


ACER

 Agency for the Cooperation
of Energy Regulators

The Bidding Zone Review

Christophe Gence-Creux

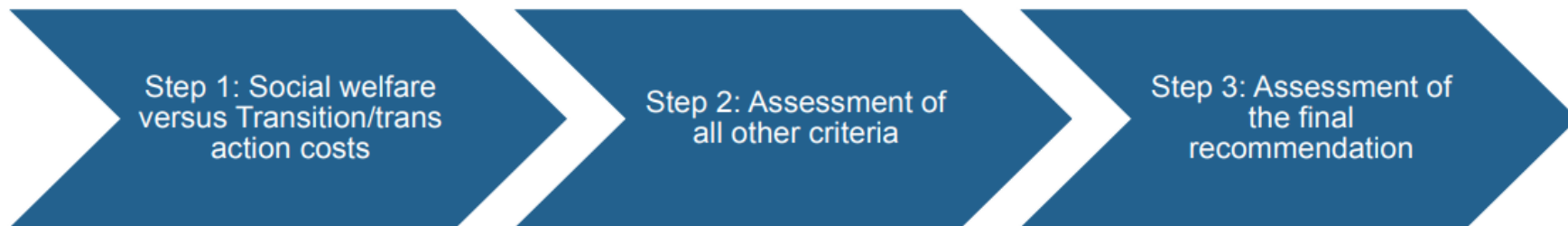
Head of the Electricity Department

Nordreg Stakeholder Forum

Copenhagen, 3 December 2019

First, the methodology

- Pursuant to the CEP, a pan-European methodology for an initial European BZ review is to be proposed by all TSOs
- The submitted methodology suggests to perform simulations at regional level through a three steps process



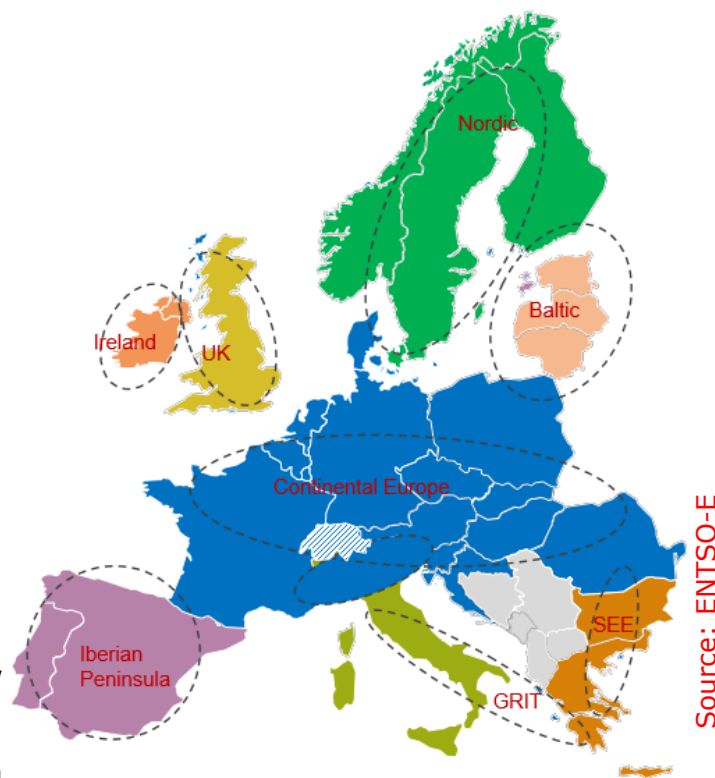
Preliminary comments. The submitted proposal poses two questions/challenges:

- The methodology is rather general -> will a conclusion ever be reached?
- Combined with a regional process -> See next slide

The regional approach as proposed by TSOs

- ENTSO-E/TSOs propose to conduct BZR process in several regions (BZ Regions)
- BZ Regions were defined to ensure that one BZ is in one region only (\neq CCR scope) and therefore to avoid divergent conclusions (consistency of CCR principles within a BZ Region such as e.g. CNEC selection?)
- BZ Regions may take into account regional characteristics (e.g. grid topology).
- Consistency across the studied BZ configurations should be guaranteed (how?)

Main concern: While some elements of regional analysis may simplify the simulations, a **regional approach with both elements of regional governance and uncoordinated regional analyses** may not be in line with the CEP objective of pan-European welfare maximisation



Second, the configurations

BZRR	BZ included	Alternative configurations
Central Europe	FR, BE, NL, DE/LU, AT, CZ, PL, SK, HU, SI, HR, RO, DK1, CH, IT1	-
Nordic	FI, SE1, SE2, SE3, SE4, NO1, NO2, NO3, NO4, NO5, DK2	Yes
SEE	BG, GR	Yes
Central Southern Italy	IT2, IT3, IT4, IT5, IT6,	No
Iberian Peninsula	ES, PT	No
Baltic	EE, LV, LT	No
Ireland	SEM (IE, NI)	No
UK	GB	No

Main comment: Why TSOs are able to propose alternative BZ configurations in the Nordic area and not in Central Europe?

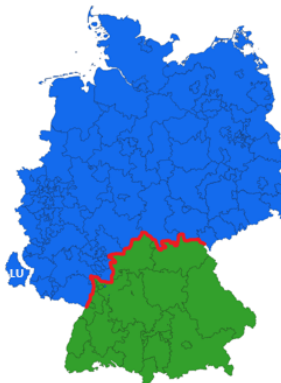
Informally submitted configurations for information only

- Informally submitted configurations for information only (not included in the proposal):
 - Split of the Netherlands in several BZs
 - Split of Germany in several BZs
 - Merge Germany and Austria



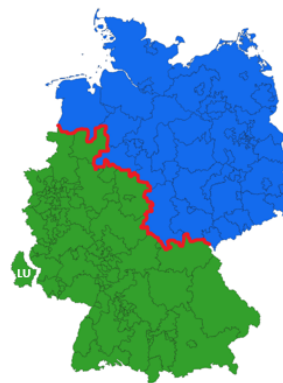
Source: ENTSO-E

Configuration 1



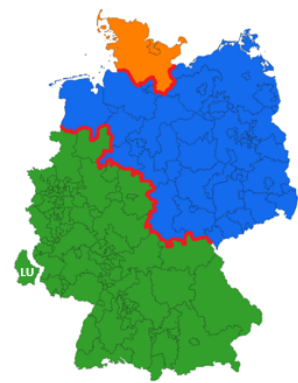
Proposal from BZR1

Configuration 2



Published in the
„Energiewirtschaftlichen Tagesfragen“

Configuration 3



Schleswig-Holstein as own
Bidding Zone

Process and next steps

- Currently discussions among Regulatory Authorities on whether submissions should be deemed as incomplete
- If referred to ACER, ACER has three months for a decision (Article 14(5))
- Maximum duration of 12 months for the BZ review, after proposal has been approved (Article 14(6))



**Thank you
for your attention**

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Nordic bidding zone review

NordREG meeting

December 3 2019, 9.30-16.00, Copenhagen



Nordic Bidding zone review - Introduction

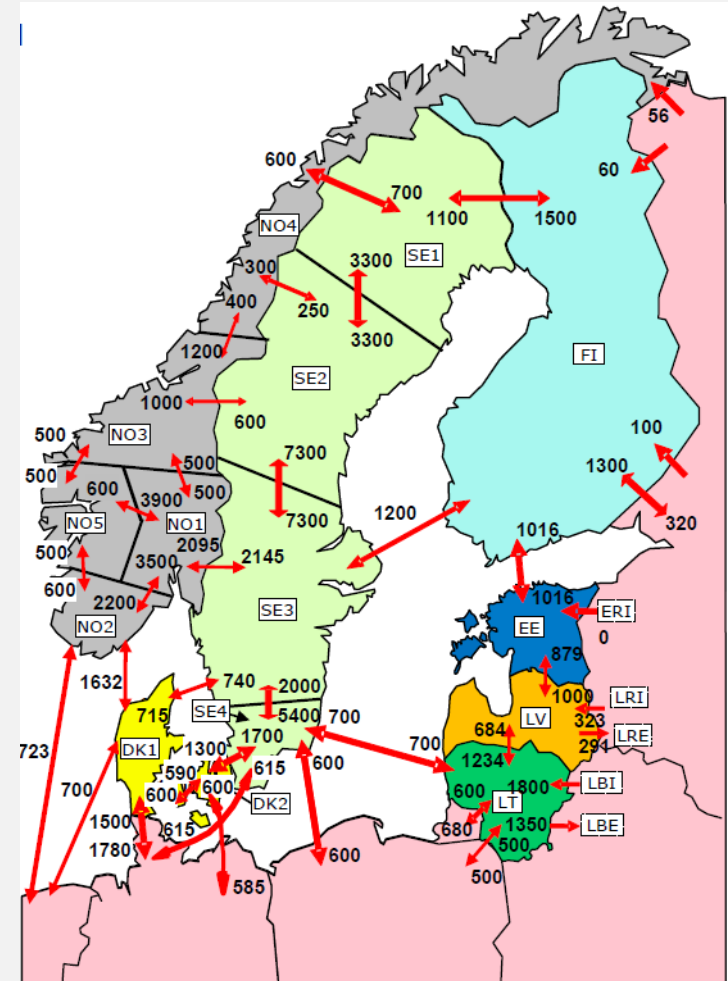
- ❖ The Nordics have a long tradition of bidding zones
 - ✓ Norway has had bidding zones in its current form since the mid 1990s → Traditionally a more dynamic approach
 - ✓ Denmark introduced bidding zones 1999
 - ✓ Sweden introduced bidding zones in 2011
 - ✓ Finland as one bidding zone → No structural congestion internally

- ❖ Bidding zone reviews have been done before on national level



Nordic Bidding zone review – Starting point of the review

- ❖ Bidding zone borders should represent structural congestion
- ❖ Correct price signals important for efficient development and operation of the Nordic power system
- ❖ Market design should support the operation of the power system
 - ✓ Market outcome as close to the physical grid situation as possible
 - ✓ Bidding zones part of system balancing





Nordic Bidding zone review – Methodology and assumptions

- ❖ The Nordic TSOs have taken part in the development of the bidding zone review methodology
 - ✓ The methodology is usable for Nordic conditions as well
- ❖ No additional evaluation criterias defined yet
- ❖ Start the work but awaiting the NRA approval





Nordic Bidding zone review – proposal for further investigation

- ❖ Norway
 - ✓ Splitting the NO4
- ❖ Sweden
 - ✓ Merging SE3 and SE4
 - ✓ The Stockholm Metropolitan Area constitutes a new BZ
 - ✓ Other
- ❖ Denmark
 - ✓ No changes → Energinet do not see any significant challenges with meeting the 70% requirement
- ❖ Finland
 - ✓ No changes → sufficient availability of HVAC capacity for cross-zonal trading with internal investments and use of remedial actions as shown in ACER reports and ENTSO-E Technical report





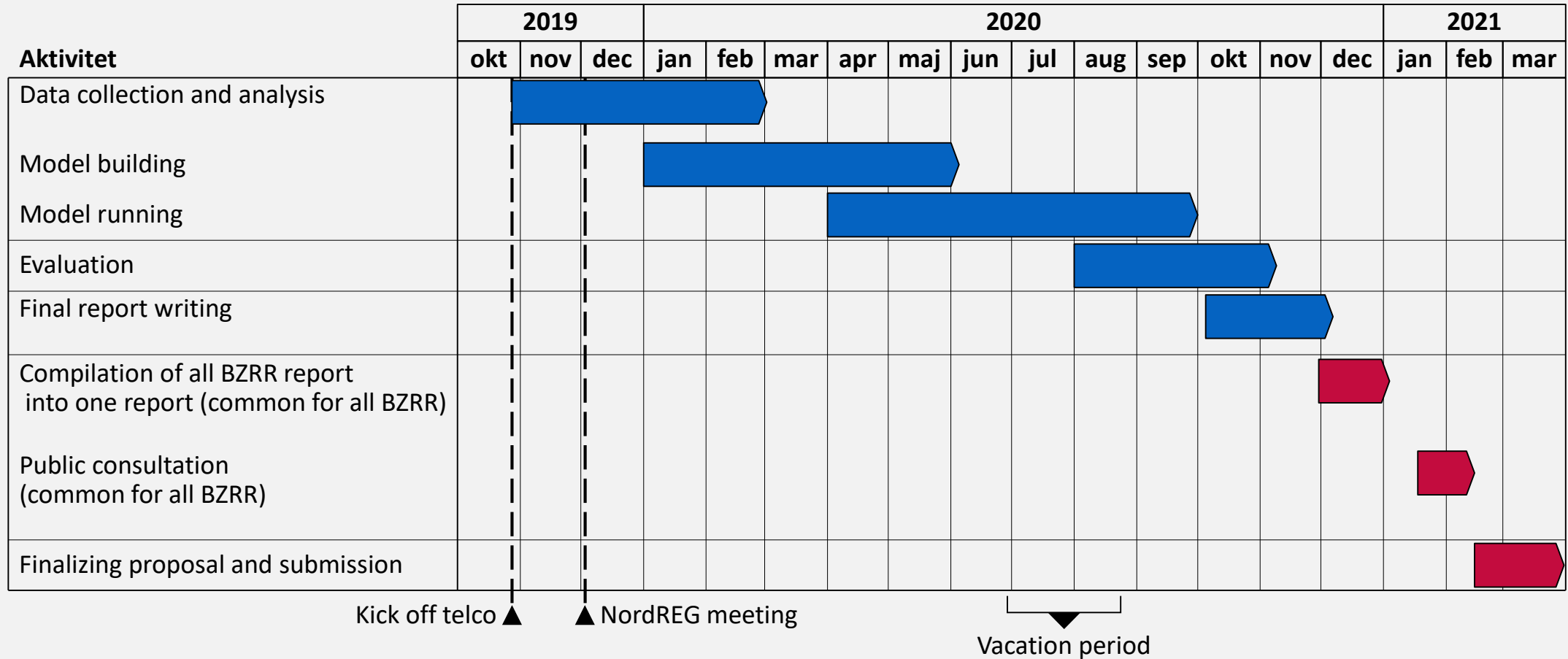
Nordic Bidding zone review – Modelling

- ❖ The modelling will be done by Nordic TSOs
 - ✓ Svk and Statnett main responsible
- ❖ The Samnett model
 - ✓ Combined market and grid model
 - ✓ Includes detailed representation of the Nordic grid
 - ✓ Good at optimizing hydro production
 - ✓ Use generation and load from market result to calculate physical flow
 - ✓ Uses flow based market coupling
 - ✓ Complemented by the BID model (market model) and PSS/E (load flow model)





Nordic Bidding zone review - Preliminary time plan



● Nordic level

● European level



Nordic Bidding zone review – stakeholder interaction

- ❖ Consultation according to the regulation
- ❖ NordREG meetings on cross border capacities
- ❖ National dialogue with stakeholders and NRAs
- ❖ Stakeholder involvement plan will be developed





Thanks for your attention!

