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EEX Response to the ACER  
Consultation on the TSOs  
Proposal of a Methodology  
for the Bidding Zones Review

EEX Political & Regulatory Affairs  
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## Introduction

The European Energy Exchange (EEX) welcomes the opportunity to provide comments to the ACER consultation: *The methodology and assumptions that are to be used in the bidding zone review process and for the alternative bidding zone configurations to be considered.*

Our response to this consultation should be read in conjunction with our comments we sent to ACER on the draft report of DNVGL on liquidity and transaction costs in the context of a bidding zone review.

### 1. Bidding zone review: Methodology

#### Topic 1: Pan-European consistency of the methodology

1.1.1 Please rate your degree of agreement or disagreement with the following statements: 1- Strongly disagree; 2- Disagree; 3- Neither agree nor disagree; 4- Agree; 5- Strongly agree.

	1	2	3	4	5
1. The assumptions and the methodology for the bidding-zone review must remain pan-European to the extent possible. Further consistency between regions must be ensured in the methodology included in the Proposal.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
2. While the proposal may accommodate regional aspects when duly justified, pan-European principles that aim to maximise European welfare should be ensured, e.g. concerning capacity calculation principles. In this regard, the methodology should be consistent with recommendations and decisions of ACER regarding capacity calculation (e.g. the <a href="#">ACER Recommendation on capacity calculation</a> and the <a href="#">ACER decision on the Core capacity calculation methodology</a> ).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

EEX' comment on statements 1 and 2:

As the related legislation for the internal electricity market in general and for bidding zone configuration in particular – Regulation (EU) 2019/943 (Electricity Regulation) and Regulation (EU) 2015/1222 (CACM) – are applicable all over Europe without any specific regional considerations, the same pan-European approach should apply for the methodology and assumptions for the bidding zone review. If bidding zone regions remain in the methodology, it must be clear how the coordination between regions is ensured, e.g. in the case a country is assigned to more than one region.

*1.1.2. Please detail below which aspects of the Proposal adequately ensure overall pan-European consistency of the bidding-zone review methodology and should therefore be retained in the final methodology.*

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The bidding zone review is an outcome of CACM and is still continued in the framework of the recasted Electricity Regulation which are applicable in the entire EU. We advise against cherry picking of certain elements. In fact, if certain countries or regions were allowed to decide against certain elements, then the conclusion should be that BZRs should perhaps not be done at all. In that respect, it is remarkable that neither the European TSOs nor the European NRAs were able to provide a common approach for alternative configurations to be used for analysis within the bidding zone review.

*1.1.3. Please detail below which aspects of the Proposal hamper overall pan-European consistency of the bidding-zone review methodology and should therefore be amended in the final methodology.*

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In our view, it is important that the proposal provides a consistent framework for TSOs to conduct the bidding zones review. Hence, the principles for the assessment of both network congestions and market efficiency should be clear and harmonised. However, we don't feel that these principles are detailed enough in the methodology proposal. Therefore, these principles must be clearly laid out in order to avoid different interpretations and thus fragmented implementation.

Proposals for amendments:

- Target year: article 5.1 should set a precise timeline for the target year of the bidding zone review. With respect to the stability of bidding zone configurations and considering open positions of market participants in already traded forward contracts, we suggest a target year of 5 years from the start of the bidding zone review.
- Grid data: article 5.3(a) and 5.3(b) will lead to different grid elements being taken into account by different TSOs. This should be avoided.
- Weather years: article 5.4 should foresee that the same assumptions are used as for the TYNDP.
- Disaggregation of grid data: article 5.8 should foresee that the same methodology is used for disaggregating data as for the TYNDP, without exception. If the methodology in the TYNDP is deemed inappropriate by a TSO, it should actually be amended there. Consistency between network development planning and BZ configuration should be ensured.
- Evaluation criteria: article 13.1.3 (b) should include precise indicators in order to be able to proceed to step 1 of article 13.2.8 (a), which mandates a monetisation of all the criteria to compare the benefits of a bidding zone review in terms of network management vs. the losses in terms of market efficiency. The details provided in article 13.4 fall short of providing quantitative indicators in order to monetise market efficiency. Possible indicators for liquidity could be i.a. traded volumes, market depth, bid-ask-spread and churn rate. Competition indicators could be i.a. entry/exit or market participants, market concentration, number of retailers.

