Vegard Paulsen Særen



Department of Electric Power Engineering

Spring 2018

Academic version of a fundamental market model

Supervisor: Hossein Farahmand Co-supervisor: Martin N. Hjelmeland

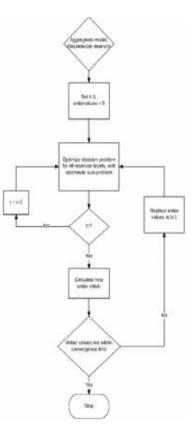
DNTNU

Background

The European power market is in transition, both in terms of technologies used for power generation and market structures. Binding targets exist for renewable power generation towards 2020, as well as decisions to decommission nuclear generation capacity. Thus, the overall share of variable renewable energy sources is expected to continue growing, and consequently, the need for flexibility and controlability both in production and demand will increase.

Technologies

- Python and Pyomo
- Stochastic dynamic programming



Watervalue calculation algorithm