

The logo for ACER (Agency for the Cooperation of Energy Regulators) features the acronym 'ACER' in a large, blue, serif font.

Agency for the Cooperation
of Energy Regulators

The background of the slide is a collage of energy-related images. On the left, two white wind turbines stand on a sandy dune with sparse grass. In the center, a large, semi-transparent circular graphic contains several smaller images: a nuclear power plant with four cooling towers, a field of solar panels, and a dam with water flowing through its spillways. A small green circle is positioned to the left of the main title text.

Congestion Management Costs in Germany - The Impact of Renewables

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● Framework

● Methodology:

- » Replicates the current market design in Germany with a 2-steps procedure:
 - a DA market without transmission constraints
 - a RT market with transmission constraints
- » Considers different G&C scenarios for 2008 and 2020, for a given transmission network

● Conclusion:

“Future redispatching costs tend to increase significantly due to higher wind generation and proposed power plants investments”

● Discussion

Assumption: all generation units participating in the DA market are available for redispatching purposes!

- Level of “redispatchability” of the German generation park?
 - » Intermittency of wind Generation (20%)
 - » Distribution-connected Generation (50%)
 - » Redispatching 15 mns before RT
 - » Non mandatory participation

● Future research?

- Minimum connection requirements for wind generation (enhance “controllability”)
- Higher coordination requirements for system operators (data exchange, joint security analysis, TSOs-DSOs)
- More efficient congestion management methods (optimal use of the existing transmission network, XB redispatching, definition of zones)
- Higher coordination requirements for the Transmission infrastructures development (EU TYNDP)

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