

# ENTSO-E Bidding Zone Review Consultative Group (BZR CG) online meeting: update from TSOs on on-going BZR

Date: Tuesday, 5 December 2023

Time: 14:00-17:00

Location: Online conference (Microsoft Teams)

## Minutes of the Meeting

## 1. Welcome and agenda overview

BZ TF convenor welcomes the BZR CG members, Bidding Zone Review Region (BZRR) members, pan-EU studies team as well as Bidding Zone Task Force (BZ TF) representatives. The BZ TF convenor presents the agenda for the meeting and proceeds with the first point to be discussed.

## 2. Updated BZR timeline

BZ TF convenor presents the updated BZR general timeline, explaining the latest developments, major milestones in the next period and new target delivery date for the BZR.

- December 2023: launch of Public Consultation in mid-December 2023
- First quarter 2024: launch of Public Consultation on additional content, focusing on updated liquidity report considering CE BZRR part
- March 2024: delivery of Nordic BZR with updated pan-EU studies report
- December 2024: delivery of CE BZR with updated liquidity study report (as transition costs report is already submitted in March 2024).

However, the BZ TF convenor explains that this timeline is still subject to change, due to recent issues identified in the modelling results for the Nordic BZRR that may result in a postponement of the public consultation.

Question	Answer
Why is public consultation launched in mid- December, when CE part of liquidity report is expected to be consulted on in March 2024?	In order not to further delay the delivery of the Nordic BZR, the TSOs have decided to go for a two-step delivery of the BZR study (first Nordic BZR and then CE BZR). The public consultation will be launched for six weeks instead of four.  However, given the latest developments on the issues identified in the Nordic BZRR modelling the launch of the public consultation foreseen for December 2023 might be postponed to Q1 2024. The TSOs will reassess the need to perform the public consultation in 2



steps. The BZR CG will be timely informed on the launch date. Impact of the delay for the BZR: the relevance of The target year is defined in the BZR Methodology, the review's target year (2025) was questioned hence there is no flexibility to change it. As the target before. Can we apply common sense and consider year is set to 2025, the BZRRs are committed to improvements in the approach like the choice of deliver the BZR study before end of 2024. However, both Nordic and CE BZRRs intend to perform the target year? sensitivity analyses in order to simulate the impact of foreseen changes in the future. Moreover, the model will never be perfect, but shall assess tendencies. Any change in the target year will mean to restart the work. Did TSOs discuss with ACER and the NRAs the ACER is not present in the call. ENTSO-E cannot effect of the delayed results on the implementation answer on their behalf. of the study (given focus implementation year is The question will be shared with ACER and an 2025)? updated answer will be provided. NRA representatives indicate that they support the focus put on the need to have some results, however ACER should provide the final answer to the question. ACER's answer ex-post: "The topic was discussed with ACER and NRAs in the recurrent meetings. ACER's view is that the target year of the study is set firmly under Article 14(5) of the Electricity Regulation, and this article doesn't lay down any direct link between the target year of the study and the implementation date of a potential bidding zone reconfiguration. While agreeing that the target year of the study should be aligned as much as possible with the expected entry into force of a potential bidding zone change, ACER considers that restarting the whole study with a new target year would significantly delay the ongoing process, which is already running behind the legal deadline. In addition, despite this significant delay, the decision on whether to keep or amend the bidding zone configuration is still expected to be taken by the end of 2025. Hence, under the current circumstances, the most practical way forward is to continue the analysis with 2025 as target year." Who is approving the pan-EU studies and public The pan-EU studies and material for the public consultation questionnaire? Can BZR CG members consultation is approved by All TSOs. The reason for take a look at the final version of the questionnaire the split of the public consultation, based on the two for the public consultation? BZRRs, is that CE BZRR data is not ready yet. In



Why is the public consultation split based on the two BZRRs?	order to facilitate a timely submission of the Nordic BZR, the public consultation is split.  Stakeholders should note that only the liquidity study
	will be updated.
	With regards to the public consultation questionnaire, the comments from the stakeholders, ACER and the NRAs have been considered. TSOs will share the final version of the public consultation questionnaire with the BZR CG for information. Should stakeholders have any particular questions on the questionnaire, they can reach out to the Public Consultation lead.
On the Nordic BZR delivery in March 2024: will the Nordic BZRR deliver their recommendation, or wait for CE BZR part and deliver joint proposal in December 2024?	Decision-making process has been discussed with ACER. The recommendation for the Nordic BZRR in March 2024 should be considered final and the decision-making process at member states level will start immediately after the delivery. Same follows with the delivery of the recommendation for the CE BZRR in December 2024.
Is there any fallback procedure in case TSOs are delayed beyond the target year (i.e. 2025)?	No fallback procedures have been discussed. TSOs are focused on delivering in 2024. The regulation also does not foresee any fallback procedures.

