

## **Proposal of the Council of European Energy Regulators to accelerate the liberalisation of the European energy market**

The Council of European Energy Regulators (CEER) has as a main objective the promotion of the internal energy market.

With respect to electricity, the CEER considers that the introduction of measures to facilitate intra-community trade is a matter of high priority.

To this end a combination of four action-lines are proposed for immediate consideration and implementation:

- The harmonisation of national transmission network tariff systems.
- The introduction of a permanent inter-TSO payment scheme for cross border transits<sup>1</sup>.
- The development and implementation of a EU-wide market-based congestion management scheme for relieving congestions that limit cross border transmission.
- The active promotion of Trans-European Networks and the requirement for transparent and public reliability and planning transmission standards.

After some introductory remarks, each of these four action lines will be developed in this paper into a set of 14 comprehensive guiding principles<sup>2</sup>. However, each guiding principle will have to be implemented individually within its own time-frame and according to national regulatory procedures. While implementation of some principles by regulators or other national authorities is straightforward, application of other principles requires further discussion in order to define workable implementation schemes. Full implementation of the principles described below should be achieved before January 1, 2002.

### ***Introductory remarks***

Network pricing schemes in each Member State have been designed principally to cater for domestic electricity trading. Substantial differences between network fees in different

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<sup>1</sup> The CEER underlines that the temporary system as agreed upon at the 5th Florence Forum meeting should and can be implemented immediately.

<sup>2</sup> The "Commission pour la Régulation de l'Electricité et du Gaz" (Belgium) does not agree to principles 3, 5 and 8. It considers that, as a principle, all the costs associated with cross-border transmission have to be considered. The maintenance, operation and capital costs of the part of the existing network used by external parties together with the costs of losses and new investments attributable to the external users have to be included into the inter-TSO payment scheme. Therefore, no special treatment for clearly defined existing networks should be included in the list of guiding principles.

Member States exist due not only to different investment policies, but also to different cost definitions and different tariff structures. As a result, network users across Europe are charged different tariffs for network connection and usage, something which can hardly be considered either economically efficient or fair within the framework of a single energy market. Furthermore, in some cases, lengthy interconnection access and tariff negotiation procedures increase the net transaction costs of trading across one or more borders.

The electricity network in Europe emerged following the interconnection of several national or regional supply systems for their common benefit in terms of lower costs and higher reliability. The physical interconnection alone might cause loop flows in the interconnected networks, which are amplified as transits by the increasing trading activities across Europe. The current system of national transmission tariff structures fails to take into account either the benefits or the costs of interconnections in a systematic way and, as a result, does not provide economically efficient and fair pricing signals across Europe. Changes to the current system are necessary to remove distortions and send clear economic signals to market participants, including TSOs. In so doing, such reforms will help ensure that a genuinely single European energy market develops.

The development of a single European energy market requires the implementation of transparent and non-discriminatory network access terms; efficient, market based methods of congestion management; and, where it is efficient to do so, the construction of new interconnection capacity. New capacity where it is efficient can, in the first instance, be funded by congestion rents; any surplus over investment costs could be used to lower tariffs generally. Where new investment cannot be funded through congestion rents it may be appropriate to use the TENs (Trans European Networks) programme though it must be stressed that such funding should not act as a barrier to private investment. Either way, congestion rents must not become windfall gains to the TSOs. Moreover, the development of a single European energy market also requires the development of new interconnectors and the reinforcement of existing ones towards the periphery of the EU.

To ensure that trade is genuinely competitive and not distorted, it is essential that network charges are cost reflective. Charges can, however, only be cost reflective if based upon the electrical realities of the European network. The CEER proposes that a set of marginal loss factors be calculated at borders, based upon calculation of nodal prices. To implement this proposal, a Europe-wide load flow modelling capability needs to be developed. This is a key role for the association of European Transmission System Operators (ETSO). The CEER calls upon ETSO to develop, as soon as practicable, this capability.

