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Borzen's Response to ERGEG's Draft Guidelines of Good Practice for Electricity Balancing Market Integration

On June 7th 2006, the European Regulators Group for Electricity and Gas (ERGEG) published Draft Guidelines of Good Practice for Electricity Balancing Markets Integration and launched a public consultation on the issue. ERGEG has committed to the development of an effectively competitive single market for electricity across the whole of the EU, while at the same time taking into account security of supply and system reliability.

The Guidelines set out ERGEG's recommendations on the need and method for integrating balancing markets. They restrict attention to the procurement of manually activated power reserves by TSOs based on the services and products from market participants. Hence automatically activated power reserves, intra-day markets and any ancillary services not procured as manually activated power reserves are outside the scope of these Guidelines.

Borzen welcomes ERGEG's move to bring the issue of integration of the electricity balancing markets to the forefront of the policy debate in the electricity sector in Europe and agrees that a lack of integration of balancing markets is a key impediment to the development of a single European electricity market.

Borzen shares ERGEG's view that "balancing markets should operate in an economically efficient manner", that "procurement of balancing power by TSO shall be made using market based methods", and that "Balancing markets should further promote effective competition, should not aggravate market power and should be non-discriminatory".

Borzen is the founding member of the Association of European Power Exchanges, EuroPEX and is also a member of the World Association of Power Exchanges, APEx. In both organizations Borzen plays an active role, especially within EuroPEX, where it presently holds the presidency and involves in the activities of its Working Group on Congestion Management, whose task is to research issues regarding cross border electricity trading between individual European countries.

Borzen also initiated a project to establish a regional power exchange in South East Europe offering regional day ahead physical market with implemented congestion management solution in the first stage and afterwards other services such as forward market, clearing of OTC contracts etc. On the basis of these activities ***Borzen developed a regional exchange model which includes a method of continuous flow-based market splitting (introducing a novel approach of optimised market-depth) and implicit auctions for cross-border capacity allocation***. During research and development of the continuous trading algorithms it proved that balancing market might benefit the most by the approach. Our solutions were presented at Athens Mini-Forum on Market Design and Congestion Management in Athens, October 2005, and in the papers on the 5th Balkan Power Conference in Sofia, September 2005, and on the 6th Balkan Power Conferences in Ohrid, May 2006.

This document presents Borzen specific comments to ERGEG's Guidelines. It also illustrates Borzen's views on the role that Balancing Market integration could play in the development of an effectively competitive single market for electricity across EU.

Comments on ERGEG's Guidelines

Comments in this section are presented in the order in which the commented issues appear in ERGEG's Draft Guidelines of Good Practice for Electricity Balancing Market Integration.

I. Functioning of Balancing Markets (Section 2)

1. In relation to the Functioning of Balancing Markets, Borzen suggests that,

    a. ***for the operation of the balancing market continuous trading mechanism should be used*** which effectively enables TSOs to conclude balancing deals in real-time and maintain balance in the power system;

    b. ***besides TSOs, the natural parties participating on the balancing market are generation and/or dispatchable load assets operators***, what makes this market substantially different to the wholesale one;

    c. ***the roles of notification of expected physical positions*** of generation and load parties ***and submission of bids and offers*** of the extent to which they are willing to be paid to deviate from these positions and what has to be paid for this service ***should be combined into one role of notification***; the information of the combined notification of expected physical positions and submission of bids and offers would be given for each individual block. Notification of expected physical positions should be automatically amended for accepted value of aforementioned bids and offers;

2. In relation to discussion on the interaction of balancing and other markets Borzen proposes that *a clear distinction between physical balance of the system and financial transactions on the balancing markets should be made*. In order to meet the needs of TSOs to undertake balancing actions the mechanism should distinguish between two main qualities of the effective balancing markets:

   - *economically efficient functioning of the market* – procurement of balancing power by TSO shall be made using market based methods;

   - *security of grid operation* – balancing market serves to maintain and improve operational security at least cost, but (1) the different characteristics of participants in terms of their ability to change their output/off-take trough time and (2) the consequences of the balancing energy supplied from different locations have different effects to the operative balance of the particular region within balancing area should be taken into account.

3. In relation to the Governance and institutional arrangements, Borzen suggests that with the introduction of co-ordinated congestion management scheme which is based on the use of load-flow distribution factors to represent the physical reality of meshed flows, the opportunity should be taken and *the use of load-flow distribution factors should be considered as capacity allocation method in the integrated balancing market mechanism.*

II. Principles and Benefits (Section 3)

4. Still in relation to the Imbalance arrangements and pricing, Borzen agrees that imbalance arrangements need to enhance the efficient operation of the balancing market and the wholesale market, and suggests that the *costs which derive from energy bought or sold at the balancing market should be distributed only across participants out of balance*. The capacity reservation cost for the reserve capacity bought by TSOs – to comply with security standards agreed within UCTE (or other system coordination) – can be borne by all the users, while the cost for balancing energy itself shall be attributed to the market participants out of balance.

