

ENTSO-E Network Codes 'Vision' Paper

...and benefits to GB of European Network Codes

DECC/Ofgem Stakeholder Meeting – 29 April 2013

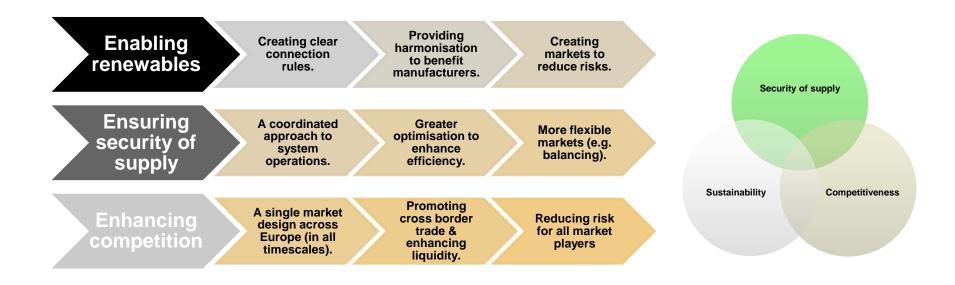
Drivers for 'Vision' Paper

It's actually called -

European Network Code Development:

- The importance of network codes in delivering a secure, competitive and low carbon European electricity market
- A needed piece of communication on the topic of network codes as a whole project; helping to explain some of the links between them and why they do not stand alone.
- Shouldn't be anything surprising; it is meant more to clarify and summarise current views for an external/unfamiliar audience.
- Intended to be a helpful aid for any party using network codes; what their intention is, how they fit into other initiatives and details on the content of codes to date (basic level).

3rd Package Intended Benefits





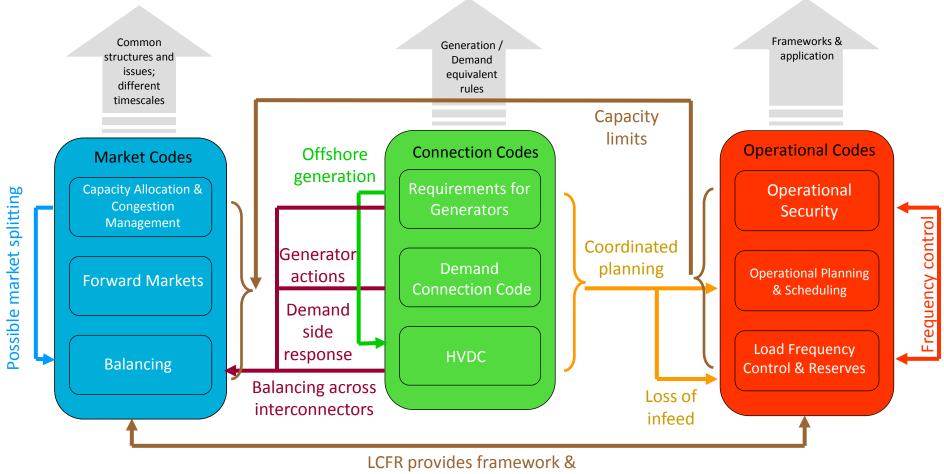
Introduction to Network codes December 2012

Pan-European Challenges

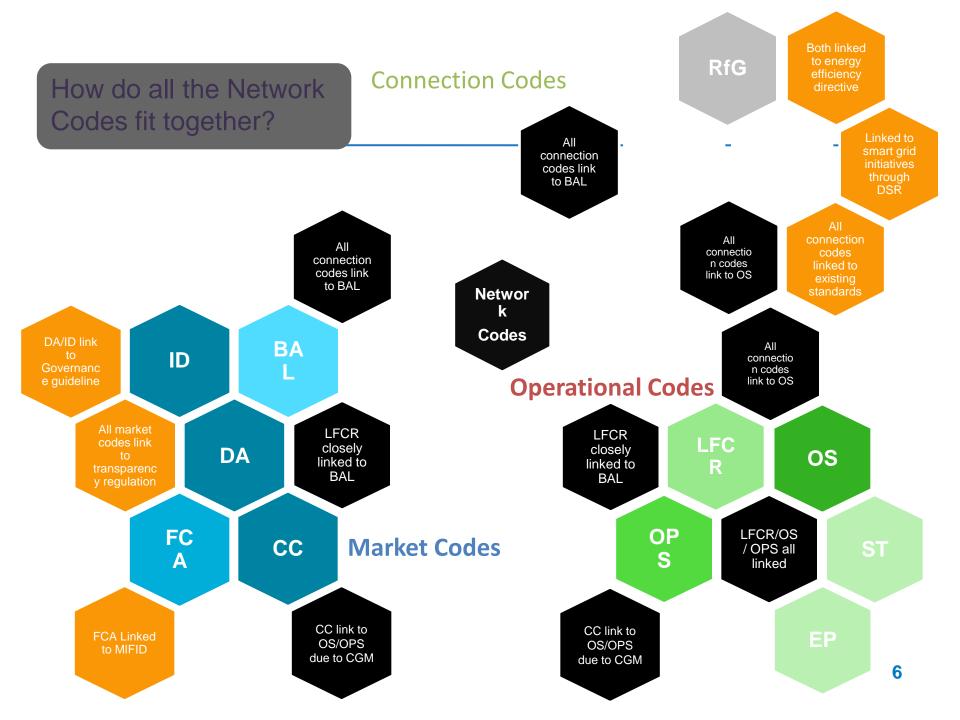
- Increases in cross-border flows a natural consequence of bigger markets and siting of intermittent generation away from population centres
- Operational challenges another consequence of intermittent generation; particularly impacts system balancing and reserve requirements. Also consequences of greater embedded volumes and lower system inertia
- A changing role for network users all types of user (i.e. generation, demand, distribution networks, and interconnections) will play an active role in providing the capabilities and services which are needed to maintain the security of the pan European transmission system.
- Changes in market dynamics price volatility due to renewables having low or zero marginal costs. Difficulties in cost recovery coupled with lower running hours for conventional plant



