



Locational Marginal Prices (LMPs) for Electricity in Europe? The Untold Story

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Michael G. Pollitt

Abstract

Locational marginal prices (LMPs) are an important design feature of several well-developed electricity markets, particularly in the US. They involve the calculation of energy prices which reflect congestion and losses at particular nodes in the electricity network. They have been hotly debated in Australia and Great Britain, but not implemented so far. In this paper we explore whether and how European countries should adopt LMPs. We consider the concept of locational prices and their use in economics and the theory and evidence on nodal pricing. We discuss key unanswered questions in the literature about nodal pricing before suggesting alternative actions to improve locational signals in the electricity system in Europe, including via the smarter use of LMPs. We conclude that while the theory and modelling behind LMPs is strong, their wider theoretical rationale is less clear cut and the evidence on their impact in use is surprisingly weak.

Keywords LMPs, nodal pricing, electricity markets

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Contact m.pollitt@jbs.cam.ac.uk
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