Abstract Submission for

27th Annual North American Conference International Association for Energy Economics United States Association for Energy Economics Post Oak Hilton, Houston, Texas, USA September 16-19, 2007

Submitted 27 April 2007 by:

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Concurrent Session: "Electricity Market Design: Efficiency of regulatory versus market structures" -- **OR** -- "Energy Trading: Oversight – veracity of price data" *Plenary track session*

Abstract: Are Price-Cost Markup Indexes Reliable Indicators of the Competitiveness of Wholesale Power Markets?

This paper evaluates the use of the "price-cost markup" index, as calculated by the PJM regional transmission organization, as an indicator of the competitiveness of wholesale electric power market PJM operates. The 2006 State of the Market Report issued by the Market Monitoring Unit of PJM claims that its analysis of markups supports "the conclusion that prices in PJM are set, on average, by marginal units operating at or very close to their marginal costs. This is strong evidence of competitive behavior and competitive market performance."

There is, however, significant ambiguity in the definition and application of the price-cost markup. The index calculated by PJM is neither what the term suggests nor the price-cost markup formula generally used in financial analysis. Rather, it is a calculation whose terms mirror the well known Lerner Index: price minus cost divided by price. But the Lerner Index is never mentioned nor do the definitions of price and cost used in the PJM calculations appear consistent with those suggested by the Lerner Index. Moreover, the results of the PJM calculation of price-cost markups are not put in a context, with some standard, of what is and is not reasonable, for example, similar to that for measuring the relative degree of industry concentration.

After reviewing these and related issues the paper will assess the reliability of the price-cost markups used by PJM to monitor the competitiveness of the wholesale electric energy market it operates.