NordREG meeting

December 3 2019, 9.30-16.00, Copenhagen

ENERGINET



FINGRID

Statnett

ACER



Agency for the Cooperation
of Energy Regulators

The 70% CEP Target

Christophe Gence-Creux

Head of the Electricity Department

Nordreg Stakeholder Forum

Copenhagen, 3 December 2019

- **The calculation of cross-zonal capacity is crucial for the internal electricity market.** It should ensure the efficient management of network congestion, along with the management of remedial actions, network investments, and the definition of bidding-zones
- Although some progress was achieved in this area over the years, **the level of efficiency, transparency and non-discrimination expected by the European legal and regulatory framework has not fully been reached.**
- **The recast Electricity Regulation provides a new opportunity** to improve congestion management while ensuring a minimum level of cross-zonal capacity **(70% target*)**

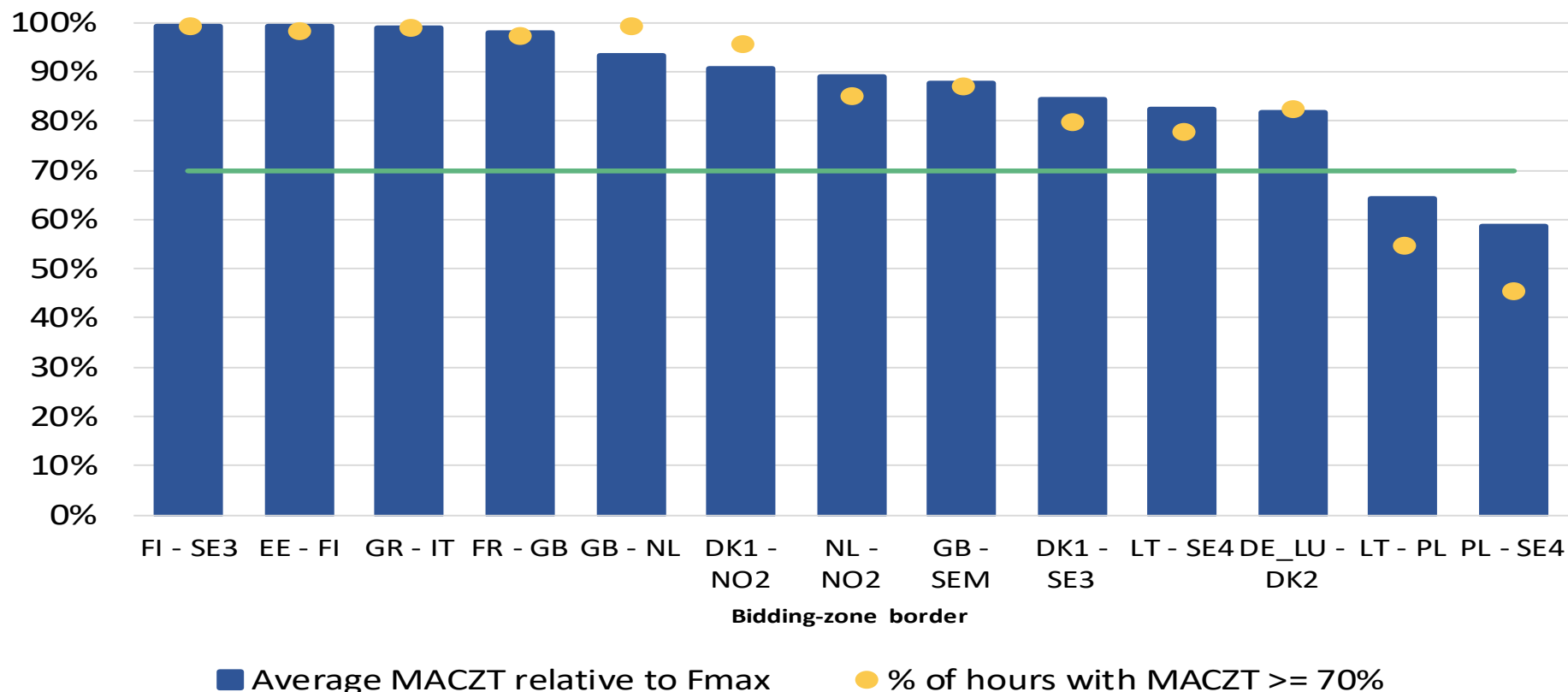
Regulation 2019/943 introduces “...the following minimum levels of available capacity for cross-zonal trade [...]:

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 [...]

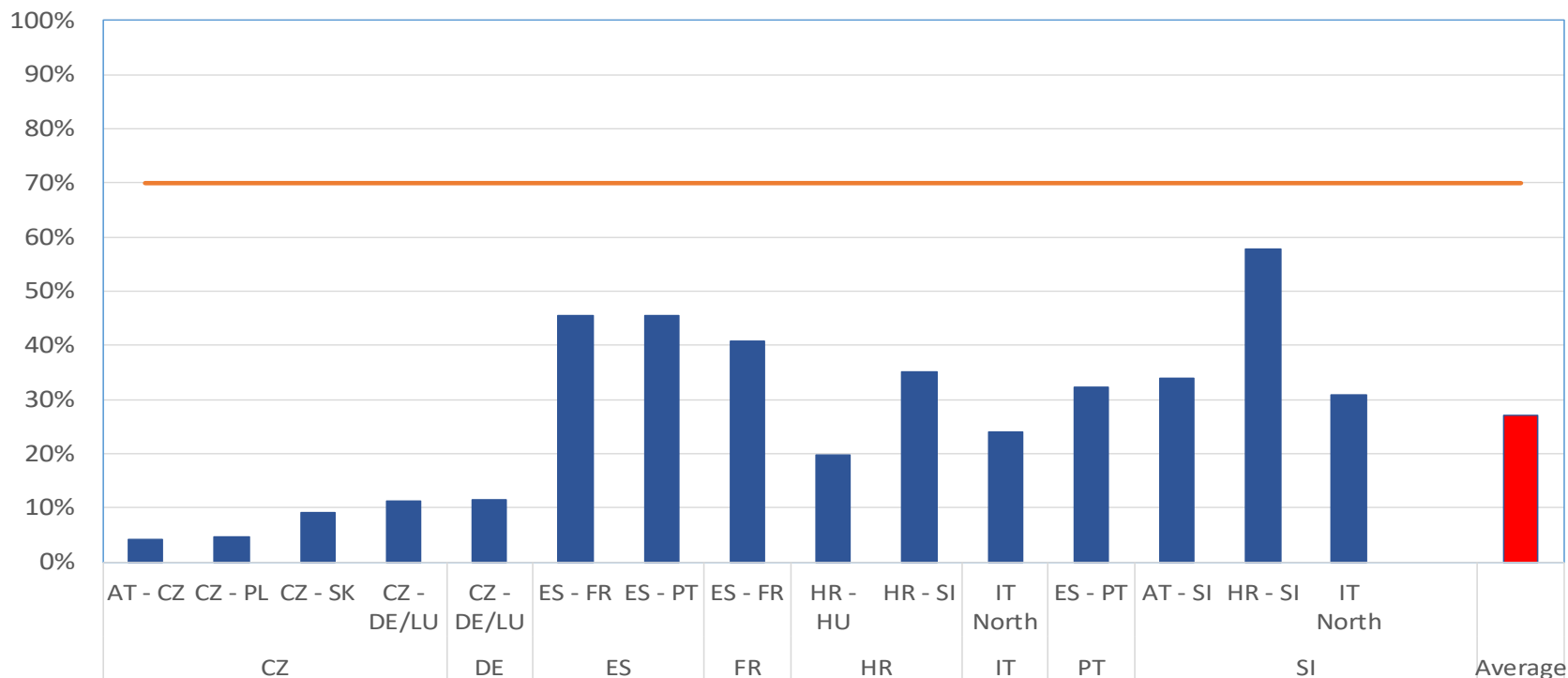
for borders using a flow-based approach, the minimum capacity shall be a margin set in the capacity calculation process as available for flows induced by cross-zonal exchange. The margin shall be 70% of the capacity respecting operational security limits of internal and cross-zonal critical network elements, taking into account contingencies [...]”

- 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**
- 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 monitoring of MACZT estimates the flows induced by cross-zonal trade within the EU** (and with third countries, subject to conditions)

Average relative MACZT and percentage of time when the minimum 70% target is achieved on DC bidding-zone borders in Europe – 2016–2018



Average relative margin available for cross zonal trade (MACZT) on selected AC bidding-zone borders in Europe – 2016–2018

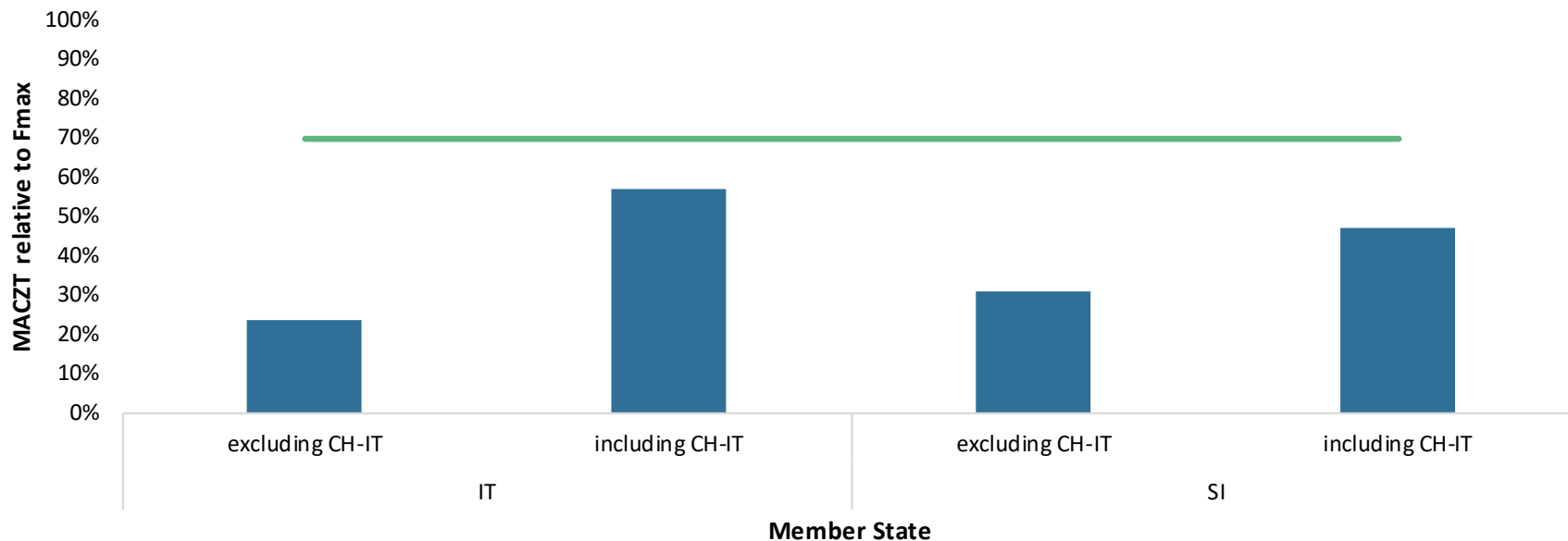


Note: The average relative MACZT is computed over all declared critical network elements, taking EU bidding-zone borders into account. The margin available for trade on a given border is displayed from the perspective of the two Member States at both sides of the border. Member States and borders are selected based on the confidence in data, i.e. only borders for which the confidence was sufficient are displayed.

Important efforts are needed to reach the 70% CEP target!

The inclusion of third countries (e.g. Switzerland) may significantly impact MACZT in some regions, such as e.g. Italy North

Average relative MACZT in the IT North region, 2016-2018



Notes:

For each Member State, the value on the left describes MACZT for IT North excluding all exchanges with Switzerland

For each Member State, the value on the right describes MACZT for IT North taking full account of the NTC on the Italy – Switzerland border

Both values are computed based on the same set of NTCs and schedules

Following guidance from the EC, the Recommendation suggests that exchanges between EU and third countries be taken into account, under the conditions that

- Internal network constraints within the third country are considered for intra-EU capacity calculation
- Internal network constraints within the EU are considered in the capacity calculation with the third country
- An agreement on the sharing of the costs of remedial actions applies between EU countries and the third country

See Section 4.1 of the Recommendation, available at https://www.acer.europa.eu/Official_documents/Acts_of_the_Agency/Recommendations/ACER%20Recommendation%20on%20the%20cross-border%20capacity%20calculation%20methodology%202019.pdf.

What is the situation in the Nordic region?

