

An aerial photograph of a power line tower in a field. The tower is a lattice structure, and power lines extend from it across the landscape. The field is a mix of brown and green, suggesting different crops or stages of growth. The sky is not visible.

ACER 

European Union Agency for the Cooperation
of Energy Regulators

State of play in monitoring the 70% requirement in the EU - ACER's role

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The EU CEP Regulation (2019)*:

- Article 16(8) enforces the minimal amount **70%** of cross-zonal capacity to be offered to the market
- Applies to both Flow-based and NTC-based
- Relates to day-ahead and intraday timeframes
- Binding for EU MSs since 1 January 2020
- The Regulation allows reasoned derogations, or gradual achievement of CEP target, until 2025
- TSOs need a set of preconditions at CCR level, to comply with the CEP70 target:
 - Coordinated Regional Operational Security Coordination (ROSC) to optimise the congestion management, with coordinated application of remedial actions
 - Accompanied with the methodology of Cost Sharing of redispatching costs

Article 16

8. 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.

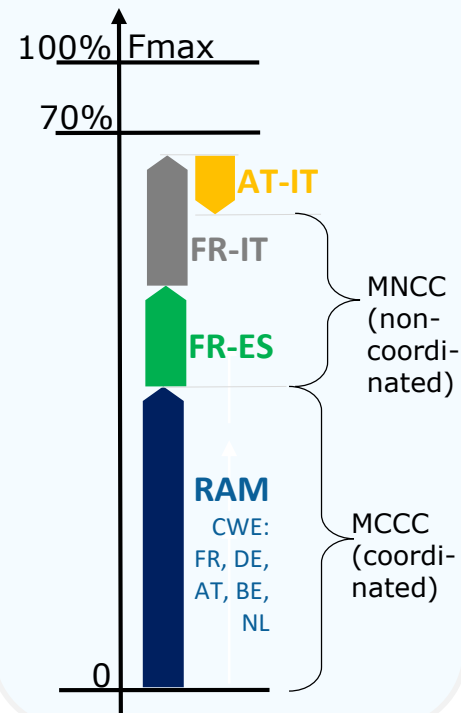
* https://eur-lex.europa.eu/legal-content/EN/TXT/?toc=OJ%3AL%3A2019%3A158%3ATOC&uri=uriserv%3A0J.L_.2019.158.01.0054.01.ENG

CEP 70% target: ACER's recommendation

- ACER Recommendation 01/2019* provides the practical approach to calculate the Margin Available for Cross Zonal Trade (MACZT)

- **MACZT = MCCC + MNCC** $\geq 70\%F_{max}$
- **MCCC**: portion of F_{max} of a CNEC made available within the observed "coordinated area"
 - At Flow-based: MCCC is equal to RAM of a CNEC
 - At NTC-based: $MCCC = \sum NTCxPTDF$;
 - only positive contributions taken into account
 - temporarily calculated only at "the most-limiting CNEC"
- **MNCC**: portion of F_{max} possessed by market flows from other regions
 - netted flows by the "external" cross-border exchanges
 - equivalent for NTC and FB (*at FB: it is UAF, i.e. "Unscheduled Allocated Flow"*)

Illustration of MACZT of a French CNEC relevant for the CWE region (flow-based)

