Algorithm for the Study of Expected Aggregated Supply Curves in Deregulated Electricity Markets

Research Practise I Proposal Presentation

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Outline

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The situation considered is a deregulated electricity market, where the generator firms are involved in a daily reverse auction in order to get the right to supply electricity to some community during next day.

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- $f_1 = f_2 = ... = f_N = f$; (symmetrical) Nash equilibrium.

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- ○ Adapt the algorithm in order to run it using parallel computing.

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Background and Justification

Green, R. and Newbery, D. [2], proposed the first game theory based model for a deregulated electricity market, in a duopoly UK case.

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Electricity markets are fundamental in every country and many of them have adopted deregulated systems. That is why the study of equilibrium properties of this market (under some supositions) is important.

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This project is just a tool for the research of professor Cadavid and his group, so it does not pretend to give answers to their research questions.

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