Thermal plant bids and market clearing in an electricity pool. Minimization of costs vs. minimization of consumer payments

J. Alonso Pérez; A. Trías; V. Gaitan; J.J. Alba Ríos

Abstract-

The Spanish wholesale electricity market started on January 1st 1998. Though it is based on simple price/quantity bids, it incorporates some provisions to take thermal plant running requirements into account. This paper presents these rules and its mathematical treatment, focusing on a possible implementation of the "minimum income condition", which allows thermal generators to declare minimum stable loads. It also shows another key point in the debate: whether the algorithm should minimize costs or consumer payments

Index Terms-

Due to copyright restriction we cannot distribute this content on the web. However, clicking on the next link, authors will be able to distribute to you the full version of the paper:

Request full paper to the authors

If you institution has a electronic subscription to IEEE Transactions on Power Systems, you can download the paper from the journal website:

Access to the Journal website

Citation:

Alonso, J.; Trías, A.; Gaitan, V.; Alba, J. "Thermal plant bids and market clearing in an electricity pool. Minimization of costs vs. minimization of consumer payments", IEEE Transactions on Power Systems, vol.14, no.4, pp.1327-1334, November, 1999.