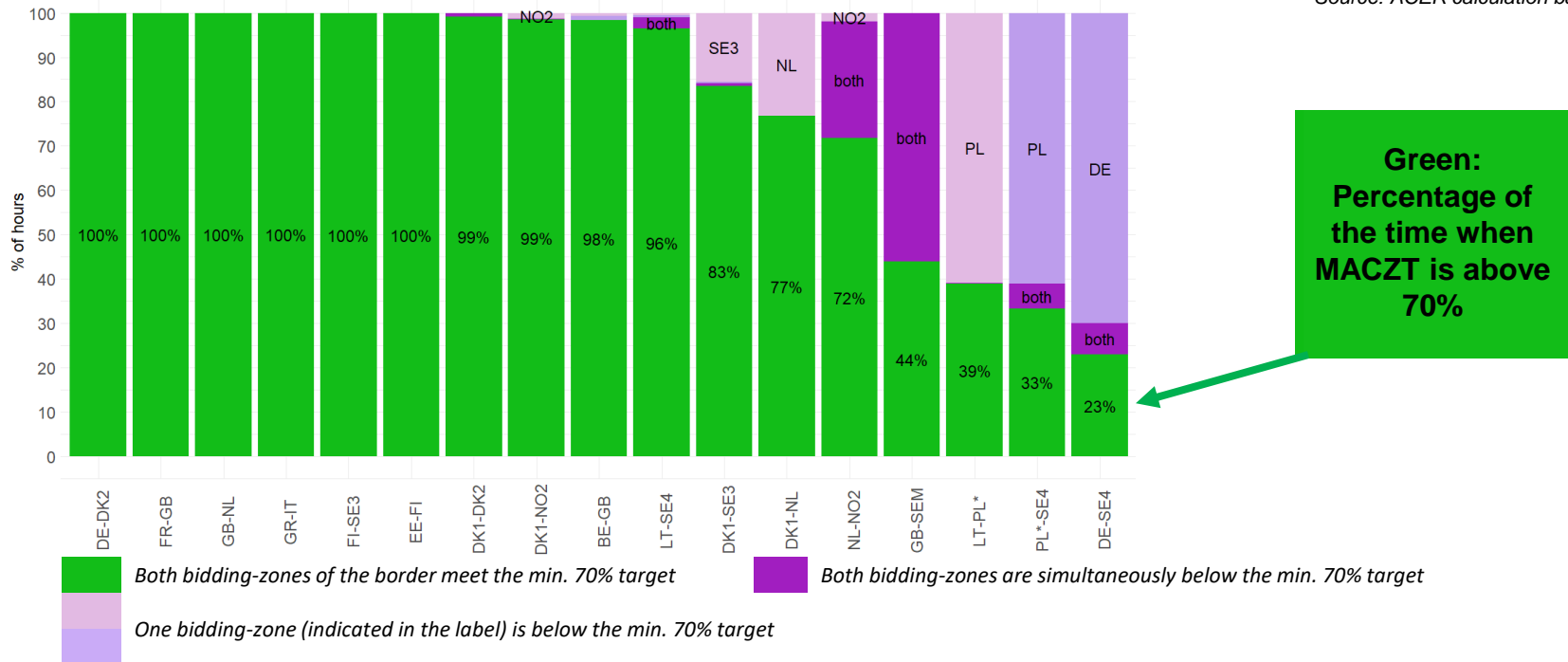


* https://www.acer.europa.eu/Official_documents/Acts_of_the_Agency/Recommendations/ACER%20Recommendation%2001-2019.pdf

- CEP Regulation requires monitoring of 70% target to be performed by NRAs
- ACER advice requested by the Electricity Cross-border Committee of EU Member States
- ACER provides overall monitoring, in order to facilitate the maximally coordinated approach applied per CCRs / MSs
- ACER's monitoring is based on the ACER Recommendation 01/2019
 - Monitoring for the 1st half of 2020 is available (excerpts at the following slides)
 - Monitoring for the 2nd half of 2020 is ongoing

DC borders - NTC-based - first semester of 2020 (% of hours)

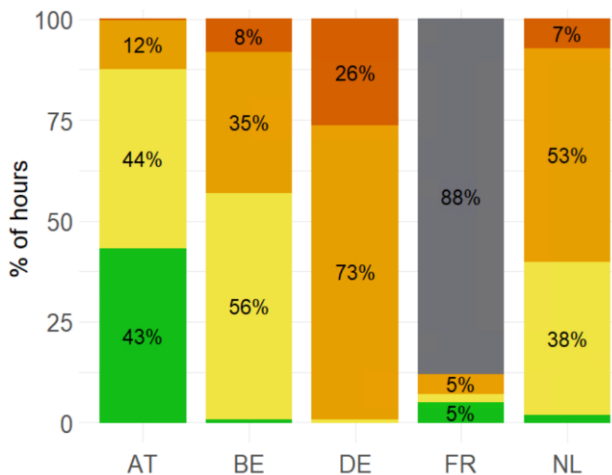
Source: ACER calculation based on TSOs data