In order to ensure the efficient and reliable functioning of the interconnected European electrical system under new trading arrangements, appropriate rules relating to system security and reliability, taking into account specific national network structures, must be developed and put in the public domain. ETSO should take a lead in this process.

## ***Guiding principles for the development and implementation of a EU-wide transmission network tariff system***

### **The general condition**

#### **1. Independence of TSOs**

In order to ensure confidentiality and non-discrimination, any Transmission System Operator (TSO) belonging to a vertically integrated electricity company must, as a minimum requirement, have an unbundled legal, administrative and managerial structure, clearly separated from trading activities.

### **Harmonisation of the national tariff systems**

#### **2. Network tariffs should be non-transaction based**

Network tariffs should not depend on the nature of the commercial transactions involved, both for domestic and for cross border transmission.

#### **3. Economically efficient locational signals should be based on charges for network losses**

Generators and loads should be charged on the basis of marginal losses, which can be done either through electricity nodal pricing or through separate explicit charges to cover losses which typically will be differentiated by location, by connection voltage level and by time-of-day/season to reflect variations in the level of losses. Individual control areas will not be required to implement nodal pricing but nodal pricing will be used to calculate marginal loss factors at border areas. These loss factors will be applied to energy flows at borders and used to calculate the inter-TSO payments made under guideline 5. Charging generators and load on the basis of marginal losses will result in net revenues which should be applied towards covering infrastructure network costs.

#### **4. Network infrastructure costs should be mostly charged to loads**

Network infrastructure costs to be covered through transmission charges are the costs associated with network assets, net of any revenues from loss charges, congestion charges or inter-TSO charges/revenues. On the assumption that generation is more sensitive than load to differences in transmission charges, the most economically efficient way would be to recover all such costs through a charge on load. This is the present situation in the majority of Member States. However, where the geographical imbalance between generation and demand is very high, putting the network under stress, it is considered fair to allocate to generators more of the infrastructure costs than what would be implied by the extra revenues associated with losses and congestion charges. In order to create a level playing field for generators, their share of total network infrastructure costs should not exceed 25%.

## **Inter-TSO payments scheme**

### **5. The inter-TSO payment scheme should only consider losses and new investments**

As a underlying principle, no other costs should be attributable to cross-border transmission beyond the costs of losses and justifiable new investments.

### **6. The allocation of inter-TSO payments or revenues on national network tariffs should be harmonised**

Payments and revenues from this scheme should be allocated to all network users and be fully compliant with the general principles for transmission network tariffication. As a result, it is recommended that payments be debited to all L's in importing systems and all G's in exporting systems and to use revenues to credit all L's in exporting countries and all G's in importing countries. In so much as the system allows any flexibility, it is important that selective allocations are forbidden: surpluses(deficits) must be applied to all G or all L or both.

### **7. New investments considered under the inter-TSO payments scheme require unambiguous rules**

Unambiguous rules should be developed in order to identify those reinforcements which are – totally or partly – justified on the basis of loop flows and transits. Such investments will be referred to as CBT investments.

One or more TSOs may propose an investment for consideration as a CBT investment. The responsibility to make planning decisions about CBT investments should be clearly allocated to one or more parties, which will be commercially accountable for that decision. The costs of the CBT investments should be shared among those parties benefiting from them, according to rules yet to be developed by CEER and ETSO. New CBT investments should, in the first instance, be funded through congestion rents. There may also be a role for the European Commission's Trans-European Networks (TENs) programme where expected congestion are insufficient or there is market failure and private finance cannot be raised.

### **8. Infrastructure costs for clearly defined existing networks**

TSOs operating systems which are used for transit or loop-flows may have part of their existing network costs compensated by other TSOs. This can be achieved either via the inter-TSO payment scheme as an exemption from guideline 5 when incremental flows from CBT are disproportionately large in comparison to domestic consumption and precisely because of their peculiar situation, or through bilateral or regional arrangements. The compensation mechanism must not distort trade within the internal market.

