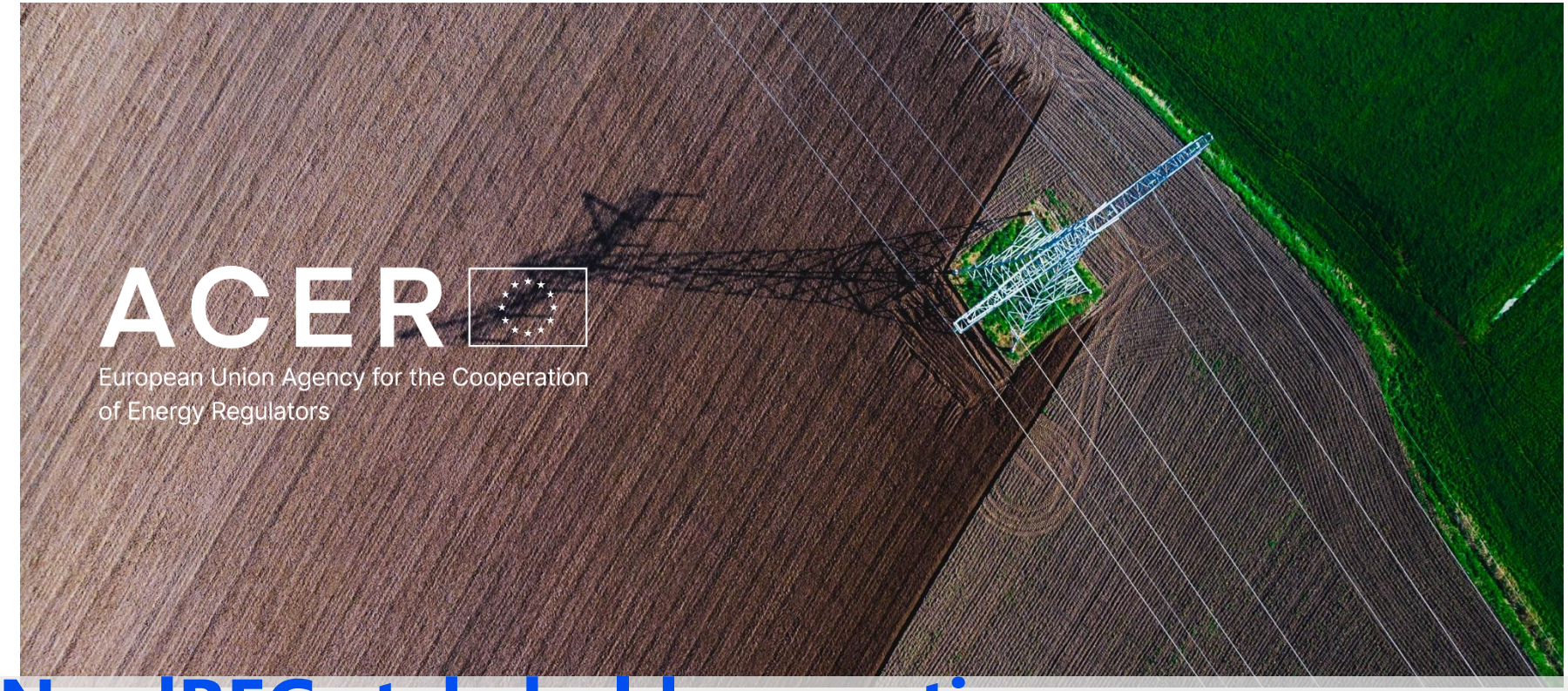

NordREG stakeholder meeting on cross-zonal capacities

04/12/2020 – ACER presentation

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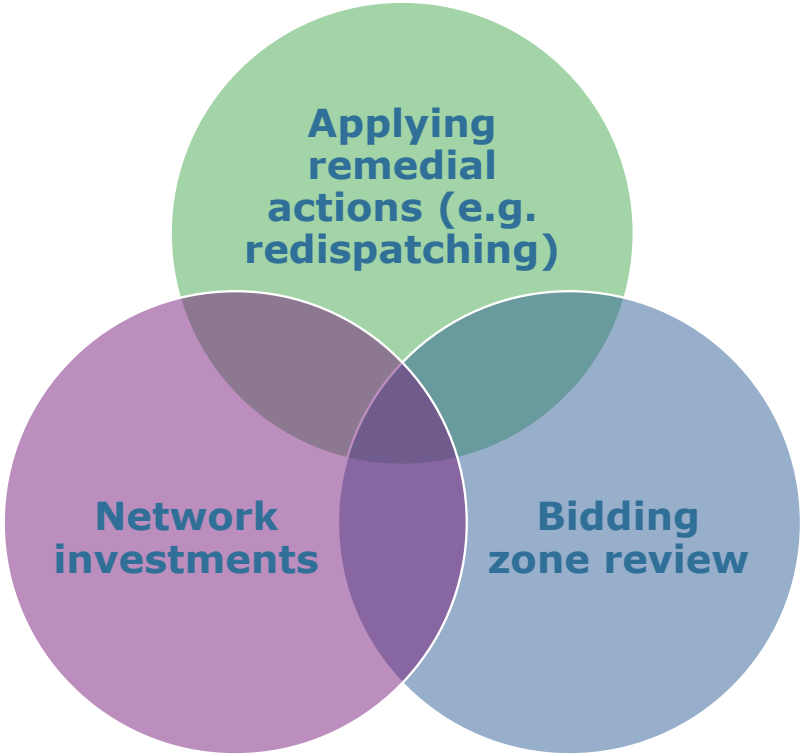
The context: Multiple routes to meet the 70% target



Minimum 70% target – Background

- The calculation and allocation of cross-zonal capacity is **crucial for the internal electricity market**. It should ensure efficient congestion management, together with the use of remedial actions, network investments, and bidding-zones definition.

- Over the last decade, **significant progress has been achieved in the area of capacity allocation**. In the area of **capacity calculation, progress has been much slower.**

- The Clean Energy Package introduced a requirement to increase the capacity offered for cross-zonal trade, more specifically 70% of the transmission capacity is required to be offered for cross-zonal trade (‘**minimum 70% target**’).

