

An integrated learning and forecasting approach to battery storage management

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We propose an approach to a battery management problem with the goal of maximizing profits on a short-term power market. We formulate the problem as a sequential decision process, and use a (simplified) continuous intraday market simulator to generate sample paths. We consider a deterministic direct lookahead policy that requires price forecasts for making trading decisions, and propose to configure the policy in an online fashion during the trading process. We show by numerical results that the learning procedure is able to adapt the policy to the present price forecast quality.