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On the Road to a Common Market:

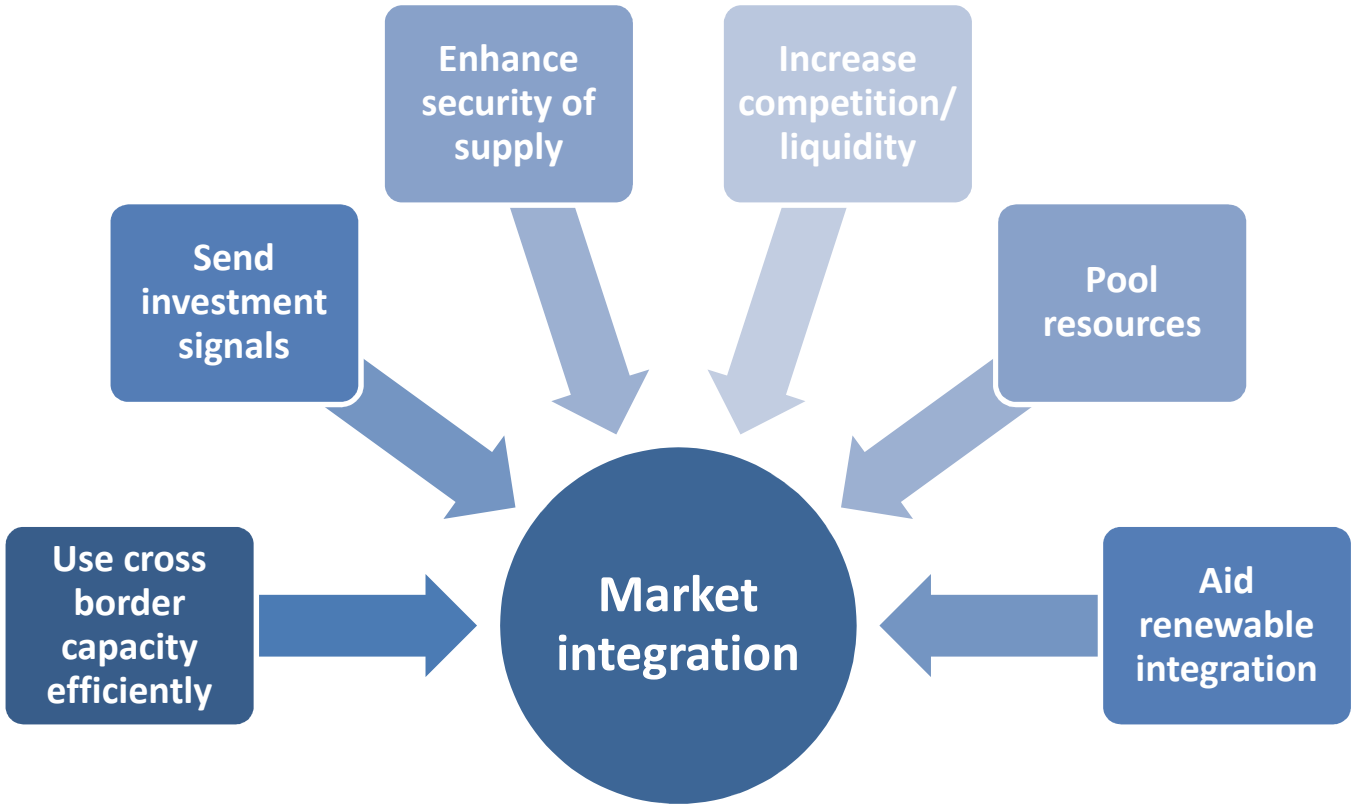
The European Electricity Market and the Role of Regional Cooperation

Mark Copley

27/05/14

1) Why integrate markets?
2) The legal framework
3) The European Target Model
4) Market Coupling in Europe
5) The role of regional cooperation
6) A quick word on network codes
7) Some closing observations

Why integrate markets?



