Questioning the EU Target Electricity Model – how should it be adapted to deliver the

Trilemma?

EPRG Working Paper 1617 Cambridge Working Paper in Economics 1634 **David Newbery**

Abstract

Britain considers the energy-only EU Target Electricity Model (TEM) wanting in delivering the trilemma of reliability, sustainability and affordability and argues that a capacity auction with long-term contracts for new entrants is the least-cost solution compared to relying on expectations of future prices to deliver adequate generation and demand side response. The *Energy Union* argues against feed-in tariffs (FiTs) for renewables, pressing for premium FiTs (pFiTs), just as GB has abandoned PFiTs in favour of FiTs. This paper draws on the GB experience of Electricity Market Reform before and after the 2015 change of government, to highlight promising resolutions of the energy trilemma, and the problems that have arisen between the diagnosis of the problem and the delivery of solutions. It sets out the theory and practice of delivering capacity, energy and quality of supply, gives a brief history of GB electricity from the CEGB to its current unbundled, liberalized and privatized structure. That sheds light on the trilemma problem and discusses possible solutions. The island of Ireland Single Electricity Market reforms illustrate the problem and possible answer of how best to deliver quality of service with high intermittency.

Keywords Reliability, sustainability and affordability, capacity auctions, contract design, renewables

JEL Classification D47, H23, L94, Q48, Q54

Contact Publication Financial Support

dmgn @ cam.ac.uk 2016 Paper building on the presentation to A New Model for Electricity Markets? Towards a Sustainable Division of Labour between Regulation and Market Coordination, Paris, July 2015 www.eprg.group.cam.ac.uk