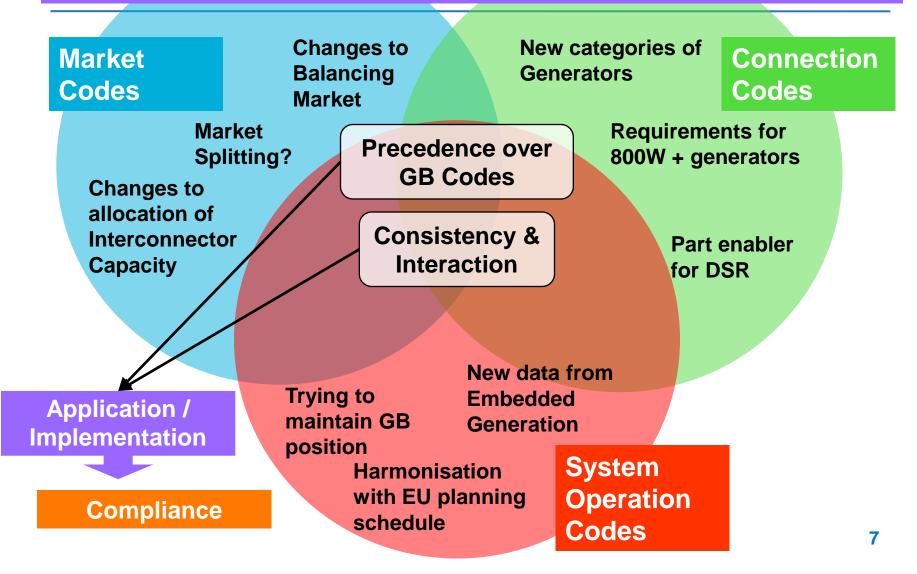
ENC High Level Interactions



Balancing takes actions



Key Challenges of ENCs (GB assessment)



What are the benefits of European Network Codes?



- Ensuring closer cooperation between TSOs builds on the very high levels of security of supply enjoyed to date. More advanced and coordinated operational planning procedures are being implemented; TSOs are also developing systems for coordinating balancing and remedial actions
- Working more closely with Distribution System Operators (DSOs) with an increasing amount of generation coming from embedded distribution connected units
- Creating stronger, more robust and smarter networks Europe's networks will need to change significantly in the coming years, with much greater levels of interconnection and the probable extension of networks offshore, using a greater proportion of high voltage direct current (HVDC) technology, more active distribution networks and greater customer participation
- Facilitating a competitive Pan-European market a single European electricity market has the potential to give generators wider access to more customers and customers more choice, and therefore strong incentives to decrease price. Close cooperation between TSOs and common rules, in areas such as sizing and sourcing reserve capacity, are vital

to ensuring that the full benefits are realised.

And how can this translate for GB?

- Establishes single market for electricity
 - Greater competition and efficiencies for consumers
 - Improved security of supply
- Offsets issues of intermittent generation
 - Balancing, frequency control and reserves redefined
 - Captures smaller generators with code requirements
 - Facilitates demand side services (NB Codes may not be the eventual vehicle for all of this)



Useful Links & Contact Information

- ENTSO-E (section of site with 'Vision' paper and supporting information)
 - https://www.entsoe.eu/major-projects/network-code-development/
- ACER
 - http://www.acer.europa.eu/portal/page/portal/ACER_HOME/Activities
- European Commission
 - http://ec.europa.eu/energy/index_en.htm
- JESG (Joint European Standing Group; set up as a forum for communication with GB stakeholders on European code development)
 - http://www.nationalgrid.com/uk/Electricity/Codes/systemcode/workingstandingg roups/JointEuroSG/

For more information, please contact:

