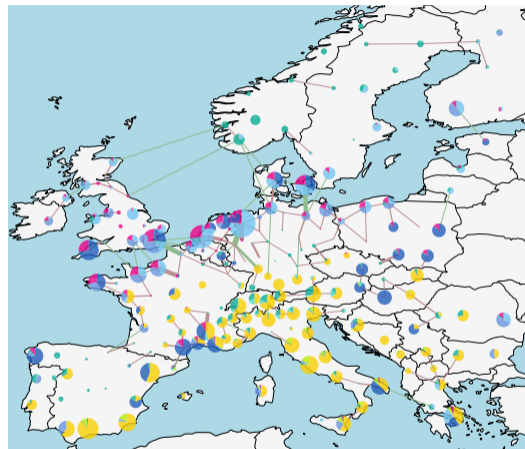


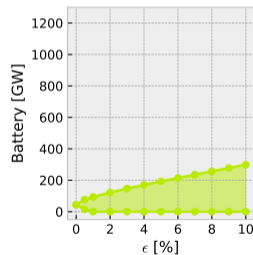
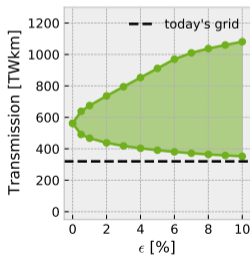
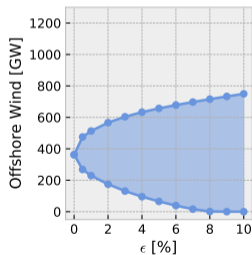
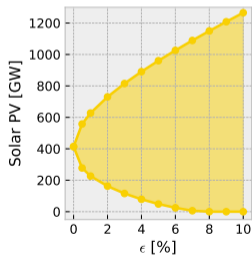
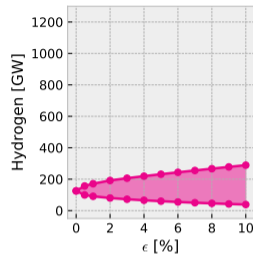
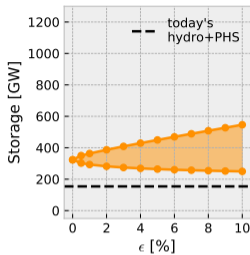
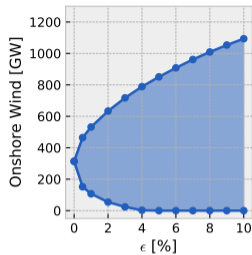
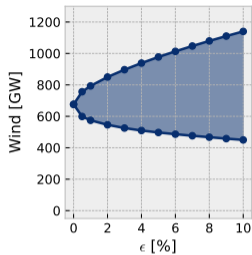


Optimal Transmission Volume $\epsilon = 0.0\%$



Minimise Transmission Volume $\epsilon = 5.0\%$





Goals

- technology-specific boundary conditions

Results

- technologically diverse solutions
- either offshore or onshore wind
- some H₂-storage and grid reinforcement
- vague but robust conclusions

Outlook

- visualising dependencies
- sector-coupling
- technology cost uncertainty

@fneum_ on Twitter
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