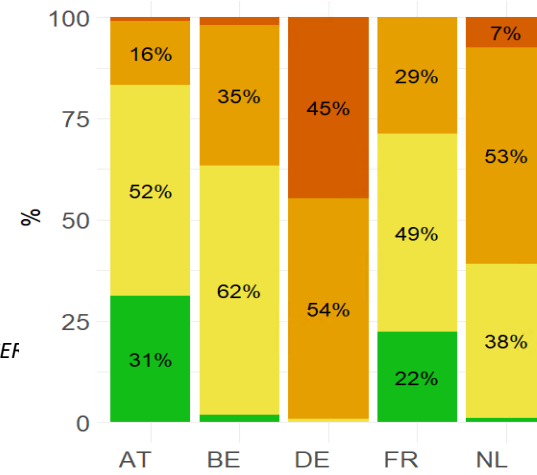
- DC borders: 70% target was met most of the time, but few substantial exceptions
- Neighbouring AC CNECs often limit the HVDC capacity (DE-SE4, DK1-SE3, NL-DK1)
 - Often no transparent information on limiting AC CNECs
- Polish allocation constraints influence the availability of capacities with SE and LT

Source: ACER calculation based on TSOs data

not considering exchanges with third countries



with considering exchanges with third countries



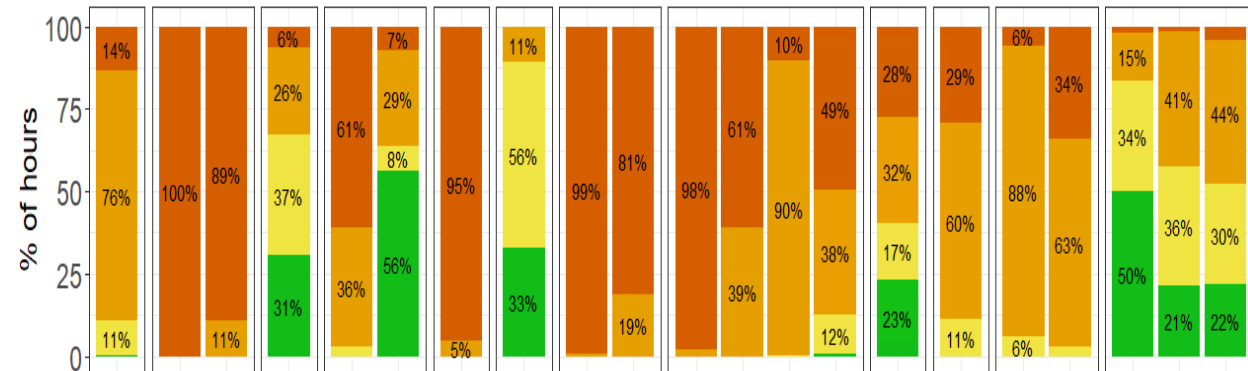
Info not provided to ACEF
 MACZT < 20%
 20% <= MACZT < 50%
 50% <= MACZT < 70%
 MACZT >= 70%

Green:
Percentage of the time when MACZT is above 70%

- CWE region: FB approach enables smooth monitoring of MACZT, on all CNECs, since all inputs are direct outputs of FB capacity calculation (MCCC=RAM, MNCC=UAF)
- Room to improve in DE, BE and NL
- BE&NL impacted by loop flows
- More information (was) needed for FR
- 3rd country flows on these graphs: actually a high influence of CH

ACER AC borders - NTC-based - first semester of 2020 (% of hours)

