

Co-optimisation ACER's welfare study and TSOs' view

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Agenda

Why welfare study and what does ACER wants?

What has been simulated?

What is the outcome of the study?

What are TSOs concerns?

What are the next steps from NEMOs & TSOs' side?

What are your concerns?

Why welfare study and what does ACER wants?

- Possibly, ACER wants a proof of concept (welfare study) to give the implementation of co-optimisation a boost.
- ACER proposed integrated bids, initially meaning no separate bids of balancing capacity, and no price for balancing capacity in the integrated bid anymore.
- ACER is disappointed that TSOs did not make more use of cross-border procurement to maximise welfare.
- ACER wants:
 - a market design that reduces (unnecessary) mark-ups;
 - to deploy welfare by going cross-border for procurement;
 - to make CZC allocation for BC procurement mandatory (EB Regulation 2.0);
 - co-optimisation as the only target.

What has been simulated?

Status quo

Mainly national markets of balancing capacity

Mainly pay-as-bid

Lowest welfare

Market-based allocation

Cross-border procurement of BC by allocating CZC and making a forecast of DAM

Must be marginal pricing

Little bit more welfare

Co-optimisation

Simultaneous optimisation/market clearing of DAM and BC

No common price for BC

Maximum welfare

What is the outcome of the study?

- Huge benefits for co-optimisation, much more than market-based.
- Even with perfect forecasting of DAM in market-based, still co-optimisation is more beneficial because of the integrated bid feature where only opportunity costs define the cost (no price) of BC.

What are TSOs' concerns?

- ACER drawing wrong conclusions.
- Unpractical conditions and data used for the simulations.
- Outcomes are incorrect (welfare and difference between MB and co-opt).
- Impact of integrated bids without separate BC bid, nor a price for BC:
 - Untransparent price formation
 - Unattractive market of BC (can not earn more than DAM)
 - Possible loss of market liquidity
 - Impact on TSO&NEMO governance
 - Fallback issues (second tendering balancing)
 - Legally incorrect according to EB Regulation, HCZCAM and SPBC methodology

Disclaimer: not each individual TSO will agree with each point!

What are the next steps from NEMOs & TSOs' side?

- Conduct open minded R&D on:
 - Market design (integrated bidding versus separate products)
 - Bid formats
 - Governance
 - Balancing security (e.g. second tendering)
 - Prototyping of an agreed market design after first phase of R&D
- Advocate to ACER:
 - Draw no conclusion for the implementation of co-optimisation based on the welfare study
 - Realistic timelines (more time is needed)
 - Do not define (any) requirements for balancing in the AM before R&D is finished
- Involve market participants in the discussions

TSOs input for the R&D

1. Assess fairly all different market design options (so not only integrated bids) and the impact these have on balancing (transparent price formation, liquidity of the markets, etc.)
2. Include balancing operation aspects (e.g. second tendering)
3. Include governance aspects

What are your concerns?

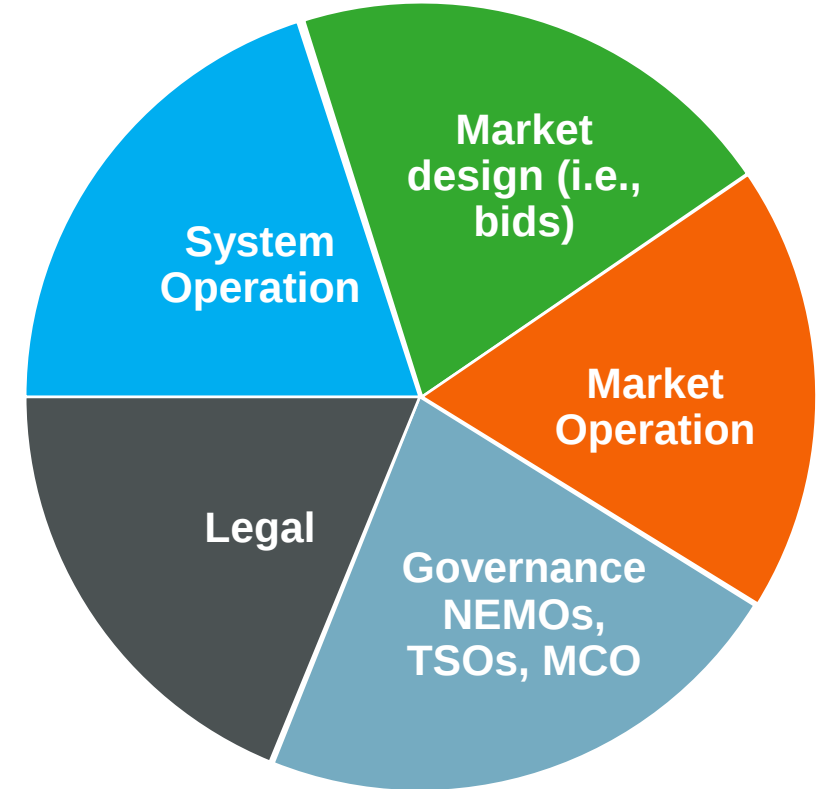
- *Questions and discussions.....*



APPENDIX

All TSOs' View on ACER's Current Proceedings on Co-optimisation

- Co-optimisation is a very complex process, motivated by economic theory, which affects the balancing that is essential for the reliable operation of the system. However, co-optimisation is still in an early phase, and, from TSOs' perspective, many questions remain open and should be discussed and solved before implementation.
- **The current procedure should only lead to the open-minded Research & Development (R&D) phase and give more time to the exploration of all options and decision-making on the way forward.**
- TSOs acknowledge the theoretical positive effects of co-optimisation (co-ordination effects) and are willing to play a constructive role in its further assessment and development, but this should go without pressure on the implementation timeline.