- The Agency **could not publish results for this region, as the level of detail of the data provided** did not allow to perform an analysis with sufficient level of confidence
 - » it relied on a grid model elaborated within a research project, with no guaranteed robustness
 - » it only provided information for the region as a whole, without detailed information about individual MSs
- Overall, the Agency expects that **improvements in the data provided** by TSOs will allow NRAs and ACER to perform a robust analysis of MACZT for all regions from 1/1/2020.
- In this context, the Agency is discussing with TSOs the data requirements that is necessary to perform a robust analysis of MACZT, from 1/1/2020. **A formal data request for 2020 data will be sent before the end of this year.**

- Derogation requests are being finalised in most MSs
- A few MSs are finalising an Action Plan (DE) or considering a combination of Derogation + Action Plan (NL, RO, PL?, SE?) with a linear increase of the MACZT to reach the 70% target by the end of 2025
- Continuous monitoring by NRAs/the Agency (twice a year)
- Parallel bidding zone review process is ongoing
- Any failure to reach the 70% target (or the linear trajectory) expose MSs to a bidding zone reconfiguration decided by the EC after an Agency's Opinion (art. 15(5) of the recast Electricity Regulation)



**Thank you
for your attention**

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The Nordic TSOs assessment and expected compliance of the 70 % minimum criterion for transmission capacity

Introduction

NordREG meeting

December 3 2019, 9.30-16.00, Copenhagen



The 70% rule in short

- ❖ In the case of the flow based approach, CEP requires a minimum margin for cross-zonal trade set in capacity calculation. The margin shall be 70% on CNEs
- ❖ ACER recommendation 01/2019 interprets this to be a margin available for cross-zonal trade (MACZT) per MTU and per CNE. For the Nordic, the MACZT will equal RAM (adjusted for already allocated capacity), and the requirement will be $RAM > 70\%$ of the maximum flow (F_{\max}) on each CNE



Situation in the Nordics

- ❖ Currently, the Nordic TSOs do not have
 - ✓ operational common grid models (CGM) for the purpose of capacity calculation
 - ✓ CNE (Critical network elements) as foreseen in capacity calculation
- ❖ This made it challenging for the Nordic TSOs to meet the data requested by ACER for the purpose of establishing the initial level of capacities given to the market
- ❖ However, we do have 11 weeks of pilot testing data in the Nordic flowbased project on a similar format to that requested by ACER.
- ❖ Operational CGMs and CNEs will be available when we start parallel tests for the Nordic Flowbased project next year (autumn 2020)



XB capacities in the Nordic (1/2)

Overall quarterly day ahead capacities and flows – percent of max NTC - AC

Quarter 1, 2019

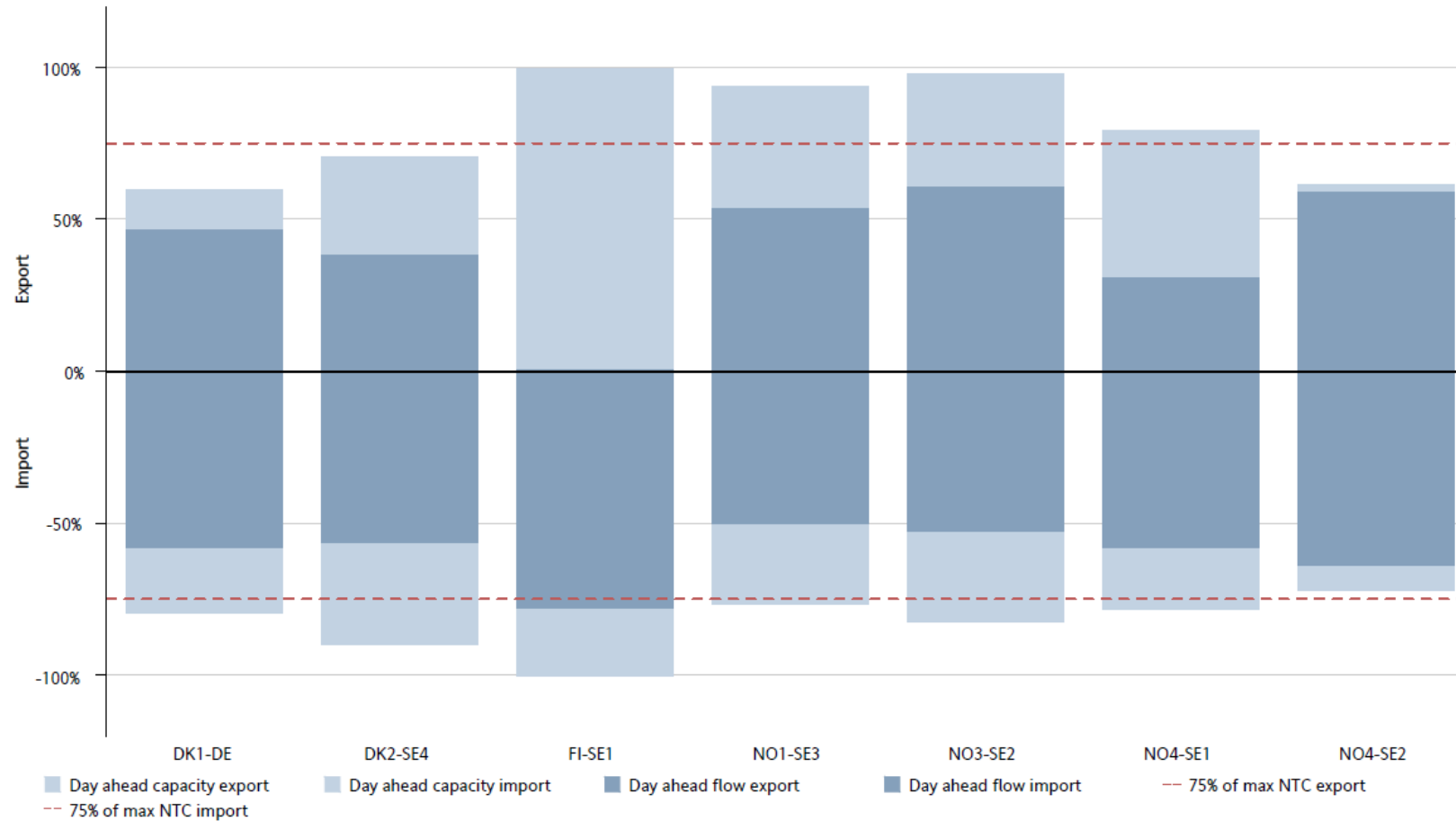
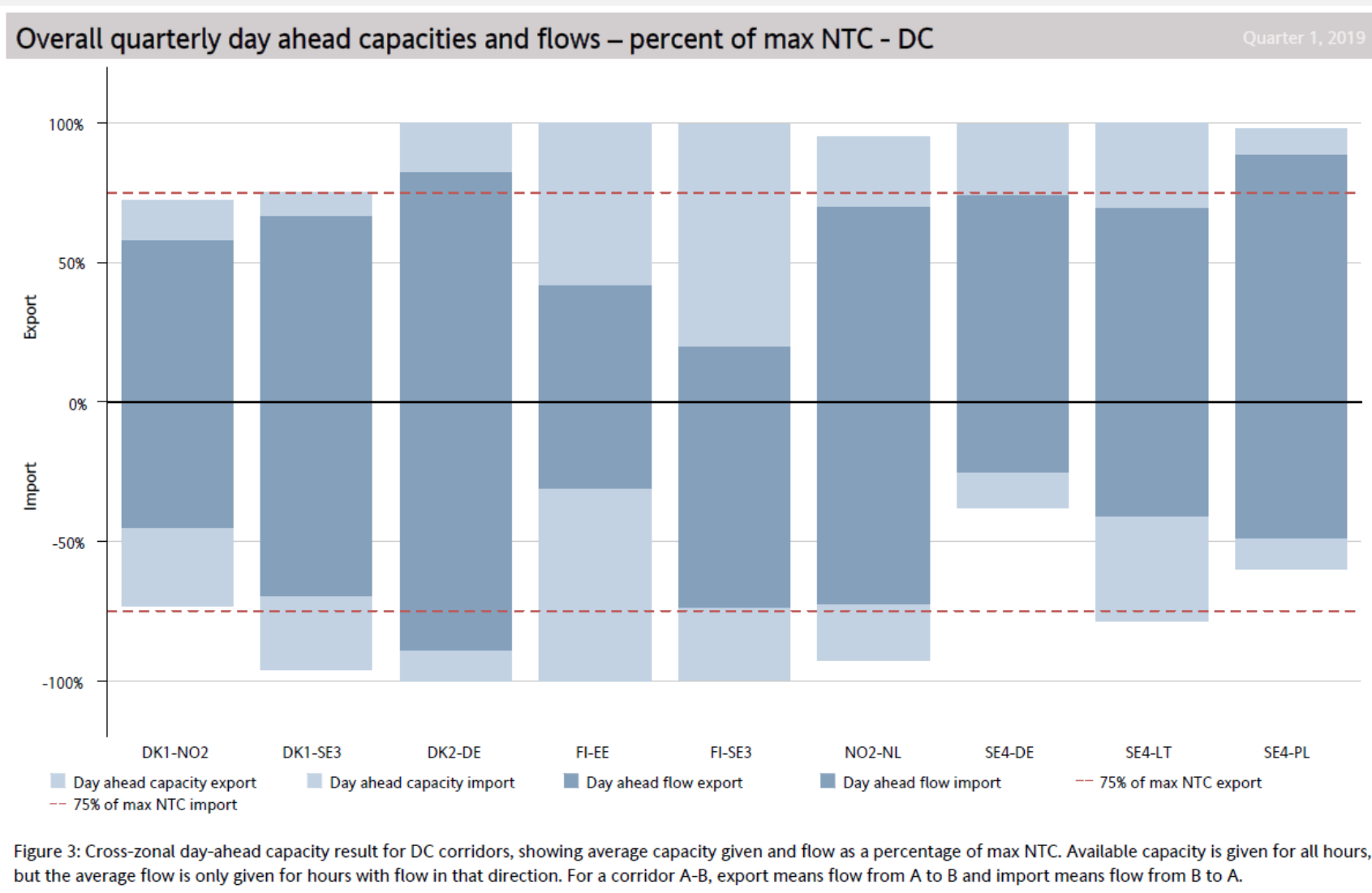


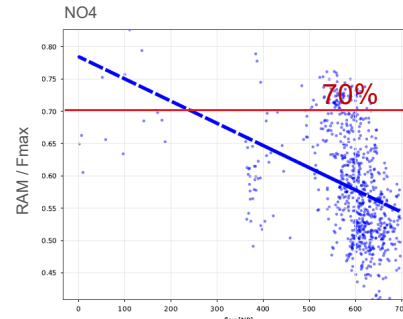
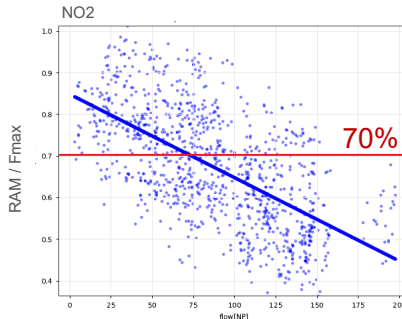
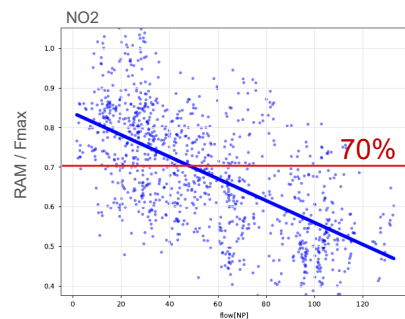
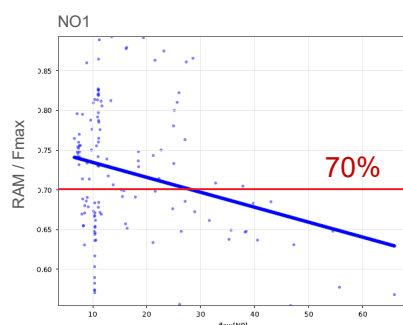
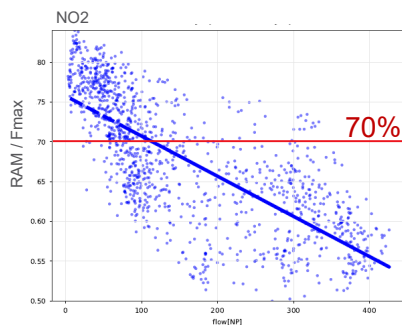
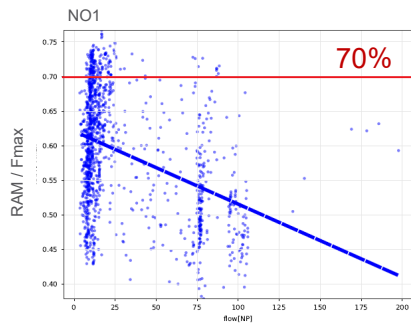
Figure 2: Cross-zonal day-ahead capacity result for AC corridors, showing average capacity given and flow as a percentage of max NTC. Available capacity is given for all hours, but the average flow is only given for hours with flow in that direction. For a corridor A-B, export means flow from A to B and import means flow from B to A.



XB capacities in the Nordic (2/2)

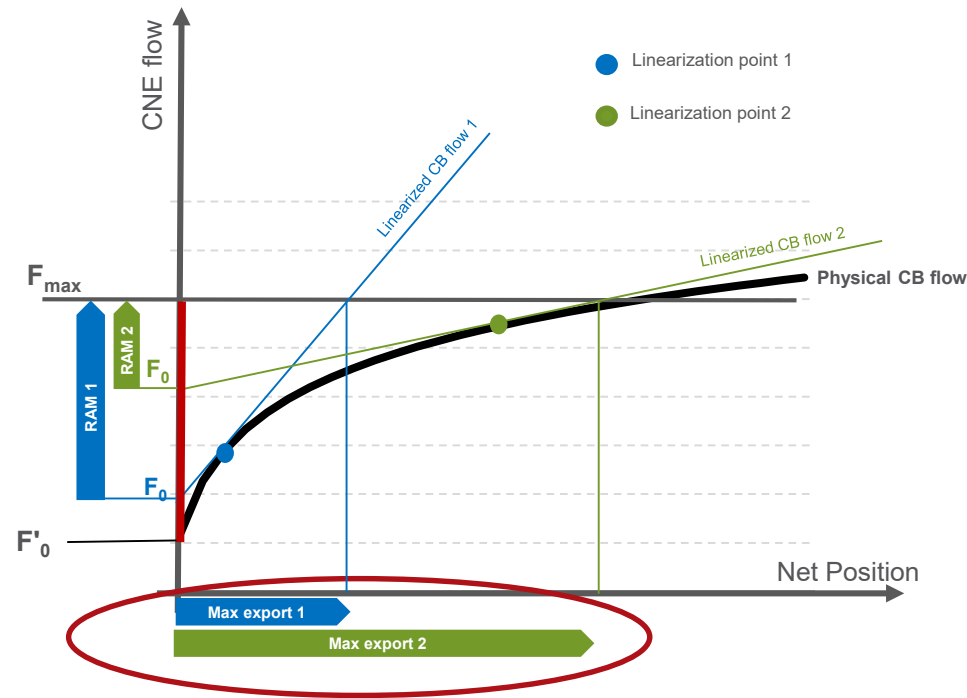


Is the 70% requirement an issue in Norway?



