A review of Danish integrated multi-energy system flexibility options for high wind power penetration - DTU Orbit (17/08/2019)

A review of Danish integrated multi-energy system flexibility options for high wind power penetration

The current status of wind power and the energy infrastructure in Denmark is reviewed in this paper. The reasons for why Denmark is a world leader in wind power are outlined. The Danish government is aiming to achieve 100% renewable energy generation by 2050. A major challenge is balancing load and generation. In addition, the current and future solutions of enhancing wind power penetration through optimal use of cross-energy sector flexibility, so-called indirect electric energy storage options, are investigated. A conclusion is drawn with a summary of experiences and lessons learned in Denmark related to wind power development.

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