

Trend of Electricity Liberalization in Europe

Background

To examine an appropriate direction of electricity liberalization in Japan, it is useful to evaluate precedents in foreign countries. In Europe, status of compliance with the 2003 EU directive and an evaluation of competition have been a focus of attention. Meanwhile, BETTA (British Electricity Trading and Transmission Arrangements) has been implemented since April 2005 in the U.K., where bilateral trading plays a prominent role of the electricity market like in Japan. These trends provide us with useful information for the discussion about the direction of liberalization in Japan.

Purpose

This report surveys the trend of electricity liberalization in Europe, specifically we examine status of compliance with the 2003 EU directive and the evaluation of competition. Furthermore, this report investigates a recent trend of BETTA; the institution of the electricity trading in England-Wales-Scotland, based on wholesale prices and trading volumes. Several issues with respect to BETTA are indicated as well.

Main Results

[Trend in EU]

- (1) In Europe, an enactment of domestic legislation with respect to 2003 EU directive was stipulated to complete by July 2004, which includes establishment of an independent regulatory agency and legal unbundling of the transmission function. However, most countries were not able to complete the enactment by the deadline. As of November 2005, four countries were left in noncompliance with the stipulation and a complaint against them was filed to the European Court of Justice.
- (2) European Commission evaluates that the current degree of market integration is not enough because there are regional differences in electricity prices and cross-border trading is still limited (Figure 1). The Commission indicates that the main reason for such situation is lack of capacity in cross-border transmission lines, and congestion management based on the market mechanisms is required to resolve the bottleneck problem.
- (3) In domestic markets, degrees of market concentration are high with a small number of firms, and switching rates for commercial and residential customers have not made progress although those for the industrial customers are relatively high. It is indicated that such monopoly/oligopoly in the market becomes a constraint on the development of customer switching.

[Trend in United Kingdom]

- (4) The market structure under BETTA since April 2005 adheres fundamentally to that under NETA (New Electricity Trading Arrangements). A unique feature of BETTA is an existence of the single Great Britain System Operator (GB-SO) and NGC, that is a SO under England-Wales NETA, is appointed to the position.
- (5) Same as NETA, almost all electricity trading in wholesale markets is conducted through bilateral trading. The level of the wholesale prices reveals high correlation with those of other European markets that have higher liquidity. Therefore, although liquidity in the U.K. exchange market is low, the wholesale power market as a whole works well without an anticipated market power problem (Figure 2). In 2005, long-term contracts (monthly and seasonal contracts) decreased in trading volumes, however, such trend is not attributed to the institutional transition from NETA to BETTA because the decreasing trend in liquidity is observed in other European markets.
- (6) Japan employed a bilateral trading model that was pursued in many European countries such as U.K. and did not apply the pool model that was observed in the PJM (Pennsylvania-New Jersey-Maryland) and the NYISO (New York ISO). The experience of BETTA indicates that a trading institution centered on bilateral trading is well workable in electricity markets.

Future Extensions

We will continue to survey the trend and examine issues with respect to electricity liberalization in Europe and provide useful information to discuss appropriate electricity liberalization in Japan.

Principal Researcher: Mika Goto,
Research Economist, Socio-economic Research Center

Related Report: "Recent Development of Liberalization of European Electricity Industry: An Analysis with a Focus of Power Trading Under BETTA in the UK," Y05009.

