

# Market Network Codes CACM

2<sup>nd</sup> SEM RA/TSO Stakeholder Forum

Mark Lane

4<sup>th</sup> April 2013



## Top 8 issues in CACM NC

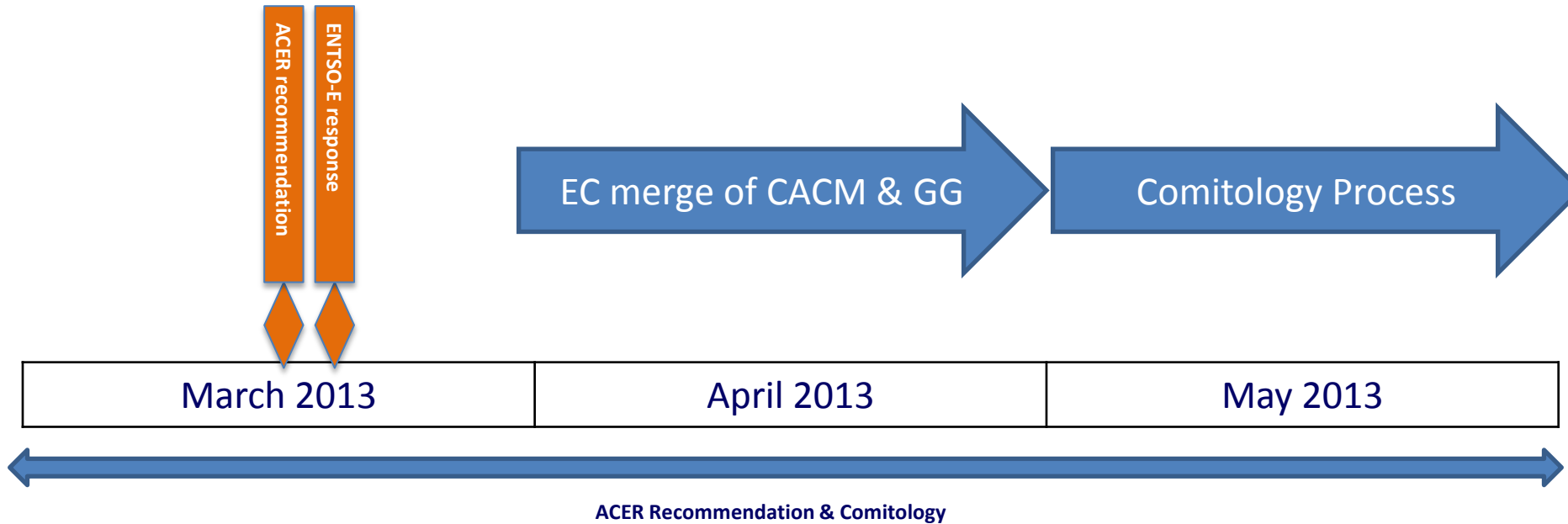
1. Capacity Calculation for DA & ID
2. Bidding Zones
3. Redispatching & Countertrading
4. DA market & Price Coupling
5. ID market & Continuous Trading
6. Firmness
7. Regional Auctions
8. SEM 2016 derogation

# CACM - Update

- ACER recommendation to EC – 14 March
- ENTSO-E response to EC – 18 March
- Areas of broad agreement:
  - RA approvals, Bidding Zones, Consultation, NC Objectives, Cost Recovery etc
- Areas where broad agreement not reached
  - Capacity Calculation, Deadlines for Implementation, Intraday, Redispatching & Countertrading

# Network Code Development – CACM

Q2 2013



Step 8

# Market Network Codes FCA

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## Top 8 issues in FCA NC

1. Capacity Calculation for LT
2. Bidding Zones
3. Determination of Capacity Splitting across timeframes
4. Risk Hedging Options – PTRs with UIOSI, FTRs, CfDs
5. Single Platform for Primary/Secondary Trading
6. Regional Platforms
7. European Harmonised Auction Rules
8. Firmness