Legal framework - Article 16(8)* of regulation 2019/943

- The recast Electricity Regulation* introduces, in Article 16(8), a requirement to ensure that TSOs do not limit the volume of cross-zonal capacity as a means of solving internal congestions and/or loop flows.

- According to this article*, the **above requirement, both for flow-based and NTC, is considered to be complied** if ***70% of the transmission capacity respecting operational security limits*** *and considering contingencies* ***is offered to the market.***

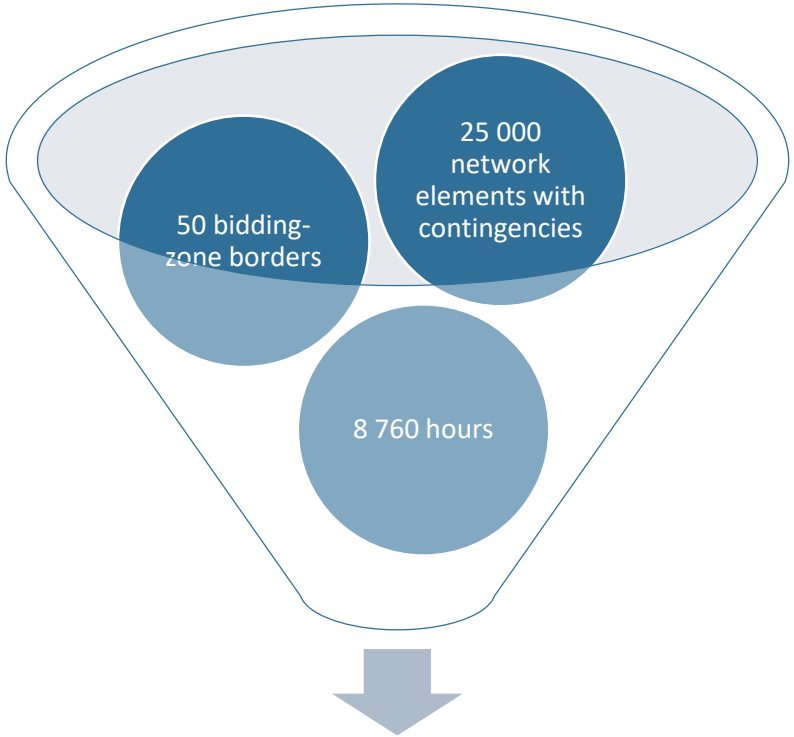
- This article* also mentions that "***The total amount of 30%*** *can be used* ***for the reliability margins, loop flows and internal flows on each critical network element.***"