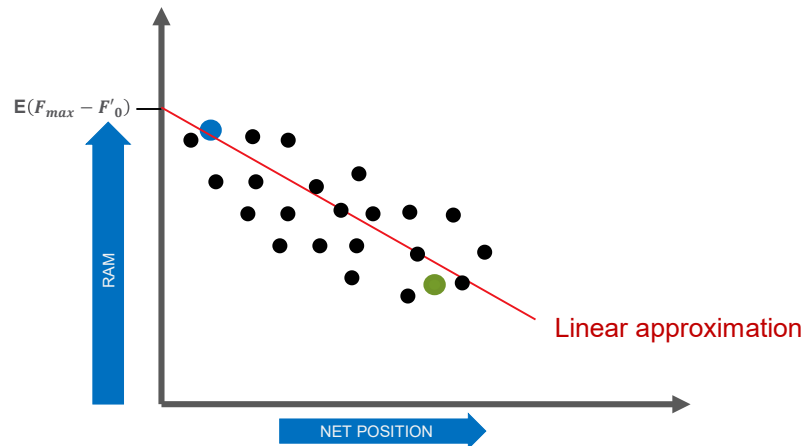
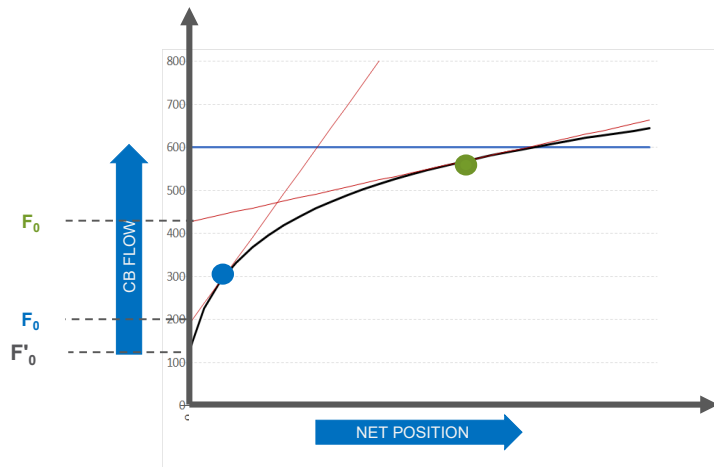
- The Nordics comprises 12 bidding zones of which 5 are in Norway
- In a study of 11 weeks in 2017 with available FB data, 65 Norwegian CNECs were monitored
- For 13 of these CNECs, we found $\frac{RAM}{F_{max}}$ to be below 70% in larger part of the study period
- 6 examples are shown here

How RAM relates to capacity – 70% rule Statnett



- The real curvature of the physical cross border (CB) flow is unknown. On occasions it will be concave, and thus resulting in RAM decreasing as export capacity increases
- The physical volume of internal flows and loop flows is defined by F'_0 , and is not influenced by the linearization
- **Export and import capacity, which is what matters from a market point of view, depends on both RAM and PTDFs**
- **The RAM based on the linearization of flow is not a consistent measurement of the capacity for CB trade**
- **Possible solution**
 1. Estimate the margin: $(F_{max} - F'_0)$
 2. Calculate the margin ratio = $\frac{(F_{max} - F'_0)}{F_{max}}$

How to find the margin $(F_{max} - F'_0)$



$$RAM_t = (F_{max} - F'_0) + \sum_i a^i * NP_t^i + e_t$$

Physical RAM in zero net position

Assumptions:

- The variables (NPs) are independent
- The error term e_t is normally distributed and independent on e_{t-1}

How to implement the proposed solution

1. Calculate $E(F_{max} - F'_0)$ by linear regression for each CNEC
2. For each CNEC, check if $\frac{E(F_{max} - F'_0)}{F_{max}} \geq 70\%$
3. If untrue – derogation, BZ delimitation, investment, action plan,....

- **Results for the study weeks of 2017:**

- 4 CNECs with $\frac{E(F_{max} - F'_0)}{F_{max}}$ falling between 60% and 70%
- 4 CNECs falls below 60% and above 45%. However, those are applied within a very limited number of hours, and thus only supported by a few observations



NordREG Workshop on Cross Border Capacities

Timo Kaukonen, Fingrid

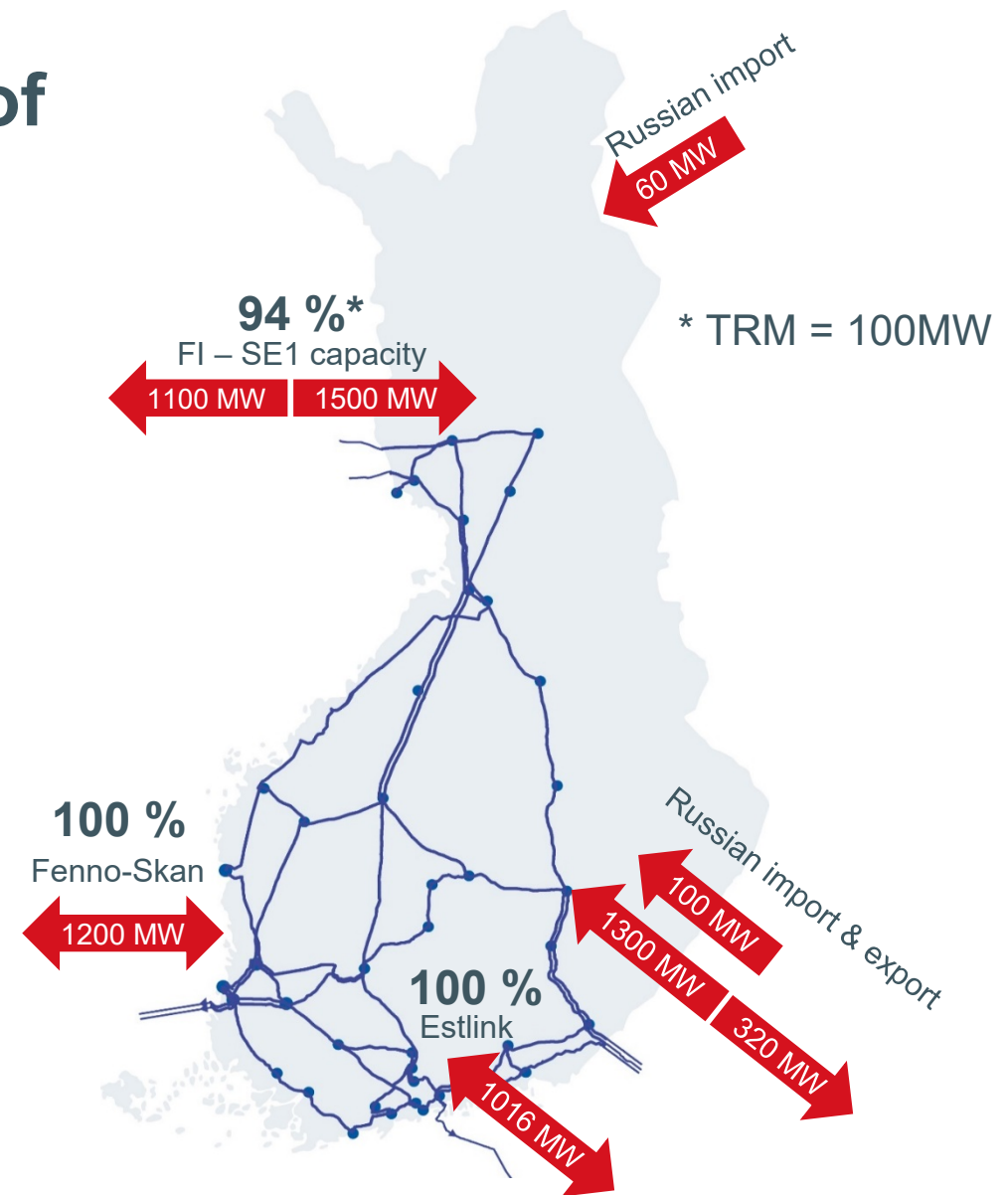
3rd December 2019, Copenhagen

Transmission capacity compliance of the 70 % minimum criterion – Fingrid situation

FINGRID

Cross-border capacities compliance of the 70 % minimum requirement

- Fingrid fulfils the 70% minimum requirement. Available cross-border capacity percentages compared to Total Transmission Capacities (TTC)
- Similar capacity will be given by Flow-based capacity calculation after implementation
- After commissioning of Olkiluoto 3 nuclear power plant the import capacity in the north will be reduced to 1200 MW in order to fulfil N-1 system security with new larger dimensioning fault

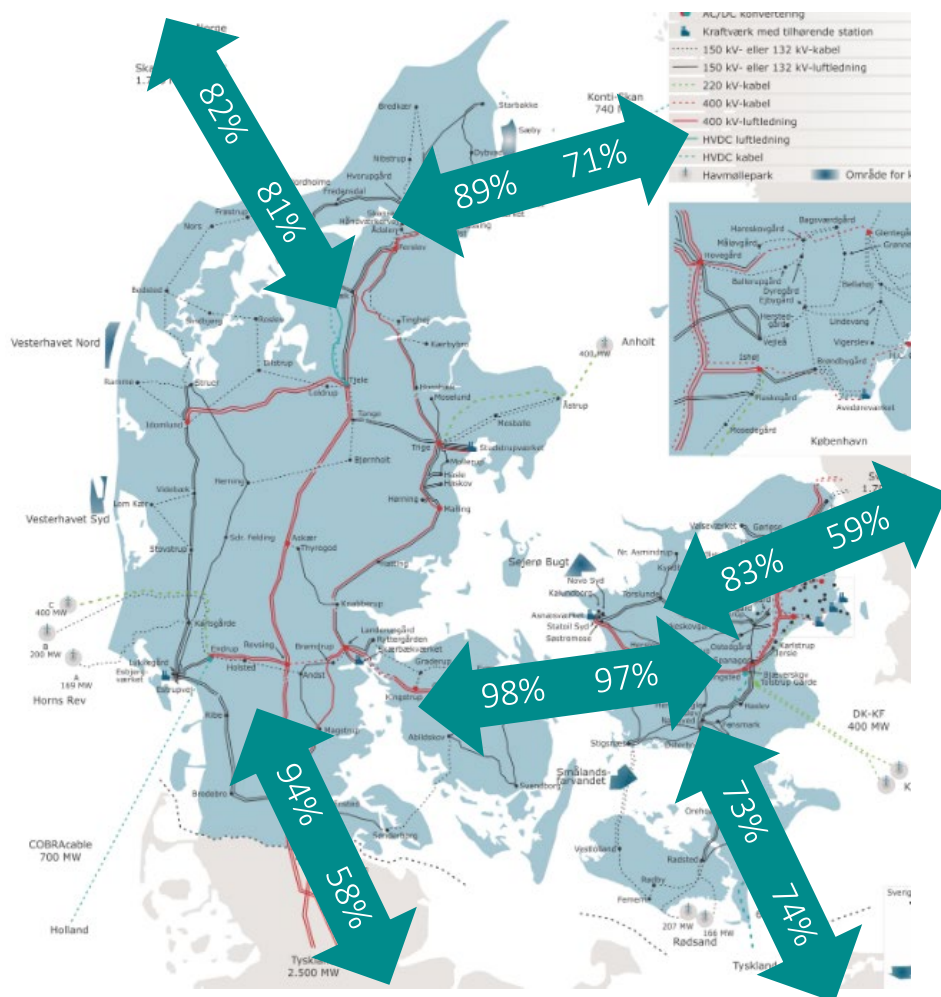


ENERGINET COMPLIANCE WITH 70% MINIMUM CAPACITY REQUIREMENT

NordREGWorkshop on Cross Border
Capacities, 03/12/2019

*Johannes Bruun, Head of International Electricity Markets,
Energinet*

AVAILABILITIES OF CAPACITY IN 2018



- In almost all cases, the capacity* allocated to the market is above 70%, and in most cases 2019 looks to improve significantly on these numbers.
- Challenges with export capacity towards SE4 from DK2 due to the west coast cut in SE3.
- Challenges with Export to DE from DK1 due to grid reinforcement projects and large amounts of renewables in northern Germany.
- Kontek had long outages in 2018 due to cable faults.

In general, Energinet expects some issues to be improved with flow based market coupling, but otherwise most capacity limitations are on the actual interconnector lines.

*All numbers are yearly proportion of full NTC, thus include planned outages.

Mitigating measures to reduce reductions in cross-border capacities due to the Swedish West-Coast cut – development since June 2019

NordREG WS

Copenhagen, 3 December 2019

Erik Ek

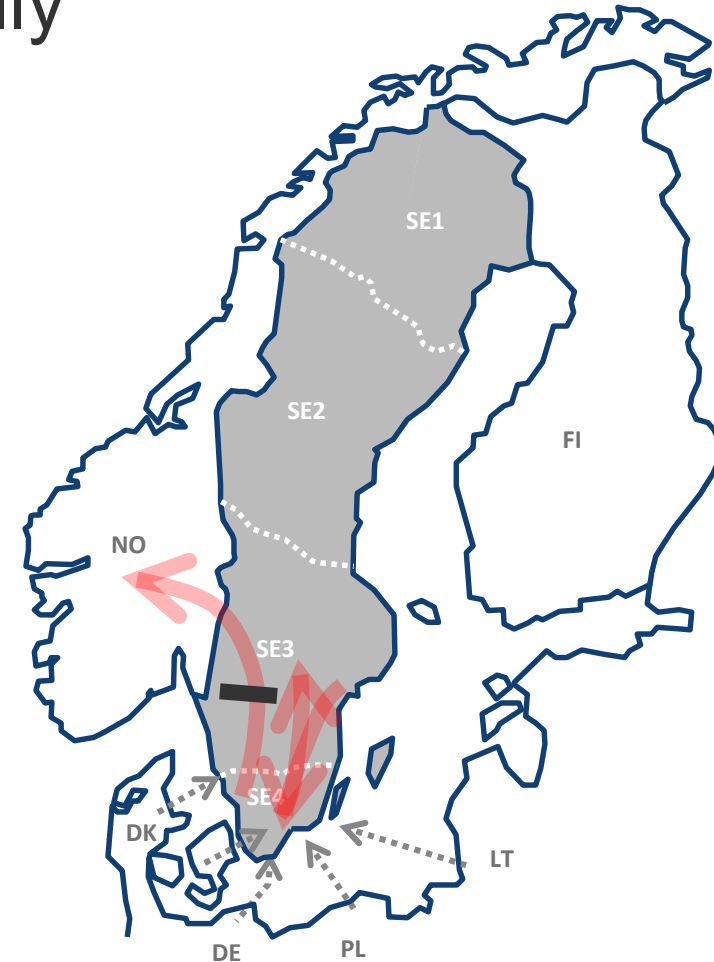


CONTENT

- > Introduction to the West Coast Corridor (WCC) congestion
- > Development in interconnector capacity since last meeting in June 2019
- > Additional measures currently considered by Svenska kraftnät
- > Implications of the new Clean Energy Package 70% requirement

