

ACER public consultation on the implementation of co-optimisation in the electricity day-ahead coupling algorithm

Brussels, 19 June 2024 | Europex welcomes the opportunity to respond to ACER consultation on the implementation of co-optimisation in the electricity day-ahead coupling algorithm.

1.1 The consultancy study shows significant welfare gains for co-optimisation under a design where market participants are not required to forecast the day-ahead energy market outcome when bidding for balancing capacity. As shown in Appendix G1, introducing an explicit price for balancing capacity, based on opportunity costs, leads to a deterioration of benefits of about 15%. In light of these findings, do you agree to further assess the bid design without an explicit price for balancing capacity in the upcoming R&D activities to be carried out by NEMOs and TSOs for the implementation of co-optimisation in the SDAC algorithm?

No.

Please explain your answer

As Europex, we do not want to categorically reject the possibility of further assessments. However, we believe that the necessary pre-requisites to trigger a further assessment and interrelated R&D activities have not been met so far. In particular, the following aspects require further scrutiny:

- 1) The welfare gains due to the non-application of an explicit price for balancing capacity can be questioned. The welfare study does not indicate how the price formation process will be designed with co-optimisation, which would include the integrated bids design. We recall that the price formation process primary provides price signals for short-term dispatch decisions and long-term investments. Thus, we pose the question as to which impacts the new price formation process may have on the investments and behaviours of market participants.
- 2) Only potential benefits have been addressed, while costs and negative implications have been neglected. Beyond the welfare gains due to the introduction of co-optimisation, it would be necessary to assess which are the consequences and the costs of changing the design elements of the electricity market. For these reasons, we believe that the study is not complete and does not lead to definitive conclusions.

- 3) The assumptions of the study differ substantially from the reality of SDAC, SIDC and BCMs and can thus be challenged.
 - a) The limitation of using cross-border capacity for balancing needs to 10% of the remaining available margin of each critical network element is abolished, which could favour co-optimisation.
 - b) The study considers only the unit-bidding model since "transparent data on portfolio offers is not available", despite unit-bidding is not applied in most of EU wholesale markets. By linking the study results to the unit commitment and not clarifying how the proposed model could be applied to portfolio bidding, it seems to imply a preference for the unit-bidding model an assumption which is not compliant with Regulation (EU) 943/2019.
 - c) The capability of trading in the intraday timeframe to contribute to an efficient solution and derive further welfare gains is discarded, which we would like to challenge explicitly.
- 4) The welfare gains were only calculated for the Core region, thereby deriving the final total value of benefits from an extrapolation of Core results to the whole of Europe. However, we consider this approach defective and likely to overestimate the total impact. When a welfare study is implemented, the entire system should be analysed. The study should have considered all the capacity regions in order to quantify the actual welfare gains. Moreover, the actual magnitude of the anticipated annual welfare gains is substantial in absolute figures. Nevertheless, in relation to the overall welfare gains and the value of the transacted volumes, which are in average seven times as high each day, the statistical relevance can be challenged, if the reservations on the assumptions, as presented above, are well considered.
- 5) The Security Constrained Unit Commitment (SCUC) benchmarking is based on a problem formulation, decision components and constraints which cannot be considered comparable to the current SDAC algorithm problem formulation, available products, technical/regulatory requirements and market organisation.

Finally, co-optimisation can only be implemented by TSOs which have not raised interest to consider making use of it. We invite ACER to investigate on the intended practical use before moving further. There is still sufficient time and need to evaluate the principal market-design impacts of co-optimisation in a more complete and diligent manner. In this regard, concrete ideas and plans of NEMOs and TSOs exist and could be used.

1.2 Please list advantages and disadvantages of a co-optimisation design where bids for balancing capacity are based on the price of the linked day-ahead energy bid and the day-ahead energy price calculated by the SDAC algorithm.

As already outlined in the previous question, we conclude that the study commissioned by ACER tends to portray co-optimisation in a light that is excessively positive and biased. A thorough assessment should assess whether the asserted advantages only result from the assumptions of the study and remain theoretical. Their relevance in the real world still needs to be rendered more plausible.

Against this background, we would like to focus on the following disadvantages of cooptimisation – which we consider having been underestimated in the study:

- Removal of gradual price-discovery, which is instead an asset for market participants.
 Also, different bidding strategies applied on (linked) market can be useful.
- Deterioration of price signal as balancing and wholesale bids are mixed. Wholesale (energy-only) and balancing are different products and should have distinct prices.
- Technical challenges for Euphemia and more generally organizational limitations for SDAC operation.
- Product and order design challenges for market participants and market coupling partners. Market coupling partners, for instance, would lose flexibility to offer different products in the various markets. For smaller market participants as integrated products might become too complex.
- Legal and procedural uncertainties. We believe that the linking of separate bids for energy and balancing capacity would enable the effective separation of the roles of Balance Responsible Parties (BRPs) and Balancing Service Providers (BSPs) in accordance with Regulation (EU) 943/2019. Indeed, it remains unclear how the BSPs, who are supposed to bid only balancing capacity, can participate to a market that provides for only the integrated balancing capacity and energy bids. Against this background, it should be explained how BSPs will be able to operate by providing ancillary services to the system.

2 Please provide any other comments on the consultancy study.

As briefly outlined in our answer to question 1.1, we would like to provide a more detail comment on the role of intraday markets.

The role and value of Intraday markets seem to be completely dismissed in the study, e.g., (page 26) "It is not clear that intraday auctions or continuous intraday trading can serve this purpose...", which is a claim we strongly disagree with.

There is considerable evidence that Intraday trading continually results in economically and power system efficient adjustments of planned supply/demand due to changed fundamentals from the closing of Day Ahead (SDAC) until closing of Intraday (SIDC) shortly before real-time. That is the case within bidding zones and it is further amplified when supply/demand orders are coupled with all those in other bidding zones via implicit utilisation of Cross Zonal Capacity made available in the SIDC implicit continuous market plus recently launched SIDC Intra Day Auctions (IDAs). Ultimately, the balance between supply and demand should be enabled to be planned much in advance of delivery through open trading in Day-ahead and Intraday markets. When these markets are applied in combination, this both in theory and in practice has the effect to marginalise the need for balancing reservation and contributes to economic efficiency and system security.

The Intraday market is becoming more important to facilitate balancing of intermittent generation closer to delivery, which is difficult to achieve 12-36 hours ahead in time when the SDAC market closes. SIDC is proving its value as a well-functioning adjustment market also to

manage rare cases of market incidents like SDAC Decoupling, erroneous trading and more frequently occurring unplanned outages in the grid. Finally, Intraday markets are a way to manage and utilise DR resources (e.g., batteries, storage, power to X, etc.) triggered by fluctuating prices and energy system fundamentals.

About

Europex is a not-for-profit association of European energy exchanges with 33 members. It represents the interests of exchange-based wholesale electricity, gas and environmental markets, focuses on developments of the European regulatory framework for wholesale energy trading and provides a discussion platform at European level.

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