

Regulation of access, fees, and investment planning of transmission in Great Britain¹

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Abstract

Liberalized electricity markets require unbundling transmission from generation. For least system cost, generation needs to locate to minimize generation and transmission investment and operation cost. Britain offers a good example of the challenges of and responses to setting transmission access fees to guide the location of massive renewables entry, very differently located to old fossil plants for which the grid was designed. Over-rewarding renewables pre-2014 worked strongly against these location signals, amplifying congestion. Proposals to coordinate transmission and generation off-shore show considerable benefits but coordination needs to be extended on-shore. Partial Locational Marginal Pricing (LMP in the real-time market might deliver less than full LMP but at much lower cost. Modest changes to transmission and auctioned renewables contracts could deliver quick coordination benefits independent of LMP.

Keywords transmission fees, regulation, off-shore wind, LMP

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