

Procurement and Activation of Balancing Capacity and Energy

Network Code Electricity Balancing 3rd Public Workshop

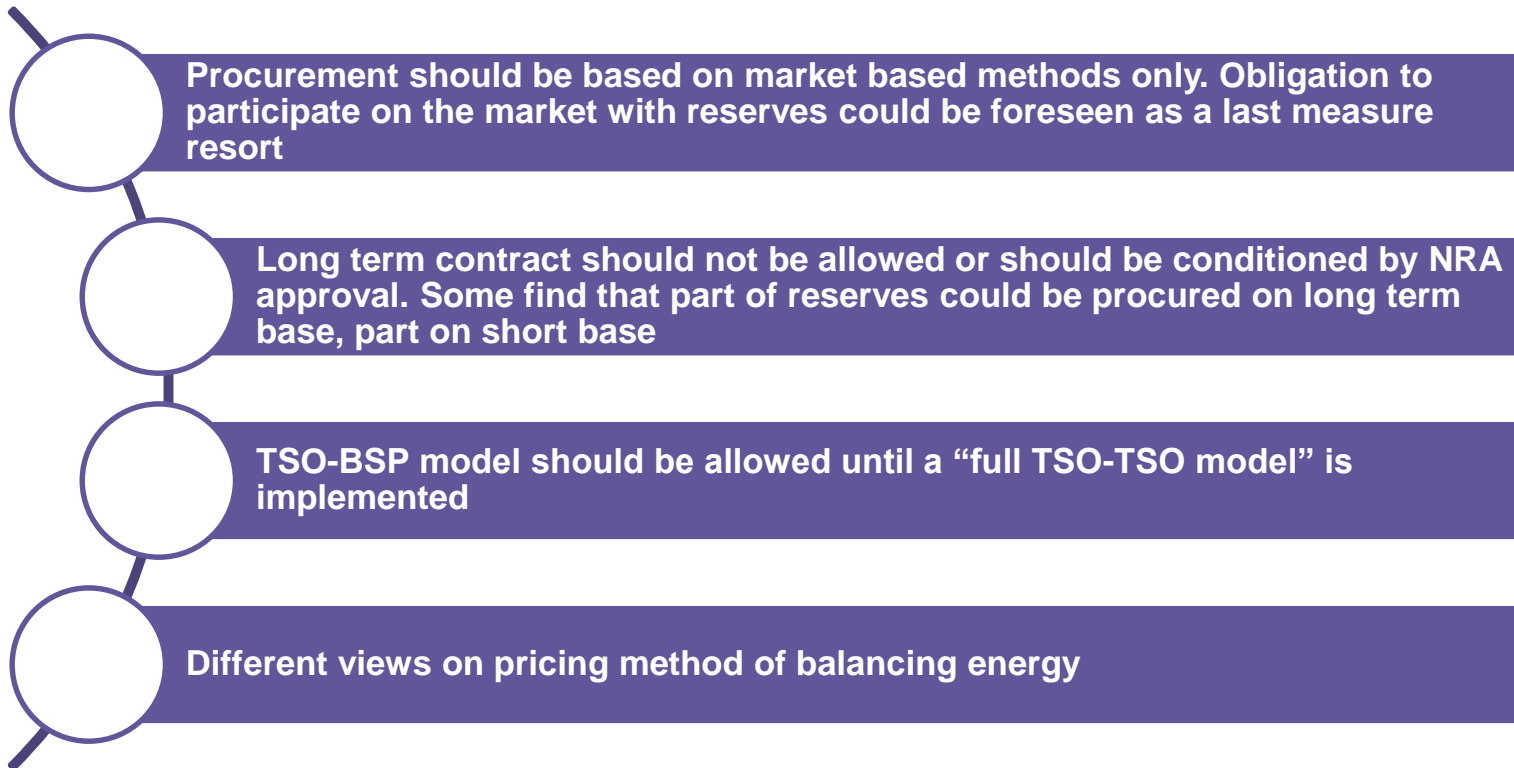
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Disclaimer: Presentation based on the draft version
1.30 of NC EB



