عنوان مقاله:

Profit of Generation companies in post Kyoto era

محل انتشار:

بیست و پنجمین کنفرانس بین المللی برق (سال: 1389)

تعداد صفحات اصل مقاله: 8

نویسندگان:

Borut Kozan - *Electricity trading and sales company Slovenia*

Dejan Paravan - *Electricity trading and sales company Slovenia*

Iztok Zlatar, - *Faculty of Electrical Engineering University of Ljubljana Slovenia*

Andrej F. Gubina - *Faculty of Electrical Engineering University of Ljubljana Slovenia*

خلاصه مقاله:

In competitive and mature electricity market, the aim of generation companies is maximizing profit. Due to international efforts to reduce emissions in an economical way, emitting generation companies will most probably lose some of their profit. In this paper, profit uncertainties regarding the stochastic nature of emission allowances' prices in the European Emission Trading Scheme and the bidding behavior in such environment is analyzed. Inputs for stochastic modeling of the emission allowance prices are calculated by analyzing real data from European Exchange market. For detailed modeling of power generators in the electricity market an agent based model was used. To mimic the competition behavior among generation companies a learning algorithm was used. By using the proposed methodology generation companies (GenCos) can measure their risk related to uncertain emission allowances' prices. Results in case study show that generation companies will increase or decrease their profit regarding to their emission factor. Distribution of profit, its mean value, standard deviation, absolute median deviation and skewness .factor are used in paper to analyze asymmetrical distribution of GenCos profits

کلمات کلیدی:

Agent based modeling, Emission price modeling, Generation bidding strategy, Economic analysis

لینک ثابت مقاله در پایگاه سیویلیکا: