**Response of EnBW Energie Baden-Württemberg AG**

**on the**

**Public consultation pursuant to Art. 12 of Commission Regulation (EU) 1222/2015 (hereinafter CACM) on amendments to the Algorithm Methodology for the price coupling algorithm and the intraday auction algorithm due to Co-optimisation**

EnBW Energie Baden-Württemberg AG (EnBW AG) welcomes the opportunity to provide comments to the public consultation pursuant to Art. 12 of Commission Regulation (EU) 1222/2015 (hereinafter CACM) on amendments to the Algorithm Methodology for the price coupling algorithm and the intraday auction algorithm due to Co-optimisation.

The co-optimisation project should be put on hold until the value-added of capacity reservation for balancing by TSOs is proven – taking into account all timeframes and not just balancing itself. if that assessment is positive, TSOs and NEMOs must develop a solution to ensure the multilateral linking of bids to ensure true co-optimisation. NEMOs should also map the performance effects on DA market coupling (SDAC).

With co-optimisation, market participants' bids for balancing capacity and day-ahead markets will be negatively affected in a significant way. For the moment it appears extremely complex to develop an efficient multi-product offer matrix for the two markets. The load and ancillary services offers cannot be exchanged 1:1 and exact dependencies have to be respected.

Co-optimisation will thus decrease the efficiency of the stepwise approach currently in place. If decided to move forward with co-optimization, we would welcome a bidding guide in order, notably, to assess the complexity linked to co-optimization from a BRP/BSP point of view. When estimating the welfare impact, the loss of market efficiency by increased complexity for market participants and unclear price signals needs to be taken into account.

**General remarks**

- We still question the value of co-optimisation all together and the benefits it will bring.
- Without any clear idea of what the actual bidding complexity would look like ("bidding guide"), any further implementation and preparation steps have little value.
- co-optimization might prevent storage units (that are crucial for balancing services) to participate in both the DA and the Balancing Capacity Market (BCM).

- **Positive elements**
    - the concept of a "bidding guide" developed together with market participants as a list of requirements is a useful exercise and should be conducted prior to any further decisions and practical implementation.
    - Clear message on priorities for the coming years for the SDAC algorithm development (Co-Optimisation not being part of it)

- **Negative elements**
  - Impact of the co-optimisation concept on SDAC algorithm remains problematic (timing, complexity) and NEMOs (for the moment) do not provide potential solutions (only pointing to the issues).
  - Proof of concept was for a highly simplified process; still not clear if actual process with all required elements (bid linking, 15 min MTU, multiple BC products) is feasible.

- **Concrete proposals**
  - Annex I, Article 4A, 8.c): „Research shall include [...] linking of orders between the DAM and BCM with intertemporal links between all MTUs" – this is a prerequisite for at least ahaving the option for storage to participate in both DAM and BCMs
  - Allow for a different MTUs of the BCM (multiples of the DAM MTU, e.g. 4h)

- **Efficiency loss due to increased complexity, particularly for storage units**
  - In a co-optimization setting, we see severe restrictions for bidding storage units (e.g. hydro), that are currently offering a significant fraction of the balancing services. In a sequential bidding process (as facilitated with a market-based CZCA methodology), BSPs can adjust their DA bids in order to comply with the balancing capacity results. MW and MWh are not interchangeable for storage units, as restrictions on the energy capacity need to be respected by the generation schedules."
  - The bidding considerations that are currently done in a reactive manner, responding to the previous auction result, would all need to be included into one super-strategy (‚policy' in stochastic optimization terminology). In order to replicate the current multi-stage decision process, market participants would need to provide an infinite number of „if-then-clauses".
  - The required bid specifications with linking options between products and MTUs will prevent a timely and transparent clearing process. At the same time market participants, particularly with storage units, will need to reduce the offered volumes to account for the uncertainty involved.
  - In turn any potential welfare gain achieved by a joint DAM/BCM clearing would need to surpass the definite welfare loss inflicted by reduced participation.

***

**Contact:**
Dr. Bernhard Walter
Head of Market Design & Regulatory Affairs (Trading)
b.walter@enbw.com