


ACER

 Agency for the Cooperation
of Energy Regulators

Challenges for regional electricity cooperation within the EU framework and Nordic perspectives

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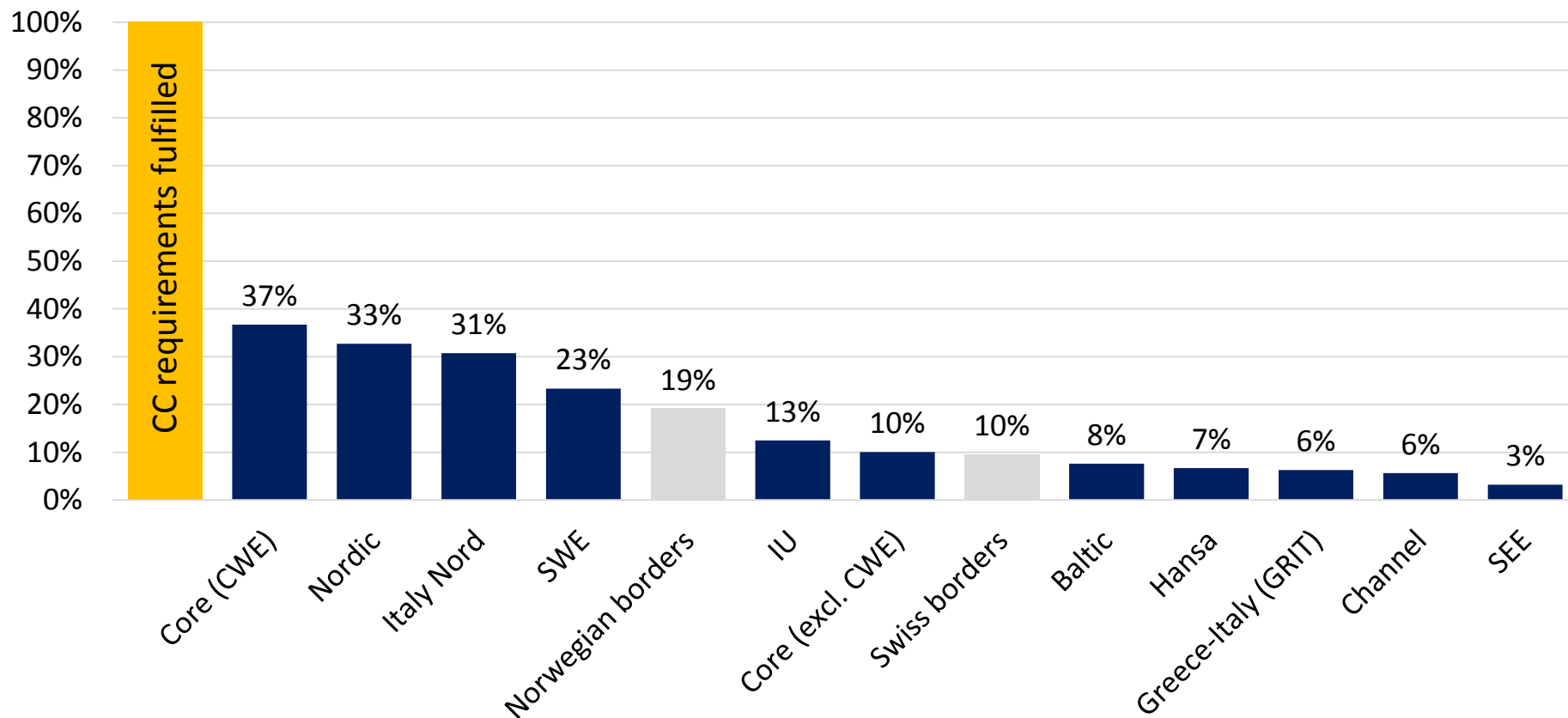
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- Decarbonisation of the energy sector
 - » By 2030, renewable generation will deliver almost 50% of all electricity produced
 - » Distributed and variable generation
- Ongoing market integration
 - » More efficient [capacity allocation methods](#)
 - » Growing number of [interconnectors](#)
 - » Urgent need for a '*paradigm shift*' in the way TSOs/NRAs/MSs consider cross-border capacities

Is the existing regional cooperation framework really fit for purpose?

A large room for improvement in the level of TSO coordination

Regional performance based on fulfilment of capacity calculations requirements – 2016 (% - scoring)



Source: ACER calculations based on NRAs and ENTSO-E (2017).

Note: Evaluation is based on frequency, coordination, use of CGM and required parameters, and hourly resolution of the applied CC methodology.

Cross-zonal exchanges are discriminated against internal (intra-zonal) ones

Illustration on the level of discrimination in the CWE region, where flow-based (FB) capacity calculation applies, in 2016.

