



Cost Pass-through in the British Wholesale Electricity Market: Implications of Brexit and the ETS reform

EPRG Working Paper 1937

Cambridge Working Paper in Economics 1997

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Abstract

Cost pass-through rates give a useful perspective of market competition. This paper studies how generation costs are passed through to electricity wholesale prices in Great Britain, both theoretically and empirically, between 2015 and 2018. Our empirical results fail to reject the null hypothesis of 100% pass-through rates for gas prices, carbon prices, and exchange rates, indicating a competitive GB wholesale electricity market. We observe higher pass-through rates in peak compared to off-peak periods, and argue this results from generators bidding at a lower rate during off-peak periods and supplying at minimum load to avoid the cost of shutting down and starting up. We extend the analysis by assessing generators' bidding behaviour. The study also considers how two key events occurred during the examined period – the 2016 Brexit referendum, and major reformation of the EU Emission Trading System – have affected electricity costs to a typical domestic household, showing they have increased average annual bills by £41 p.a., constituting a 7% rise.

Keywords Electricity market, Cost pass-through, Competition, Carbon price, VECM

JEL Classification L13, Q48, D41, H23, C32

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Publication December 2019
Financial Support EPSRC/Innovate UK, Grant EP/R021333/1