## 3. CE BZRR update

CE BZRR convenor states that TSOs of CE BZRR commit to delivering the final BZR report in one step, including the recommendation to amend (or not) the current bidding zone configuration, by the end of 2024. TSOs will strive to perform sensitivity analysis to include the 'stability and robustness of BZs over time' criterion as part of the final evaluation. The sensitivity runs will be used as a degree of flexibility on CE BZRR side, and some simplifications will be applied to the sensitivities, all in order to ensure delivery of the CE BZR in 2024, as presented in the slides for the meeting. There is a question identified on this part, presented in the Q&A table below.

The CE BZRR modelling task force convenor presents the status of the toolchain development and runtimes (details provided in the slides for the BZR CG meeting). CE BZRR observed that the run-time of the loop-flow analysis can be reduced, however it is not confirmed yet. The convenor explains that the run-times are long, and if an error is identified, it will take longer to resolve it. There are no questions on this part.

The CE BZRR modelling task force convenor then proceeds with explaining the simulation status. The following observations are made:

- The Capacity Calculation (CC) runs for three climate years (CYs) have been completed and passed the quality check.
- The Market Coupling (MC) runs for three climate years (CYs) have been completed and are undergoing a quality check.



- The Remedial Actions Optimisation (RAO) simulations have been initiated.
- The loopflow module requires the interface between the RAO and the loopflow module to be fixed before simulation runs can be performed.

There are no questions on this part as well.

Question	Answer
Can you confirm that you will analyse all 22 criteria from the BZR Methodology, or not only some of them?  The background is that in a conference (PKNS), a German TSO explained that 2 of the 22 criteria cannot be analysed (criteria 15.2-Security of Supply, and 15.15-Balancing requirements, of the BZR Methodology).	The requirements imposed by the BZR methodology for the analysis for these two criteria could not be implemented. In that case, the BZR methodology foresees that the criteria shall perform neutrally. Therefore, for CE BZRR, these two criteria are deemed as neutral (i.e. perform the same as in the status quo configuration).

## 4. Nordic BZRR update

Nordic BZRR Convenor provides an update on the simulations, such that:

- The updated dispatch simulations for the base case and all configurations are finalized. The updated
  results and the output from the HHI calculation have been provided to Compass Lexecon as input for
  the liquidity study.
- Simulations for the dry year sensitivity have been started.
- The redispatch simulations are currently being conducted.
- As soon as all the dispatch and redispatch simulations are ready, a decision will be made to only focus on the configurations that shows a positive SEW.

In addition to this, the Nordic BZRR convenor provides the latest update on the wind-generation allocation issue identified in early December 2023. They explain that this is not a structural issue, but this is an issue related to input data. The dispatch simulations have to be re-run, which might take four-to-six weeks. The Nordic BZRR is currently performing an impact assessment to check the significance of the impact of the results to the prices and data provided for the market liquidity study. Should there be little or no impact on the results, the public consultation will be launched as planned in mid-December 2023; otherwise, the public consultation would have to be postponed for 2024. The BZR CG will be timely updated on the outcome. Therefore, either the postponement of the public consultation or the re-run of the dispatch simulations will most likely result in the delivery of the Nordic BZR and report at the earliest in May 2024.

Question	Answer
Question on the start of the public consultation.	The launch of the public consultation in December 2023 can only take place if there is little to no impact of the current results on the market liquidity and transaction costs study. Otherwise, the liquidity study results will have to be updated, and therefore, the public consultation will be postponed.



Can the launch of the Public Consultation be	The start of the Public Consultation on 18 December
postponed for early January 2024?	2023 provides enough time for the stakeholders to
	provide input until end January 2024 (i.e. six weeks).

#### 5. Pan-EU studies:

The team from Compass Lexecon, contracted to perform the Pan-EU studies on behalf of the TSOs, presents the latest developments of the studies. The first part is focused on the transition costs study, and the second part is focused on the market liquidity and transaction costs study.

### 5.1. Transition costs study

A quick overview of methodology for estimating transition costs is presented. The main objective of the study is to look into the transition costs as one-off costs in case of amendment of a BZ configuration. Details are presented in the slides for the BZR CG meeting.

The data-set and cost extrapolation is then presented, such that this follows a scaling approach and results in a bandwidth of costs per BZ reconfiguration.

