



## ETSO OPINION ON THE EVOLUTION OF THE IEM

Brussels, 30 June 2005

### Introduction

1. Following the request from the EC addressed to ETSO on 8 May, the Association of European Transmission system Operators welcomes the opportunity to give its opinion on the development of the Electricity Internal Market by focusing on three issues:
  - The present and future evolution of the electricity market;
  - The need to explore the improvements on any aspect related to the opening of the market both at national or EU level; and
  - The need to foresee a reinforcement of the measures envisaged to protect the consumers.
2. This note sets out ETSO views on, first the general issues raised by the request and, secondly, on the specific points on which we are asked to contribute by the EC.

### General Issues

3. The 2004 Report of the Commission on Implementation of the Gas and Electricity Internal Market assesses and comments on progress in a number of aspects. This commentary raises issues concerning the appropriate way of judging progress and indeed how success or failure is to be assessed on the Electricity market development.
4. The measures by which the success of the Directive 2003/54/EC is to be judged are set out in its Article 28 paragraph 3. They are:
  - i. The existence of non-discriminatory network access
  - ii. Effective regulation
  - iii. The development of interconnection infrastructure and the security of supply situation
  - iv. The extent to which markets are open to effective competition
  - v. The extent to which the full benefits of market opening are accruing to small enterprises and households, notably with respect to public service and universal service standards.
  - vi. The extent to which customers are actually switching suppliers
  - vii. Price developments
  - viii. Independence of TSOs

5. The 2004 Report covers all these issues to a greater or lesser extent. However, in a number of respects the presentation in the report is confusing or, indeed confused. Specifically:
  - a. It suggests that the number of “foreign” companies participating in a market and their market share can measure the extent to which the market in a country is open to effective competition. Even though the presence of foreign companies gives an indication of the willingness to open a market, it is however clearly equally possible to have a highly competitive market with no “foreign” companies participating. However, ETSO recognises that although the individual EU countries’ markets should be open to effective competition, this will not by itself ensure the creation of a unique internal market for the whole EU. To achieve truly the internal EU electricity market ETSO believes that further harmonisation of the national regulatory frameworks is necessary.
  - b. It also appears to suggest that the existence of price regulation can be taken to reflect the lack of a competitive market. While there is some truth in such an assertion, the corollary to this argument namely that removal of price regulation is a good thing is clearly wrong unless a fully competitive market has been first established. The removal of electricity price regulation in a market still under development can hardly be considered as being beneficial to the consumer, and yet the text could imply such an outcome would be desirable or could be taken to encourage countries with less than fully competitive markets to remove regulatory controls prematurely.
  - c. The report also comments on the existence of generation capacity payment mechanisms, capacity option schemes, capacity support mechanisms in balancing markets and tender arrangements in various countries. It is not absolutely clear in the report whether or not the existence of such mechanisms and arrangements is seen as a failure in the application of market principles or not, although the implication is that they seem to be in most cases.
6. ETSO comments refer mainly to those criteria identified in the Directive 2003/54/EC that are particularly relevant to TSOs for the development of the IEM, namely, items (i), (iii), (iv) and (viii). However, ETSO also suggests other progress measures that we believe contribute to a successful market development.
7. On item (i), **non discriminatory network access**,
  - a. All EU TSOs are in a position to offer access to new generators and suppliers on non-discriminatory, standard terms to their own networks with no differences between the contacts with incumbents and new entrants. All TSOs should apply point of connection charges.
  - b. However, the issue on non-discriminatory access goes beyond that of access to the system in the country where the generator or supplier is located to include access to other systems via interconnectors. In this respect ETSO would like to point out the progress achieved in terms of cross-border tariffs (no basic distance related and no cross-border

fees), through the Inter-TSO Compensation (ITC) funds and the successful ETSO proposals in the field of cross-border congestion management and the increase in transparency.

- c. When the safe operation of the grid is endangered and measures to ease the congestions are required, the TSO shall not distinguish between internal and external market players but shall create an even balance between restrictions of the internal market and limitations of cross-border capacities. Thus the required reciprocity between market players in different countries is ensured.