III. General Principles (Section 4)

5. More specifically, in relation to integration of balancing markets, Borzen highlights that *continuous trading with integrated capacity allocation providing improved market-depth answers all the basic questions* about effective competition, excessive market power and non-discriminatory cross-border access.

6. On the issue of market monitoring and rule enforcement, Borzen believes that *provision of data and exchange of information both between the market participants in terms of transparency and relating to effective regulatory oversight are the key questions to be addressed*.

7. In relation to the imbalance arrangements and pricing rules, Borzen agrees that they "shall be made compatible in a truly integrated balancing market"; moreover, Borzen notes that this market operation function has not been properly addressed within European market design yet.

IV. Balancing Mechanisms (Section 5)

8. In relation to the Security of grid operation, Borzen suggests that the *term "balance areas" is used instead of "control areas"*, since the areas divided by bottlenecks shall define the location of the bids, and hence influence the formation of the prices of the balancing energy for that particular balance area.

9. Still in this relation to the Security of grid operation, Borzen suggests that *the products in the balancing market have to enable relative offering of market participants and absolute bidding of balance responsible parties*. Relative offering enables the offering party to express its whole flexibility in a single offer, defining (1) time-to-execution and (2) validity-trough-expiry instead of multiple fragmented fixed offers per absolute interval; on the other hand, TSOs' operations require execution of their bids on specific intervals exclusively.

10. In relation to the Acquisition of transmission capacity for balancing purposes, Borzen proposes *that coordinated grid model should be previewed as a possibility* – i.e. the use of load-flow distribution factors to represent the physical reality of meshed flows. Furthermore, *the concept of market participants acquiring capacity at the day-ahead stage for balancing purposes should be avoided if possible* – the capacity has an entirely different value on the wholesale market as it has on the balancing one. Borzen suggests that the most appropriate way is to make cross-border capacity available for balancing, as it is proposed as an alternative: "from the capacities not nominated in the day-ahead market [use of the term *'wholesale market'* might have served better], from previously not allocated capacities, or from additional capacities resulting from actual network security calculations".

11. In relation to the compliance with the Regulation (EC) 1228/2003 and the respective Guidelines for exchange of balancing energy across borders, Borzen suggests that entirely different treatment of the balancing market is needed because it is: *(1) a one-sided market, (2) operative just before real-time, when all the available capacity not used gets permanently lost anyhow, and (3) primarily focused on the*

security-welfare distribution and only secondarily on the economic-welfare distribution that drives the wholesale market. *the use of cross-border capacity should be free of charge for TSOs* who require transmission of balancing energy and *allocation following the first-come-first-served rule should be enabled*. Moreover, it may prove beneficial to withhold a certain amount of cross-border capacity (if at all available; we do not propose special reservation quotas withheld from the wholesale market) for the TSO directly connected to it; therefore *TSOs adjacent to the cross-border capacity should have a dedicated share reserved for their exclusive use in each direction,*, while other TSOs could not use the withheld part of it.

12. In relation to Operation of balancing mechanism, Borzen suggests that available capacity (ATC or bottleneck capacity) should be treated as an offer in the trading system and can be changed by the responsible party at any given time, however it cannot change the trades concluded by that time.

V. Options for Integration (Section 8)

13. The "direct participation system" where the participants decide into which balancing market they want to bid is possible to implement into the market, however Borzen dissuades the use of this method since it is inefficient, and suggests that *participants bid in their balancing area of origin, while the trading platform and the algorithms behind it (performing integrated cross-border capacity allocation) determine the possibility to accept the offer for balancing energy in other areas* within the integrated balancing market.

14. In relation to the integrated balancing market where TSOs will be allowed to deviate from the merit order curve in the case congestion impedes cross-border exchange, Borzen suggests that a more transparent method is used, which will also allow an efficient real-time relieving of congestions.

15. In relation to harmonization of the structure for imbalance pricing and with reference to the results of consultation process and conclusions paper (both mentioned in the 2nd paragraph of Background section), Borzen suggests that *setting up an integrated balancing market from the very start may be the right opportunity to assert the decisiveness of the differences in market arrangements for effective transition to the common market in practise*. Integration from the start and would lay an example for pan European integration of energy-related markets of any kind. Furthermore, promoting a single concept would greatly benefit the speed of integration.

VI. Trading Platform

In various sections of the ERGEG's Guidelines of Good Practice for Electricity Balancing Market Integration a reference to a trading platform (a regional or a common Pan-European one) and proposals for detailed provisions on the functioning of such platform have been made. As we have already mentioned in the introductory section, Borzen has been engaged in research and development of the various approaches and algorithms to serve the integration of energy and transmission markets on a common platform.

The tests of algorithms we have developed have proved that ***continuous trading, either using flow-based or bilaterally agreed capacities, is the most efficient approach to be used in the time-constrained markets such as balancing market***. The integrated capacity allocation and the novel optimised market-depth approach deliver the market participants the best combination of bids and offers (per desired block and volume) available in a selected delivery area regardless of their origin.

If you find the work shortly presented above interesting, Borzen would gladly accept the opportunity to present it to a group within ERGEG and/or the Florence Forum.

Done in Ljubljana, on August 3rd 2006