1- Where are the constraints limiting XB trade located?

70% related to internal lines

Vs

30% related to interconnectors

2- How is the capacity of critical network elements (CNEs) shared?

84% "consumed" by internal exchanges

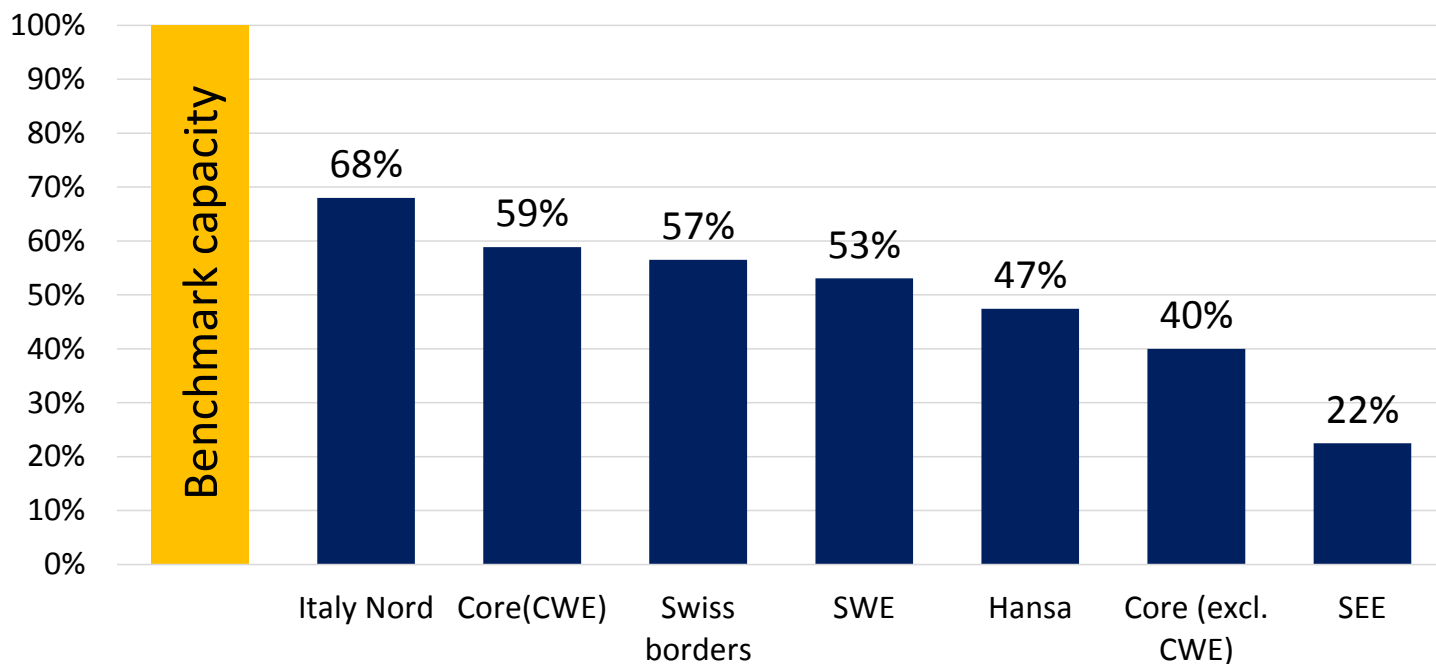
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16% available for cross-zonal exchanges

Important caveat: This example in no way means that FB capacity calculation (CC) is more discriminatory than NTC-based CC. Where NTC applies, equivalent data is not available as CC is often more opaque and the scope for discrimination is higher.

Cross-zonal exchanges usually get the 'leftovers' of the (limited) capacity of the network

Ratio between available cross-border capacity and the benchmark capacity* of HVAC interconnectors per region – 2016 (%)



Borders with the lowest ratio between tradable capacity (NTC) and benchmark capacity (ranked) – 2016 (% , MW)

Border-Direction	ratio NTC/benchmark
DE/LU->PL	0%
CZ->PL	1%
SK->PL	2%
DE/LU->CZ	10%
RO->BG	10%
DK1->DE/LU	12%
PL->SE-4	16%
AT->CZ	28%
AT->CH	29%
DE->CH	29%
PL->LT	30%