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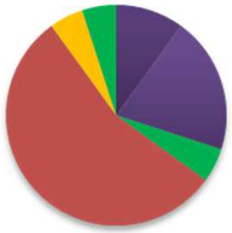
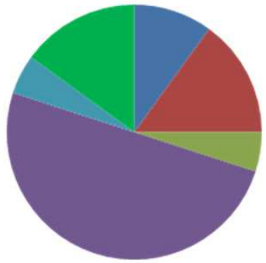
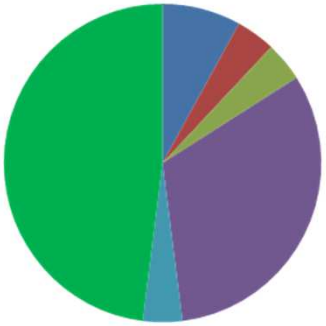
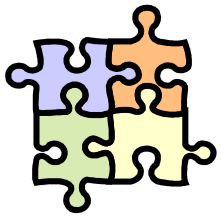
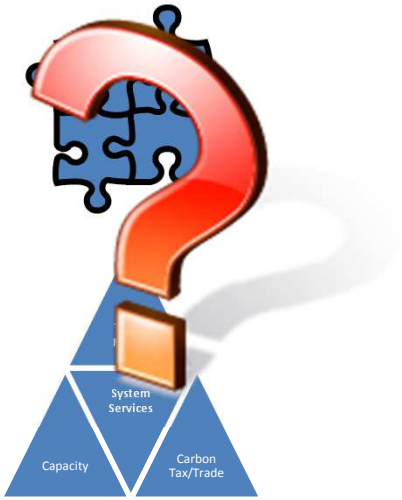
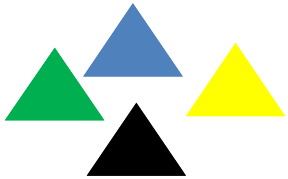
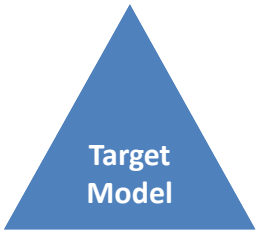
Challenges facing Europe

	Today...	...2020...	.. and beyond
RES Share in Electricity			
Operational Complexity			
RES Support Mechanisms			
Market Design			

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The Legal framework

First Package (1990s)

- Gradual introduction of competition
- First unbundling requirements

Second Package (2003)

- Further unbundling
- Third party access
- Need for independent Regulators
- Retail liberalisation

Third Package (2009)

- Further unbundling
- Definition of role of national regulatory authorities
- Creation of ACER
- Provides framework for common market rules (network codes)

Infrastructure Package (2011)

- Aims to ensure that strategic infrastructure and storage are in place by 2020
- Priority corridors
- Projects of Common Interest