8. On item (iii) **the development of interconnectors and security of supply**, it is appropriate to comment separately on the two issues. On **interconnector development**:

- a. The volume of interconnector capacity relative to the volume of installed generation can be a relevant measure, but it is less relevant for large national markets with several suppliers and a good generation mix than for small markets with one dominant supplier. From a merely physical view, the size of the considered area is relevant. A small TSO might probably meet the 10% requirement by a single tie line, the EU as a whole will probably never meet the requirement. It can therefore not be used generally. Also the physical interconnector capacity is not relevant unless there is equal and dynamic access to it.
- b. ETSO would also like to point out that in some European Countries TSOs either have little responsibility for the development of new interconnectors or are only one possible developer among many others. As examples we can mention some major new submarine cable schemes that have recently been approved; one TSO development (Nor-Ned, Fenno-Skan2), and one that at least initially is a non-TSO scheme (EstLink).
- c. Other schemes that have been completed are for instance the Swiss Italian border upgrading, the reconnection of the Southeastern European system with the UCTE main system, or the current reinforcement of the French-Belgian transmission capacity (Avelgem-Avelin 400 kV and Chooz-Monceau 220 kV).
- d. Other schemes currently under construction or under active consideration are: those in the Nordel Grid Master Plan, Ireland-Wales, England-Netherlands, Three-phase shifting transformers on the Belgian-Dutch border, etc.

9. On **security of supply**, ETSO would like to mention the recently published ETSO Adequacy Report made on the basis of the information gathered and published by the TSO Associations: UCTE, NORDEL, UKTSOA and ATSOI, that summarises the main messages of continuing generation adequacy across the region in the short term and the need for considerable requirements for new plant in the medium and longer term to maintain generation adequacy. The report does not cover transmission adequacy but ETSO considers that increasing interconnection capacity has an important although secondary role in the provision of security of supply.

10. **On item (iv) the extent of effective market competition**, ETSO considers that one of the roles of TSOs is to contribute to the development of effective market structures. Through ETSO, the TSOs may not only contribute but could also be seen as the key partners and drivers to facilitate the process of establishing the sound and efficient European market design yet to be achieved. Avoiding misconception of the market design should be considered as one of the main challenges for the development of the IEM in the next years and the sustainability of the European market design is part of ETSO's roadmap. In this framework, transparency and market monitoring on a pan-European basis are necessary for the achievement of a sustainable and reliable market design and the European TSOs are naturally involved in it.

When addressing to the TSOs direct interaction with markets, it is generally accepted that TSOs have a role in balancing mechanisms in operational timescales and that this role does impinge on the operation of the energy market. Furthermore, the EC sees a role, and gives, in our view, undue weight to it, for trade between countries to contribute to effective competition. Instead ETSO believes that:

- a. It is important to look at the relevant market and ask whether it is national or regional, or even larger. The number of separate suppliers and generators competing in a market and their market shares are better measures of the competitiveness of a market than the more qualitative indicator whether the supplier or generator is "foreign", particularly in a world of multi-national companies. Several competitors of roughly equal size and the composition of their generation mix could be a parameter to measure if there is sufficient competition. In a market with a few dominant large players, sufficient higher interconnector capacity to neighbouring market areas could play an important role in increasing competition, enhancing market efficiency. The number of generators or suppliers in the national market is more or less relevant depending on whether the national market is strongly interconnected with other national markets to form a regional market. Effective market competition is not only related to the number of generator companies that are competing. As prices are set by the marginal generator units, it is important to understand how ownership of marginal units may influence income of the different portfolios of competing generator companies within each price area. A generator unit may be the system marginal unit for some time periods but rarely for all time periods. Load demand, its corresponding elasticity, requirements for ancillary services, balancing needs, interconnector capacities and generator unavailabilities are important factors influencing the determination of marginal generator units. TSOs have access to this information on-line. By this, they are at the heart of the analysis of the effectiveness of market competition and would naturally have a role in supporting the authorities with information. However, it may vary what role the TSOs have in explicitly monitoring the market in each country.
- b. The role of TSOs in the generation market should in principle be restricted to operational timescales.

