

ACER

 Agency for the Cooperation
of Energy Regulators

Regional Operation Centers

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Drivers (1)

- UCTE-wide event, 4 November 2006
 - » 15 million households were cut-off, €0.5bn losses
 - » ERGEG*
 - non-compliance has introduced problems not only for the non-complying TSOs but also across Europe
 - **enforcing compliance is difficult as UCTE membership is voluntary**
 - » Commission**
 - Common binding network security standards
 - Efforts should be made to have a **gradual evolution towards regional system operators**

* ERGEG Final Report – Lessons to be learned from the large disturbance... [6.2.2007]

** http://europa.eu/rapid/press-release_IP-07-110_en.htm?locale=en [30.1.2007]

Drivers (2)

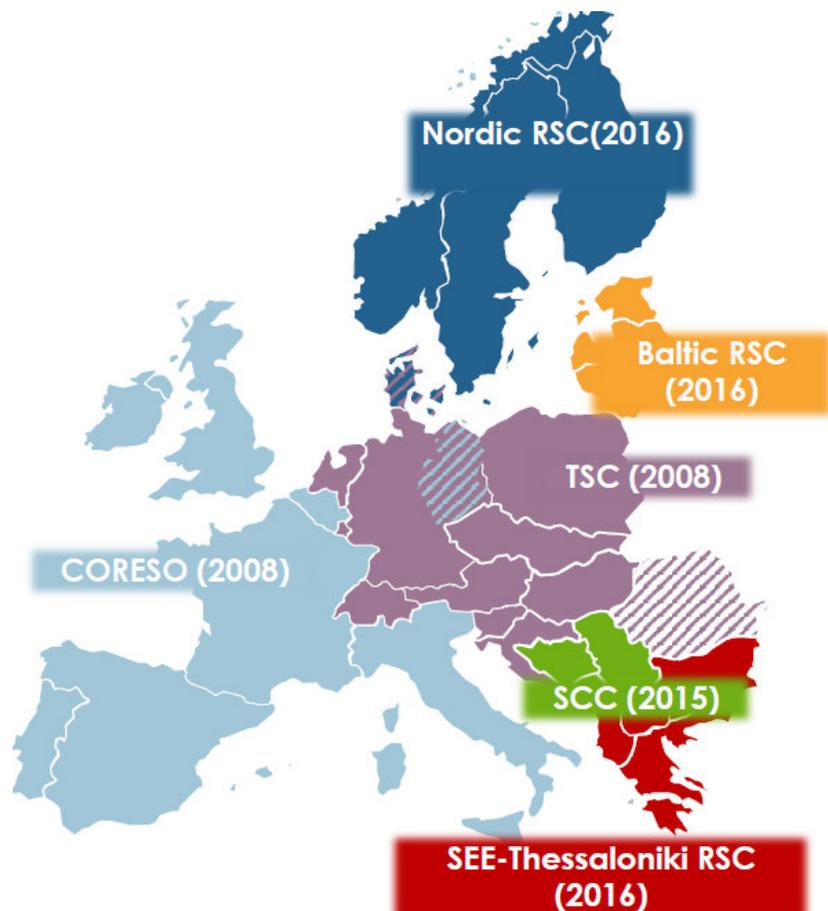
- Foreseen strong decarbonisation of energy sector
 - » By 2030, renewable generation will deliver almost 50% of all electricity produced
 - » Distributed and variable generation
- Ongoing market integration
 - » Increased cross-border trade
 - » Increasing pressure to allocate more cross-border capacities
- Growing number of interconnectors and PSTs

Call for rethinking of the currently envisaged electricity system operation design beyond 2025

Network Codes development

- Network Code on Operational Security 2nd edition (24 September 2013)
 - » Article 16.10: **A TSO can entrust** a Regional Security Coordination Initiative with some of the tasks ...
- System Operation Guideline
 - » Recital (6): ... **mandatory participation of TSOs** in regional security coordinators ('RSCs'). The common requirements for the establishment of RSCs and for their tasks set out in this Regulation constitute **a first step towards further regional coordination and integration of system operation** ...

Voluntary coordination (1)



On 10 December 2015, European TSOs and ENTSO-E signed a Multilateral Agreement on Participation in RSCs.