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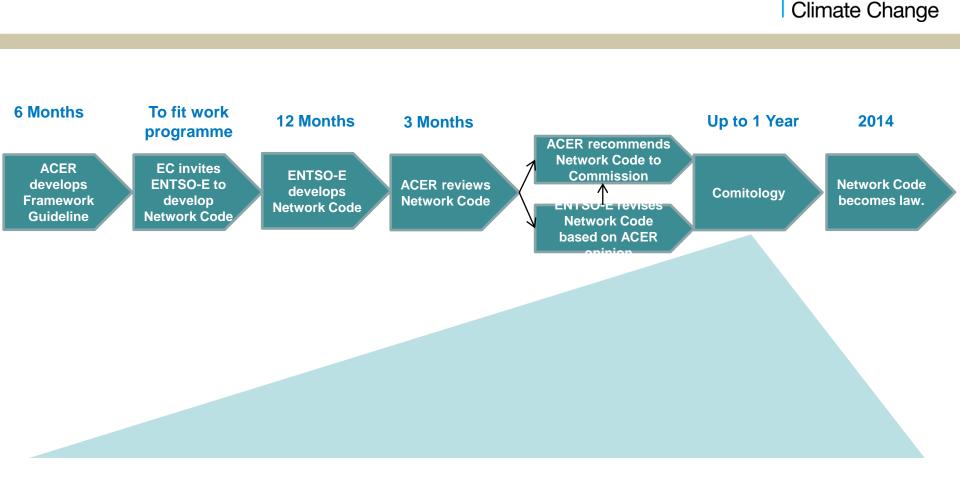


EU Electricity Network Codes

Comitology Process Update

29 April 2013

European Network Code Development Process

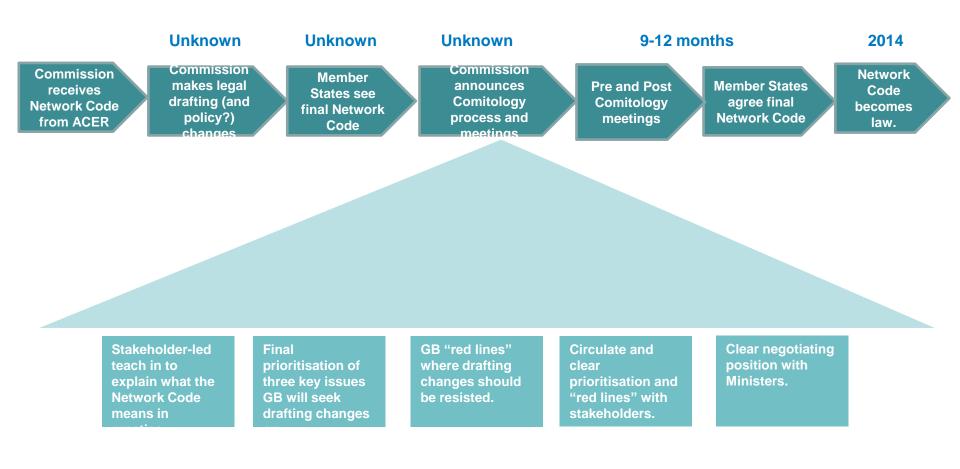


Department of Energy &

What do DECC and Ofgem need from stakeholders to ensure GB is properly prepared for the comitology process?

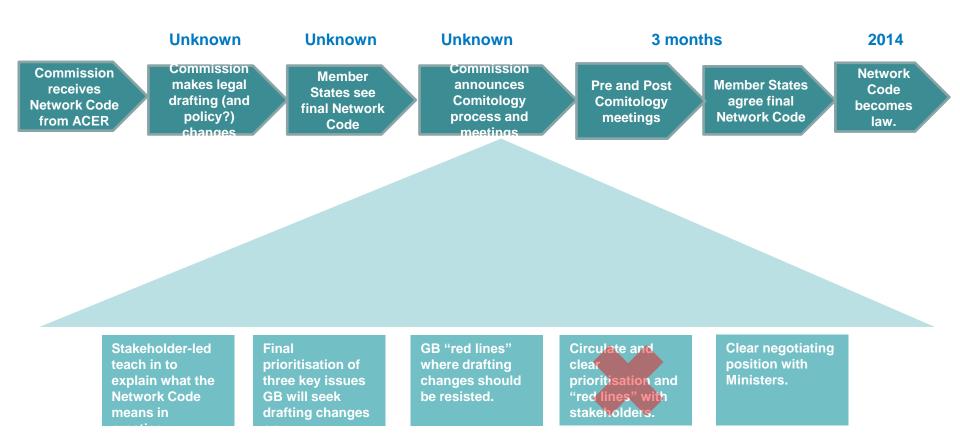
DECC/Ofgem Comitology Preparation Process – Preferred Approach





DECC/Ofgem Comitology Preparation Process – Curtailed Approach





If Commission curtails the comitology process, there may not be time to circulate and clear final agreed negotiating position with all stakeholders – we may need a core team covering key interests.

Issues we would welcome your views on.



- 1. What is the risk of the Commission pushing a curtailed comitology process?
- 2. Have we got the overall process right?
- 3. Does the contingency approach work?
- 4. Which stakeholders are best placed to assist?
 - i. Teach-in process;
 - ii. Curtailed negotiating position (JESG or representatives from trade bodies);
 - iii. Support at comitology meetings
- 5. Do we know enough about the positions of other Member States?