- c. It is difficult to envisage a market structure that can deliver security of supply without the TSO being active in operational timescales to balance the market through adjustments on generation and demand side. .
- d. Any market involvement by TSOs outside operational timescales will reduce the efficiency of the market in delivering generation adequacy. But TSOs should play a role in providing transparent information to the market, including on long term generation adequacy to supply electricity consumption. In addition to this, the TSOs can propose a market design aiming at ensuring that sufficient availability of operational reserves where demand side could also make bids in competition with generation side.
- e. The case for additional payment mechanisms (e.g. capacity payment mechanisms) or explicit fallback mechanisms in the case of perceived prospective market failure (e.g. tendering for plant) needs to be considered carefully because of their potential impact on market incentives. Any mechanisms of this type should be used only in exceptional circumstances and they need to be designed in such a way as to minimise their effect on market incentives.
- f. Access to scarce interconnection capacity should be handled by market-based mechanisms. Despite the proposals made by ETSO or even the individual TSOs in their respective borders for market-based approaches in the last 5 years, there are still too many borders that apply non market based mechanisms often due to lack of co-ordination or harmonization of the regulatory environments.
- g. New long-term supply contracts which can block a significant share of the interconnectors' capacity should be discouraged and the existing ones, if possible, accommodated.
- h. The "ETSO Vision" on congestion management aims at fulfilling any market requirement without pre-requisite. According to its Vision, ETSO's goal is to create the network access arrangements that the market needs to enable effective competition across Europe, and to optimise the use of the network in a pan-European perspective. This goal will be achieved by providing practical market-based mechanisms to manage congestion between regions, while allowing the co-existence and evolution of different market structures within regions. Sound and efficient proposals for efficient congestion management and integration of electricity markets already exist and are pending for implementation. "Flow-based Market Coupling" jointly proposed by ETSO and EuroPEX is one example of practical implementation of the ETSO Vision. The creation of regional market places with spot markets day-ahead and intra-day which can provide transparent reference prices for financial hedging electricity products should be encouraged. The foundation for a liquid financial market is confidence in the reference prices, acceptable transaction costs and low barriers to enter the market. A liquid financial market will provide important opportunities to generators and consumers to manage their risks, adding significant value to the whole power industry. With the

establishment of spot markets in several national or regional areas, more or less accepted and transparent spot prices for electricity are available. Nevertheless, as an example, it is not always the case that the commercial exchange of electricity resulting from day-ahead capacity allocations is from an area with a lower price (a generation surplus area) to an area with a higher price. There may be a number of reasons for this including sub-optimal allocation of interconnector capacity by, for example, day-ahead explicit auctions or by forward allocation of physical transmission rights. Moreover, in order for the spot-market price to be a good reference price the market must be relatively liquid. There are different views to what constitutes sufficient liquidity. When setting up the Nordic spot market a liquidity of 15 – 20 % was considered to be quite sufficient. Now the volume is over 40% of the physical demand in the market area.

- i. Truly independent regulators to oversee at least the monopoly businesses (networks) who have, if not the same, at least similar powers in the different member states.
  - j. Low transaction thresholds for changing supplier should be ensured by for instance requiring a low standard cost for required metering and reporting and by giving an easy and equal access to market information. The number of customers who have changed supplier is often used as an indication of the success or failure of the liberalized market. However it is important to take into account that many customers have managed to renegotiate terms with their original suppliers, thanks to the introduction of competition, and have therefore not needed to change.
  - k. As regards the price development, generally it has been expected that liberalization would lead to lower (real) prices and where competition has been sufficient this has been the case. However, the price reductions have been contaminated in many cases by various increased taxes and environmental fees (green certificates, guarantee of origin etc). In energy markets where there is a natural fluctuation in the balance between supply and demand – for instance peak and off-peak (night and day, winter and summer) and wet or dry years in hydro electric systems – the spot market prices have realistically reflected this which should also be taken to indicate that the market is working.
  - l. Since deregulation there has been a tendency to blame number and lengths of interruptions, , both for transmission and distribution networks, on insufficient maintenance resulting from companies economizing under pressure of either the competitive market environment or severe regulation of network tariffs. If the first instance were true it would be an indication that networks are not sufficiently unbundled from generation and supply. In the second case, it is important for regulators to realize that reducing grid access tariffs and at the same time demanding much higher levels of security is not always compatible.
11. On item (viii), **the independence of TSOs**, ETSO would like to mention that practically all TSOs in Europe are independent either through separate ownership or, where TSOs are not separately owned, through meeting the

requirements of Article 10 of the Directive 2003/54/EC where sound corporate governance practices are required by the compliance programme. It is for the EC to control that sound corporate governance practices are duly implemented.