*1.1.4. Please add any comment on the need to ensure pan-European consistency.*

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[No comment]

**Topic 2: Transparency and stakeholders' engagement**

1.2.1 Please rate your degree of agreement or disagreement with the following statements: 1- Strongly disagree; 2- Disagree; 3- Neither agree nor disagree; 4- Agree; 5- Strongly agree.

	1	2	3	4	5
1. Maximum transparency must be guaranteed at all stages of the bidding zone review. In particular, all data, assumptions and relevant parameters used in the review should be published, subject to confidentiality issues and aggregation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
<p>EEX' comment:</p> <p>Transparency is key for understanding and acceptance amongst market stakeholders. However, transparency does not only means the pure publication of information but also the way to do so, e.g. information needs to be published/announced in a non-discriminatory way to avoid any market distortion.</p>					
2. There is a need for enhanced involvement of stakeholders during the bidding zone review process. This involvement should be described in the methodology.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
<p>EEX' comment:</p> <p>Unfortunately, the TSOs developed the consulted methodologies and assumptions without any stakeholder involvement. The draft should have been discussed before it was submitted to the NRAs and later to ACER. Hence, it is important that not only data, relevant parameters and assumptions are published, but that stakeholders are involved in the entire process to come. All steps of the process should be developed and discussed with the stakeholders. All information on data should be shared during the process and not only afterwards.</p>					

1.2.2. Please detail below which aspects of the Proposal adequately ensure transparency and stakeholders' engagement, and should therefore be retained in the final methodology.

So far, the proposal lacks the appropriate level of stakeholder engagement in the entire bidding zone review process.

1.2.3. Please detail below which aspects of the Proposal hamper transparency and stakeholders' engagement, and should therefore be amended in the final methodology.

The methodology is far from prescriptive on how to quantify the criteria to assess market efficiency. If article 13.4 is maintained with such a low level of detail, the TSOs conducting a BZR should consult market participants on the indicators they intend to use for the analysis.

1.2.4. Please add any comment on the topic of transparency and stakeholders' engagement.

[No comment]

**Topic 3: Need to ensure a conclusive bidding zone study**

1.3.1 Please rate your degree of agreement or disagreement with the following statements: 1- Strongly disagree; 2- Disagree; 3- Neither agree nor disagree; 4- Agree; 5- Strongly agree.

	1	2	3	4	5
1. Quantifiable, possibly monetised criteria should be the focus of the bidding zone review.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
2. The assumptions and data used as inputs for the bidding zone review should be, as much as possible, checked against reality; the methodology should be based on realistic expectations about the future.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
<p>EEX' comment on statement 2:</p> <p>While in general we agree that the assumptions and data used should be, as much as possible, checked against reality, we advise considering as well that they are applicable for a certain timeframe to reflect further developments.</p>					
3. While methodological simplifications may be necessary to enable a timely delivery of the bidding zone study, they should not decrease the quality and relevance of the underlying analysis and indicators. In general, methodological simplifications should be sought when they are not expected to impact the results of the study.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
<p>EEX' comment on statement 3:</p> <p>In general, methodological simplifications should be possible, however, limited to the necessary extent. If such simplifications are foreseen, market stakeholders need to be consulted beforehand.</p>					
4. The current TSOs' proposal to assess market liquidity mainly focuses on possible changes of liquidity in day-ahead markets. While liquidity of day-ahead markets is important, an assessment of liquidity impacts across all timeframes should be included. In particular additional indicators to capture the impact of a bidding zone reconfiguration on forward markets liquidity in a holistic manner should be considered.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
5. In the first bidding zone review pursuant to CACM, significant efforts were put in simulating cross-zonal capacity calculation in a very detailed manner. In view of the 70% minimum target of cross-zonal capacity envisaged in the CEP, which will be taken into account in the bidding zone review, the role of capacity calculation may be less crucial than in the first bidding zone review. As a consequence, some simplifications in simulating cross-zonal capacity calculation should be envisaged, which would allow to increase the efforts on other important aspects of the review.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