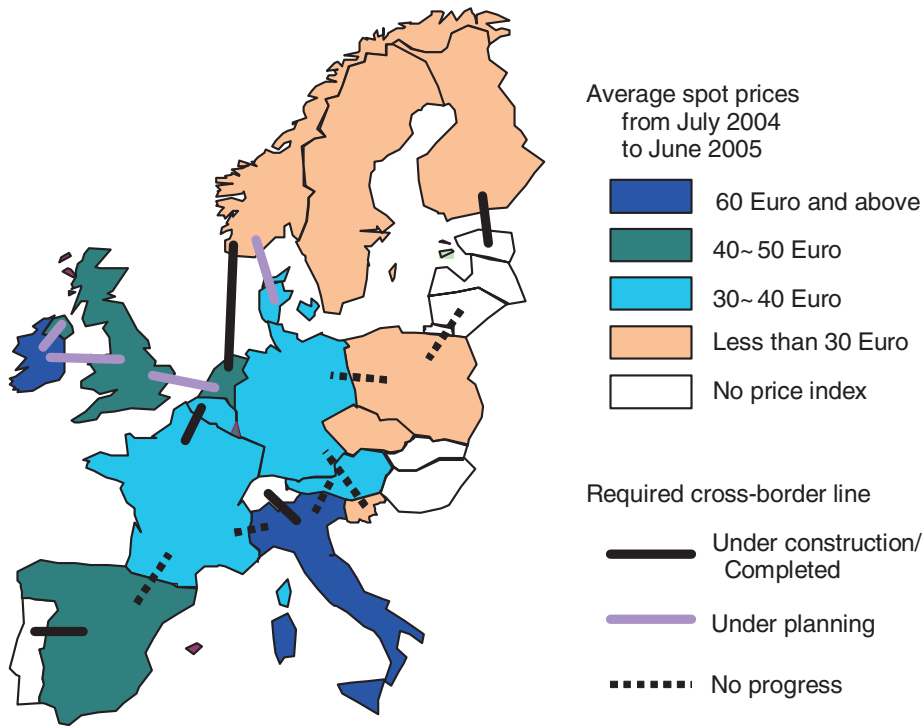


Fig.1 A variation of electricity prices in the internal market

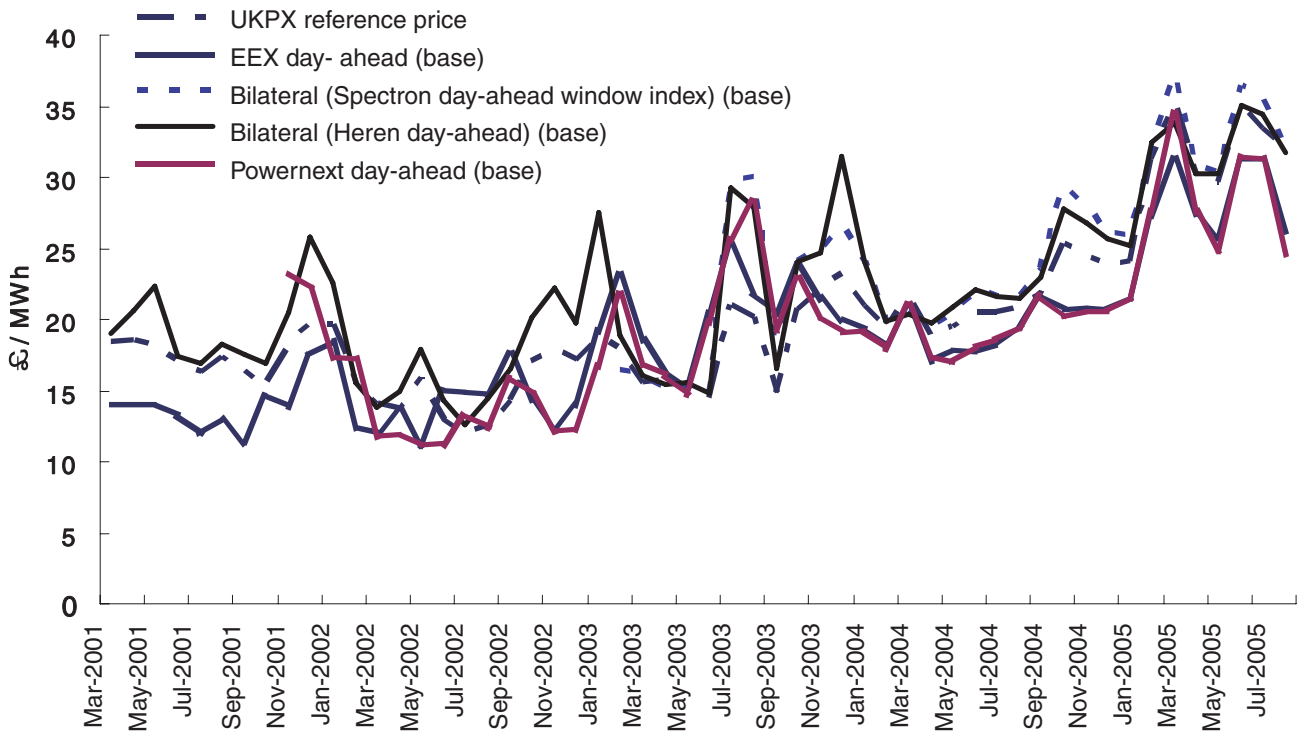


Fig.2 Trend of electricity prices in European markets

Note) Wholesale prices increase due to the hike of fuel prices and additional cost of certificates on emission trading.