

Operational Planning & Scheduling Network Code

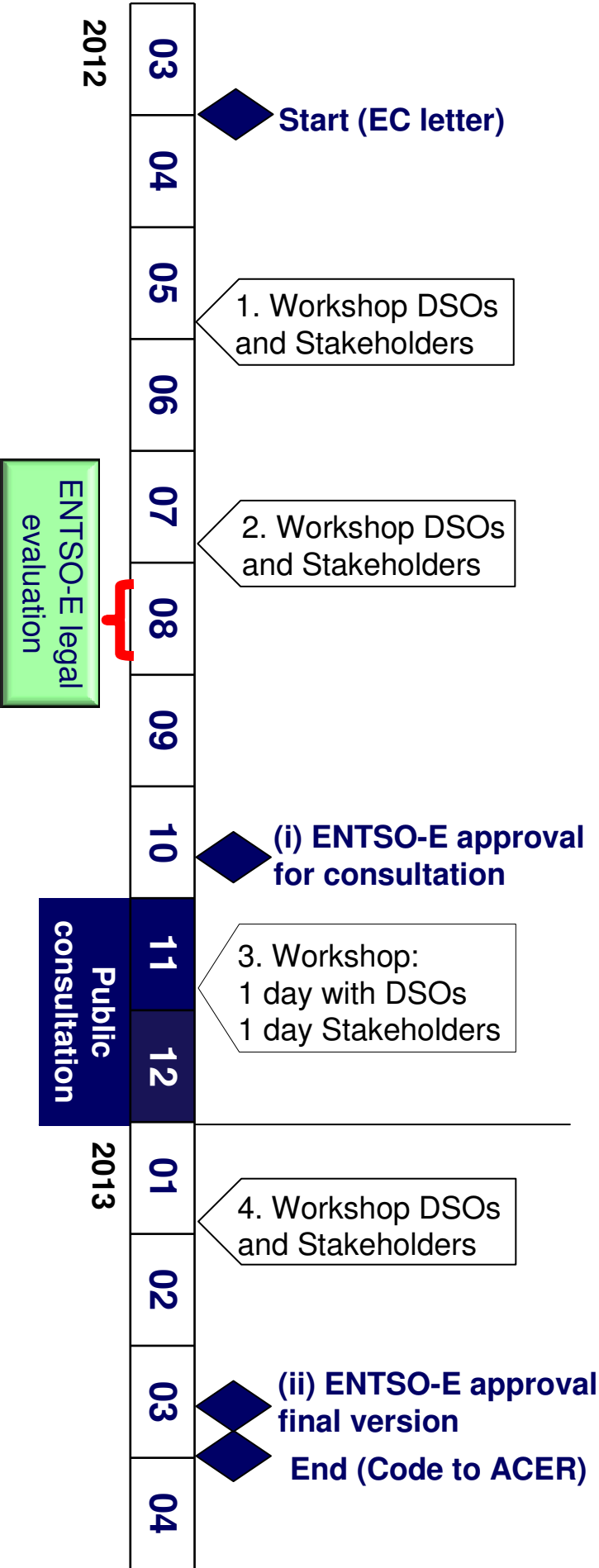


JESG - 25th August 2012
David Reeves

Agenda

- Timeline
- Code
- Interaction with other codes
- Feedback
- Questions/contact details