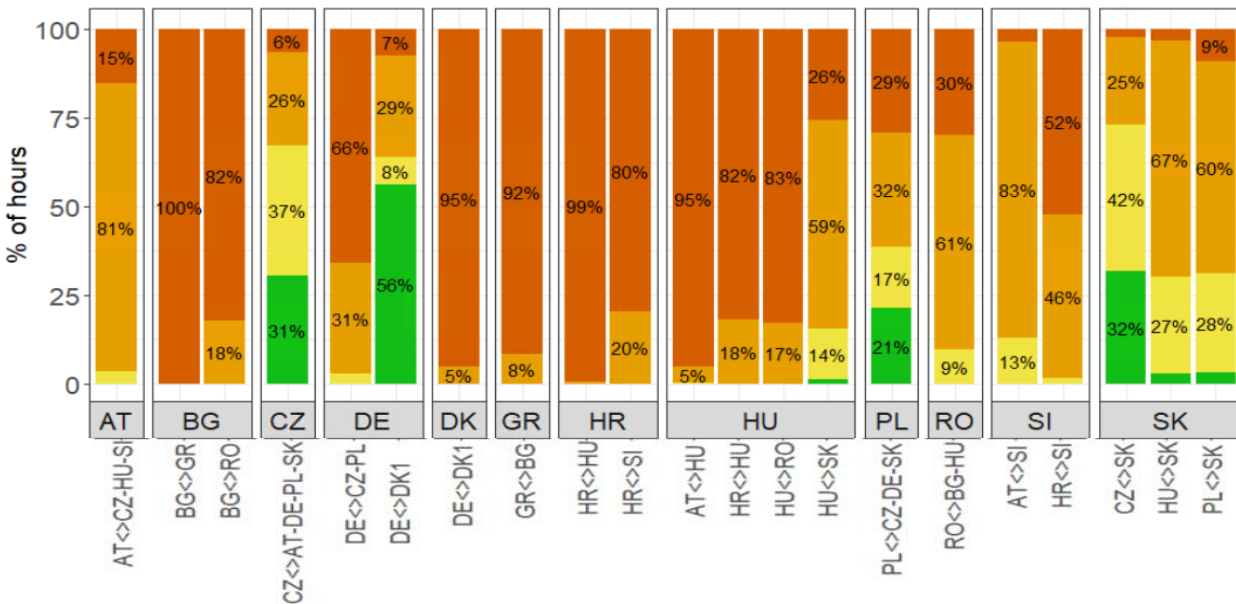
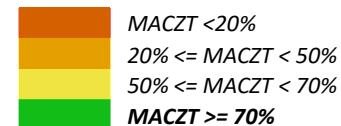
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Source: ACER calculation based on TSOs data