Nevertheless, ETSO recognises that there is a variety of ways to implement Article 10 and that a more harmonised approach within the EU would contribute facilitating a faster development of the IEM.

Moreover, the TSO model in which the system operator is also the owner of the transmission network and not the ISO model is the preferred option for ETSO. It is believed to be more efficient, gives more independence to the system operator and more freedom in the decision making both for maintenance and investments.

### **Responses to the concrete issues in the EC Letter**

12. The first issue deals with **the future evolution of the electricity market**. It would seem to ETSO that the market in future will have the following characteristics:
  - a. Continuing growth in electricity demand at moderate rates – 1-2% p.a. in the North and somewhat higher at 2-4% p.a. in the South.
  - b. Gradual reductions of the overall margin of generating plant in relation to demand across Europe. The need for new generating plant could be substantially increased if the rate of closure of older plants increases as a consequence of existing and potential future environmental legislation.
  - c. A need for new plant construction over the next 10 years, with some regions requiring additional plant earlier, e.g. Ireland, Spain and Portugal, Great Britain and NORDEL and some regions somewhat later e.g. UCTE Main Block and CENTREL. In the long run, the different regions should be reasonably well-balanced as the supply and demand are regarded.
  - d. More liquid and efficient cross-border trades and integration of organised markets through the expected practical implementation of already existing proposals for market-based procedures in the field of network access and congestion management.
  - e. Continuing development of interconnection capability where an economic case for such developments can be put forward and where the necessary consents and approvals can be obtained.
  - f. An increasing proportion of electrical energy being generated by intermittent sources e.g. wind with the location of these generation sources being concentrated in specific geographical areas – often in remote areas – and the impact this will have for generation adequacy and hence security of supply, even leading to possible black-out risks.
  - g. An increasing amount of demand side response contributing to both energy efficiency (e.g. security of supply) and the efficiency of the market.

13. These trends will present challenges to all industry actors, including the TSOs.

In particular for the TSOs:

- a. To develop their systems through investment in their transmission systems to meet the requirements of the market players and reinforcing their systems to deal with changed load flows arising from the new station developments. In the case of interconnectors, whether or not the TSO is responsible for interconnector development, the TSO is responsible for the associated transmission system development to accommodate any changed load flows arising from the new interconnectors. Increasing collaboration amongst TSOs to ensure that maximum use can be made of interconnection capacity commensurate with security of supply. This includes ensuring that operational rules and procedures are applied on a consistent basis in respect "flow-based" transmission modelling and the management of cross-border electricity exchanges in meshed AC power systems.
- b. All the above will be particularly challenging in the context of the increasing proportion of energy arising from intermittent energy sources concentrated in specific locations. Licensing procedures for new RES sites and for grid infrastructure must go hand in hand. The legal framework and administrative procedures have to be set properly to speed up the licensing of grid infrastructure. Moreover, suitable European-wide harmonised grid codes for new wind farms and other RES defining their electrical behaviour in critical grid situations are needed in all countries expanding their share of RES. For this, the best available technology for wind farms shall be used. All types of generation on a system should be treated equally with regard to the consequences of their imbalances. In addition it should be analysed to what extent energy storage could contribute to ease the integration. Finally, the integration of wind energy is no more a national subject. It has to be analysed with an European scope and therefore harmonised mechanisms for the promotion of RES all over the EU should be put in place.
- c. Contributing to the overall implementation and development of market based and economically efficient congestion management methods, particularly in respect of physical flows.
- d. Contributing to the development of economically efficient and market based congestion management methods, particularly in respect of physical flows. Building on the progress that has been made in terms of cross-border tariffs through the Inter-TSO Compensation funds in order to contribute to the efficient development of cross border trade. This means remunerating TSOs (and consequently costumers of TSOs) for the costs incurred in energy transiting their system, including remuneration for investment that is required to increase such capacity and recovering these costs from TSOs (and consequently costumers of TSOs) who benefit in an equitable and economically efficient way.
- e. Provided that the Regulatory framework is effectively harmonised to a maximum extent, TSOs should aim at an increasing cooperation in power system balancing.