<p>6. The current TSOs' proposal for the simulation of short-term welfare effects seems to exclusively rely on the changes in generation dispatch and related costs, while demand-side response is mostly disregarded. Given that a bidding zone configuration may have relevant impacts on the patterns of day-ahead market prices, DSR (including day-ahead demand elasticity) should be more robustly considered.</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
<p>EEX' comment on statement 6:</p> <p>In general, the demand side should be included as well reflecting its increasing role in the energy-only market which is likely to increase even more in the event of more sector integration. However, forecasting the development of the demand side might not be trivial and simplifications could be appropriate.</p>					
<p>7. The current TSOs' proposal for the simulation of short-term welfare effects seems to highly depend on the difference between the costs of scheduling generation (and residually demand) units in day-ahead markets and the costs of (re)scheduling generation (and residually demand) units in the re-dispatching timeframe. Some assumptions included in the Proposal such as considering full cross-zonal coordination for re-dispatching or the insufficient consideration of the difference between the costs incurred in day-ahead and the re-dispatching timeframe may lead to conclude that all alternative bidding zone configurations deliver the same short-term welfare results as the status quo configuration. Such strong assumptions should be revised and aligned with the envisaged reality for the time horizon of the study as much as possible.</p>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

1.3.2. Please detail below which aspects of the Proposal adequately ensure the bidding zone review to be conclusive and should therefore be retained in the final methodology.

[No comment]

1.3.3. Please detail below which aspects of the Proposal prevent the bidding zone review from being conclusive and should therefore be amended in the final methodology.

As the objective of a bidding zone review is to understand network and market behaviour, and the impact of bidding zone reconfiguration on them, a focus of the analysis should be on expected dynamics. Therefore, the timeframe of the bidding zone review should be long enough to make sure that upcoming grid development to overcome structural congestions will be properly considered.

Furthermore, all segments of the markets should be part of the review. In particular, the efficiency of forward markets should be considered as they still represent the majority on the European electricity markets. Effects of bidding zone reconfigurations on intraday and balancing markets, as well as on retail markets should also be analysed as they suffer when the liquidity of wholesale markets reduces.

*1.3.4. How do you think that the inclusion of experts' views should be organised and could help ensure a conclusive bidding zone review?*

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Experts' views are important to assess the results of a quantitative bidding zone review and to put them into the context of political and regulatory realities and other constraints that a technical model cannot include. The bidding zone review conducted by TSOs should serve as a strong input for a bidding zone delineation but should preferably not take into account national borders and political constraints from the beginning.

*1.3.5 Please specify how specific the final recommendation of the TSOs should be:*

- TSOs should specify whether the bidding zone configuration should be maintained or changed and in case of the latter, specify their preference for one alternative bidding zone configuration.
- TSOs should specify whether the bidding zone configuration should be maintained or changed and then present a number of possible options, highlighting the benefits and shortcomings of different options, subject to the considerations of other aspects (e.g. implementation timeline, minimum 'lifetime' of the alternative bidding zone configuration to ensure the benefits exceed the transitional costs, measures to mitigate certain impacts, etc.).
- Other possible ways of presenting the final recommendation. Please specify

*1.3.6. Please add any comment on the topic of ensuring a conclusive bidding zone review, which adequately supports the decision making process.*

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It is important that the bidding zone review is performed open minded and different options are analysed with pros and cons when a specific bidding zone configuration is considered to be changed. For instance, all different aspects need to be considered, e.g. high costs for redispatching are not per se a reason to increase the number of bidding zones, instead the overall system costs need to be taken into account as well. This should allow the final decision makers – Member States and the European Commission – to make decisions as informed and balanced as possible.

## 2. Definition of alternative Bidding Zone configurations

2.1 According to the Article 14(1) of Regulation (EU) 2019/943, “Bidding zone borders shall be based on long-term, structural congestions in the transmission network.” Moreover, the same article mentions that “The configuration of bidding zones in the Union shall be designed in such a way as to maximise economic efficiency and to maximise cross-zonal trading opportunities in accordance with Article 16, while maintaining security of supply.”

In order to delineate bidding zones, there are at least two possible approaches. A first approach is a top down (expert-based) one, whereby experts propose alternative bidding zone delineations, which could potentially yield more efficient outcomes than the current bidding zone configuration (the status quo). A second approach is a bottom up one (model-based) where locational marginal pricing (LMP) simulations are performed with a view to clustering nodes (e.g. based on similar marginal prices) into bidding zones. TSOs informed ACER that persisting problems with data input and modelling impede the possibility of using model-based approaches for the upcoming bidding zone review.

