# **ENTSO-e Operational Security Network Code**



## OS Code Objectives

Ensure safe, secure and efficient system operation Common security principles & minimum standards Co-ordination between TSOs Enable integration of RES & innovative technologies

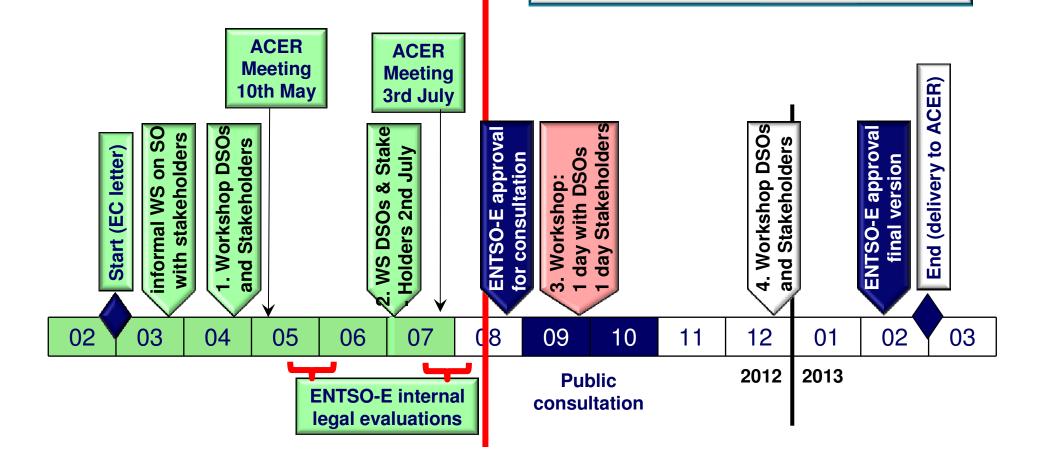
16/08/12 JESG Edinburgh David Coan

#### **Timeline and Description**

### nationalgrid

- Two external workshops + ACER mtgs
- Consultation due out in September
- Third workshop during Consultation
- JESG OS NC workhop 3rd Oct

- High level doc, principles of Op Security
- Umberella document for other Op Codes
- Mostly TSO facing obligations
- Data obligations, but at high level only



# Operational Security NC structure

# nationalgrid

General Provisions: Subject matter, Definitions, Scope, Articles 1-6 Regulatory aspects, Confidentiality, Relation with National Law **Operational Testing Operational Training** Monitoring and and Article 30 Article 15 Certification Investigation Article 8 Article 14 **Short Circuit Management** Protection Frequency Control Mgm Dynamic Stability Mgmt Article 10 Article 13 **Contingency Analysis and** Requirements Handling Article 11 Article 9 Article 12 **Congestion and Power Flow** Voltage Control and Reactive Power Mgmt. Management **System States** Article 7 **Data Exchange** Articles 16-29 Articles 31-34 Compliance **Final provisions** 

#### Some examples of TSO obligations

- System states, common awareness system
- Emergency plan in place
- Security analysis real time and forecast
  - N & N-1, -1 can be a defined by TSO as a double circuit
  - share model and forecast data, Common Grid model(s)
  - Manage short circuit levels, reactive reserves,....
- Cross border re-dispatch TSO co-operate to find most efficient
- Cross border Op security limits co-ordinated
  - Develop a methodology to determine the min % for each synchronous area to ensure stability and security
- Monitor and test significant grid users compliance
- Train, Certify and Develop its control room operators

#### Some of the recent feedback on the OS NC

- Definitions need to be consistent with previous Codes
- Consistency between Codes needs more consideration
- Significant Grid User
  - Specific thresholds absent
  - Grid User obligations: resync, monitoring, testing,...
- Set out the values of Op Security Limits in the code
- Justifications for the values in the RfG, DCC, ...
- DSO rights to direct users
- NRA approval for future methodologies and obligations
- Performance measures are absent
- Need to see all three Operational Codes at same time

#### **Summary**

- Consultation version out early September (closes early Nov)
  - Should see improved consistency with other NCs
- I consider the impact on GB is intended to be low / modest
  - But open to interpretations as the OS NC is high level
- Entso-e OS NC workshops on 18-19<sup>th</sup> Sept
- JESG one day OS NC workshop on 3/10/12
  - I will do an initial mapping to existing GB codes where relevant