ETSO should propose to regulators the harmonised rules upon which exemptions should be based. Regulators will assess the rules and the proposed exemptions in relation to the distribution of the total L & G tariffs across Europe and to the benefits the exempted network offers to all network users. To be exempted the volume of transits alone will not be regarded as a sufficient criterion. In addition, a large proportion of network flows will have to be from external parties for a TSO to be able to claim an exemption. An

evaluation of the benefits to the TSO claiming exemption that may be derived from the existence of the interconnection and transit flows should also be taken into account.

## **Congestion Management schemes**

### **9. Public standards and rules**

TSOs should provide non-discriminatory and transparent standards outlining the congestion management methods they will apply and under what circumstances; these methods should comply with the guidelines set out in the conclusions of the Sixth Florence Forum which are being further developed by the European Commission and the CEER. These standards should be described in open and public documents. The rules should deal with short-run congestions in an economically efficient manner whilst simultaneously providing incentives for efficient network and generation investment in the right locations.

### **10. Use of congestion rents**

Congestion rents should be used for redispatching or counter trading in order to comply with the firmness of the capacity which was made available. Where economically efficient new interconnection investments can take place, these should be funded in the first instance from the surplus from existing and anticipated congestion rents and losses. In contrast, where new investments would not be economically efficient, despite an interconnection being congested, then congestion rents should either i) go to fund upgrades elsewhere that *are* economically efficient and will enhance cross-border capacity; or ii) be returned through reduced G and L charges. Under no circumstances should congestion rents become windfall revenue for the TSOs. Finally, all new CBT investments should be subject to conditions which ensure competitive and non-discriminatory access, including financial as well as physical access rights and use-it-or-lose-it provisions.

### **11. Information exchange**

TSOs should implement appropriate co-ordination and information exchange mechanisms. These are essential for providing fair and secure access to networks within the EU internal electricity market. TSOs should publish all relevant data concerning cross-border transfer capacities. In addition to winter and summer available transfer capacity values which the TSOs currently publish, estimates of transfer capacity for each day should be published at several time intervals before the day of transport. A minimum requirement should include the provision of accurate week-ahead estimates to the market. TSOs should also endeavour to provide month-ahead information. A description of the firmness of the data should be included. The TSOs should publish a fully justified general scheme for calculation of the total transfer capacity and the transmission reliability margin based upon the electrical and physical realities of the network (total transfer capacities should not be net of contracted flows). Such a scheme should be subject to approval by the regulators of the respective Member States.

## **12. Principles and procedures to develop and implement Congestion Management Schemes**

Network congestion problems should be addressed with market based solutions and should give appropriate price signals to both market parties and TSOs. Price signals should be directional. In the short term, implicit and explicit auctions together with cross border coordinated redispatching are the most feasible methods. Explicit auctions should be based on the guidelines agreed upon at the Sixth Florence Forum meeting. Specific arrangements should be decided bilaterally on the basis of these rules. A joint Working Group of the European Commission, the CEER, TSOs, and Member States should examine these arrangements and should, together with other interested market parties, develop proposals for structural market based solutions in the course of 2001. A combination of market splitting and counter trading is to be explored as the route to be developed with a view to full implementation when the internal energy market has been fully set up.

## **Trans-European Networks and reliability standards**

### **13. Trans-European Networks**

Using the powers given by the EU Treaty, the European Commission should actively promote the development of Trans-European Networks (in particular the development of the interconnectors required for the effective integration of peripheral countries to the internal electricity market) applying appropriate financial, administrative and political instruments. Regulators are willing to co-operate with the European Commission on the identification of existing or potential bottlenecks.

### **14. Security and reliability standards**

A comprehensive set of security and reliability standards to be observed by TSOs and network users should be developed and put in the public domain in order to ensure the efficient and secure functioning of the interconnected system and appropriate quality of electricity supply, taking into account specific national network structures.

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