Timeline



OP&S Code

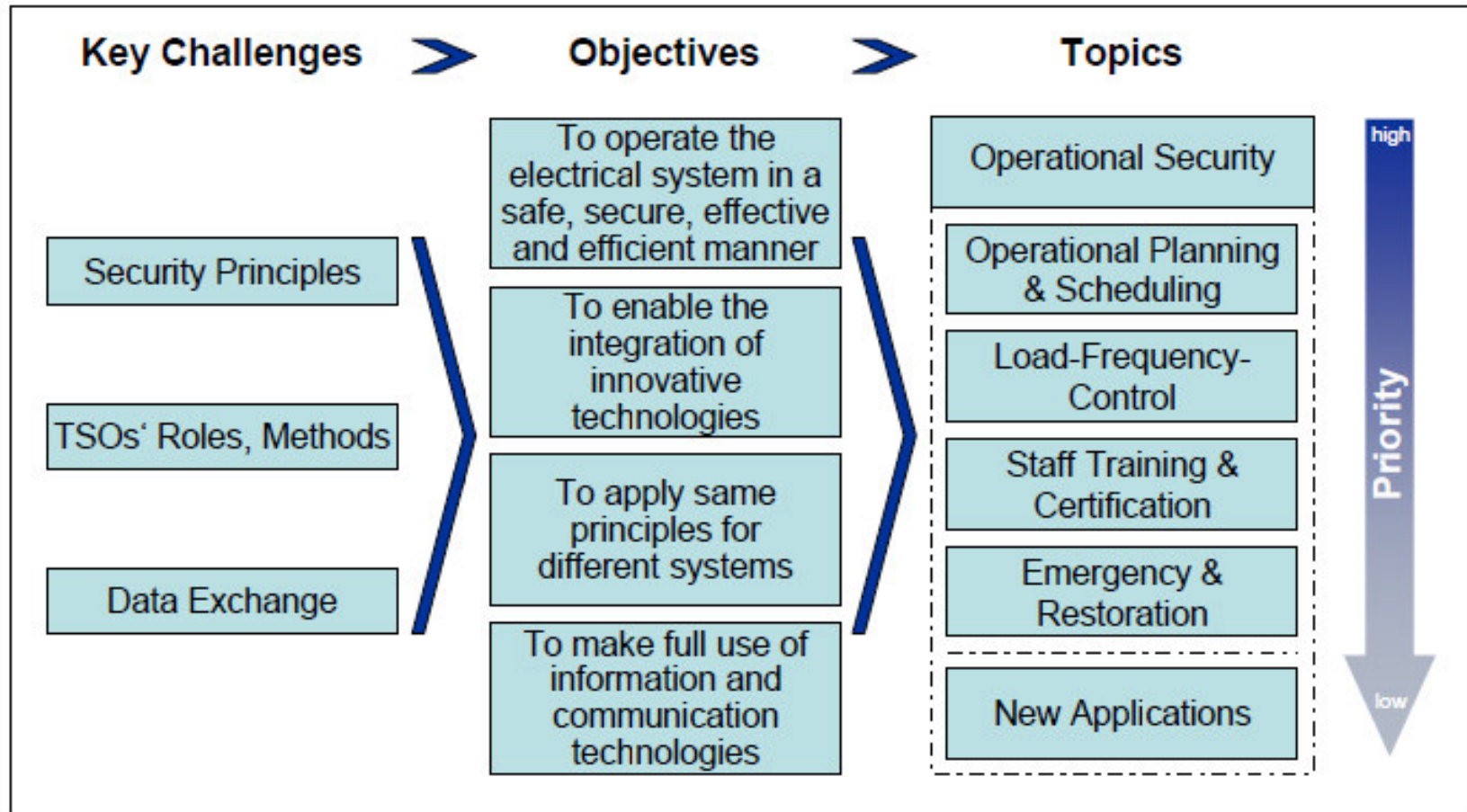
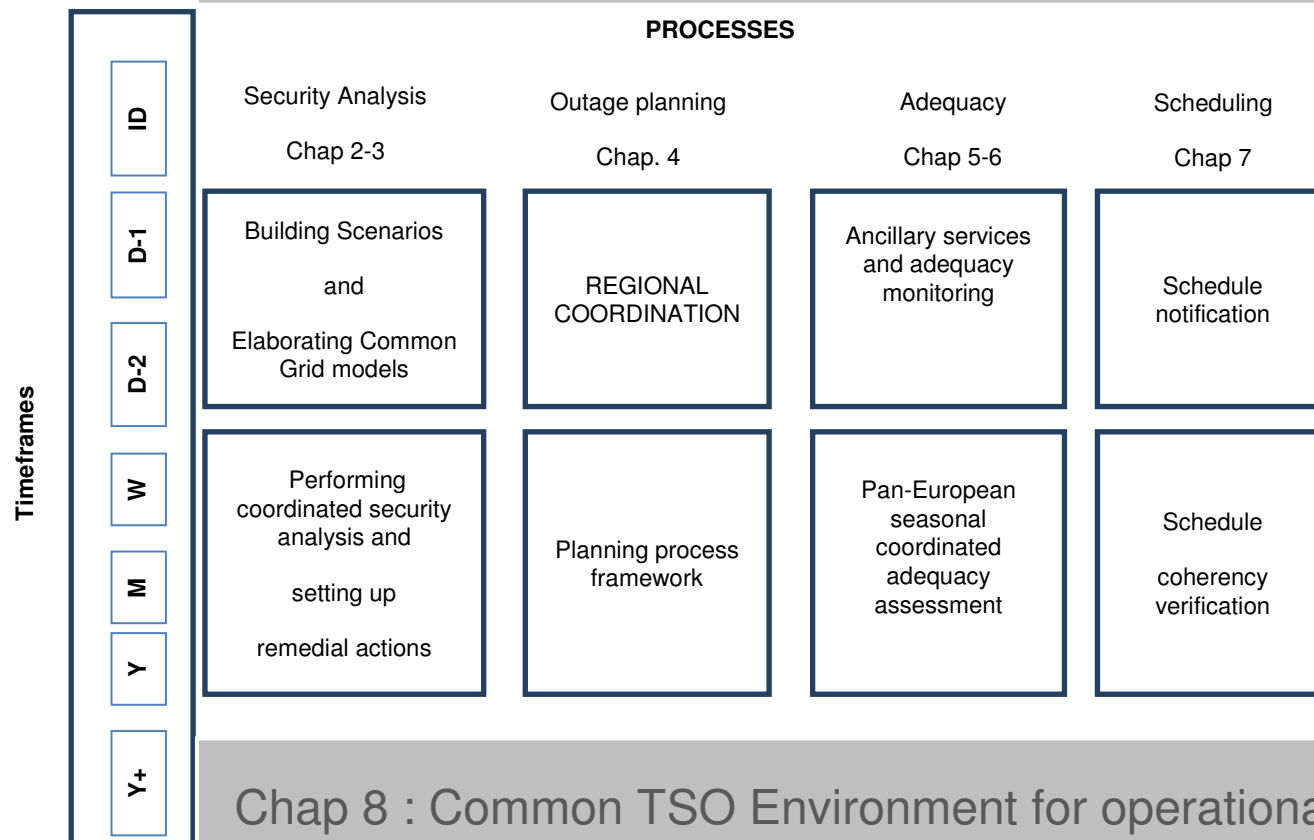