It is also highlighted that the answers received after two surveys and a round of interviews result in significant limitations for the transition cost estimation. Also, the number of responses is quite limited, as it was not mandatory for the respondents to provide answers and data on all questions. Many participants insisted that the pending BZ-reconfiguration implies costs that are not covered by the transition cost definition set out in this study.

Short summary of the answers provided by the stakeholders is then presented by the Compass Lexecon team. They note that the responses received do not cover all types of organisations and not all countries.

The results are then presented. The conclusion is that the calculated total transition costs are largely dependent on the submitted data. They are hence subject to the individual company, the type of organisation, and the estimation of the relevance of company size. Nonetheless, the data received allow to get some insight on the transition costs linked to the specific bidding zone configurations assessed in the BZ study. This is the first study of its kind and the first time that a real attempt is made to estimates those costs.

Question	Answer
How did you make sure that the estimations provided are not driven by individual interest to have high or low transition costs?	There is a broader question around the overall accuracy of the costs estimates provided. The strategic answers is not the only concern but also the understanding of the definition. The high dispersion of results shows the challenge faced.
Some stakeholders ask how their organisations are categorized.	The team explains the categorization of market parties.
Which parties belong to the wholesales retail category?	All companies that can be a BRP or large-scale customers would fall in this category.
We could use the costs of the previous splits as a basis for the estimations. It seems weird to have so huge differences between the countries.	This question has been included in the interviews. Some stakeholders mentioned that the split at stake is very different from the DE/AT split, for example, in



	which the costs in Germany did not change much because Germany remained as a single BZ
Why is the relative difference between minimum and maximum not so high for DE?	We excluded one outlier because it is not realistic in in the overall data set. The second highest is shown in the data.
What is behind the costs ranges?	Derived from two different sets of costs:
	<ol> <li>costs independent of company size, where the companies assumed all of these costs are going to be the same for all companies participating in that market or that area of organization and</li> </ol>
	<ol> <li>costs dependent on company size where these companies expect these costs to scale subject to the company size relative to the entire size of the market.</li> </ol>
	Costs independent of company size have been scaled according to the number of companies of the same category on the markets while costs dependent of company size have been scaled according to the market shares.
	With regards to minimum, maximum and median: these columns indicate one company out of the entire sample. We also performed some checks.
	Detailed explanations on the scaling methodology applied can be found in the report that will be consulted.
For the scaling of the wholesale retail, there was no accounts anymore taken for the difference of the companies be below it. Was it just 1 category as a whole?	Yes, just one category.
Why Sweden and Italy do not have all the parts (max, med, min)?	This is due to the very low number of answers received for these 2 countries.
For Italy, did you receive information on the split introduced in 2021?	No except for a qualitative comment from Terna that the split considered in the BZR is different from the one implemented in 2021 because it splits a region and may therefore lead to higher transition costs.
Did you receive answers from wholesale market participants that are active in several bidding zones? If yes, to what extent did you consider this information in your costs estimation?	Yes we received answers from market participants active in several BZ. We did not check whether the estimates provided are in line with the overall picture of our estimations. This is a good point on which we will need to reflect in the project.



What is the process to ensure robustness of the study?	These are preliminary results. The public consultation serves as an opportunity for the stakeholders to provide additional feedback or provide additional suggestions. Full transparency is provided on the limitations.
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## 5.2. Market liquidity and transaction costs study

The presentation focuses on the assessment of liquidity for the Nordic BZ configurations. The BZR CG members should note this is a work in progress. The results may be updated at a later stage depending in the assessment currently being performed on the impact of the modelling issue recently discovered (see discussion under AP 2). Furthermore, the final report will also take into account the feedback received during the public consultation.

The team explains that Prices are simulated for five cases: base case, config. 8, config. 9, config. 10 and configuration 11. For each case, prices are simulated for three scenarios: climate years 1989, 1995 and 2009.

The number of metrics considered is limited because the results presented focus on the forward-looking analysis and are very dependent on the input data provided by the TSOs and linked to the electricity market model (output of the simulations).

With regards to the results: liquidity in terms of HHI and price correlations enhances in all configurations compared to the base case. In terms of generation and demand (as a proxy for market size), the development is mixed. Details are presented in the slides for the BZR CG meeting.

The BZR CG members ask if this is the final version of the study. The TSOs explain that this is not the case: the analyses for BZRR CE will be incorporated at a later stage as well as the feedbacks received in the Public Consultation, as prescribed in the BZR Methodology.