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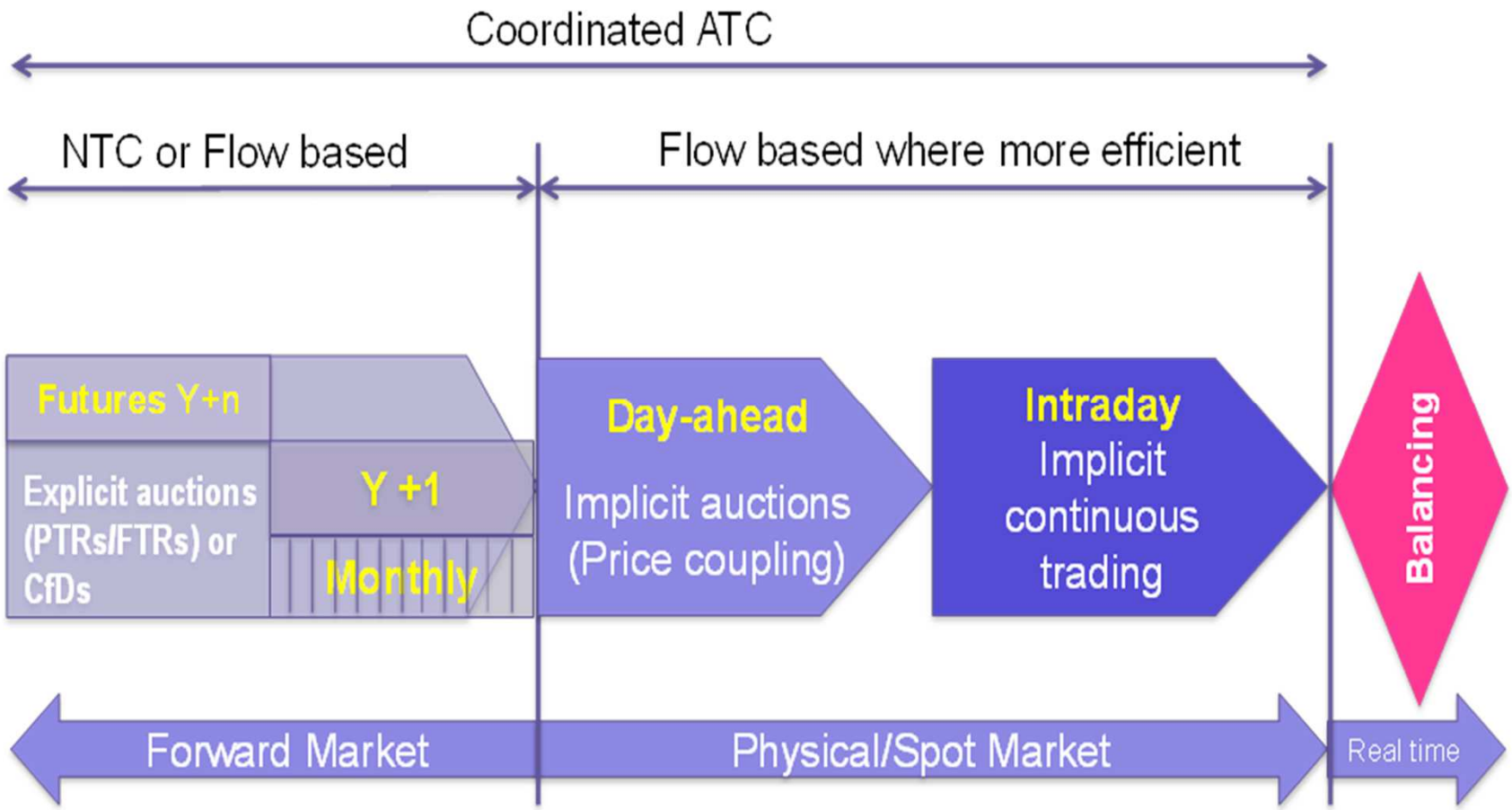
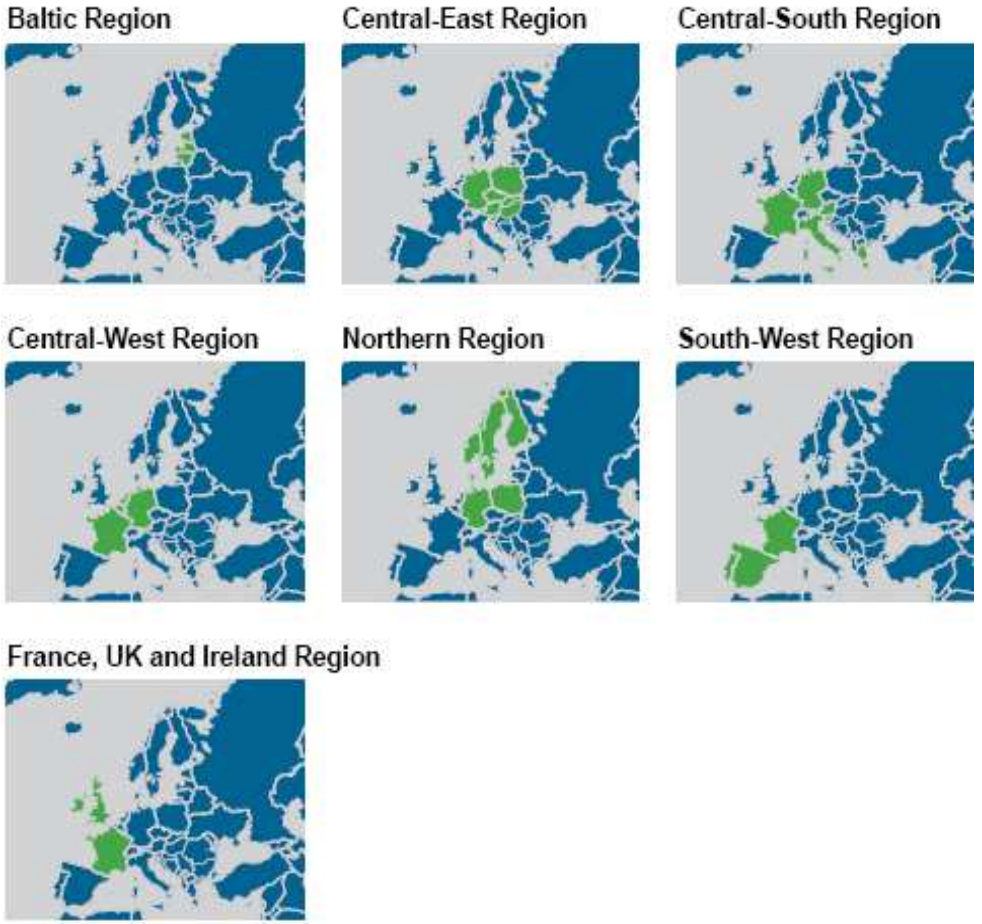
The European Electricity Target Model