Figure 2: Structure and development flow of the Framework Guidelines on Electricity System Operation

OP&S Code

Chap 1 : General Provisions: Subject matter, Definitions, Scope, Regulatory aspects, Confidentiality, Relation with National Law



Chap 8 : Common TSO Environment for operational planning data

Chapter 2 & 3: Security Analysis

Security analysis is required at relevant stages of the planning process to ensure that system operation is within the normal operating state of the transmission system and that under n-1 conditions as described in the OS NC the frequency, fault level, voltage and load flows etc. remain within predefined limits

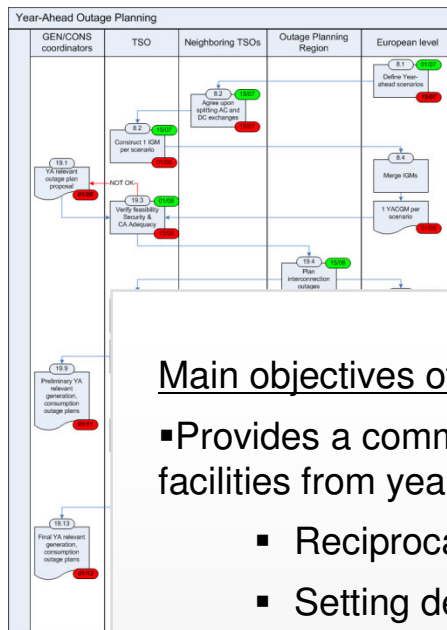
Main objectives of the chapters

- Requirements for data exchange:
 - *Year ahead common grid model (pan-European harmonisation).*
 - *Day-ahead and intraday individual grid models (harmonised at least at synchronous area level).*
- Requirements for performing security analysis (at least at synchronous level).
- Requirements for coordination in operational planning (i.e. evaluation of contingencies and constraints, remedial actions, reactive power control, short circuit coordination).

New requirements

- Procedures for constructing a pan-European year-ahead common grid model
- Improvement of data quality

Chapter 4 & 8: Outage Planning and Common TSO Planning Platform



Overall purpose:
Setting requirements and roles/responsibilities for every relevant party operating within EU, thereby ensuring a harmonized co-ordination of outages, both internally and cross-border.

Main objectives of the chapters

- Provides a common European framework regarding outages of grid and production/demand facilities from year ahead and how to update these until real-time:
 - Reciprocal and transparent processes.
 - Setting deadlines ensuring relevant and necessary information is available, when needed
- Provides data for more planning processes: outage planning, security analysis, system adequacy assessment and capacity calculation.

New requirements

- More harmonized procedures, deadlines etc.
- Currently no single centralized data platform for sharing information on outage planning exist. Introducing this eases and stimulates collaboration and coordination between TSOs.

Chapter 5: Adequacy

Overall purpose:
Ensures and monitors system adequacy, i.e. supplying the load in all the steady states that the power system may face

Main objectives of the chapters

- Pan-European system adequacy assessments season ahead
- National adequacy assessments updating the pan-European analysis
- Coordination between TSOs, specially if adequacy level is low

New requirements

- Increased TSO coordination

Chapter 6: Ancillary services

Overall purpose:
Ensures adequate ancillary services by setting requirements for procurement and management systems

Main objectives of the chapters

- Close collaboration between neighbouring systems, since system operation no longer is a national issue: sharing of information, common procurement etc.
- Close link to LFCR NC and Balancing NC
- High level of detail

New requirements

- Requirements concerning cross-border coordination of ancillary services to facilitate closer TSO collaboration enabling more efficient and economic system operation.