**simplified version of article 16(8), provided just to ease the reading, see the full text in the annex*

ACER Recommendation 01/2019 MACZT calculation

- Following a request from the cross-border committee, ACER, in close coordination with the EC, NRAs, TSOs and ENTSO-E, adopted a **Recommendation** in August 2019.
- Based on this Recommendation, and on ad-hoc data provided by TSOs, the levels of margin available for cross-zonal trade ('MACZT') can be estimated.
- The main principles underlying the Recommendation:
  - The calculations **focus on the day-ahead timeframe** until coordinated intraday capacity calculation is implemented;
  - The MACZT mostly stems from trade on EU bidding-zone borders. **The influence of bidding-zone borders between EU and non-EU countries is separately monitored;**
  - The MACZT is **monitored individually and separately for each critical network elements** with contingency (CNEC);
  - The MACZT should be fulfilled for **all CNECs**, both directions, and **all MTUs**, **not as average value** among CNECs and/or across MTUs;
  - The MACZT is split between the margin made available **within** coordinated capacity calculation **(MCCC),** and the flow induced by cross-zonal exchanges **beyond** coordinated capacity calculation **(MNCC).**

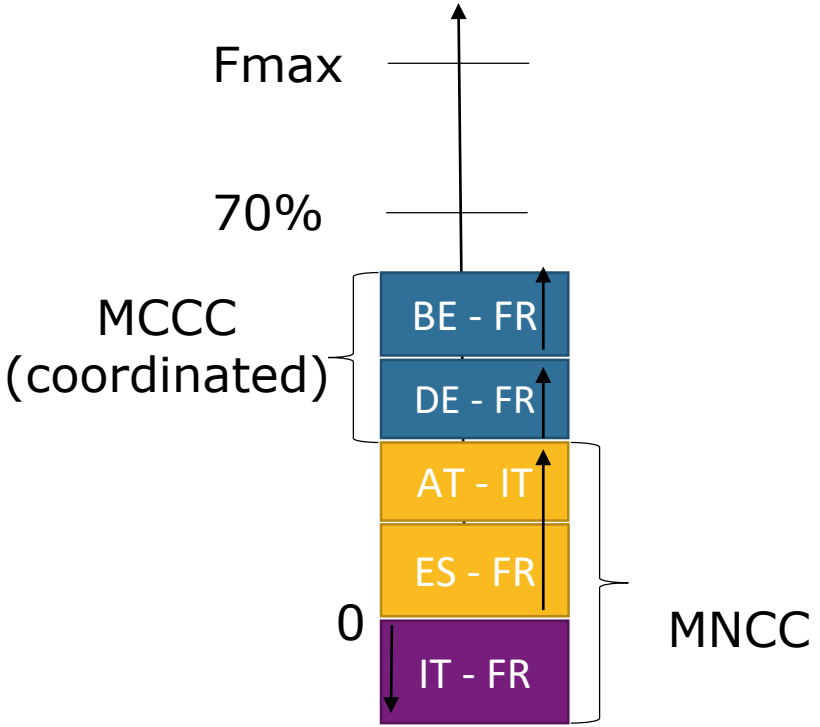
The MACZT calculations, in a nutshell



Several billion values

15 GB data per year

Example result for a French CNEC relevant for the CWE region



Minimum 70% target – ACER's upcoming report

- Based on the Recommendation and extensive data provided by TSOs, ACER will publish its first MACZT report, covering S1 2020, before the end of the year.
- Main content:
  - Charts displaying the % of the time when the relative MACZT is above the 70% target, or otherwise the actual level of MACZT.
  - Charts describing the elements limiting cross-zonal capacity (TSO's/country's area of the limiting network elements, allocation constraints subject to information available, other reasons).
- Main highlights:
  - Most TSOs made a relevant effort to provide extensive and accurate data. Data is still an issue for the Nordic and Baltic regions (no data at all) and (partly) for Italy North and in France.
  - With regard to the MACZT levels, the report will show:
    - on DC borders, that the 70% target was fulfilled most of the time with few substantial exceptions.
    - on AC borders, significant room for improvement with a very diverse picture across the EU.
  - An overview of applicable action plans, and derogations, including a brief analysis of their content, in particular of the targets.

Minimum 70% target – ACER's upcoming report

- Specific content of the report for the Nordic area:
  - DC borders: Monitoring was possible on all Nordic DC borders.
  - AC borders: Monitoring was not possible on most cases, due to lack of data provided to ACER, mostly due to the absence of a common grid model, in combination with national security legislation in Sweden.
  - Some results were provided to ACER by the Finnish TSO, although the methodology is different from the one used by ACER in its report (which follows ACER's Recommendation).

- Particular situation for Norway:
  - Norway not yet subject to compliance with 70%, until the CEP applies in Norway.
  - Flows from/to Norway can be considered, when monitoring the 70% target elsewhere in the EU, provided an 'agreement' between Norway and the other countries of the region has been reached (see annex).

