Energy: internal market in electricity, cross-border exchanges, access to network. 'Electricity Regulation'

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In presenting this report the Commission is fulfilling Article 14 of Regulation (EC) No1228/2003 to publish a report on the application of the Regulation. To recall, the Regulation's aim is to set fair rules for cross-border exchanges in electricity in a bid to enhance competition within the internal electricity market. In order to achieve this objective the Regulation establishes a compensation mechanism for cross-border flows of electricity, it sets harmonised principles on transmission charges and it establishes rules on the allocation of available capacities of interconnections between national transmission systems.

The development of cross-border trade volumes: Cross-border electricity flows in Europe have increased modestly year on year since market opening. On average, only 10% of electricity consumed in the EU crosses Member States' borders. Analysis indicates that there is scope for further integration of the regions towards a European market. Such a move will lead to a higher price convergence between regions with similar generation mixes and to a better use of arbitrage possibilities between regions with different generation mixes. Overall cross-border trade opportunities are far from being fully utilised.

Development of cross-border trading methods: New guidelines have split the EU into seven regions plus South East Europe. The guidelines oblige transmission system operators (TSOs) to operate a common co-ordinated capacity calculation and allocation system. A lot of effort is still needed in order to implement new arrangements, including those set out in the amended congestion management guidelines. Some progress has been made in developing access to intra-day cross-border trade. Both national regulators and the Commission will monitor closely implementation of the amended congestion management guidelines. The report also points out that the Commission is prepared to start infringement procedures in cases of non-compliance of the new guidelines.

Inter-TSO compensation mechanism: Progress on the inter-TSO compensation mechanism has been made on a voluntary basis through the Florence fo rm process with the first voluntary agreement being concluded in March 2002. The voluntary agreement between TSOs is based on a simplified method based on the reality of cross-border flows. The European Regulators' Group for Electricity and Gas (ERGEG) has worked on guidelines on ITC to be adopted by the Commission. However, by the end of 2006 no agreed method has been approved. The Commission is still considering whether the work of the ERGEG provides a sufficient basis to adopt guidelines with the assistance of the electricity cross-border committee.

Network access tariff harmonisation: Network tariffs for accessing the transmission network vary enormously. The average network tariff for a load connected to the transmission network (the L-charge) ranges from ca. €2/MWh (in Sweden) to ca. € 27/ MWh (Denmark East). Several factors explain these differences. In addition to differing infrastructure costs, these tariffs may or may not include losses, location signals, system services or charges not directly related to TSO activities. These other charges are mostly related to public service obligations such as support to renewable energy sources and combined head and power as well as stranded costs. Further tariff harmonisation is needed in order to have a better level playing field for the electricity market and it is one of the main issues addressed by Regulation 1228 /2003. The draft guideline on transmission tariffs seeks to gradually diminish the spread of the G-charge. This is because the G-charge is more important regarding the level playing field that the L-charge.

Congestion: Congestion patterns have become more volatile, even if there is no uniform method to collect and publish data on the appearance of congestion. In the past the flows, often dominated by long-term contracts, remained relatively stable. Increased volatility can be seen as a sign of a better functioning market leading to increased trade in both direction over the interconnections. According to the Regulation, congestion revenues can only be used for guaranteeing capacity, building infrastructure or lowering the network tariff. Unfortunately, lowering the tariff has been the most common use of congestion revenues. Only in some cases have network investments been preferred – as in the Nordic countries and the Netherlands.

Access to cross-border electricity to end users: Borders between countries and control areas continue to act as important obstacles to true market integration. To address this problem a medium term target has been set the aim of which is to foster regional harmonisation of the market and to ensure that any new infrastructures is built in such a way as to ensure that market participants will be less hindered by borders than they are today. One example of an integrated, wholesale market is Germany and Austria.

Security of supply: The first year in which the Regulation entered into force, namely 2003, proved to be a difficult year for the security of the electricity supply. Italy suffered a major black-out in September 2003 due to problems in the inter-connection lines with Switzerland cause by a failure to limit the spread of the fault. A major black-out also occurred in Sweden and eastern Denmark. Less far-reaching blackouts occurred in 2003 in London and in Helsinki. The most recent black-out (November 2006) affected the whole Union for the Co-ordination for the Transmission of Electricity (UCTE) synchronous area. The incident originated in northern Germany but lead to the splitting of the UCTE area into three parts and to approximately 10% of load shedding in the western area in order to preserve the integrity of the transmission networks. A recent ETSO report on generation adequacy indicates that there is no major concern for most of the European network until 2012. After 2012, the situation might become critical if investments are too slow.

Conclusions: The report concludes by noting that there has been a steady but modest increase in cross-border flows. The main driver for this increase is the possibility to trade between price areas with price differentials. The capacity calculation and allocation methods have developed, with possible further improvement to come as a result of the amended guidelines for congestion management as adopted in November 2006. However, there are signs that the transmission network sometimes operates close to its physical limits. The blackout in Italy in 2003 and in UCTE in 2006 showed how costly any incident in the European-wide transmission network can be.

The European market is increasingly based on a regional concept. This first developed naturally, following the physical realities of the network. With the establishment of the regions in the amended congestion management guidelines and with the development of the Electricity Regional Initiatives by ERGEG, the regional approach has received an official status. The regional approach should be viewed as a pragmatic tool to achieve an overall European market. There is no major reason why the implementation of the electricity market should vary a lot between the regions.

On a final point the Commission lists seven of issues that need to be addressed in future:

1) Security and reliability rules: rules between the TSOs to ensure the safe operation of the grid.

2) Connection rules: governing the relationship between the TSOs and the customers (generators, distribution system operators and big end-customers).

3) Rules for trading electricity: harmonisation of trading arrangements, timetables and products, including intra-day trade.

4) Transparency rules: detailed rules on data exchange and publication between market participants. Transparency rules are already addressed in the amended congestion management guidelines.

5) Balancing and reserve power rules: the aim of which is to seek further integration of the balancing and reserve power markets.

6) Data exchange and settlement rules: the aim of which is to seek further integration of the retail market through sufficiently harmonised data exchange and settlement rules.

7) Investment incentive rules including location signals: providing a European framework for efficient investment signals for both generation and network investments.

The need for and the level of detail of these rules is still to be discussed and further studies are needed in order to provide the necessary input. However, it has become evident that further integration of the internal market needs a coherent set of rules. Many of these rules already exist – but on a national basis or a company basis, with a differing oversight by national regulators. The incompatibility of these rules may be one of the biggest obstacles to market integration.