



Probabilistic information for the renewable energy sector - can we bridge the gap between theory and praxis?

I. Alberts, V. Stauch, K. Lundgren, and R. Hagedorn

Deutscher Wetterdienst, Offenbach, Germany (isabel.alberts@dwd.de)

By introducing the Renewable Energy Sources Act (EEG), the German government is actively promoting the role of renewable energies in the electric energy supply. For a safe and efficient integration of the increasing share of the variable power production from wind farms and photovoltaic power stations into the grid, it is imperative to have reliable forecasts. For this reason the main objective of the research project EWeLiNE (Erstellung innovativer Wetter- und Leistungsprognosemodelle für die Netzintegration wetterabhängiger Energieträger) is to improve the quality of such forecasts, in particular by improving the underlying numerical weather predictions.

Besides working on the general improvement of the deterministic and probabilistic weather forecasts, a priority of the project is to collaborate closely with external partners in research and industry in order to develop customized weather and power forecasting products. Theoretical considerations suggest that it can be advantageous to use probabilistic information to represent and take into account the remaining uncertainties in the forecasts. However, it is not always clear how this information can be integrated into the practical decision making processes related to market participation and power systems operations.

In this contribution, the EWeLiNE project will be presented and first ideas on how to incorporate probabilistic information into the actual decision making processes of the users will be discussed