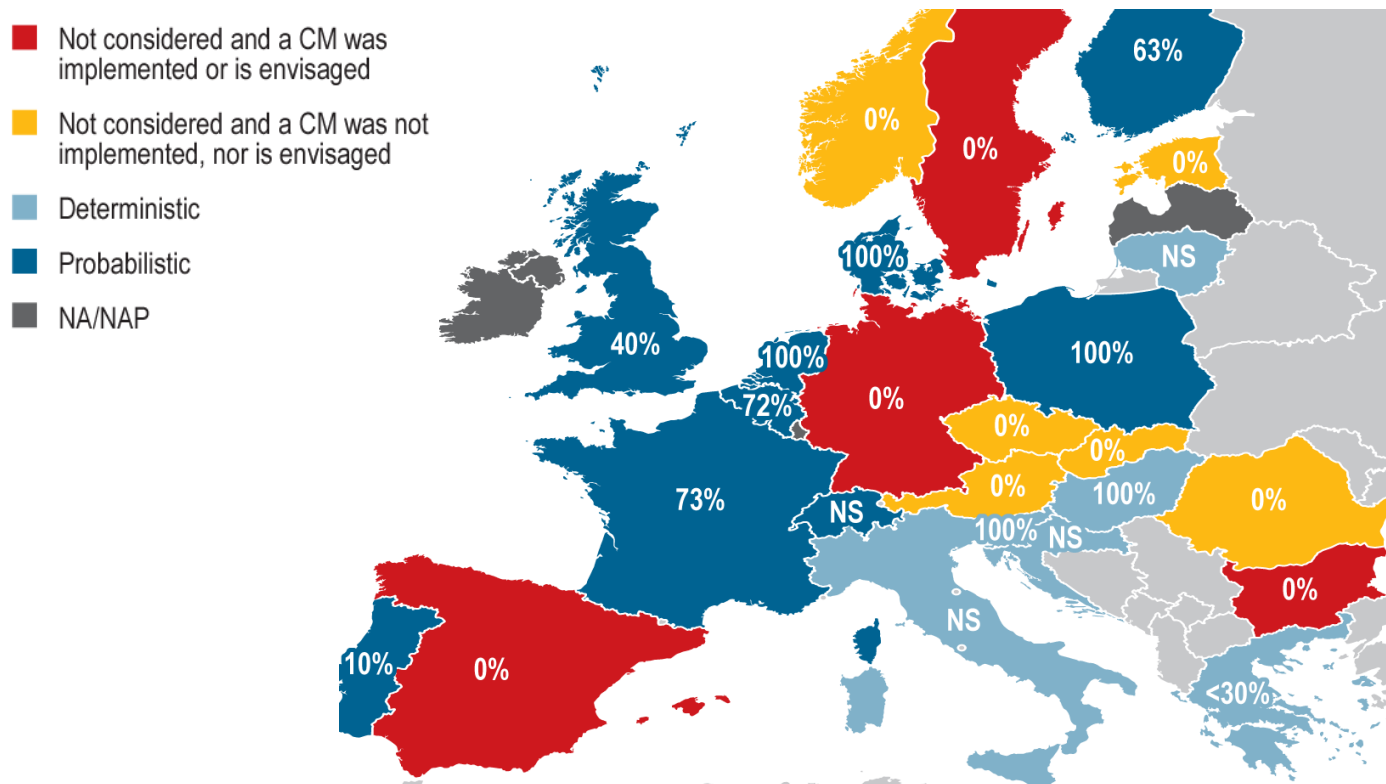
Source: ACER calculations based on ENTSO-E and NRAs (2017)

Benchmark capacity calculated by ACER as physical capacity less reliability margins and other acceptable reductions

National adequacy assessments ignore or underestimate the contribution of interconnectors to security of supply

One third of the national adequacy assessments consider the contribution of interconnectors as being zero

Treatment of interconnectors in national generation adequacy assessments in Europe – 2016



Source: NRAs (2017).

Notes: The information shown in the map is based on the national adequacy assessments used to take a decision on whether to implement a CM or, in countries where such a decision was not considered, on the latest national adequacy assessment. The percentages shown in the table are calculated, for a given country, as the ratio between the average expected net contribution of all interconnectors during scarcity situations and the sum of the average commercial import cross-border capacity. NS means not specified.

A stronger regulatory framework which fits the ongoing and inevitable European (Regional)isation of the energy sector

- ➔ Binding guidance at EU level to deliver ambitious objectives (e.g. in terms of level of cross-border capacities made available to the market)
- ➔ Clear mandate for entities operating at regional or EU-wide level to deliver these objectives
- ➔ Appropriate regulatory oversight:
 - » *clear responsibility assigned to ACER*
 - » *binding decisions to ensure compliance of these entities with the objectives and the provisions in the Electricity Directive and Regulation and the Network Codes and Guidelines*
 - » *clear enforcement powers (NRAs to impose fines and penalties to ensure enforcement of the Agency's decisions)*

**Thank you for
your attention!**

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