## Electricity market equilibrium based on conjectural variations

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## Abstract-

Many of the models used for the representation of the generation companies' behavior in oligopolistic electricity markets are based on conjectural variation equilibria, which are a generalization of the classic Cournot approach. However, one of the main drawbacks of these approaches is the complexity of assigning adequate values to the conjectures, which can dramatically affect the results obtained from these models. This paper reviews and analyses the main formulations of conjectural equilibria applied to electricity markets. The paper shows how these different formulations are equivalent, and presents the relationships among the conjectures they use. Finally, it presents a brief overview on the main methods to estimate or compute the conjectures of these types of models.

Index Terms- Electricity markets, Conjectures estimation, Equilibrium models, Conjectural variations

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