Electricity Regional Initiatives

- Launched 2006
- Brings market participants together (NRAs/TSOs/PXs)
- Divides Europe in 7 electricity regions
- Bottom up approach to completion of the Internal Electricity Market
- Projects ongoing to facilitate the early implementation of the European Electricity Target Model



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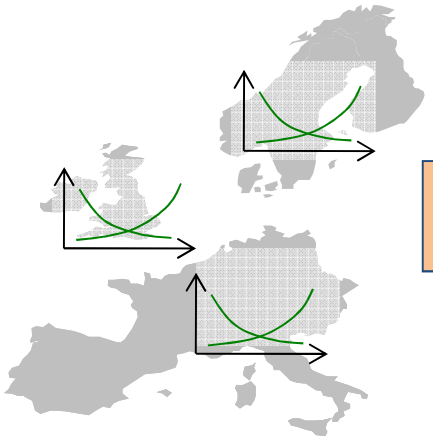
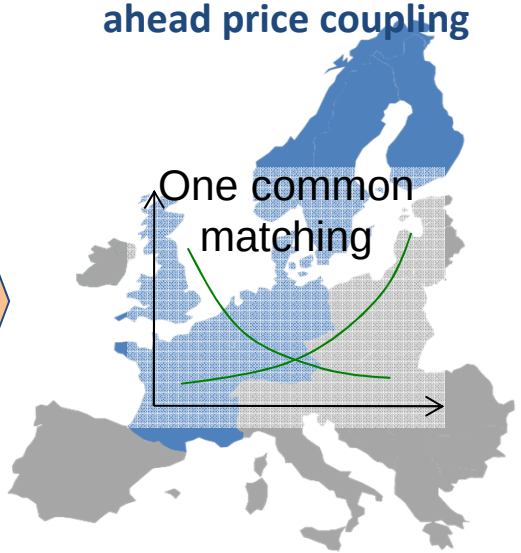
Market Coupling

Status - Current day ahead market coupling

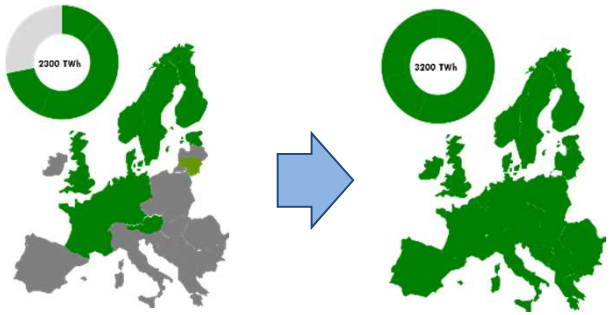
On-going process…



Nov. 2013 – NWE Day-ahead price coupling



Further Market Integration will deliver a Single European Market not only for Day-Ahead but also for Intraday, Forwards and Balancing