WCC congestion occurs especially at night when flow pattern shift

- > Night time operation:
 - > + Low load / low prices
 - > + Save water in NO/SE1-2
 - > + High wind power from DK and DE
 - > = Northbound flow
 - > = No effect limit $SE4 > SE3$



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Three conditions provide the basis for increasing XB capacity on interconnectors in the DA market



Condition 1

Continuously
improved
forecast model



Condition 2

Continuously
secure security
of supply

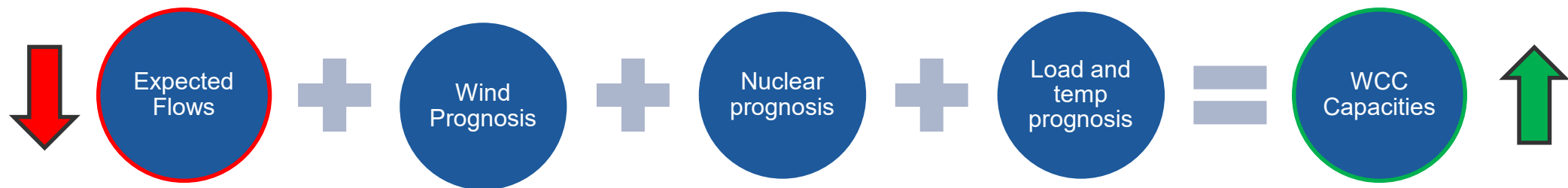


Condition 3:

Available
down/up
regulation
volumes are
sufficient to
adjust the
WCC-flow
during
operational
hours

Condition 1: Continuously improved forecast model

- > From 17th June 2019 (as announced on last meeting):
 - > Larger financial risk, but not larger security risk
- > Changed assumption of expected flow in capacity calculation related to WCC
 - > **Rule of thumb:** Lower expected flows allow more capacity to be allocated
 - > **Changed assumptions on expected flows:** From secure “worse but not worst” case to “more probable” case
 - > **Subject to available downregulation bids:** Low availability prevent financial risk taking

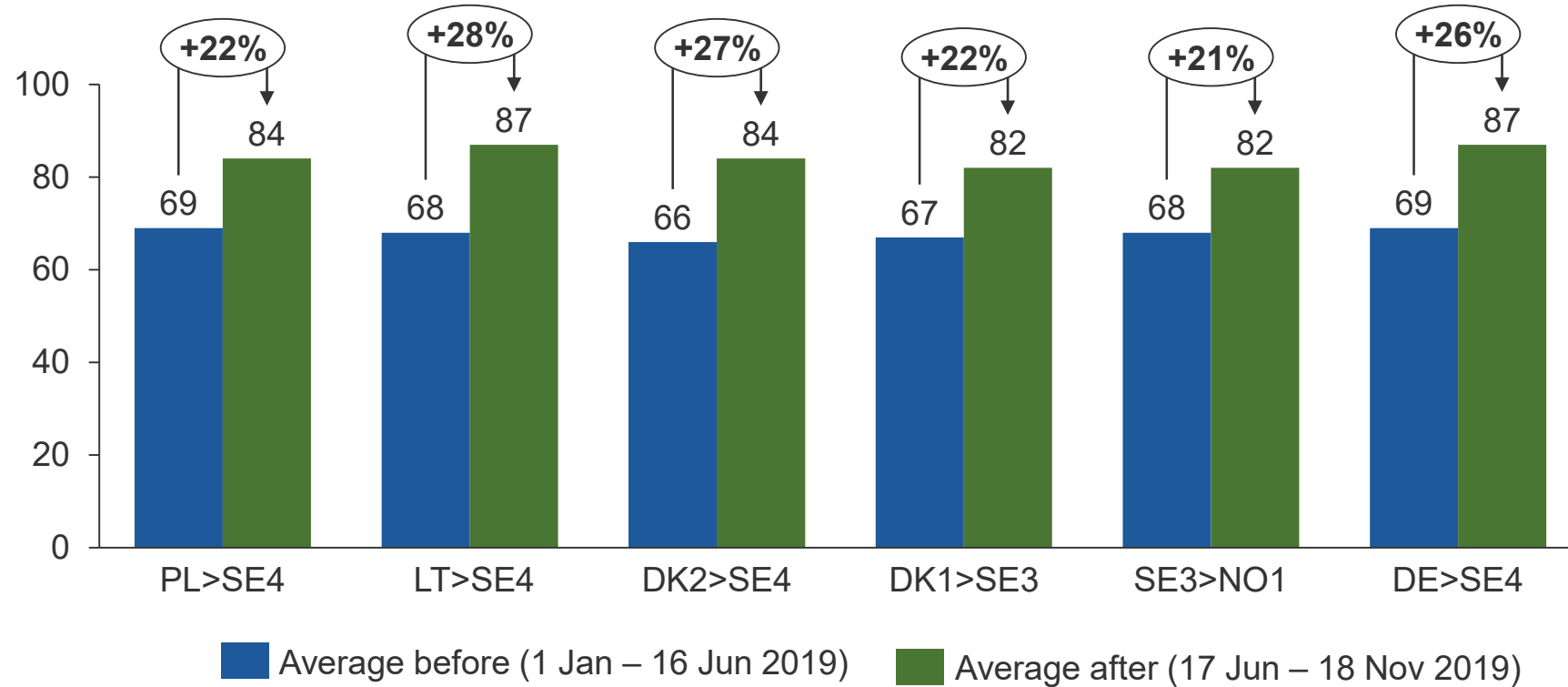


The improved forecast model has led to changes in the expected flows without limitations



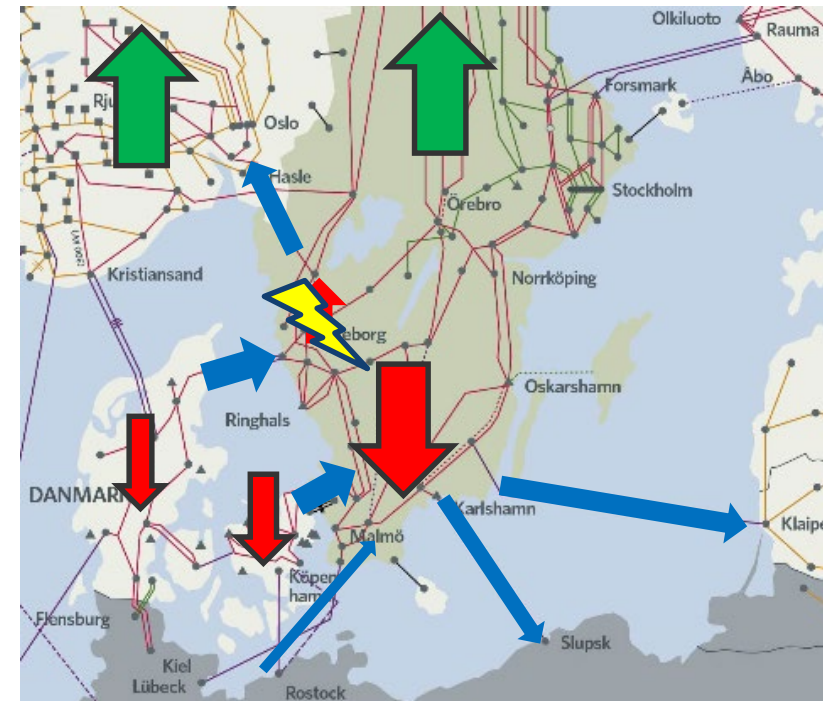
Expected flow without limitation (Average MWh/h)	Before (1 Jan 2019 – 16 June 2019)	After (17 June 2019 – 24 Nov 2019)
PL>SE4	380	125
LT>SE4	483	2
DK2>SE4	1,296	927
DK1>SE3	621	438
SE3>NO1	1,586	1,179
DE>SE4	285	276

Increase in the available DA XB capacities on the Swedish interconnectors



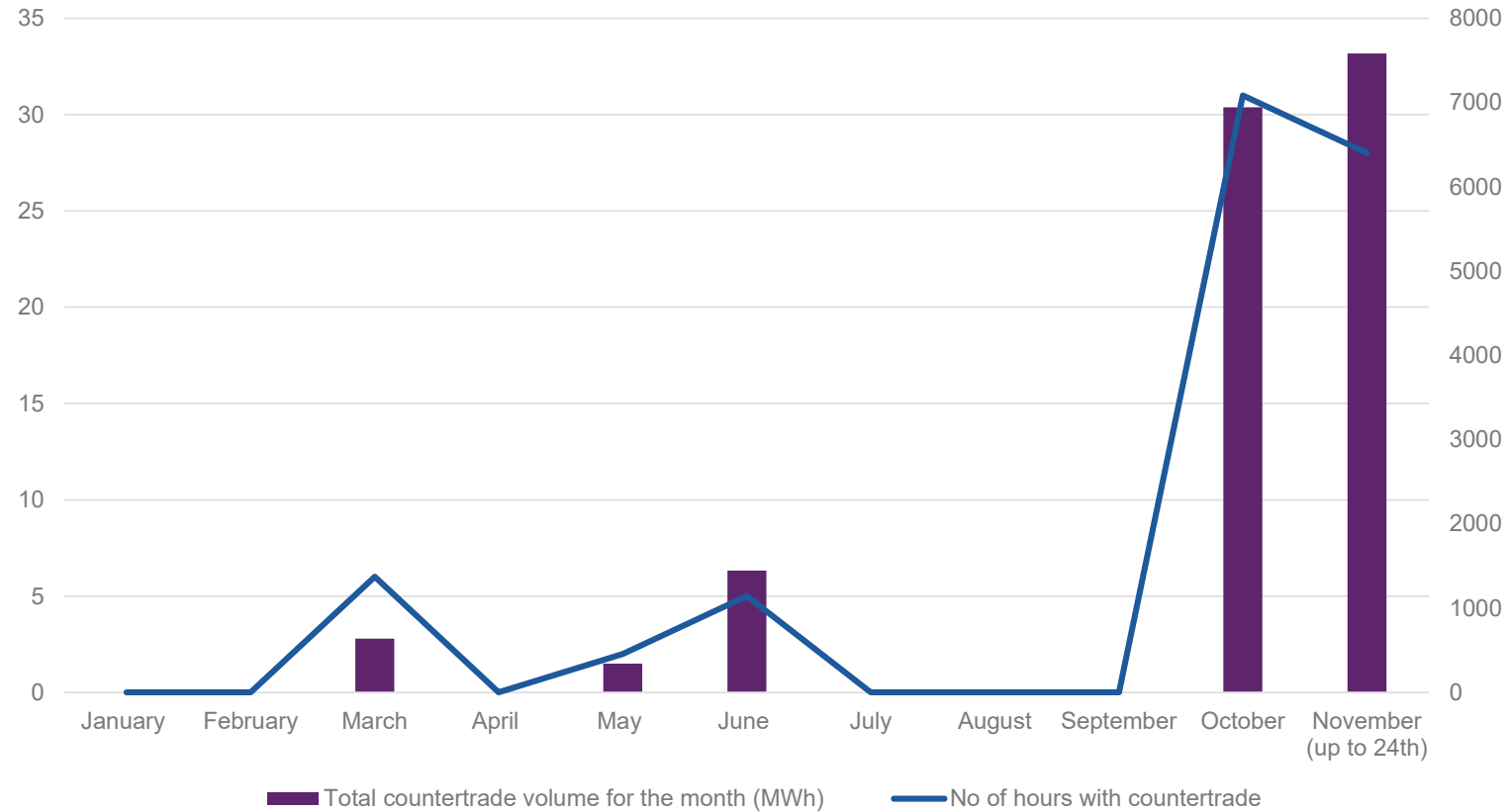
Condition 2: Continuously secure security of supply (secure up- and downregulation after N-1 fault)

- > Large up- and downregulation volumes needed where regulating bids are scarce
 - > Downregulation (fast active reserves) within 15 minutes
 - > Volume: ≈ 1000 MW depending on WCC-flows
 - > Upregulation for Nordic balancing
- = Security of supply demands restricted power flows



Volumes related to countertrade have increased

Countertraded Volumes and number of hours



Condition 3: Require available down/up regulation bids in order to adjust the planned WCC-flow during operational hours

Risk of a critical situation

- Approximate similar risk before and after 17th June

Operational risk

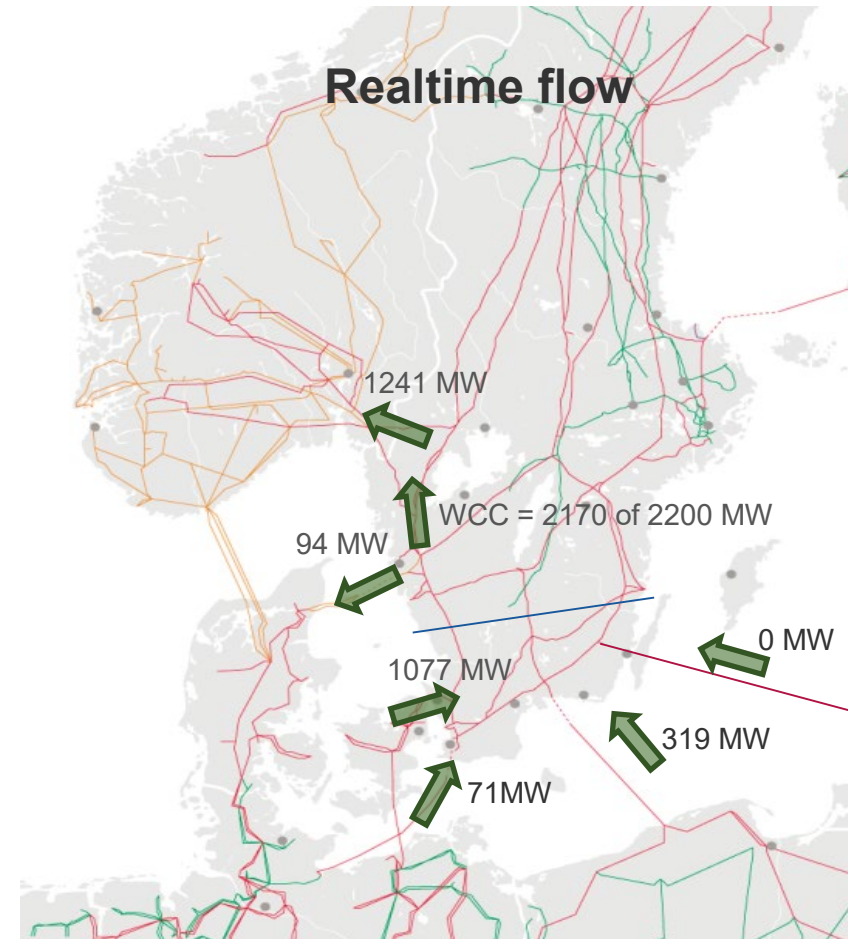
- Depends of availability of downregulation volumes
- Important volumes are DK1+DK2+SE4 during real time

Limitation of XB capacities

- Required to prevent overload on the WCC in a situation with lack of downregulation volume
- Important volumes are in DK1+DK2+SE4 during real time

Example: Critical situation on October 27th 2019

- > Unexpectedly low load and high winds
- > Flow on WCC almost at capacity limit
- > No available remaining downregulation bids
 - all volumes used for DK-DE border and imbalances in DK
- > Note: No contingency occurred!



