

Trading wind energy based on probabilistic forecasts of wind generation and market quantities

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What is the article about ?

Context

- Portfolio of wind energy (can be solar)
- Liberalized electricity markets

Goals

- Propose an operational trading strategy (*based on the quantile of wind power production*)
- Assess its performance

Inputs of the model

Forecasts of

- Wind power production
- Spot market prices
- Imbalance prices (*regulating market prices*)

Remark : Not a forecasting problem !

What are the main assumptions ?

Assumptions

- Price-taker
- No practical limitations
- Don't care about the risk : only the long run matters , ie we may face severe losses on the short run
- No curtailment
- PTU (*Program Time Unit*) are independent : no market dynamic.
- Imbalance volumes are never rewarded