RSCs to develop in a harmonised, interoperable and standardised way under ENTSO-E's coordination, tools, standards, and methodologies

5 core functions*:
CC, OSA, CGM, AF, OP

Voluntary coordination (2)

- Coreso

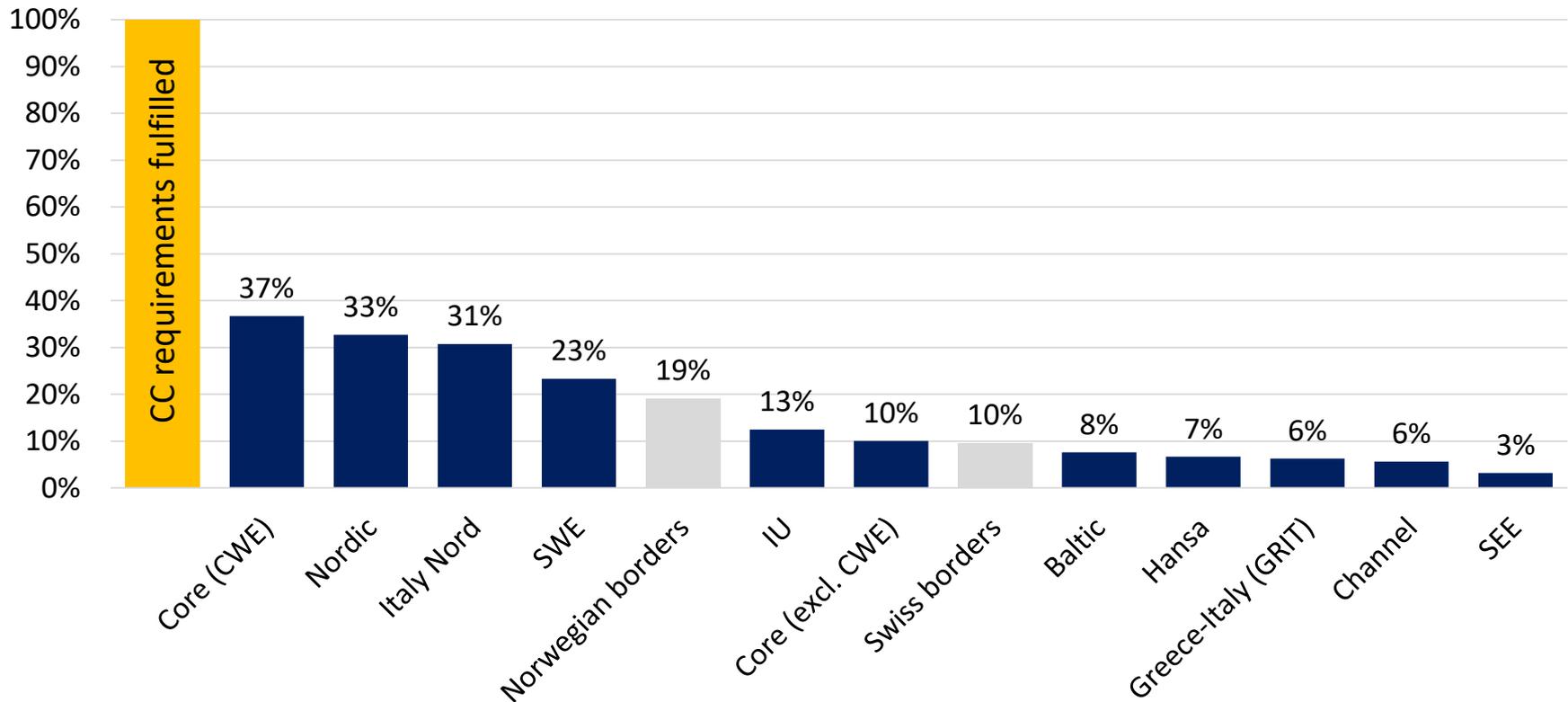
- » MoU (2007), company (2008), centralised coordination centre (2009)
- » 24/7 operation, D-2 CC, D-1 studies, intraday studies, CWE FB, **close to real-time analyses based on snapshots** (2009)...