Given the above and the difficult to reach agreements, configurations were not submitted for several regions, including regions where structural congestions persist. In view of this, an expert-based approach (possibly supported by some elements of modelling) seems the main option available to propose bidding zone configurations for the upcoming bidding zone review. In the absence of a model-based option, ACER believes that some quantitative aspects should still be considered when considering alternative bidding zones, namely:

- An identification of the network elements, which are more frequently congested and lead to costly remedial actions the most.
- An identification of the geographical areas (bidding zones) which contribute the most to congestion on network elements. These areas could be a bidding zone where the congested element is located (in case of congestions caused by internal exchanges mainly) or other bidding zone (in the case of loop flows).
- (If available), a LMP simulation to support the expert-based delineation of bidding zones (e.g. to confirm, refine and/or prioritise the delineation of the previously defined expert-based configurations).

Please provide your views on the relevance of the above-proposed principles, which aim to support an expert-based delineation process.

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Expert-based approaches tend to consider political and regulatory constraints, while model-based approaches define possible bidding zone configurations by clustering nodes according to locational marginal pricing. For a comprehensive analysis and meaningful results, both methods should be used and assessed using the same quantitative indicators. In that way, expert-based and model-based configurations are measured regarding their effect on social welfare with the same metrics.

This is also important as purely expert-based delineations might reflect individual optimisation instead of maximisation of European welfare. A consistent and transparent European model would not be guaranteed.

If a model-based approach cannot be realised, LMP should at least be used to assess the expert-based delineation of bidding zones.



2.2 *The Proposal envisages a locational marginal pricing (LMP) simulation as an optional element of the bidding zone review.*

2.2.1 Should a LMP simulation be a mandatory element of this bidding zone review?

Yes  No

2.2.2 Should a LMP simulation be used as an input for proposing alternative bidding zone configurations?

Yes  No

2.2.3 If so, how do you think a LMP simulation can be used to support the proposal of alternative bidding zone configurations?

It should be used to support the expert-based approach to delineate bidding zone configurations (i.e. the expert and model-based approach should complement each other).

It should be used as the main element to delineate bidding zone configurations together with techniques for clustering nodes into alternative bidding zones (i.e. a purely model-based approach should be used).

Other Please specify

2.2.4 *Please indicate other possible benefits of including a mandatory LMP simulation during the bidding zone review.*

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General comment on the use of LMP within the bidding zone review:

LMP simulation can be used for modelling, to cluster nodes into bidding zone configurations to be assessed according to the methodology. This ensures that the bidding zone review delivers meaningful results that can be used as technical input for a discussion on bidding zone reconfiguration. However, the use of LMP should be limited for modelling and not be understood to open a discussion on general market design.

2.3 *When proposing bidding zone configurations, do you see the need to ensure that the incremental effects of combined bidding zone configurations are identified (see the example below)? Please, provide your views on possible pros and cons of such an approach.*

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Yes, this would be a good way to ensure that appropriate balance between merging and splitting scenarios is guaranteed in the bidding zone review. There could be also another scenario merging as many zones as possible.

#### *2.4 Which other criteria should in your view be considered when proposing alternative bidding zone configurations?*

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Once a decision for a reconfiguration of bidding zones might be taken, decision-makers should consider to the following points:

- The process of bidding zone reconfiguration takes many years for decision-making and implementation. In the meantime, the grid and the market situations will change and the assumptions that were used when reviewing the zones might be outdated. A regular review of the network and market conditions during the implementation of a reconfiguration is necessary to mitigate the risk of sudden price shocks and incoherent configurations in the end.
- The lead-time should be at least three years for any change in bidding zones configuration to limit negative effects on open interests of market participants. Currently, the trading horizon at our forward markets is up to six years, while liquidity is mostly bundled within the three front years. However, with the development of long-term power purchase agreements (PPAs) for renewable electricity, often concluded for a period of five to ten years, also their hedging using forward contracts in a longer timeframe up to ten years will appear.

## Contact

European Energy Exchange AG  
Augustusplatz 9  
04109 Leipzig

EEX Berlin Office  
Unter den Linden 38  
10117 Berlin

EEX Brussels Office  
Square de Meeûs 5-6  
1000 Brussels

Daniel Wragge  
Director  
Political & Regulatory Affairs

daniel.wragge@eex.com

Robert Gersdorf  
Market Policy Expert  
Political & Regulatory Affairs

robert.gersdorf@eex.com

Giorgio Corbetta  
EU Affairs Manager  
Political & Regulatory Affairs

giorgio.corbetta@eex.com

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