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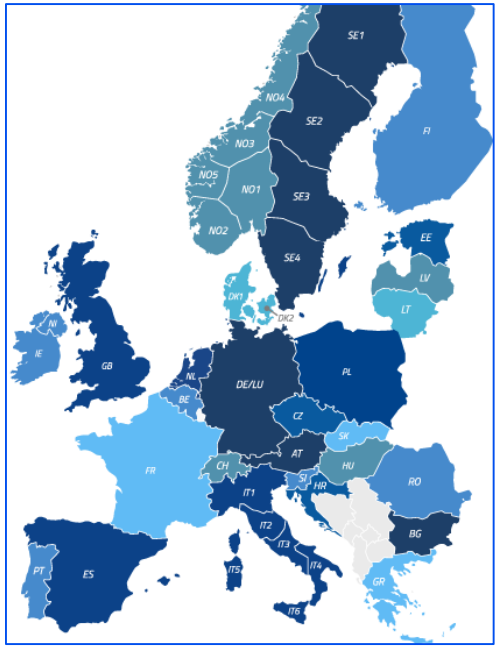
Recent ACER's decision on the bidding zone review

Bidding zone review-context/challenges

An unbiased, sound, technical and neutral bidding zone review is absolutely necessary



Challenges	EU benefits
Politically sensitive	Markets closer to physical reality
Market liquidity concerns	Cost-efficient network investments
EU benefits Vs MSs impacts	Cost efficient integration of new technologies (DSR,RES, hydrogen, …)

Fully acknowledging that the final decision of an eventual bidding zone change will lay on MSs

The BZ review process – ACER's role

Draft BZ review methodology and alternative configurations to be studied — All TSOs

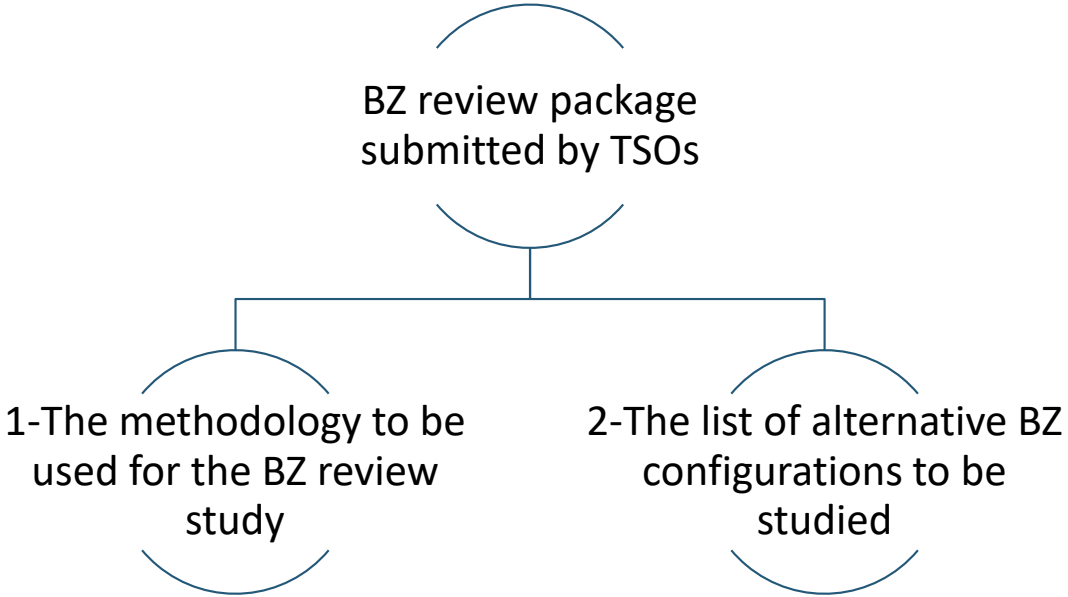
Approve unanimously or ask ACER to decide — All NRAs

