
Introduction

EFET has questioned the need for a specific Directive on electricity security of supply and has called for close alignment between any security and reliability guidelines under the new Cross-Border Regulation with the draft congestion management guidelines. While it is true that the Electricity Internal Market Directive (2003/54/EC) is chiefly concerned with establishing customer choice through regulated access to networks, it does also deal with basic security and reliability obligations, leaves scope for special tenders for extra generating capacity and for a degree of national fuel preference and addresses public service issues. On the other hand, it does not set out standards for security and reliability, nor define roles and responsibilities of market participants, nor deal specifically with emergency procedures. Nor does it require transparency of security of supply standards, roles and responsibilities or other obligations.

Some of our doubts about the Commission proposal for a Directive are assuaged, by the latest text of the Dutch Council Presidency. We welcome the support that the text gives to market mechanisms, in particular the importance of liquid wholesale markets in providing price signals and the need for transparency. Nevertheless we remain concerned by the following aspects:

- An apparent confusion of purpose between securing supplies and ensuring reliability.
- Provisions still envisaging predominantly political and/or administrative solutions to security of supply, which could easily distort the market and ultimately undermine security of supply.

Distinguishing between longer term security and shorter term reliability

The text of the draft Directive does not adequately distinguish between security of supply over long periods of time and the consistent provision of reliable supply.

We shall first comment on supply reliability. Complex and numerous physical components make up any system designed to generate, transmit and deliver electricity. The physics of the movement of electrons makes large-scale power supply instantaneous in nature. Given these facts, power outages may always occur. Any attempt to ensure 100% reliability would call for virtually infinite investment; still the target probably could not be achieved. Parts of power networks
must be designed to be shed (shut down) if necessary in emergency situations. Isolation of a part, either deliberately or by virtue of automates (automatic safeguards), is a pre-requisite for the protection of both adjoining electricity networks and power generation equipment. **Thus the provision of reliable supply becomes a balance between system robustness and correct designing for failure.** Once this balance has been struck, good and clear operating procedures are the way to achieve optimum reliability from day to day. Regulatory intervention at international or local level may be necessary if such procedures are lacking or not implemented by Transmission System Operators (TSOs).

We shall now concentrate on the multi-faceted challenge of **long-term security** of supply. Unlike the provision of reliable supply, the development of supply security may involve macroeconomic prediction, political judgment, environmental and social choices and international diplomatic effort. Thus to reduce it to a series of procedures is impossible. Equally, however, it is unthinkable that a security policy could be reduced to a mere list of legislative or regulatory injunctions.

So, although inter-linked, reliability and long-term security call for different solutions to the differing challenges they pose. Electricity systems require both investment to ensure adequate generation capacity in the longer term and sufficient reserve capacity in real time. The two issues should not be confused, as they appear to be in Article 3 of the proposal for a Directive.

**Primacy of economic signals**

We agree with comments by generators’ and suppliers’ representative associations that generation and network investment, including investment in interconnection, should be driven primarily by economic need. Investment in generation and merchant interconnections (“merchant” meaning outside the normal TSO regulated asset base and potentially subject to regulated TPA exemptions), should be decided by the market. Investment in infrastructure subject to fully regulated third party access (TPA), that is the transmission and distribution networks operated by regulated TSOs or distribution companies, should only be undertaken (and paid for by consumers/ network users in the resulting tariffs they will be charged) after adequate and transparent cost-benefit analysis.

We also agree that investors will be kept in, or brought into, the sector only if the business climate is attractive. A first prerequisite is a regulatory environment perceived as appropriate, stable and transparent. Within this context, nonetheless, measures, which will demonstrably facilitate the completion of the internal market, improve transparency or underpin the development of competition, are essential.

The second Electricity Internal Market Directive contains several provisions to enhance security. For example, it allows governments to the possibility of providing for new generation capacity, through tendering, if the capacity being built is insufficient to ensure security of supply (Article 7). Such procedures should be reserved for exceptional or emergency situations, because their regular use will tend to distort the market. Indeed, a properly designed Electricity Security of Supply
Directive could help avoid the need for Member States to invoke tendering procedures.

Even without potentially distorting security measures, power markets across Europe already face a series of policy and law based distortions. For example, we lack harmonized energy taxation and harmonized market-based mechanisms for promoting renewable power generation or combined heat and power (as distinct from simple production subsidies for such sources).

Allowing and encouraging the market to develop

We further agree with generators’ and suppliers’ representative associations, that an open and competitive electricity market should be allowed to evolve in the new liberalized environment without undue intervention. The further development of liquid and transparent spot and term markets and cash-settled balancing markets, and the corresponding creation of reliable price signals, are of paramount importance. Contract duration, the degree of arbitrage activity and the choice between means of portfolio risk management should be left to the market. The use of more sophisticated interruptible contracts between suppliers and flexible customers can allow response to a supply shortage from the demand side, thereby reducing the demand peak.

