

Designing an electricity wholesale market to accommodate significant renewables penetration: Lessons from Britain

EPRG Working Paper 1719

Cambridge Working Paper in Economics 1756

David M Newbery

Abstract

The wholesale market has to address two major market failures – inadequate carbon prices in the EU ETS, and the learning externalities and missing futures markets for energy and ancillary services needed to guide flexible dispatchable plant. The paper discusses the importance of locational price signals to guide investment, the need to reform transmission pricing and renewables support. The case for capacity auctions for renewables and quantifies the justifiable level of renewables support. These proposals are consistent with the EU Clean Energy Package, but the nature of the renewables target and its financing should change.

Keywords renewables, market failures, locational signals, contract design

JEL Classification D47, D52, H23, L94, Q48, Q54

Contact dmgn@cam.ac.uk
Publication December 2017
Financial Support Paper commissioned by *Papeles de Energy*, to appear in vol. 4