

Introduction to the Economics, Markets and Policy Minitrack

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Introduction

Public concerns about the adverse environmental and health effects of using fossil fuels to generate electricity have led to a greater dependence on renewable sources of generation, particularly in Europe. Since most of these sources are inherently variable, the electric utility industry is facing new challenges for balancing demand and supply in the real-time operations and markets. These challenges go beyond the standard use of Automatic Generation Control (AGC) to provide fast regulation and must now deal with potential imbalances over much longer time periods. Storage capacity and deferrable demand are likely to become increasingly important components of the electric grid for providing balancing services and managing daily patterns of dispatch and demand. These new capabilities will supplement the traditional use of flexible generating units to provide balancing services. The theme of this minitrack is the economics of introducing new capabilities, including generation, storage, user equipment and market organizations, that will help the electric delivery system integrate renewable sources of generation and make the transition to a low-carbon economy in a financially viable way.