KEMA Study on Integrating 6-12 GW Windpower into the Dutch/NW European Grid

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Abstract

In this paper the results of a large KEMA study on the integration of windpower into the Dutch and NW European grid is discussed. As part of a study into the necessity of electricity storage as a result of increasing intermittent renewable power in the NW European area, the supply and load centres of this area were modelled in an extensive model. Several scenarios for additional power capacity were put into the model (gas, wind, CHP), as well as additional interconnection from the Netherlands to its neighboring countries. This model allowed investigating possible bottle necks. The results of some of the scenarios will be presented in the paper.