Question	Answer
The BZs are not supposed to contain structural congestions. How is this considered in the configurations assessed?	This is a question for a different work-stream. The alternative configurations to be assessed in the BZR have been determined by ACER (ACER decision 11-2022).
HHI and price correlation are competition metrics. Why are they used here as liquidity metrics? Market Participants can have the possibility to trade, yet it does not mean that the market is liquid. It's an odd indicator to use for liquidity. Have you considered using the depth of order books instead?	In the final report, you will see many different other metrics to assess the market liquidity, looking at forward and ID productsand EU wide historical backward analysis on market liquidity. The depth of order books is not in the scope as they are relying on forward looking modelling that provides simpler outputs/metrics which cannot be used to analyse this. The indicators chosen in the report are good proxy for liquidity evolution considering the outputs available. Competitiveness, as measured by the HHI for example, could be a driver of liquidity in markets. That is why the parameter is considered Nevertheless depth of order books would have been a very relevant



	metric in addition to the used ones to assess market
	liquidity if data and time available.
	In addition, it is important to note that the use of HHI or RSI/PSI is a requirement in the BZR Methodology.
Price correlation seems as an odd indicator as it is rather an indicator in the adequacy of the bidding zones delineations than an indicator on liquidity. Therefore, is it not odd to consider this indicator in the analysis?	This indicator is used as an indication for proxyhedging.
What is behind the generation indicator?	Hourly produced generation as an output of the market model. This indicator is used as a proxy for market size.
Some of the configurations rely heavily on exports and imports. How has this been considered in the analysis? Would detailed results be provided?	The simulated liquidity impact of the reconfigurations in terms of market size has been approximated by both generation volume and demand. The HHI is calculated based on the BZR methodology.
Based on the four configurations studied for Sweden, which one would be the most preferred option in term of impact on liquidity?	The results presented are preliminary and only focus on performance of the alternative configurations compared to the status quo configuration. No mitigation measures are considered in the study. At this moment in time, an answer cannot be provided.
How will these results be used?	TSOs will follow the BZR methodology. The liquidity and transaction costs is one indicator among 22.
Will the simulation results be shared with the BZR CG and when?	The request already formulated in previous meeting has been noted. TSOs will try to answer positively to it. It is however too early to provide more information and a foreseen timeline for this.

## 6. Public consultation

The public consultation lead explains that the comments from ACER, NRAs and the CG members have been considered in the final version of the questionnaire for the public consultation.

He re-iterates that the consultation is launched in two-parts in order to allow for the Nordic BZRR to deliver the Nordic BZR in March 2024.

In the first part, the expected CE BZRR liquidity developments are excluded from the consultation, and will be only consulted at a later stage.

Next to the reports on Liquidity and transaction costs and on Transition costs, the public consultation also contains questions on possible mitigation measures and practical considerations.

The public consultation is expected to be launched on 18 December 2023, for a duration of six weeks. A public webinar is scheduled for 19 December 2023 – the registration will be published on the ENTSO-E website.



Following the latest update in the Nordic BZRR (provided under AP2), there is currently an impact assessment being performed to check the significance of the impact of the results to the prices and data provided for the market liquidity and transaction costs study. Should there be little to no impact on the results, the public consultation will be launched as planned in mid-December 2023; otherwise, the public consultation would have to be postponed to 2024. The BZR CG will be timely updated on the outcome. Therefore, either the postponement of the public consultation or the re-run of the dispatch simulations will most likely result in the delivery of the Nordic BZR and report at the earliest in May 2024.

Question	Answer
Is there any consultation foreseen for the other parts of the analysis (i.e. other than the pan-EU studies)?	No, the public consultation is organized according to the BZR methodology that prescribes a public consultation only on the 2 indicators presented today (i.e. transition costs and liquidity and transaction costs), mitigation measures and practical considerations. As discussed TSOs will try to present additional results to the BZR CG in a later stage.
As in the past BZR CG meetings, participants reiterate their wish to access preliminary results of the simulations and indicator assessments within the consultative group, emphasizing that these are currently excluded from the public consultation, although they would have preferred their inclusion.	ENTSO-E takes note of this request again, but cannot formally commit at this stage, and clarifies it is not part of the BZR methodology's requirements.

## 7. Any other business (AOB)

Under AOB, the BZ TF provides an update on:

- Formal response to ACER and NRAs' feedback on input data, scenarios and sensitivities to be studied in the BZR study: TSOs will publish soon their formal response, together with updated input data.
- Next BZR CG meeting: BZ TF convenor proposes the meeting to take place after the Public Consultation. Given current uncertainties, a precise time will be defined later.
- BZR CG asksENTSO-E to consider any additional actions in case there are delays extending beyond 2024.
- Next steps: by 11 December, the date for launching the Public Consultation will be confirmed and BZR CG members will be informed via e-mail.

The convenor thanks the BZR CG members for their active contribution on the on-going BZR.