- TSC

- » MoU (2008), start of CTDS System and Video Conferencing System (2011), TSC TSOs – Joint Office (2013)
- » 24/7 operations, DACF, IDCF, DOPT/WOPT, hourly snapshots for ex-post analyses

ACER/CEER: Annual Report on the Results of Monitoring the Internal Electricity Markets in 2016 (1)

A large room for improvement **in the level of TSO coordination**



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

ACER/CEER: Annual Report on the Results of Monitoring the Internal Electricity Markets in 2016 (3)

Recommendations to increase the level of TSOs' coordination

NRAs and TSOs should ensure the effective and rapid implementation of all legal provisions related to TSO coordination (e.g. RSCs or potentially for ROCs/RCCs in the future)

Clean Energy for All Europeans (1)

- Commission's proposal is empowering RSCs with
 - » additional coordination functions and
 - » decision making powers*thereby rendering them as Regional Operational Centres (ROCs)

The Agency supports the Commission's proposal
on ROCs

*TSOs may choose not to carry out a decision by ROC should safety of the system will be negatively affected

Clean Energy for All Europeans (2)

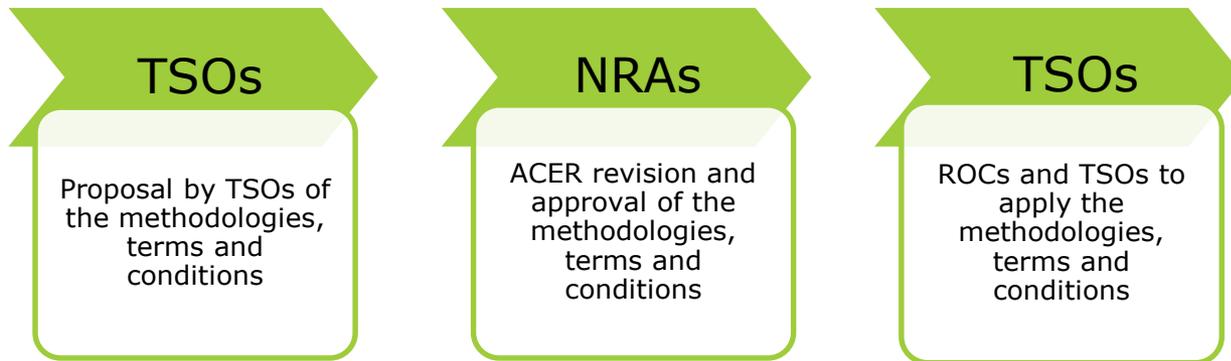
- Joint ACER/CEER response on Energy Market Design (07 October 2015)
 - » The decentralised concept of TSO coordination has not yet proven to be adequate to meet the challenge
 - » System operation is the enabler of the electricity market and political borders in system operation, which do not reflect the topology of the system, do not contribute to full market integration

Clean Energy for All Europeans (3)

- Joint ACER/CEER response on Energy Market Design (07 October 2015)
 - » Proper regionalisation of some system operation functions will thus be necessary to maximise the efficiency and security of the integrated electricity market
 - » The new energy market design could evaluate whether, how and which system operation functions would benefit from regional integration, implying the shift from national to regional responsibility.

Clean Energy for All Europeans (4)

- Regional decision-making procedures



- » Compliance enforcement on regional/EU-wide entities
 - Agency to issue binding decisions to require entities operating at regional or EU-wide level to comply with the objectives and the provisions in the Electricity Directive and Regulation and the Network Codes and Guidelines
 - NRAs to impose fines and penalties to ensure enforcement of Agency's decisions

Important steps in OMG development (1)

- **Development of new technology**
- **Cost Benefit Assessment**
 - » Providing monetised or at least quantified benefits, avoiding qualitative descriptions if possible.
 - » Providing clear insight into costs.
 - » Providing insight into uncertainties thus reassuring NRAs and decision makers.
- Of-shore meshed grid most likely to face **Cross-border Cost allocation**

Important steps in OMG development (2)

- **Permitting**

- » Identified as one of the main reasons for delays in building new infrastructure (ACER PCI monitoring reports).
- » different jurisdictions can multiply the number of hurdles to overcome.

- **Market issues (capacity allocation, bidding zone definition, etc.)**

**Thank you for
your attention!**

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