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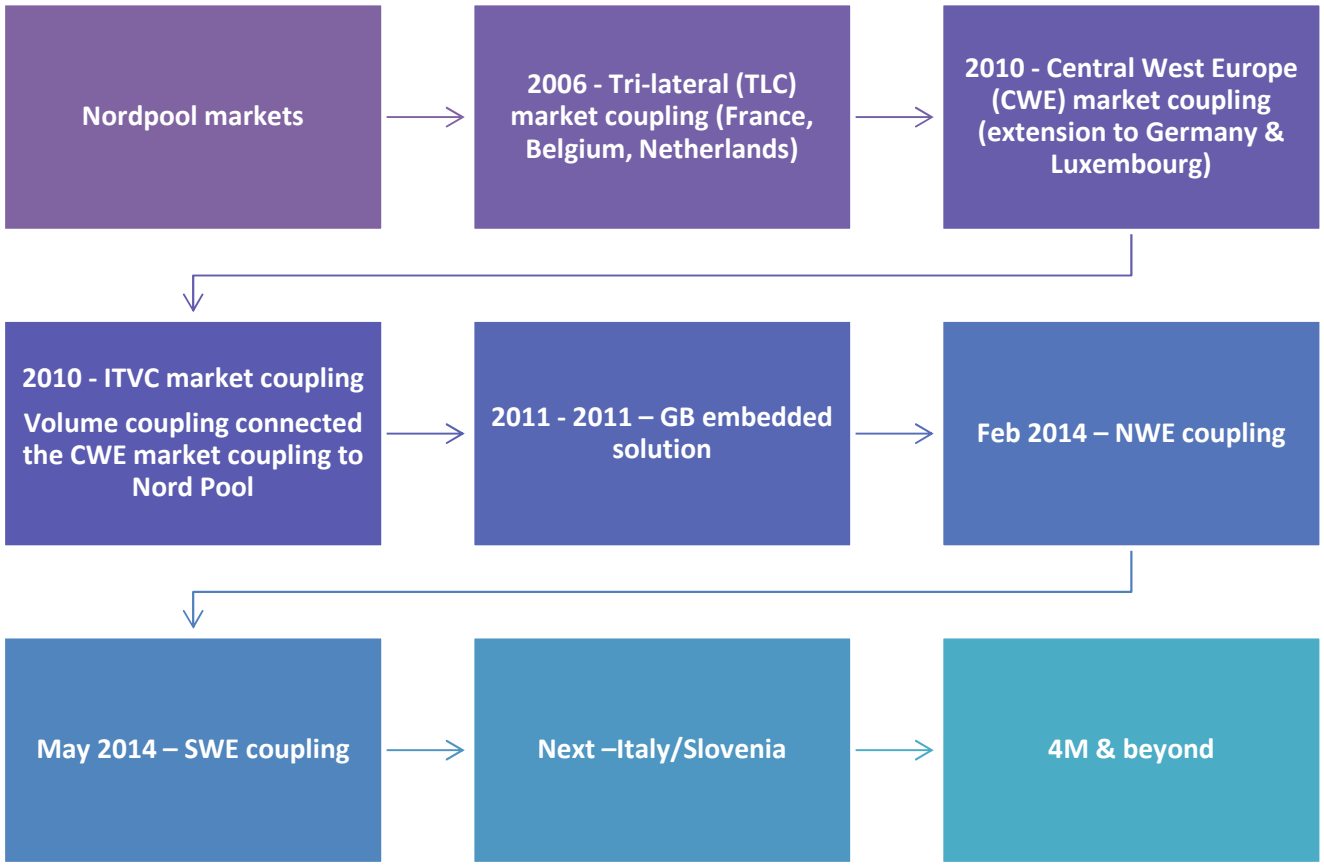
Market Coupling – the history