Chapter 7: Scheduling

Overall purpose:

Provides the TSO valuable insight from all market participants after market closure but before real-time, which enables the TSO to balance the system in real time.

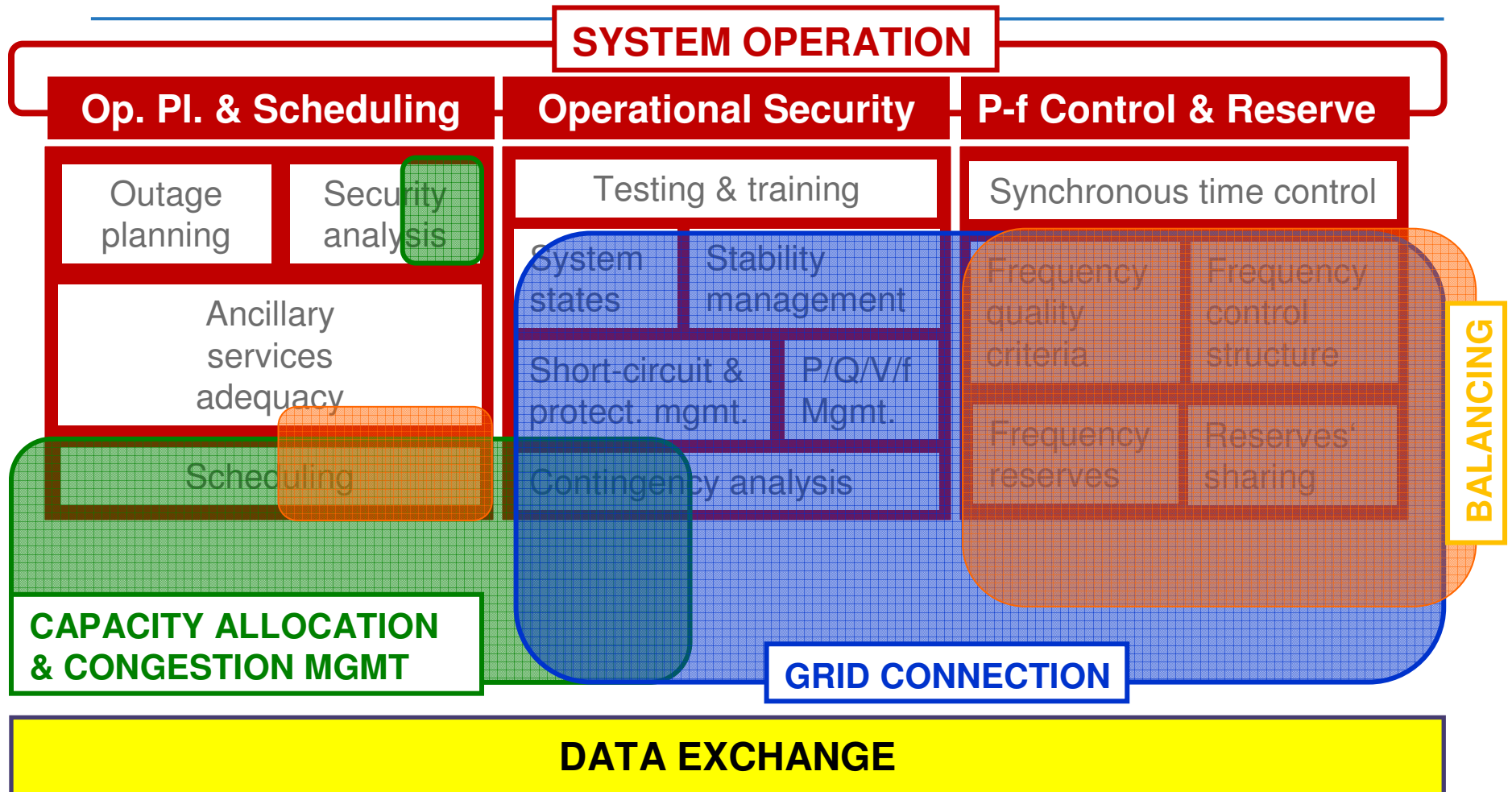
Main objectives of the chapters

- Schedules inform the TSO of the intentions of the market participants in real-time – before real-time.
- Facilitates proactive measures to avoid imbalances caused by market misunderstandings.
- Sets the data requirements for TSO/TSO and TSO/market participants for energy exchange both nationally and cross-border

New requirements

- Scheduling in net positions, increasing the possibility of the TSO to proactively take measure in case of imbalances.

Interaction with other Network Codes



Feedback so far.....

- Definitions
- Market based solutions
- More DSO involvement
- Timescales
- Co-ordination
- Obligations

Questions?

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