

3.2 Challenges facing the implementation of the Guideline on CACM – Flow-based capacity calculation

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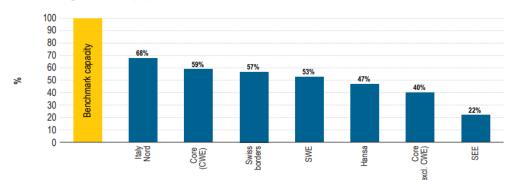


- ACER Decision 06-2016 on the determination of Capacity Calculation Regions: shapes the mindset for regional implementation of CACM & FCA GLs.
 - 10 CCRs established: Nordic, Hansa, Core, Italy North, GRIT, SWE, IU, Channel, Baltic, SEE
 - Regional cooperation between TSOs to ensure that calculated cross-zonal capacities are reliable and at an optimal level ("flow-based" or "coordinated NTC" approach)
- Principles for optimal capacity calculation commonly agreed and defined in EU legislation (714/2009 and CACM GL):
 - Maximizing capacities
 - No discrimination between internal and external exchanges
 - No "pushing congestions to the border"



- In meshed AC-grids where capacity calculation on borders is highly interdependent, a flow-based approach should be adopted in order to maximize – in a reliable way – the cross-zonal capacities for the market
- Yet, different sources observe that the implementation of (flow-based) capacity calculation has design flaws:
 - » ACER Market Monitoring Report (2016)

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



- » CREG (2017) Monitoring Report 2016
- CWE NRAs (2017) Study on the fairness of flow factor competition



- Core TSOs submitted, in September 2017, a proposal for day-ahead and intraday flowbased capacity calculation methodologies
- Core NRAs decided, in March 2018, to request amendments to the methodologies, related to*:
 - The absence of rules for avoiding undue discrimination between internal and cross-zonal exchanges
 - The vague definition of design parameters and an injustified reliance on discretionary application of the TSOs expertise in capacity calculation (F_{max} , FAVs, allocation constraints, FRMs, local capacity validation...)
 - The missing definition of enforceable rules for selecting critical network elements
 - The transparency framework and stakeholder involvement
- Core TSOs are working towards a solution compliant with the applicable legislation and the NRAs' requests, to be submitted early June 2018

* non-exhaustive list



- CCR Nordic consist of Denmark, Finland and Sweden. Norway is participating but is formally not part of CCR Nordic.
- Nordic TSOs submitted, in September 2017, a proposal for day-ahead and (a target for an) intraday flow-based capacity calculation methodologies
- Nordic NRAs decided, in March 2018, to request amendments to the methodology, concerning among others:
 - In order to facilitate more efficient capacity allocation and to avoid unnecessary curtailments of cross-border capacities, TSOs should coordinate the use of remedial actions in capacity calculation
 - Mandatory to include all available remedial actions (regardless if they are costly or not) when
 it does not compromise operational security and is not less economically efficient at the EUlevel.
 - The capacity calculation methodology for selection of CNEs should be amended so that it is based on individual considerations on the use of remedial actions.
 - The TSOs must develop more detailed rules that ensure there will be no undue discrimination between internal flows and cross border flows.
 - High-level of transparency and not at least during parallell runs
- Nordic TSOs have worked towards a solution compliant with the applicable legislation and the NRAs' requests, which was submitted mid May 2018



- A flow-based approach provides, in theory, an efficient way forward to meet the requirements of CACM but should be accompanied by an optimal bidding zone configuration.
- The focus should be on the regional coordination, rather than devising uni- or bilateral to locally manage congestions. While locally they may increase welfare, uni- or bilateral "patches" may constrain the efficiency of a flow-based market coupling as a whole.
- CEP risks to shift the paradigm from the development of the CCMs through the CACM and FCA GL (a regulatory process) to a political decision-making process (again based on local considerations). TSOs' and NRAs' competencies in devising the appropriate congestion magament methods should remain unaltered.