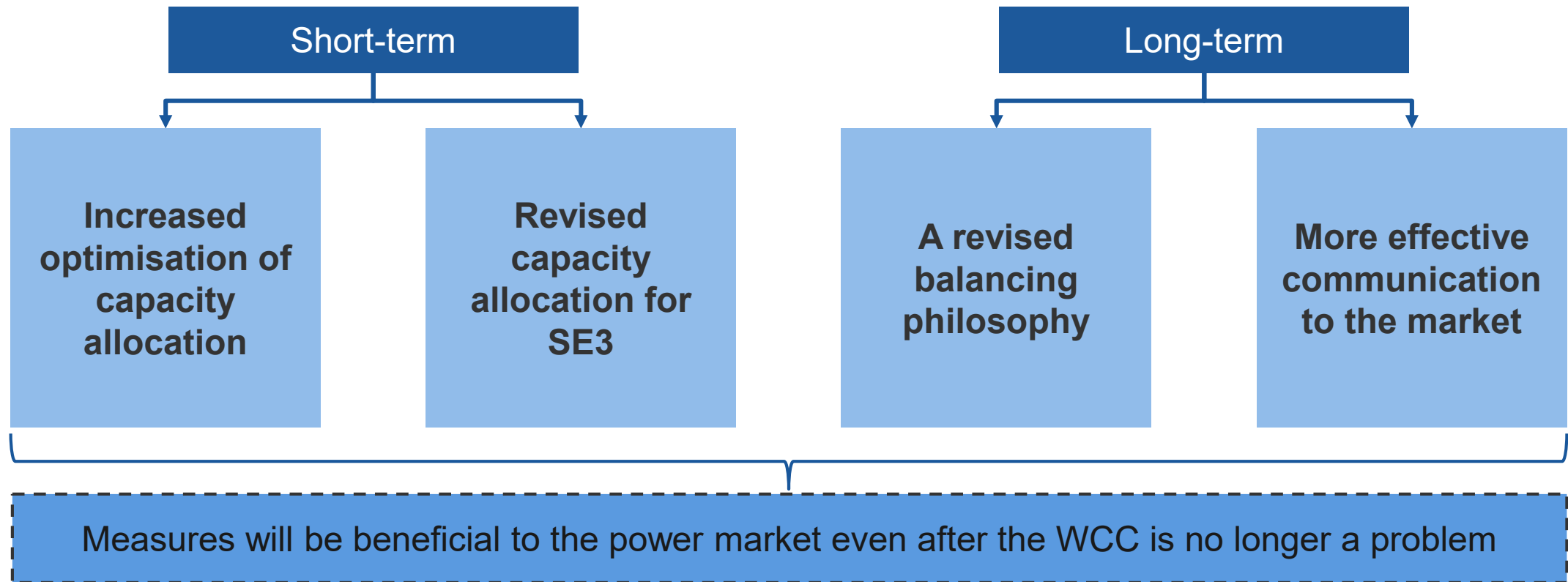
Since 17 June 2019, a lack of available downregulation bids have been observed in 34 operational hours



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Additional measures are currently considered and will be carried out in the near future

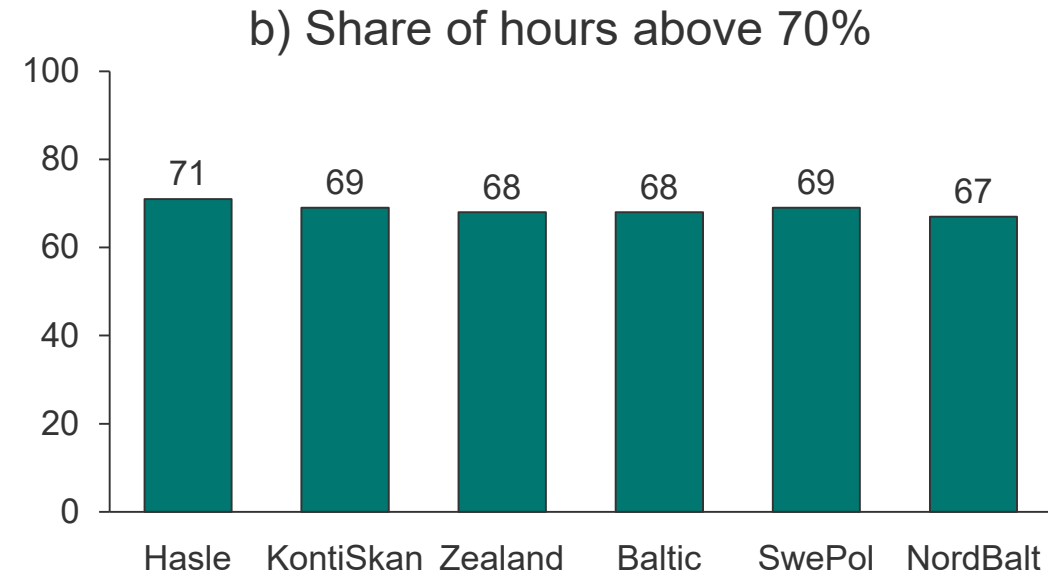
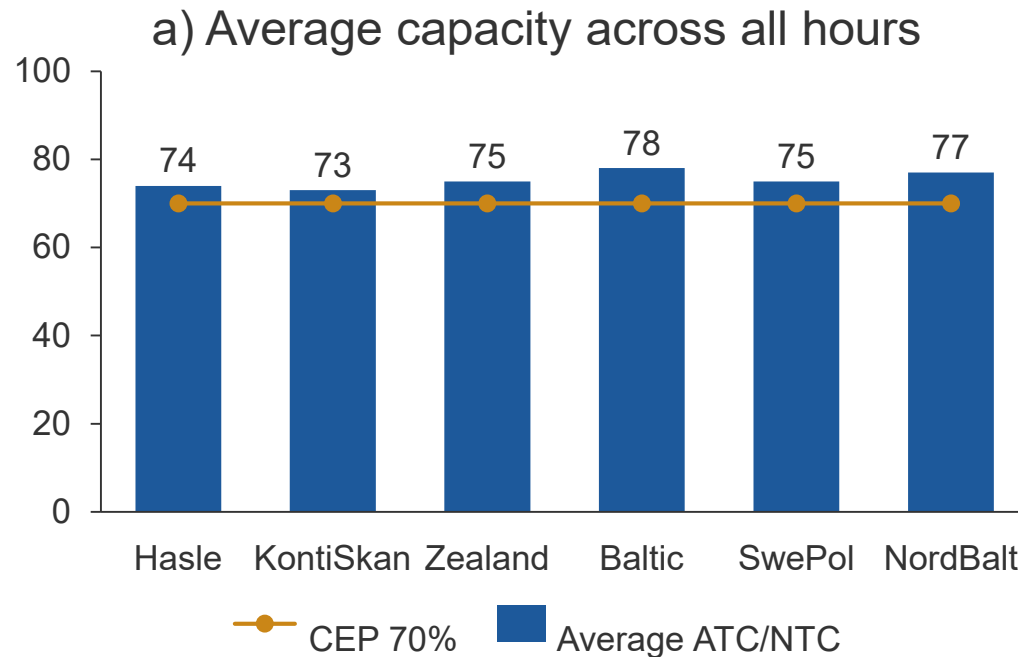


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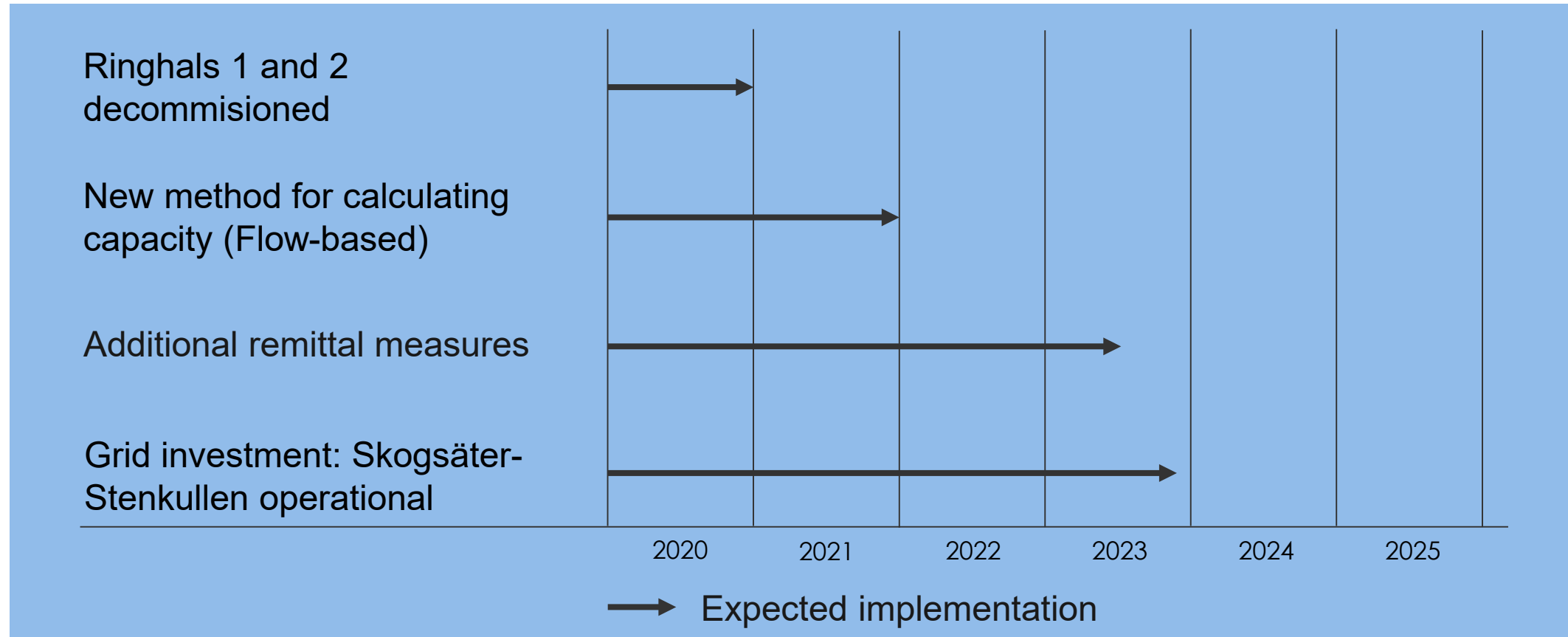
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The 70% requirement of the Clean Energy Package – average values 2019 (until November 18th)

XB capacity made available relative to CEP 70% minimum



Svk will not fulfil 70% in every hour from January 2020 but will be compliant from 2023



Note: Uncertainty regarding implementation year.

Two options will provide the transitory solution until 2025

Derogation

- > Application has been sent
- > Approval expected shortly

Action Plan


- > Is being developed
- > Secures linear trajectory towards 70%

Thank you for your attention!



**SVENSKA
KRAFTNÄT**

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 Agency for the Cooperation
of Energy Regulators

Market developments in the Core CCR

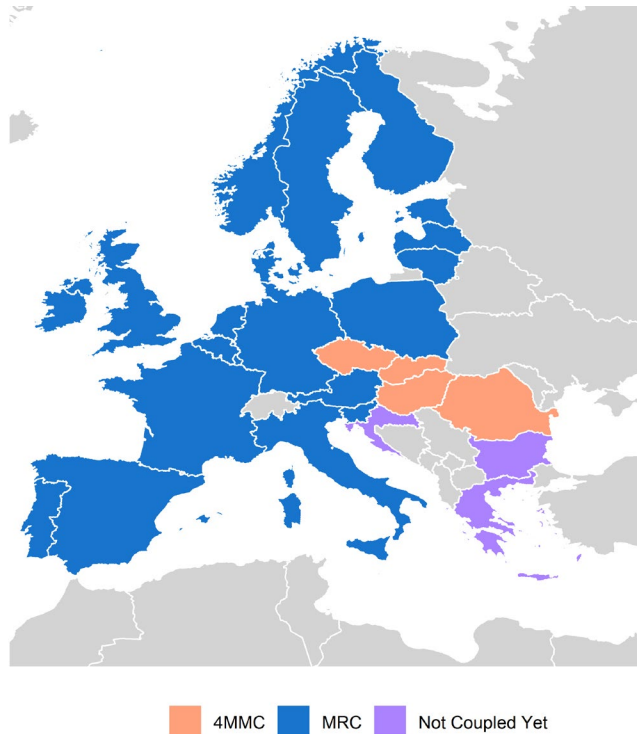
Christophe Gence-Creux
Head of the Electricity Department

Nordreg Stakeholder Forum
Copenhagen, 3 December 2019

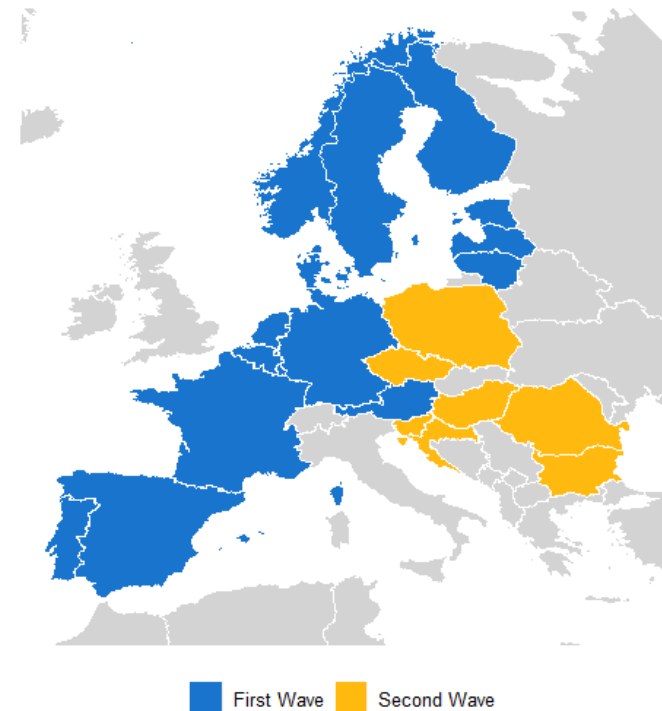
The completion of DA and ID markets integration through market coupling is getting closer...