- **374 comments were received on the articles concerning procurement and activation Balancing Capacity and Energy. The main concerns are:**



- **Differentiation between Procurement of Balancing Reserves**
 - within a Responsibility Area
 - within a Coordinated Balancing Area (CoBA)
- **Rename: „Transfer of Obligation“ to „Transfer of a Balancing Capacity“**
- **Procurement period**
- **TSO-BSP model**



- **TSO shall use market-based methods for the procurement at least for FRR and RR**
- **Procurement for maximum period of one year and one year in advance, longer periods are subject to NRA approval**
- **Separate procurement of up- and downward capacity, except for FCR or NRA approval**
- **BSP may perform a Transfer of Balancing Capacity to another pre-qualified BSP, subject to approval by TSO under Terms and Conditions**



- **TSO shall harmonise procurement processes and use market-based methods for the procurement of Balancing Capacity to be exchanged**
- **Procurement for maximum period of one month and one month in advance, longer periods are subject to NRA approval**
- **TSOs shall ensure availability of Cross-Zonal Capacity. TSO shall not increase TRM due the exchange of Balancing Capacity**
- **BSP may perform a Transfer of Balancing Capacity to another pre-qualified BSP, subject to approval by TSOs under NC LFC-R limits and Cross-Zonal Capacity acquired**

Transitional procurement in the form a TSO-BSP model

Article 34

- **In the default case TSO-TSO model, in exceptional cases TSO-BSP model**
- **Period during which the TSO-BSP model can be applied:**
 - for RR and FRR: from the entry into force until the target model is implemented*
 - for FCR: also after the implementation of the target model
- **Implementation of the TSO-BSP model is only allowed under several conditions e.g.:**
 - Settlement according to Chapter 5 (e.g. ensuring fair distribution of costs)
 - Cost Benefit Analysis indication Social Welfare implication
 - Approval of both National Regulatory Authorities

* 6 years after entry into force

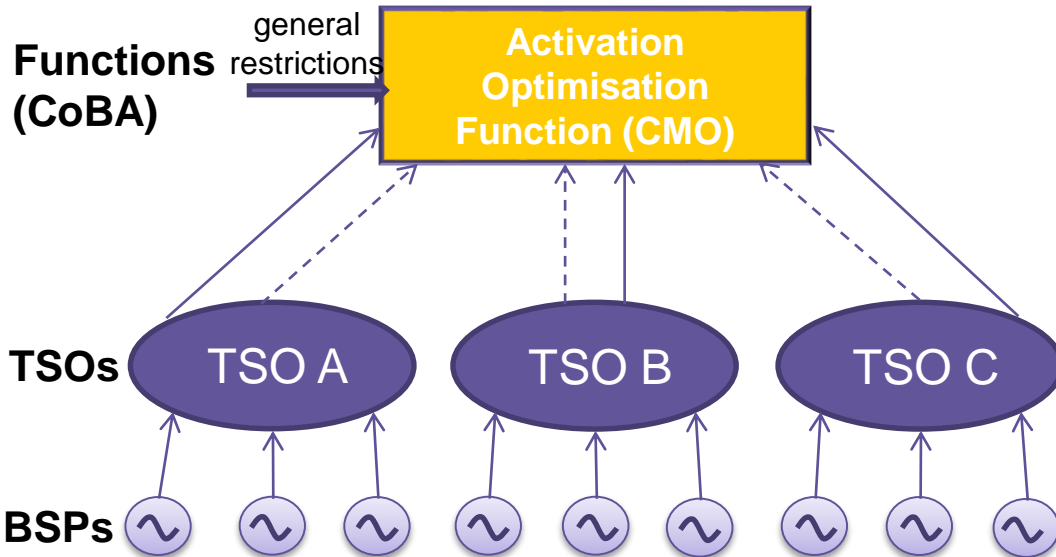


- **TSOs shall harmonise the pricing methods for each Balancing Energy Standard Product**
- **TSOs shall develop a proposal for the pricing methods, which shall be based on marginal pricing unless demonstrated that different method is more efficient**
- **TSOs have a right to apply a different pricing method**
 - Specifically within a CoBA where demonstrated as efficient or
 - TSO does not participate in a CoBA for this Standard Product