14. In terms of challenges for other market actors
  - a. **Member States** will have to ensure that market rules and structures provide appropriate incentives to generators to ensure the provision of adequate generating capacity to meet demand; that TSOs can achieve the necessary consents and permissions to develop their systems to meet the requirements of the market in a timely manner; and that appropriate objectives are given to their regulatory authorities. For instance: the model of TSO and DSOs unbundling, the roles and responsibilities of the TSOs and DSOs, the tariff principles, the mechanisms to promote RES and specially the integration of wind, etc.
  - b. **Regulators** will need to develop consistent, although not necessarily identical, regulatory principles and practice between countries to avoid differing principles and practice leading to delays in the development of the internal market and economic inefficiency. In ETSO view it is for Member States to establish the principles which regulators operate under, and it is then for regulators within Member States to carry out their activities in a manner consistent with these principles.
  - c. **Generators, Suppliers and Traders** will hopefully only have to act in a competitive manner responding to the incentives provided by the market.

### **Improvements**

15. The first major additional step that can be taken is to implement fully the Directive 2003/54/EC on the Internal Energy Market. This includes not only the completion by Member States of the transposition of this Directive into national law but also the putting in place by the Commission of the draft Guidelines of the Regulation 1228/2003 on cross border trade and congestion management that are required under this Directive and its associated regulation. It is recognised that the development of these guidelines are not simple tasks but the principles that they will need to embody are complex both in economic and technical terms. The full formal involvement of the TSOs is necessary to develop these guidelines not least because it is the TSOs, via ETSO, that have already made significant considerable progress in terms of economic principles, technical principles and practical implementation. Speed of completion will depend on building on this work and utilising the substantial expertise that has been built up by the TSOs. For these reasons, ETSO strongly believes that it would be more efficient for the process of the IEM development to set up an Advisory Group of Independent TSOs to the EC and ERGEG. ETSO is willing to continue to be considered as an advisor to the Commission in concrete initiatives towards practical implementation such as the regional mini-fora on congestion management.
16. The second major step that can be taken is to bring into force the Draft Directive on Security of Supply and Infrastructure Development that is currently being taken through the legislative process. The latest Council Version of this Directive proposal has many positive features that will contribute to the development of the internal energy market and that supplement and reinforce the measures included in the Directive 2003/54/EC.

In particular, the Security of Supply Directive includes clear allocation of responsibilities between industry participants, Member States and Regulatory Authorities and places duties on them to enable security of supply to be maintained at a high level and infrastructure investment to be undertaken in the context of developing a single, liberalised market.

17. Thirdly, given the increasing requirements for new generating plant in order to ensure continuing generation adequacy, as referred to in paragraph 12 above, it would be appropriate as part of the Security of Supply Directive for there to be a formal requirement for European TSOs to produce an assessment of generation and transmission adequacy across the European Community. The current draft requires Member States to produce such a statement for each individual country but, given the increasing interdependency of the market, a European overview would be particularly valuable. ETSO has recently published such a report on a collaborative basis but formal status for such a report would be advantageous.

#### **Additional Measures to Protect Consumers**

18. From a TSO perspective, we recognise the need for continuing regulation of our activities. However, the need for regulation in other competitive sectors of the industry, notably generation and supply should decline as markets are liberalised. The issue here is to ensure that reductions in regulatory involvement go hand in hand with market opening. Dangers could exist to the interests of the consumer if regulatory oversight is reduced at a faster rate than markets are opened. In a fully competitive market regulation of prices for final consumers is unnecessary and it would reduce the efficiency of the market. However, removal of regulation before a market is fully opened will neither be in the interest of the consumer nor will aid the development of a fully competitive market. Indeed, the opposite is probably true. Similarly, long term contracts between generators and suppliers or indeed generators and suppliers being vertically integrated (which are effectively the same thing) are not issues from the point of view of the consumer in a market in which generation and supply is competitive.
19. We do not therefore see the need for additional measures to safeguard the interests of the consumer. In the specific case of TSOs we are already tightly regulated and we consider that this situation is unlikely to change. In more general aspects of the market, it may in due course be possible to reduce regulatory involvements as markets are opened up and liberalised.