Innovation and Competition in Generation and Retail Power Markets

BACKGROUND

- The EU power sector, including wholesale and retail markets, have been subject to a liberalisation programme since 1996, and the UK was one of the earliest to introduce competition into retail markets in 1998-99.
- The introduction of competition into markets previously characterised by monopoly may be expected to stimulate innovation. In the case of wholesale markets, this includes:
  - Diligent antitrust authorities may be expected to consider innovation effects when formulating and implementing policy and evaluating merger proposals and remedies.
  - Regulators have a responsibility to assess the effect of innovations on consumers.

METHODOLOGY

- The authors consider innovation as a dynamic consequence of competition in both EU wholesale electricity markets and UK retail markets, and assess the relationship between competition and innovation.
- The extent to which leading EU generators have invested in an innovation, wind turbines, over a ten-year period following the market liberalisation is evaluated, and the impact on innovation of the subsequent merger wave that took place in the sector considered.
- Innovation in UK retail markets is summarised and evidence of the effect on consumers evaluated.
- The response of regulatory and antitrust authorities with respect to innovation in the sector is discussed.

KEY FINDINGS

- There is evidence of innovation in both wholesale (EU) and retail (UK) markets.
  - Recent empirical research on innovation and competition in wholesale markets provides support for the EC’s mission to achieve a single market in electricity and gas, in particular by reducing the incidence of monopoly generators, and by increasing the extent of generator multi-nationality.
  - There has been considerable innovation in UK retail markets. For example a variety of new tariffs has been introduced including e-tariffs and green tariffs, and paperless bills.
- However, the link between competition and innovation is not unambiguously positive.
  - In wholesale markets, firms have got much larger, primarily as a result of a merger wave, though large firms are not associated with a higher level of innovation in wind technologies. The explicit consideration of potential ‘innovation effects’ appears to have been absent in recent EU merger reviews of the sector, which may undermine efforts to reach environmental goals.
  - Innovation in UK retail markets may confuse not empower consumers. Innovative tariffs and other devices may not result in genuine gains for consumers, many of whom take switching decisions which leave them worse not better off.
POLICY ISSUES

- Failure of the EC to explicitly assess potential innovation effects of proposed mergers may have adverse implications for the ability of the sector to deliver the reductions in greenhouse gas emissions required under, for example, the Kyoto Protocol, and is a new perspective on existing criticism of past enforcement of merger policy in this area.

- A similarly non-interventionist approach by the UK authorities to mergers in the early days of the retail market seems to have led to considerable innovation in terms of tariff types and structures offered to consumers. But there is concern that such novelties might be used anti-competitively by suppliers.

- The regulator’s recent introduction of non-discrimination clauses demonstrates a change in direction, from a strong focus on fostering competition to a greater concern for short-term equity.

- Wholesale and retail energy markets are expected to deliver multiple ends, including environmental objectives and equity. There is a danger that if markets are expected to deliver mutually incompatible objectives, however laudable, they will be unable to deliver any of them.

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