- **TSOs shall submit all Standard Balancing Energy bids received from BSP to Activation Optimisation Function with the exception of Unshared Bids**
- **TSO defines a methodology for calculation of Unshared Bids**
- **The Activation of Balancing Energy is based on TSO-TSO model. Matched Bids are activated by Connection TSO. Activated BSP is responsible for delivering the requested volume**
- **Deviation from merit order has to be published. TSO has a right to activate bids to other pre-defined purposes than balancing (e.g. redispatch) according the rules agreed in the CoBA.**

TSO-TSO Model example: FRRa Balancing Energy



- > Commercial information: bids, offers for Balancing Energy
- > Individual restrictions: unshared bids, specific products,...
- > General restrictions: (LFC&R), grid constraints (PTDFs, AMFs,...), available capacities (after IDGT, reserved capacities,...)

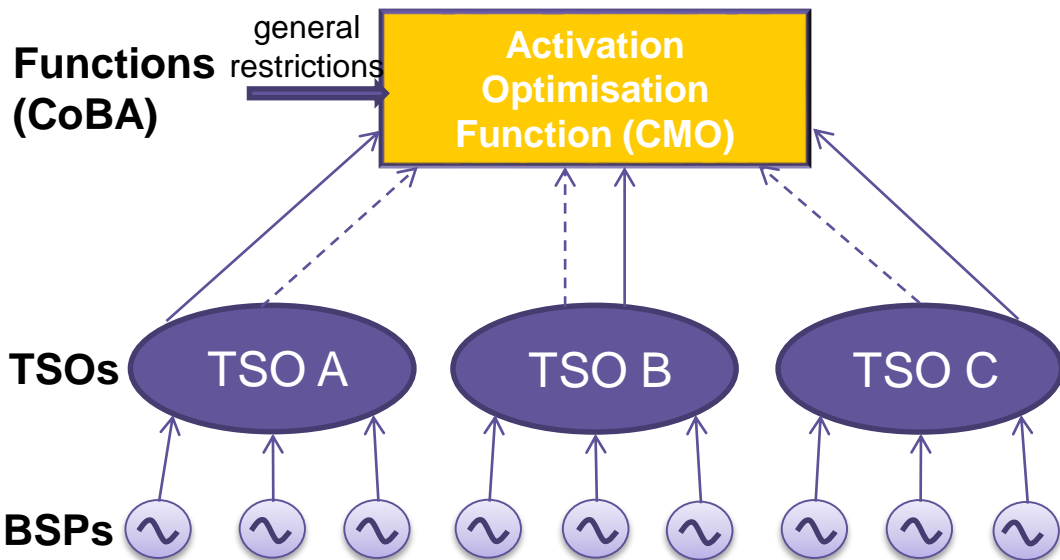
Principle Handling:

- Every few seconds TSOs submit current demand to AOF (e.g. 2-4 seconds)
- Considering commercial information, individual and general restrictions optimisation process is conducted
 - No restrictions → same price
 - With restriction → different prices
→ “online market coupling process”
- Controllers of a CoBA TSOs receive “correction” signals (virtual tie-lines) for physically applying the results.
 - Hence, local merit orders are “corrected”

Error Handling:

- In case of CMO breakdown (IT, VTL, communication) no influence on SoS because activation according to local merit order (just without CMO correction)

TSO-TSO Model example: FRRa Balancing Energy



Clear responsibilities:

- Connection TSO has the necessary information to control the system at all times
 - Even in case of external activation the processes are the same (activation out of TSOs MOL by TSOs system controller)
- Prequalification by Connection TSO
- Monitoring by Connection TSO
- TSO-BSP settlement by Connection TSO
- Common TSO-TSO settlement processes

Maximising benefits:

- Because of coordinated usage of available capacities (reservation, after IDGT,...), AOF and related processes:

→ **Welfare optimal solution achievable!**