TSOs' Feedback on ACER's Welfare Study

TSOs see the following **key issues** with the ACER's welfare study:

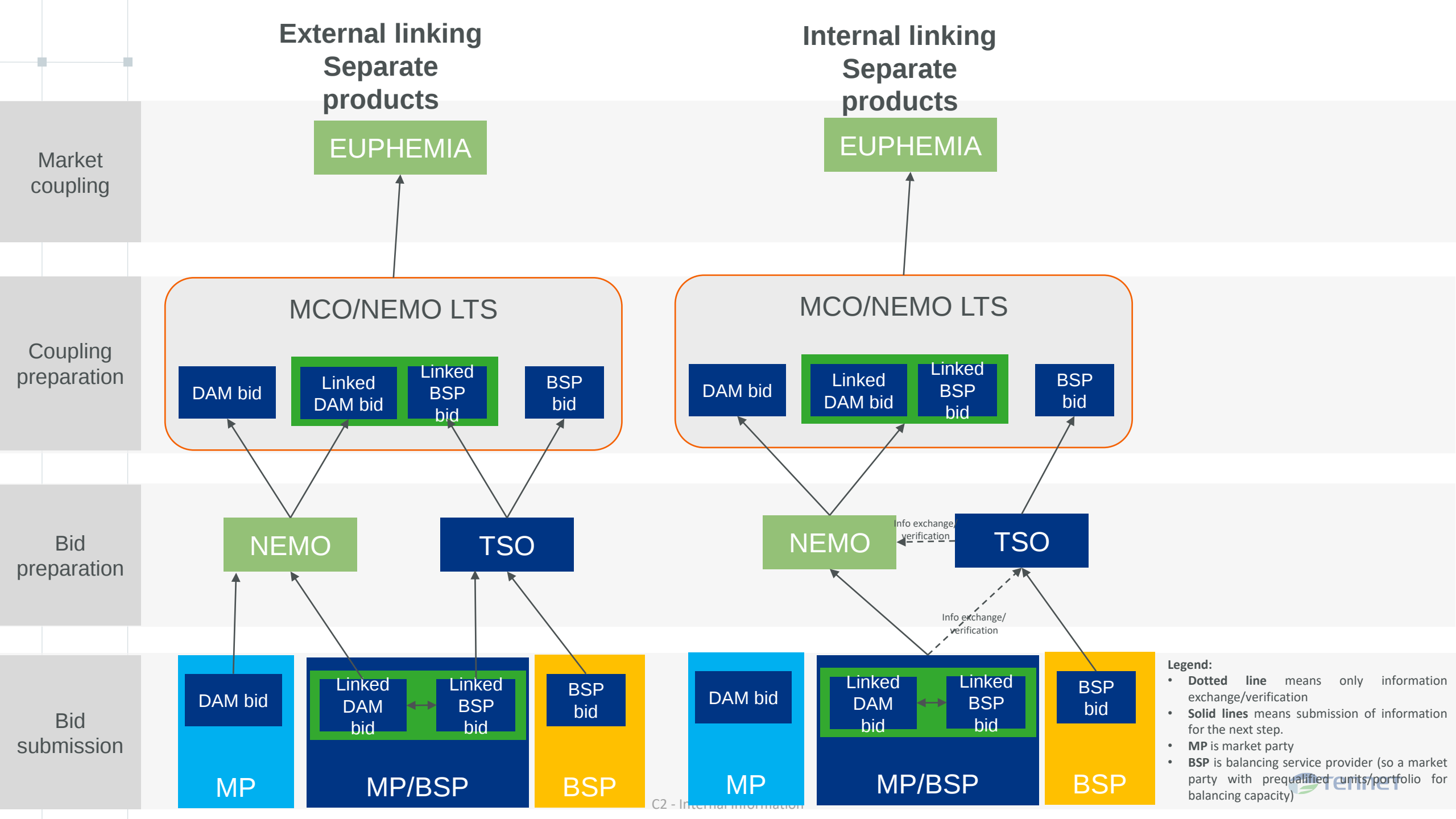
1. To our understanding of the mathematical description of the optimisation model in the study, the modelling of the status-quo and market-based approaches **seem to not have reasonable assumptions which leads to unreliable quantitative outcomes.**
2. System data used is **an incorrect representation of the actual and future** (RES- dominated) system.
3. **Incorrect representation of the market-based process** according to the Art. 38(3) CZCA Harmonised Methodology because it is based on the prediction of market prices and not of the market value of the cross-zonal capacity.
4. **Insufficient consideration of pricing of balancing capacity**, since market parties define prices differently in practice, and need to be incentivised to bid into markets.
5. **Unclear interdependency with ID and balancing energy market** and its adjustments and needs more clarification.

TSOs' Feedback on ACER's Welfare Study (continued)

TSOs see the following **key issues** with the ACER's welfare study:

6. Study assumes BC provided by generators, but we expect in future that BC is to a large part provided by **storage, demand response and renewables** with different operational/costs aspects which limits the validity of the study outcome.
7. Different market designs (e.g., **central dispatch model**) are not represented in the model.
8. For a proof of concept on co-optimisation it is essential to **also investigate other impacts** such as on governance, legal aspects, (change of) liquidity, non-clearing of the BC market, maximum prices, decoupling of the energy market, fallback solutions, system operations, etc. (see chart on slide 1).

No conclusions should be extracted from the welfare study on actual implementation of co-optimisation, but the outcomes can be used as an input for further R&D work.



Integrated bid linking allowing separate BSP bids

Only Integrated bid linking

