

Optimal Combined Forecasts for Electricity Prices: Influence of Clean Energies

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An electricity price forecasting model is developed. The performance of the proposed approach is improved by considering renewable energies (wind power and hydro generation) as explanatory variables. Additionally, the obtained forecasts are obtained as an optimal combination of a set of several univariate and multivariate time series models. A large computational experiment using out-of-sample forecasts for every hour and day allows withdrawing statistically sound conclusions.

Key Words: Optimization, electricity price forecasting, renewable power generation, time series.