Implementation status of single DA and ID market coupling (November 2019)

Day-ahead



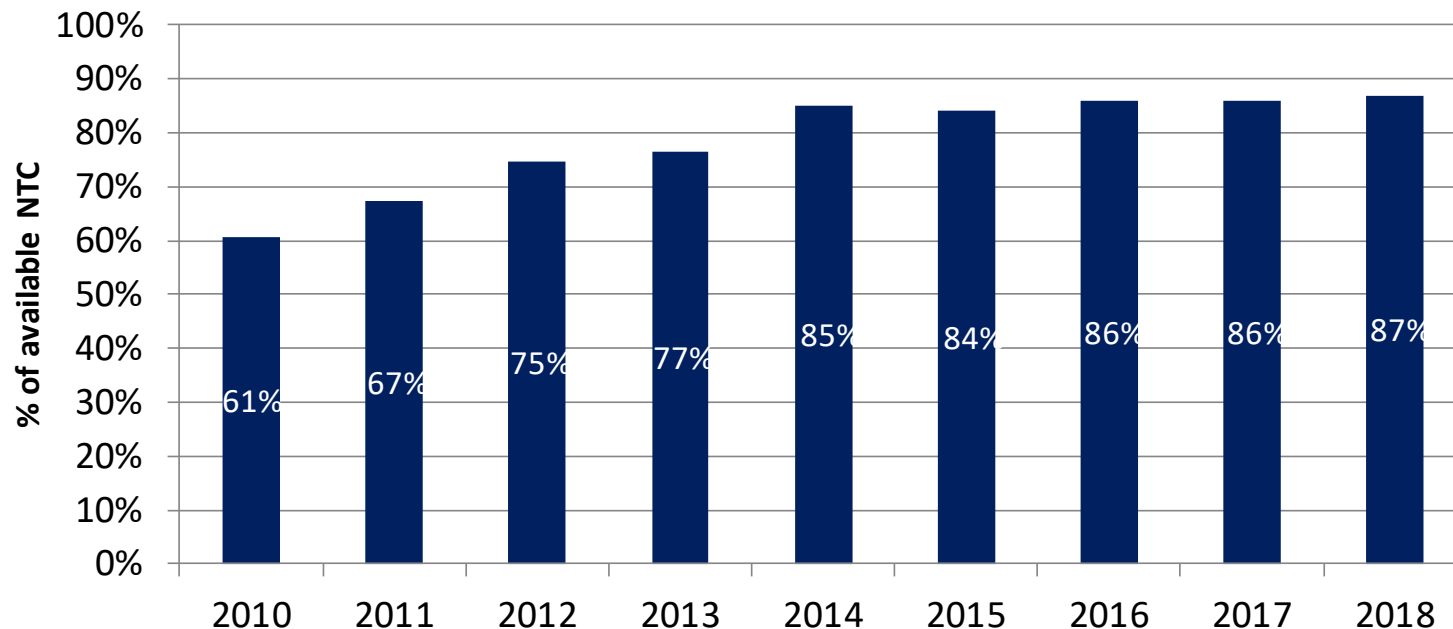
Intraday



Note: Second XBID wave expected for 19 November 2019.

..as a result, the (limited) cross-border capacity made available to the market is used very efficiently in the DA timeframe

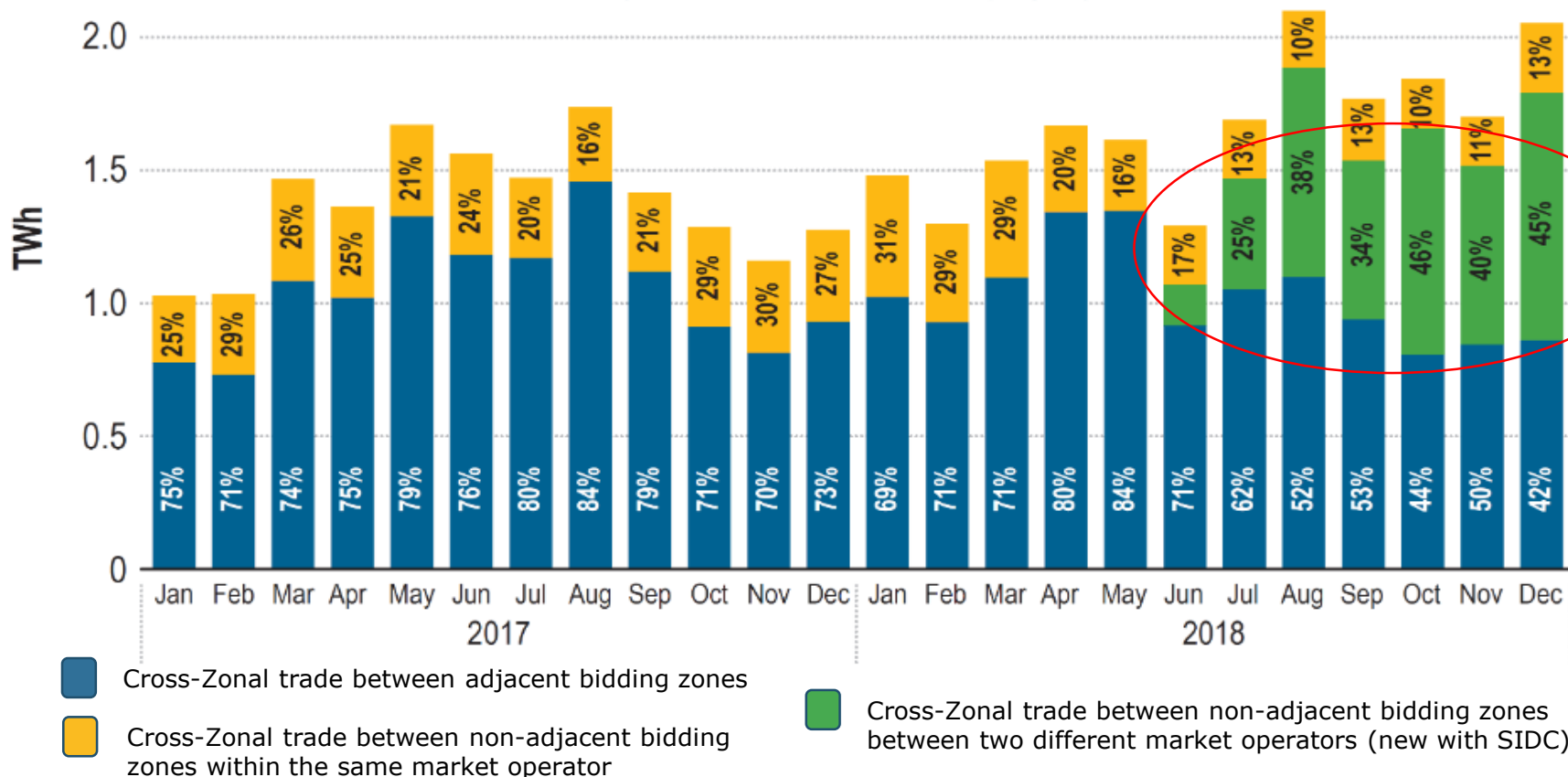
Progress made on the efficient use of electricity interconnectors in the day-ahead market timeframe over the last 9 years



Market coupling brings additional benefits, e.g. increased ID liquidity enabling market participants access a larger portfolio of bids and offers to balance their positions

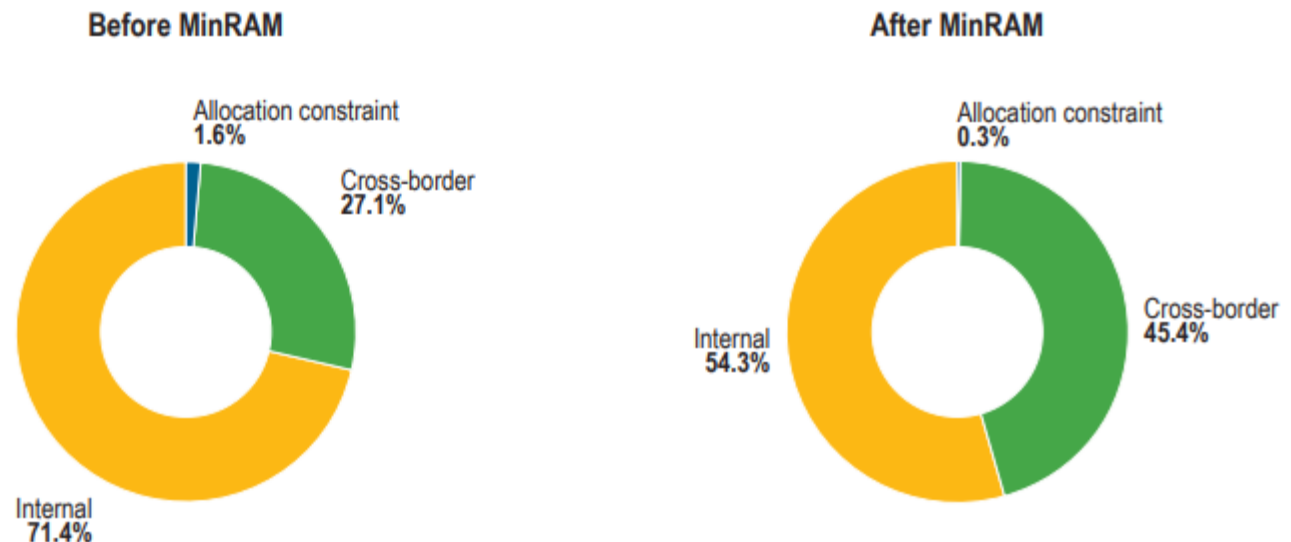
Monthly evolution of the cross-zonal intraday traded volumes for all continuous trading markets 2017–2018 (TWh)

(Intra-zonal trades not displayed)

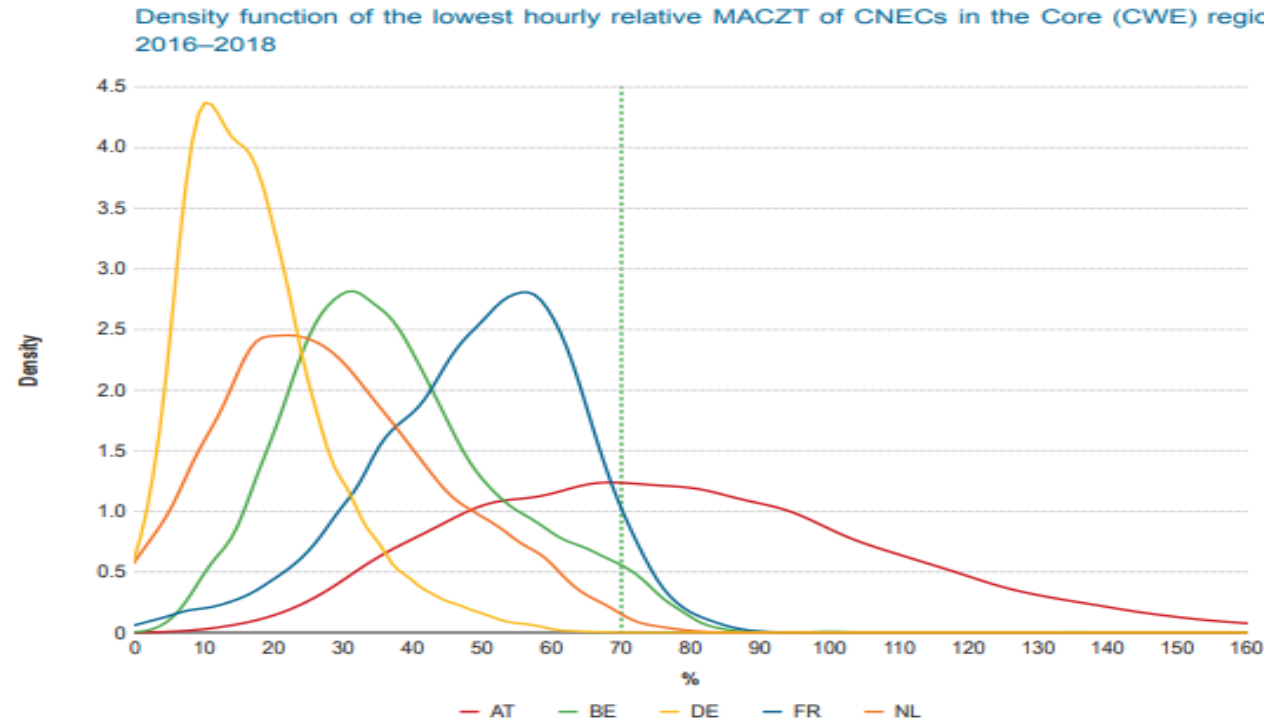


Flow-based increased transparency about the issues underlying low cross-zonal capacity and the 20% minRAM allowed some progress

Share of active CWE constraints



Source: ACER calculations based on ENTSO-E data.



Source: ACER calculations based on ENTSO-E/TSOs and Nordpool data.

Note: For each MS, the density describes the relative frequency of the value among all considered values. Part of the density function lies beyond 160% for Austria.

