Assessing Market Power in the Italian Electricity Market: A synthetic supply approach

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Abstract The aim of this article is to investigate the effects of the bidding strategies of leading firms on market equilibria. The analysis focuses on the Italian wholesale electricity market from 2015 to 2018. The purpose is to assess if the observed market equilibria are the results of a competitive setting or if more competitive equilibria could have occurred. We use the methodology of synthetic supply proposed by Ciarreta et al. (2010a). This way, a new set of synthetic prices and quantities is computed. The comparison between the actual and synthetic prices allows us to assess the effects of market power on the actual equilibria. Results suggest that whilst there is a significant impact on prices, quantities seem not to be affected, due to the inelastic demand. Moreover, our findings suggest that the main impacts occurred during 2017 especially during those months where above average heating and cooling were required.

Keywords Electricity Wholesale Market, Market Power, Bidding Strategy, Synthetic Supply

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