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DISCUSSION DOCUMENT

Congestion Management

Background

The Regulation allows for the adoption of binding guidelines relating to the management of congestion on electricity networks. An introductory set of guidelines that have already been agreed at the sixth meeting of the Florence Forum form an Annex to the draft Regulation. These guidelines will enter into force at the same time as the Regulation. However some significant work has already been accomplished by the CEER in reviewing the guidelines. ETSO have also carried out a detailed technical examination of the potential for co-ordinated procedures and, in conjunction with EUROPEX, analysed the scope for integrating capacity allocation procedures with the emerging electricity spot markets.

It is therefore desirable that additional measures should in due course be integrated into the congestion management guidelines. These will provide a significant improvement to the functioning of the internal market and, in particular, lead to the introduction of some effective locational signals. These further proposals concentrate on the issues of co-ordination, transparency, on the maximisation of the use of capacity and finally on the use of any congestion management revenues.

I Co-ordination

Article 5(1) of the regulation requires that “transmission system operators shall put in place coordination and information exchange mechanisms to ensure the security of the networks in the context of congestion management” and that “the information published shall include a general scheme for the calculation of the total transfer capacity and the transmission reliability margin based upon the electrical and physical features of the network.” These requirements would appear to imply the use of:

- a common network model for calculating transportation capacity and a common set of assumptions, including the base case,
- at least daily exchange of information with sufficient information on the location of generators, maintenance plans of the main generation units and of the transmission network and other relevant information for the efficient operation of the transmission network,
- co-ordination of redispatching and operational network measures by the TSOs to optimise the cross border capacity as far it gives an overall economic benefit with some method for allocating costs, and a
- single co-ordinated allocation of cross-border capacities within certain regional market areas.

II Transparency

Article 5(3) states that “system operators shall publish estimates of available transfer capacity for each day, indicating any available transfer capacity already reserved. These publications shall be made at specified intervals before the day of transport and shall include, in any case, week-ahead and month-ahead estimates....”.

CEER have already agreed a set of principles and detailed guidelines in this regard. For example, they envisage the following requirements relating to the publication of transmission capacity:

- the procedures for allocating capacity, including the time and procedure for applying for capacity, a description of the products being offered and the obligations and rights of both the TSOs and the party obtaining the capacity.
- annually: all information on the long term evolution of the transmission infrastructure and its impact on cross border transmission capacity;
- monthly: month and year-ahead forecasts of the transmission capacity available to the market taking into account all information available to the TSO at the time of the forecast calculation (e.g. impact of summer and winter seasons on the capacity of the lines, maintenance on the grid, availability of the production units, etc.);
- weekly: week-ahead forecasts of the transmission capacity available to the market for each market time unit (which may be an hour or a quarter of an hour), taking into account all information available to the TSOs at the time of calculation of the forecast, such as weather forecast, availability of the production units etc.;
- daily: day-ahead forecasts of the transmission capacity available to the market for each market time unit;
- the total amount of all contracts predating the EU directive 96/92/CE and having a priority right of access to cross border transmission capacity, the daily values of the total capacity taken by them as well as its provisional evolution in the coming years;
- total capacity already given out by market time unit and all relevant conditions under which this capacity may be used (e.g. auction clearing price, obligations how to use the capacity, etc.), so that the remaining capacity is revealed;
- total nominated capacity by market time unit immediately after the moment of nomination;
- as soon as possible after real-time, realised commercial transactions by market time unit, including a description of the effects of any corrective actions taken by the TSOs (like curtailment) for solving network or system problems.

The CEER make similar proposals relating to the publication of forecasts and actual data relating to load and generation.

III Maximising the use of interconnectors

Article 6 states that “the maximum capacity of the interconnections and/or the transmission networks affecting cross-border flows shall be made available to market participants, complying with safety standards of secure network operation” and that “capacity that will not be used shall be reattributed to the market, in an open, transparent and non-discriminatory manner.” It goes on to state that “transmission system operators shall, as far as technically possible, net the capacity

requirements of any power flows in opposite direction over the congested interconnection line in order to use this line to its maximum capacity.”

These requirements, taken together, imply a strict regime of use-it-or-lose-it measures which should also involve a significant degree of integration between capacity and power exchanges markets since most short term day ahead trade is increasingly organised through these. In order for PXs to play such a role, however, there needs to be harmonisation of the different scheduling timetable between individual PXs and individual TSOs. It is also necessary that a single co-ordinated cross-border capacity allocation is applied in certain regional market areas.

Another step on the way to maximising capacity use is the direct consideration of loop flows in the publication of ATCs. A number of ways could be envisaged to achieve this: for example, capacity could be published in terms of a series of simultaneous equations rather than simple values for each interconnector.

The following additions to the guidelines under this heading could therefore be envisaged:

- publication of capacities taking into account loop flows;
- a requirement for all Member States¹ to have a power exchange with measures to encourage sufficient liquidity for the purposes of managing a proportion of cross border flows close to real time;
- harmonisation of notification and publication timetables into a standard “electricity day timetable” for adoption by all TSOs and PXs;
- a rights plus obligations model for those holding physical transmission rights (including long term contracts), or alternatively, conversion of all physical rights into financial rights;
- penalties for notifications that are not fulfilled (via balancing charges).

A further issue under the heading of maximising the use of capacity would be an increased consideration of the relationship between internal and external congestion. This may mean that, in case of permanent imbalance, national control areas should be split to zones between which proper congestion management measures can be implemented in co-ordination with the congestion management methods at the interconnectors.

IV Treatment of Congestion Revenues

A final issue relates to the use of revenues. Article 6(6) already sets out some key requirements for Regulators to consider in dealing with the revenues from congestion management. The guidelines could further clarify these by ensuring that:

- income shall be allocated globally according to measures required or taken to alleviate congestion; and that,
- TSOs shall publish annual audited accounts of the amount and distribution of the congestion revenues subject to review by the regulator.

¹ smaller countries may choose to use trading facilities in another Member State to which they have strong interconnection.