Early implementation of the Electricity Target Model

Day-Ahead Market Coupling

- 4 February 2014 North Western Europe were “coupled”
- 13 May 2014 South Western countries also joined
- End 2014 Italy and Slovenia expected to join

Intraday and balancing markets

- Slow progress on Intraday
- Balancing results to be seen in 2017

Forwards

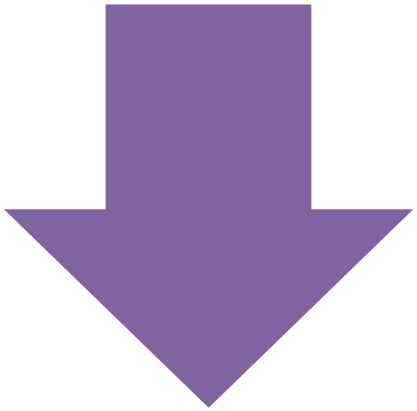
- Development of harmonised platform and auction rules in 2014/201

During the period from 2004, the main integration initiative in the electricity market has been the implementation of the Target Electricity Model based upon market coupling….

We have estimated that the benefits of the integration due to market coupling, once market coupling is fully implemented across the EU, will be of the order of €2.5bn to €4bn per year

Booz & Company, 2013

Network Codes & Regional Projects



Network codes set legally binding rules

Building on voluntary experience at regional level

Network Codes are European Laws

10 have been developed

And will apply across Europe

When they enter into force in the next year

A coordinated approach to energy infrastructure

To deliver the required investments in energy infrastructure, the Infrastructure Package has:

- Identified *Priority Corridors*
- Set the framework for the identification of *Projects of Common Interest*, which can:
  - ✓ benefit from a faster and more transparent permit granting procedure;
  - ✓ apply for EU funding;
  - ✓ benefit from a specific regulatory treatment.

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Regional cooperation in infrastructure

- Initial PCI selection through 4 regional groups
- Infrastructure taskforce set up with ACER and NRAs
- Worked through infrastructure task force to develop/challenge
  - principles for cost benefit analysis
  - comparisons of national ten year development plans with European plans
  - policy guidance for assessing cross-border cost allocations
  - incentives for high risk projects

Much ongoing cooperation with neighbouring NRAs
- CBCA applications
- Interconnector projects

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Some closing observations

- Regional cooperation is vital
- But a top down vision is needed to steer progress
- Developing regional markets is a challenge
- Governance is absolutely critical
- But customer benefits can be large

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Our priority is to protect and to make a positive difference for all energy consumers. We work to promote value for money, security of supply and sustainability for present and future generations. We do this through the supervision and development of markets, regulation and the delivery of government schemes.

We work effectively with, but independently of, government, the energy industry and other stakeholders. We do so within a legal framework determined by the UK government and the European Union.

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Technical rules facilitating market integration

Electricity Network Codes

Process stage (key below)

Market codes	**CACM**	**C**apacity **A**llocation and **C**ongestion **M**anagement: allocation of interconnector flows for day-ahead (market coupling) and intraday timeframes involving power exchanges and TSOs, and calculation of interconnector capacity	
	Forwards	Rules for allocating interconnector capacity via auction of monthly or annual contracts	
	Balancing	Rules to share balancing resources between countries effectively	
Technical codes	**RfG**	Technical **R**equirements **f**or **G**enerators connecting to transmission and distribution networks	
	DCC	**D**emand **C**onnection **C**ode: technical requirements for the connection of demand and distribution networks	
	HVDC	Requirements for long distance **H**igh **V**oltage **D**irect **C**urrent connections, links between different synchronous areas and DC-connected generators	
Operational codes	**OS**	Sets out **O**perational **S**ecurity principles, coordination of system operation, and requirements for grid users connected to the transmission grid.	
	OP&S	Sets out roles and responsibilities for TSOs, DSOs and significant grid users towards the **O**perational **S**cheduling and **P**lanning procedures and prescribes how to exchange data.	
	Load frequency	Sets frequency quality criteria and technical criteria for balancing reserves and synchronous system operation	

FG → NC → ACER opinion → EC proposal → Comitology → EP scrutiny → Implement.