with considering exchanges with third countries

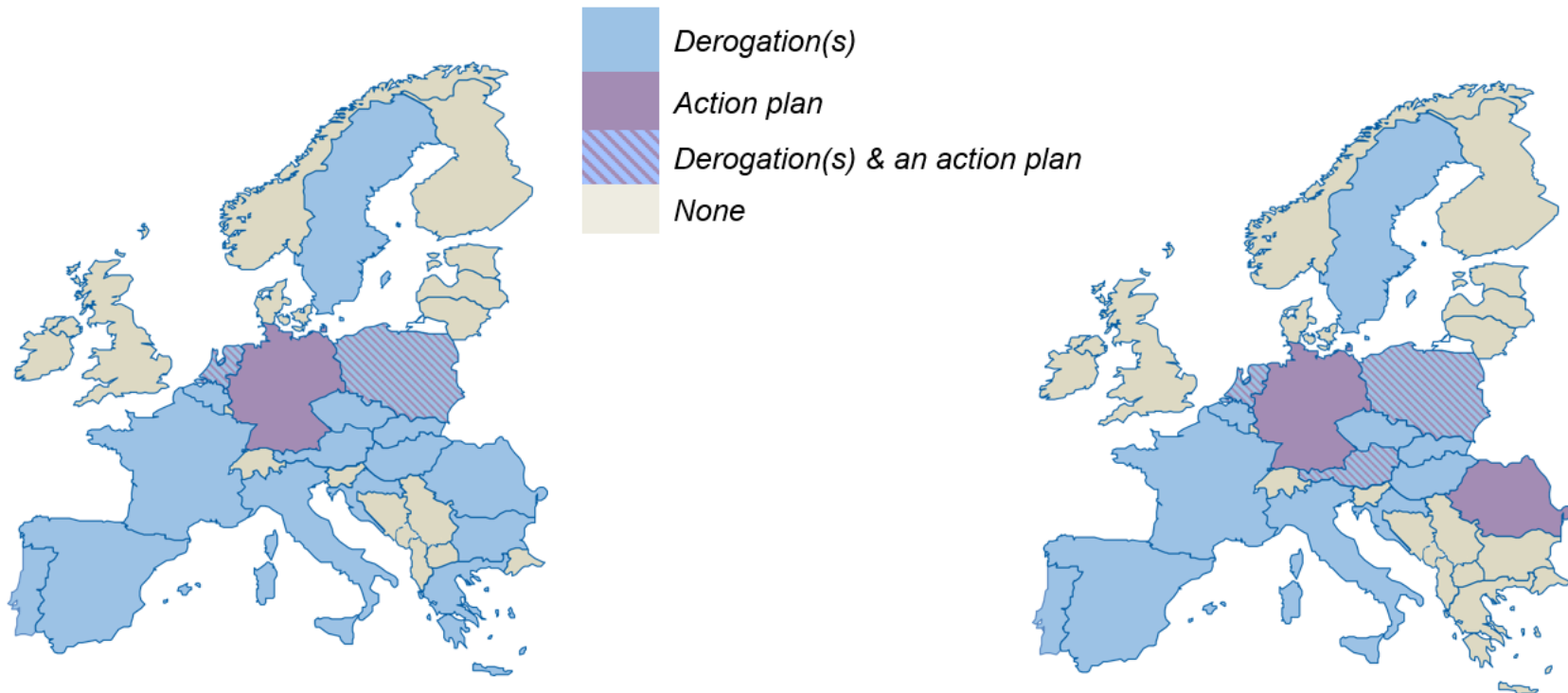
not considering exchanges with third countries



- room for improvement for all countries and borders
- High influence of 3rd countries in SEE and CEE

- DC borders: 70% target met mostly, but with a few notable exceptions
- AC borders: significant room for improvement for most regions and borders
- Robust and extensive data are required - room for data improvement
 - In the 2nd semester TSOs have kept on improving the data
 - the data completeness and quality is expected to improve significantly in the future when the CCMs (Core FB, Nordic FB) are implemented
- the need for harmonisation and transparency on the compliance assessment at national level
 - more coordination for countries inside of a same coordination area would help to ensure more consistency in the data and the monitoring

Overview of Derogations and Action Plans for 2020 and 2021



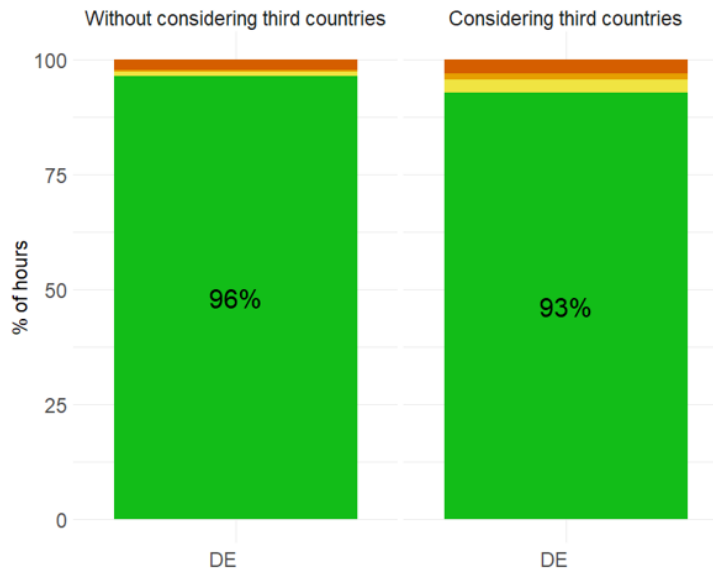
2020

NRAs should grant **derogations** as a last resort measure,
and only where necessary for maintaining operational security