We would support those measures in the draft Directive that would facilitate the development and continued operation of competitive electricity markets. These measures include publication of the roles and responsibilities of market participants and any standards they are required to meet. It is also important that Member States ensure that transmission and distribution system operators meet appropriate performance standards, EFET therefore supports the measures obliging TSO to publish quality of supply and network security performance objectives in Article 4.2. But further transparency requirements need to be included in Article 4, including publication of the rules and obligations mentioned in the other paragraphs in the Article. Other important transparency measures include the provision of data on load and capacities, which will help to creating demand elasticity.

Recital 6 of the Commission proposal of 10 December 2003 states that: “It is also required that the TSO is prevented from withholding capacity to create artificial scarcity. In that respect greater transparency of the capacity allocation and allocation procedure in the transmission system should be ensured.” We support this Recital 6 and recommend that it be transformed into a substantive requirement in the main text of the Directive.

Investment in generation capacity and capacity support mechanisms

In the context of designing optimally functioning electricity markets, plants able to respond to peak demand may require special attention. Such plants may set the marginal market price and be dispatched only a few hours per year. As a result in a completely free market they could fail to earn their fixed costs of power generation.
One solution is to remunerate in some way generators who undertake to hold production capacity on standby or in reserve. Capacity obligation methods represent in a way distrust that the market can be relied upon to build the same capacity, which the old system would have mandated. There is a theoretical market paradigm, in which competitive market pricing rewards all investment in a least-cost and diverse portfolio of generation. However, this paradigm relies heavily on the assumption that short-term electricity market prices would soar to very high levels during a shortage, in order to remunerate investment in generation capacity, which only runs at peak times (and indeed to remunerate all investments in capacity needed to meet peak demand.) There are several reasons, why policy makers might be concerned that this market paradigm might fail and why, possibly, capacity obligations might be beneficial.

A full and unhurried debate is needed about what market design features could help stimulate investment in peaking capacity, and what degree of EU-wide harmonization of legislative or administrative measures governing those features should be attempted. The price levels accepted by interruptible customers should be part of this debate. Such customers, if sophisticated, will also calculate all their potential costs when they accept voluntarily an interruptible contract.

**We urge policy makers to stipulate, as a pre-condition for the implementation of any capacity obligations, that national governments, regulators or market operators satisfy themselves that:**

- Adequate freedom to invest in generation exists in practice
- Day-ahead and intra-day wholesale markets operate optimally in terms of potential liquidity and transparency
- Balancing markets are properly functioning
- Market distorting capacity withdrawal has been made subject to disincentives
- Demand response is encouraged by appropriate incentives

**We believe that policymakers should be avoiding the creation of inflexible, broadly targeted capacity payment arrangements. Experience in England and Wales, Spain and the United States suggests they constitute a blunt instrument, which can cause market distortions. Some form of purchase of options by TSOs, allowing them to call on generators at prices negotiated in the competitive market, may offer a better avenue to explore.**

**Interconnection investment**

EFET is not convinced that at several borders in Europe there is any immediate need for more High Voltage (HV) transmission capacity. It is important for Member States and Regulators to ensure that TSOs meet their obligations in the Electricity Internal Market Directive to develop their networks when investment in interconnection is the most economic option for reducing congestion. But currently more needs to be done to ensure all existing capacity is maximised. Most urgent is a resolution of continuing flagrant non-compliance by some TSOs (apparently
condoned by some Regulators) with the congestion management principles first established in the 6th Florence Forum in November 2000, and now reflected in the Regulation on Cross-border Exchanges in Electricity. In addition, EFET believes some re-evaluation is needed in continental Europe of the attribution of congestion points to national borders, as opposed to the introduction of bottleneck management measures within a national control area.

With reference to Article 7 of the proposed Directive, EFET supports investment in infrastructure that would enhance the electricity market, but even in physical terms, greater interconnection is only one of several approaches, which can be used to promote competition and increase trade. For example, better management of generating reserve, the postponed closure of old generating plant, and the construction of new generating plant close to locations with high off-take can all be considered as well. If properly implemented and coordinated between TSO control areas, such steps can have as much or more effect on interconnection congestion as the construction of new lines. We would support the addition of wording in Article 7 to ensure that other economic alternatives to the construction of new or expanded interconnectors are also considered.

In line with ETSO we also disagree with an electricity interconnection capacity target set uniformly at a minimum equivalent of 10% of installed generation capacity in any one country. This target has no apparent scientific or technical justification. Different borders and markets logically have different interconnection needs. The concept thus does not accommodate the obvious requirement that any yardstick for interconnection capacities be related to both sides of a given border, or even better to a series of borders across a meshed area.