Decide/amend the methodology and alternative configurations to be studied — ACER

Conduct the bidding zone review study — All TSOs

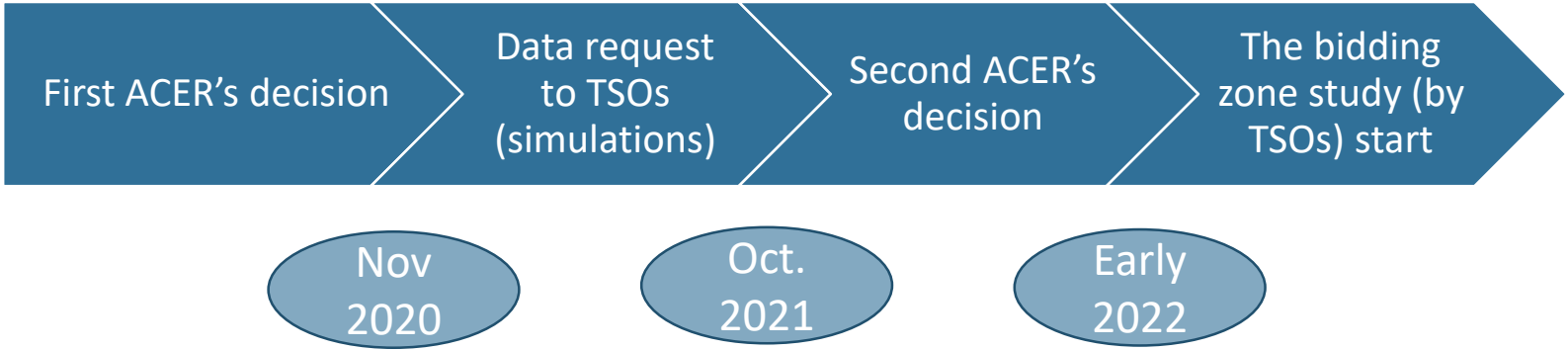
Decision on whether to amend or change bidding zones — MSs

Content of the decision on the bidding zone review



ACER's decision on the bidding zone review

In the absence of proposed alternative bidding zone configurations, and the need for ACER to take an informed decision, **a two steps approach was envisaged.**



Content of the first decision:

- ***EU Methodology***
- ***A data request to TSOs:*** *Locational marginal price (LMP) simulations for all Europe*

Content of the second decision:

- ***Alternative configurations to be studied*** *in view of the simulations performed by TSOs*

The BZR methodology adopted by ACER

The main changes introduced in the BZR methodology aim at:

- Ensuring a higher level of pan-European consistency and coordination
- Ensuring a higher level of stakeholders' involvement
- Refining several aspects of the analysis to be performed, while striking a balance with the level of complexity
- The BZR methodology ensures that all criteria, pursuant to Regulation, play a role, when TSOs will make a proposal. Certain priority is given to get the 'price signals right' and ensure that alternative bidding zone configurations address structural congestions in the most possible efficient manner.

Alternative BZ configurations – Focus on the Nordics

- In the updated BZR proposal, the following **alternative BZ configurations** have been proposed in the **Nordics:**
  - Sweden: New BZ (SE5) in the Stockholm metropolitan area, merge of SE4 with the rest of SE3 and merge of SE1 and SE2.
  - Norway: Split of NO4 leading to a new BZ (NO6).
  - Denmark and Finland: No alternative configurations proposed.
- However, mostly due to the **Swedish national security legislation**, ACER was not able to receive sufficient information to take an informed decision on these configurations.
- These configurations will be confirmed or adapted based on the results of the **LMP simulations.**

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Annexes

Consideration of third countries in the MACZT calculation

- According to the guidance provided by the services of Directorate-General for Energy of the European Commission in a letter of 16 July 2019, consideration of third (i.e. non EU member) country flows in capacity calculation and MACZT should be possible on the condition that an agreement has been concluded by all TSOs of a CCR with the TSO of the third country, approved by the respective regulatory authorities. The agreement should be fully in line with EU capacity calculation principles and rules, and should cover at least:
  - (i) consideration of internal third country constraints for intra-EU capacity calculation,
  - (ii) consideration of EU internal constraints for capacity calculation on the border with third country, and
  - (iii) cost-sharing of remedial actions.

Legal framework - Article 16(8) of regulation 2019/943

- *"Transmission system operators shall not limit the volume of interconnection capacity to be made available to market participants as a means of solving congestion inside their own bidding zone or as a means of managing flows resulting from transactions internal to bidding zones. Without prejudice to the application of the derogations under paragraphs 3 and 9 of this Article and to the application of Article 15(2), this paragraph shall be considered to be complied with where the following minimum levels of available capacity for cross-zonal trade are reached:*
  - *(a) for borders using a coordinated net transmission capacity approach, the minimum capacity shall be 70 % of the transmission capacity respecting operational security limits after deduction of contingencies, as determined in accordance with the capacity allocation and congestion management guideline adopted on the basis of Article 18(5) of Regulation (EC) No 714/2009;*
  - *(b) for borders using a flow-based approach, the minimum capacity shall be a margin set in the capacity calculation process as available for flows induced by cross-zonal exchange. The margin shall be 70 % of the capacity respecting operational security limits of internal and cross-zonal critical network elements, taking into account contingencies, as determined in accordance with the capacity allocation and congestion management guideline adopted on the basis of Article 18(5) of Regulation (EC) No 714/2009.*

- *The total amount of 30 % can be used for the reliability margins, loop flows and internal flows on each critical network element."*