Non-technical summary

The Impact of Behavioral and Structural Remedies on Electricity Prices: The Case of the England and Wales Electricity Market

During the liberalization process the UK regulatory authority introduced behavioral and structural remedies in order to mitigate an exercise of market power and lower electricity prices. The article studies the impact of a behavioral remedy implemented through price-cap regulation and a structural remedy implemented through divestment series on the dynamics of electricity prices during peak-demand periods.

An *AR–ARCH* model with a relatively novel and flexible skew-generalized error distribution is used. The model is extended to include individual incumbent producers' market shares calculated as a ratio of residual demand to forecast demand and other explanatory variables reflecting seasonal (cyclical or periodic) patterns and regulatory regimes.

The article finds that during the price-cap regulation period and after the first series of divestments the influence of the incumbent producers on the price level was about the same. Later, the second series of divestment was successful at lowering the influence of only the larger incumbent producer, but not the second incumbent producer. Nevertheless, on the other hand, price volatility reflecting market uncertainty decreased in this last regime period.

Based on these results we suggest that the structural remedy could be superior to the behavioral remedy to foster competition. This conclusion is in line with Puller (2007) who states that increasing the number of players in the game through further divestments can make the market more competitive.

Keywords:

electricity prices; uniform price auction; residual demand; regulation

References:

Puller (2007). *Pricing and firm conduct in California's deregulated electricity market.* Review of Economics and Statistics 89 (1). pp. 75–87.