In passing we mention that any new interconnection capacity, which may be needed, must not always be built on a regulated basis by existing TSOs; entrepreneurial approaches by third parties should also be considered, if they can comply with planning and regulatory conditions and bear the commensurate financial risk. They may qualify for exemptions under Article 7 of the cross border Regulation.

Inter-TSO co-operation and information exchange

The blackouts of mid to late 2003 highlighted the need for TSOs to work more closely together and to communicate effectively. In addition, market players require greater transparency from TSOs, if they are to fulfill their own roles in ensuring security of supply. EFET has advocated the enhancement of wholesale market data transparency, with regard to both transmission and production information, ex ante and ex post, in a major paper last year (Transparency and Availability of Information, July 2003, www.efet.org).

TSOs must develop more trust among themselves and then communicate with each other about network load and anticipated flows more effectively. Many TSOs must yet develop procedures to communicate with market participants more openly. It

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1 Target adopted by the Barcelona European Council (March 2002)
seems absurd, for example, that some years after the advent of day-ahead hourly nominations to them by wholesale market third parties, TSOs have across most of continental Europe continued the habit of exchanging only daily congestion forecasts (based on a notional time of 11.30 in the morning.)

We would not wish to prescribe the precise forum or instrument at EU level for the achievement of greater transparency, openness and communication, but, along with the guidelines under the new Cross-border Regulation, a Directive on Security of Supply provides a reasonable context for some obligations.

Making the case for extra measures?

We feel the Commission does not make a particularly strong case for additional security measures in section 3 of its Explanatory Memorandum. At least the text of that section should make it clear that, if national governments wish to impose new security of supply requirements, satisfaction that they have done enough to foster an efficient and competitive wholesale market must be the starting point for justifying them. Therefore, we welcome the priority given to “the establishment of a wholesale market” as mentioned in Article 5 (Council text 18 November 2004). Indeed the wholesale market is the place where imbalance between demand and supply are brought clearly to the market.

We can endorse further elements of the Commission’s proposal:

- The emphasis on the need for a stable regulatory framework, which can help promote long-term investment (Explanatory Memorandum);
- The obligation on governments to be transparent about their security of supply policy and take account of the internal market (Art. 3);
- The need for Member States to take approaches to security, which are mutually consistent (Arts. 3 and 4)
- The need to ensure that TSOs meet their obligations to develop economically their networks and to have a planning process that is transparent (Arts. 7 and 8).

Linking security and reliability guidelines and the congestion management guidelines under the Cross Border Regulation with Security of Supply requirements

1) Article 5 of the proposal for a Directive states that Member States shall require TSO to ensure an appropriate level of generation reserve capacity. Then lists a number of additional measures in 5.2. In our point of view, this list should be expanded with the following important measures based on the second version of the draft guidelines (September 2004), which includes already the obligation to offer the remaining cross-border capacity on an intra-day basis. This obligation will support the share of reserve generation capacity between Member States, and should therefore be explicitly repeated in the proposal for a Directive as one of the measures to ensure the appropriate level of reserve capacity.
2) In the same version of the Congestion Management Guidelines, it is noted, “security and reliability rules will be proposed in separated guidelines”. In the Article 4 of the proposal for a Directive, there is an obligation for Member States to ensure that minimal standards are put in place.

In both mentioned documents, EFET has the impression that “security” has been given a certain priority over the obligation to maximise the amount of available capacity. The fact that security rules are imposed in one document, and congestion management guidelines are developed in another document, may at least create contradictions between both documents, and may create confusion in the further implementation. We fear that security rules might create non-transparent reductions of the amount of capacity made available to the market. EFET believes that the right balance between both objectives only can be found when all documents are developed together.

Conclusion

Security of supply should normally be underpinned by the proper functioning of markets – with priority given to the development of robust wholesale markets with cash-settled balancing mechanisms. Legal obligations falling on particular actors to ensure security as a fallback, should be imposed discretionarily, only when absolutely necessary to prevent an exceptional deterioration in security.

The Autumn 2003 network failures and ensuing blackouts in Europe and North America had nothing to do with long-term energy security. But a major lesson to be learnt from those events is that TSOs must develop more trust and communication among themselves e.g. on network load and anticipated flows. Many TSOs must yet develop procedures to provide transparent information to market participants.

As far as the allocation of transmission capacity at borders is concerned, there is a continuing tendency for TSOs to minimise rather than truly maximize the declared availability.

*If new security measures concentrated on cooperation, collaboration and communication between TSOs and the creation of greater transparency of information for the market, then we would welcome them wholeheartedly.*