2021

Germany,

1st semester 2020



CCR Core

Border	% of capacity per critical network element (CNE%)						
	2020	2021	2022	2023	2024	2025	As of 31.12.2025
Core	11,5	21,3	31,0	40,8	50,5	60,3	70,0

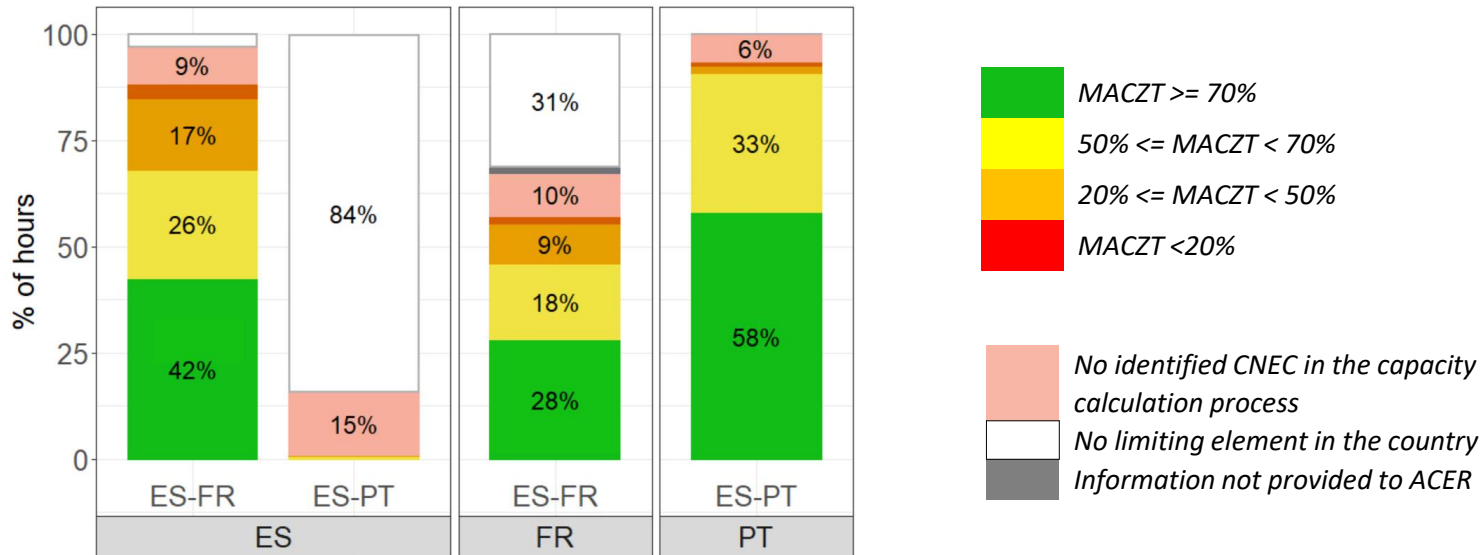
The 20% minimum values (CWE-minRAM) introduced in the CWE region in April 2018 will continue to be granted regardless of the above start values, provided that this is possible in compliance with system security.

The starting value of 11.5% gives a total capacity of 736 MW for the profile of DE(50Hertz) -> PL & CZ and DE(TenneT) -> CZ, which must be made available by the German side for cross-zone trading (both in import and export direction). The capacity offered may be reduced as part of harmonisation by the Polish and/or Czech transmission system operators. The MW value published here can be used by cross-bidding zone trading on the profile DE(50Hertz) -> PL & CZ and DE(TenneT) -> CZ (and in the opposite direction) but also by any trade across other bidding zone limits.