- Despite some improvements, cross-zonal capacity remains far below 70%
- The Core CCM should improve the situation from 2021 onwards
 - » Derogations and action plans will lead to gradual implementation

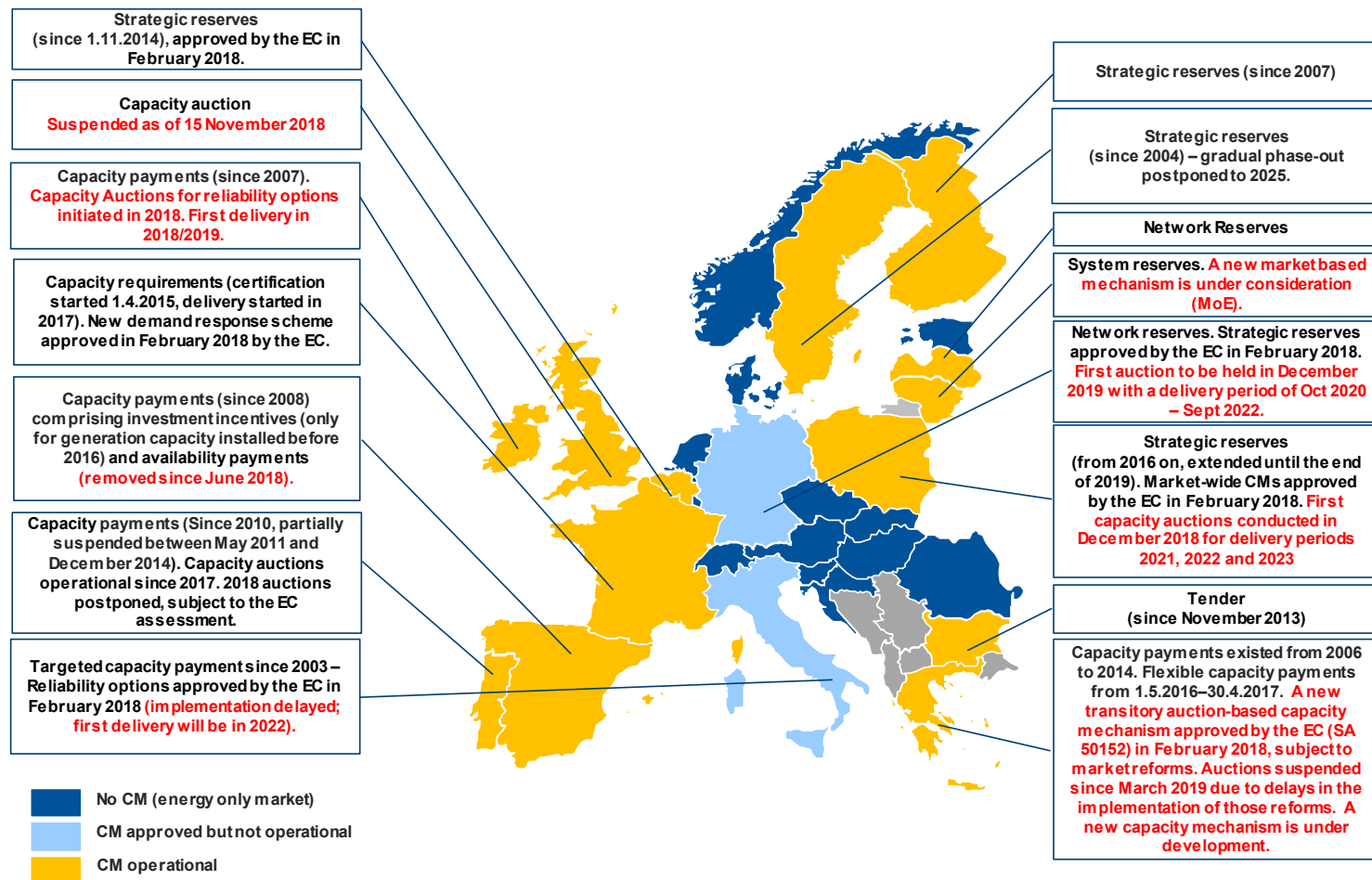
- Derogations requested by all Core TSOs but 50HERTZ, Amprion, TenneT GmbH and TRANSNETBW
- All derogations requested for up to one year
- **Main grounds for derogation :**
 - » Lack of or suboptimal use of remedial actions;
 - » Additional time needed to assess and face additional operational security risk induced by the CCM;
 - » The CCM is not yet implemented.
- A priori no NRAs' objection to initial derogations

- Remedial actions account for over 1.3bn€/yr (85% in Germany)
- These cost will likely increase (significantly?) with increasing cross-zonal capacity
- Coordinating redispatching and sharing the resulting costs will be challenging

- The bidding-zone review will (among other) study configurations in the Core region
 - » Core TSOs however did not submit any configuration for study...
- Should MSs fail to meet the 70%, the EC will have the last say for the bidding zone reconfiguration

As a result of the growing concerns about resource adequacy, Capacity Mechanisms continue to emerge in Europe (six mechanisms approved by the European Commission in 2018)

Capacity Mechanisms in Europe – 2018 (in red, changes with respect to 2017)

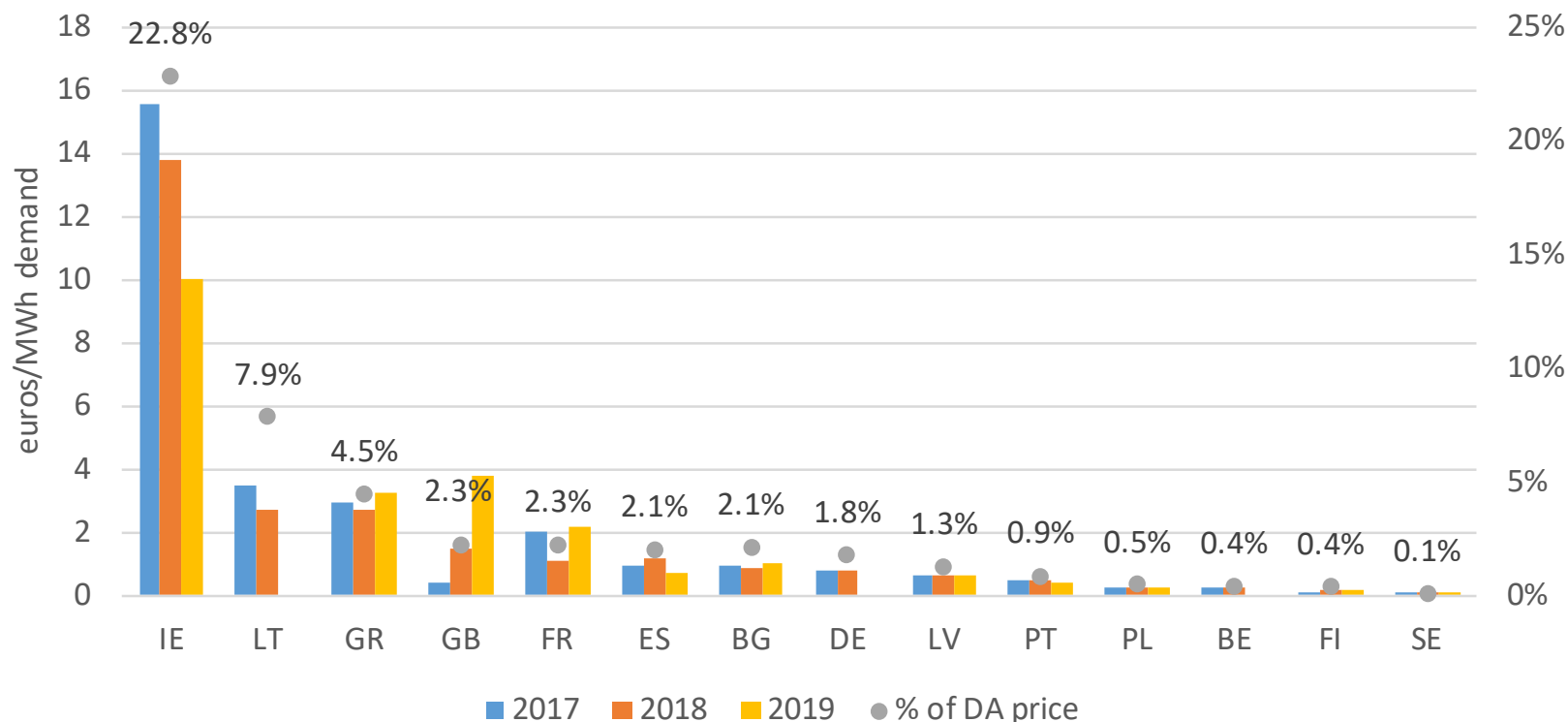


Note: The network reserves might not be considered as a CM in the context of the CEP (see footnote 138) but they are included for consistency with previous MMRs and because they were considered as such in the EC's Sector Inquiry on Capacity Mechanisms, see https://ec.europa.eu/energy/sites/ener/files/documents/com2016752.en_.pdf. In Spain, the CM used to comprise "investment incentives" and "availability payments". The availability payments were removed in June 2018 and the investment incentives apply only to generation capacity installed before 2016.

As a result, the costs to finance Capacity Mechanisms are increasing.

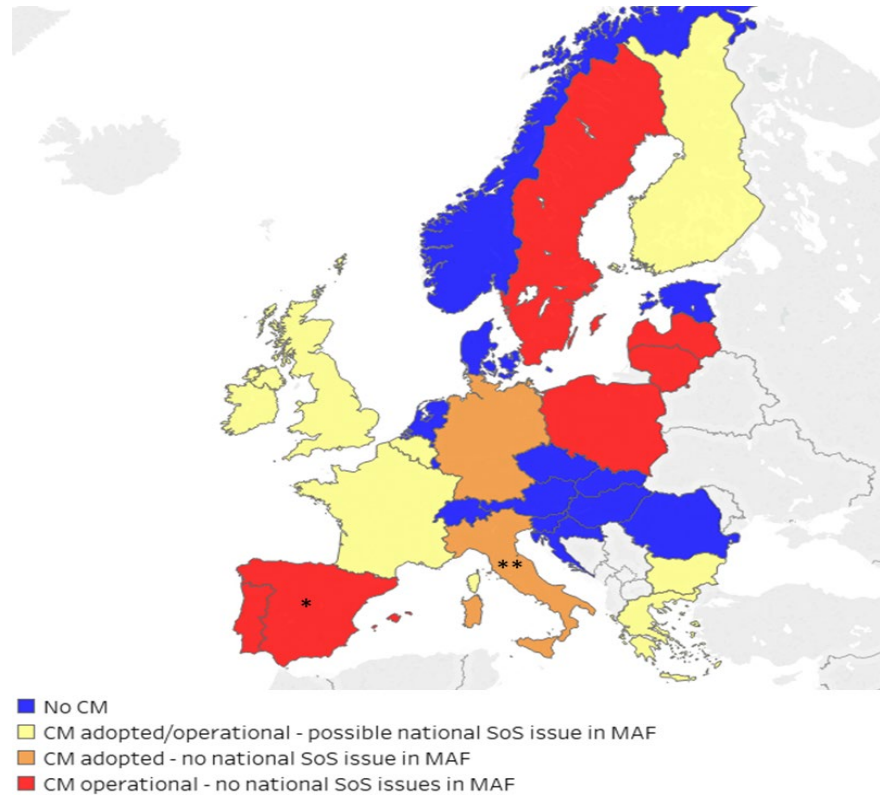
These costs reached 2.5 billion euros in 2018, and are expected to increase further in the next years. In some countries, the costs to finance Capacity Mechanisms account for a significant share of the energy costs.

Costs incurred or forecasted to finance Capacity Mechanisms in Europe - 2017-2019 per unit of demand (€/MWh) and as a percentage of the yearly average day-ahead price



However, based on the 2018 ENTSO-E's Mid-term Adequacy Forecast, a number of Member States operating or planning a Capacity Mechanism do not seem to face an adequacy problem in 2020 or 2025

Assessed need for Capacity Mechanisms based on the results of
ENTSΟ-E 2018 Mid-term Adequacy Forecast (MAF)



Note: In Spain (*), the Capacity Mechanism used to comprise "investment incentives" and "availability payments". The availability payments were removed in June 2018 and the investment incentives only apply to generation capacity installed before 2016. In Italy (**) the analysis suggests potential adequacy issues at bidding-zone level, in Italy-Centre-North and Italy-Sicily, rather than at the national level.

Source: ACER and NRAs

Thank you for your attention!



www.acer.europa.eu



Nordic developments focusing on FCA, DA and ID

NordREG meeting

December 3 2019, 9.30-16.00, Copenhagen



Agenda

❖ What has been achieved?

- ✓ Several Regional and European methodologies have been delivered
- ✓ Market mechanisms expanded and put into operation

❖ Going forward



Regional methodologies

- ❖ CACM – Fallback procedure – Mar 2018
 - ❖ FCA – Design of Long Term Transmission Rights – Apr 2018
 - ❖ CACM – Redispatch and countertrading – Jan 2019
 - ❖ CACM – Redispatch and countertrading cost sharing – Jan 2019
 - ❖ CACM – Capacity Calculation – Jul 2018
 - ❖ FCA – Capacity Calculation – Nov 2019 (ACER)
- ❖ Overview of the status of European deliverables of network codes and guidelines can be found here https://www.entsoe.eu/network_codes/



What has been achieved?

- ❖ Single Day-ahead coupling – 2014
- ❖ Single Intra-day coupling – 2018
 - ✓ 2nd wave go live on 20 Nov 2019
- ❖ Intra-day auctions currently being worked on



Transparency

❖ Nordic Unavailability Collection System (NUCS)

- ✓ Put into operations on Dec 3rd
- ✓ Collecting Nordic unavailability information in one place including web-view

❖ Nordic TSOs quarterly cross zonal capacity report

The purpose of this report is to provide information about

- ✓ the available cross-zonal capacity on corridors between the Nordic countries and between the Nordics and continental Europe, and
- ✓ the reasons why the cross-zonal capacity has been reduced in the cases where capacity has been reduced below a threshold of 75 % of max NTC as an average over the quarter



Going forward

❖ Geographic extensions

- ✓ Still not all of Europe coupled in one market clearing system
- ✓ The upcoming Bidding zone review could result in additional bidding zones

❖ Flowbased – all regions

❖ 15-min Market Time Unit (MTU)

❖ Nordic Multi-Nemo Arrangements (MNA)

- ✓ Planned go-live 10 Mar 2020



Going forward

- ❖ New functionalities and extended geographic scope (incl more bidding zones) are challenging the performance of the market coupling algorithm
 - ✓ We need to ensure that current prioritized extensions can be handled in the algorithm without negative effects before extending further
- ❖ Robustness and stability of the market coupling mechanism is very important for TSOs and the market



NVE

The Norwegian Energy
Regulatory Authority – RME

NORDIC STAKEHOLDER MEETING

Update on the third energy market package in Norway

Vivi Mathiesen, Head of wholesale markets

3 December 2019



The third energy market package is implemented in Norway

Changes in the national Energy Act etc from 1 November 2019

- NVE – RME is appointed independent regulator
- New regulation about network regulation and markets («NEM»)
- Independent appeals body is established
- Competence to write new regulations is mainly allocated to the Ministry

Implementation of Commission Guidelines

- The Commission Guidelines (CACM, SOGL, EBGL etc.) will follow the same procedure for implementation of EEA relevant legislation into national law
 - Adoption by the joint EEA Committee
 - Approval by the national parliament
- The Commission Guidelines are on public consultation closing 20 December 2019