BACKUP SLIDES

AC borders – Results for South West Europe (SWE)

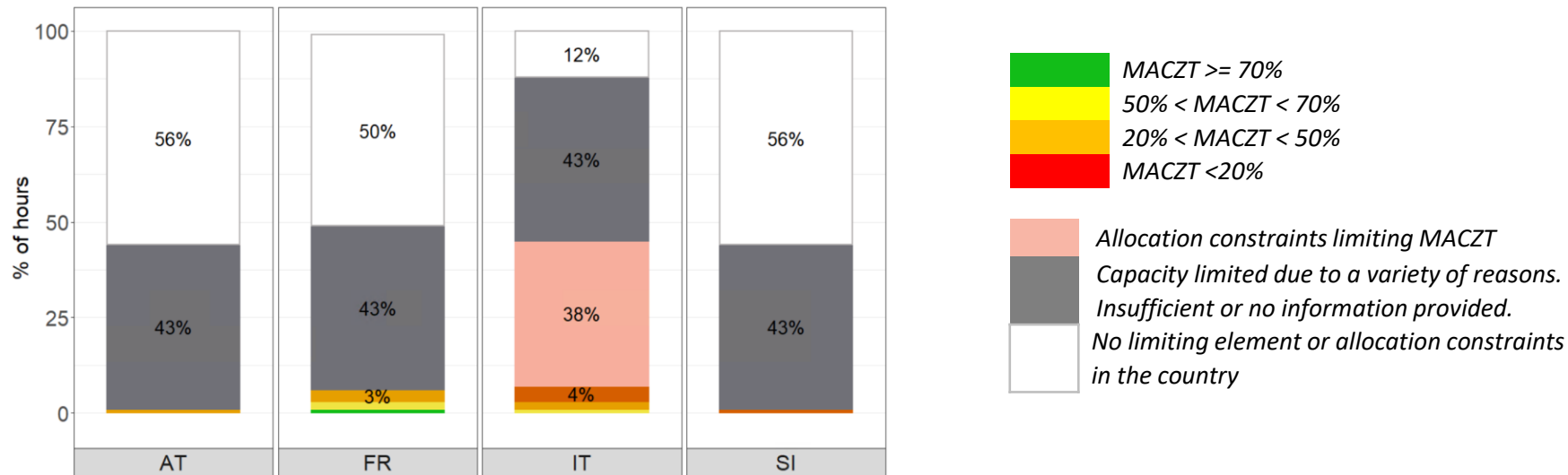
Percentage of the time when the relative MACZT is above the minimum 70% target (green) in the SWE region – first semester of 2020 (% of hours) in



South West Europe (SWE) region: 70% target met more than half of the time

AC borders – Results for Italy North

Percentage of the time when the relative MACZT is above the minimum 70% target (green) in the Italy North region, not considering exchanges with third countries – first semester of 2020 (% of hours)



Italy North region: Urgent need for better data, as margin could only be monitored less than 20% of the time

- **2020:** derogations given in 16 MSs
 - **3 MSs (DE, NL, PL) have action plan, and 2 MSs (AT, RO) plan to have them**
 - Substantial **alignment and harmonisation of derogations only found in SWE and Italy North**, and partially in CWE
- **2021:** 13 derogations requested to date
- **Significant room to further harmonise derogations** across the EU e.g.
 - **Reasons underlying the request** for a derogation
 - Include minimum target(s) for the derogation or a way **to monitor improvements** towards the 70% target
 - NRAs should grant **derogations as a last resort measure, and only where necessary for maintaining operational security**

- **At national level:** Ensuring compliance with the 70% target is the NRA's task
- Compliance coordination is key. **Uncoordinated approaches could put the overall binding 70% target at risk**
- **At EU level: Comparability of results depends critically on the provision of harmonised and coordinated data by TSOs,** in line with ACER's Recommendation
- **ACER's call to action:** Let's concentrate efforts on **increasing cross-zonal capacity** to meet the 70% target and **in improving the provision of the data** for monitoring purposes

Thank you for your attention!



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