# FCA Update

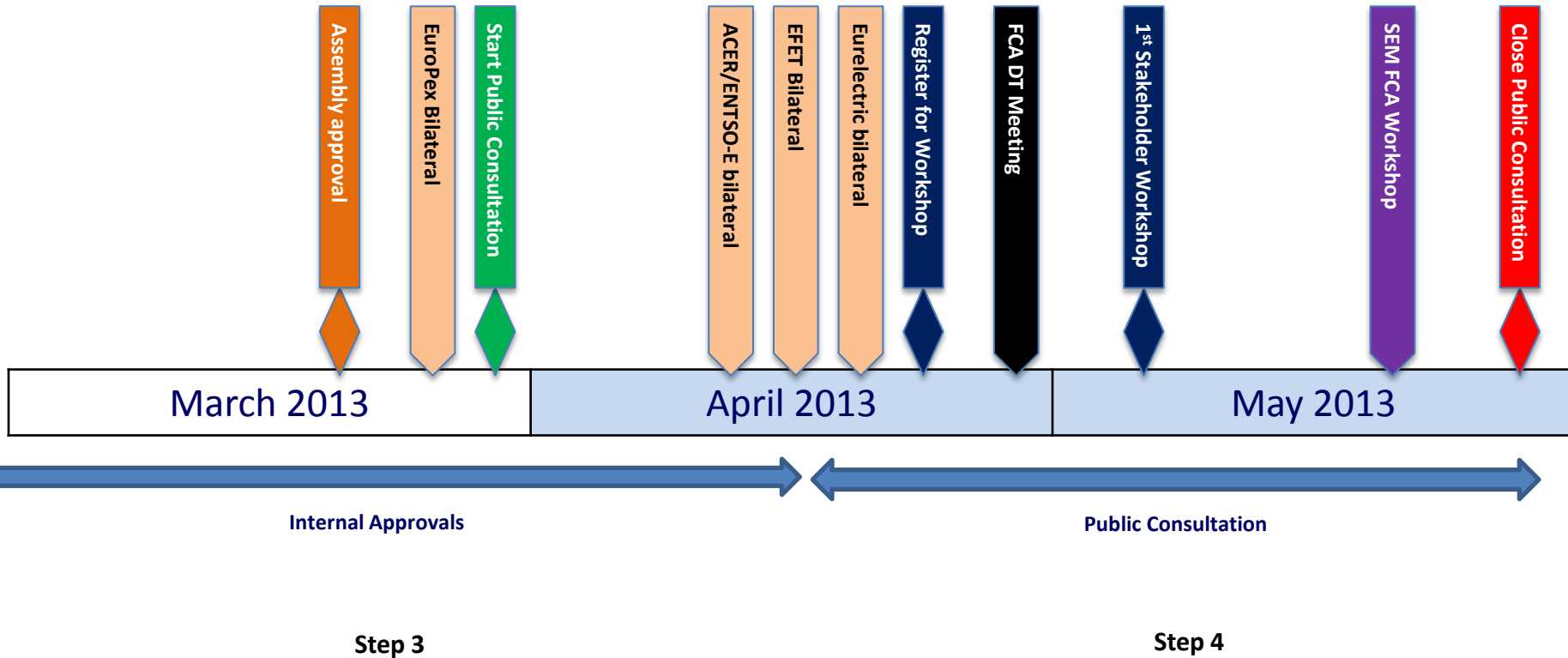
- ENTSO-E MC approval on 27 February
- ENTSO-E Assembly approval on 21 March
- ENTSO-E starts Public Consultation – 28 March
- SAG Bilaterals (eg ACER, Eurelectric, EFET, EuroPex) -April/May
- FCA 1<sup>st</sup> Public Workshop on 8 May, register by 26 April
- SEM FCA Workshop – mid-May (TBD)
- Deadline for Public Consultation – 28 May

DT now working on:

- Capacity Calculation for LT
- Firmness

# Network Code Development – FCA

Q2 2013





# Harmonised European Auction Rules

- New working group to assess feasibility on harmonising European auction rules
- One SPOC per region
  - CWE (BE, FR, DE, LU, NL, CH)
  - CEE (AT, CZ, DE, HU, PL, SK, SI)
  - CSE (IT, FR, DE, AT, SI, CH, GR)
  - SWE (ES, PT, FR)
  - FUI (FR, UK, IE)
  - Baltic (EE, LV, LT)
- Bulgaria, Romania & Croatia allowed one SPOC each
- Non-ENTSO-E ICs allowed one SPOC = BritNed
- SPOC for FUI region = EWIC
- 1<sup>st</sup> SPOC meeting on 9 April

Thank You



# Market Network Codes

## Electricity Balancing

4<sup>th</sup> April 2013

Conor Kavanagh



# Overview of Network Codes

## Connection Related Codes

- Requirements for Generators (RfG)
- Demand Connection Code (DCC)
- HVDC Connection Code (HVDC)
- Connection Procedures (CP)

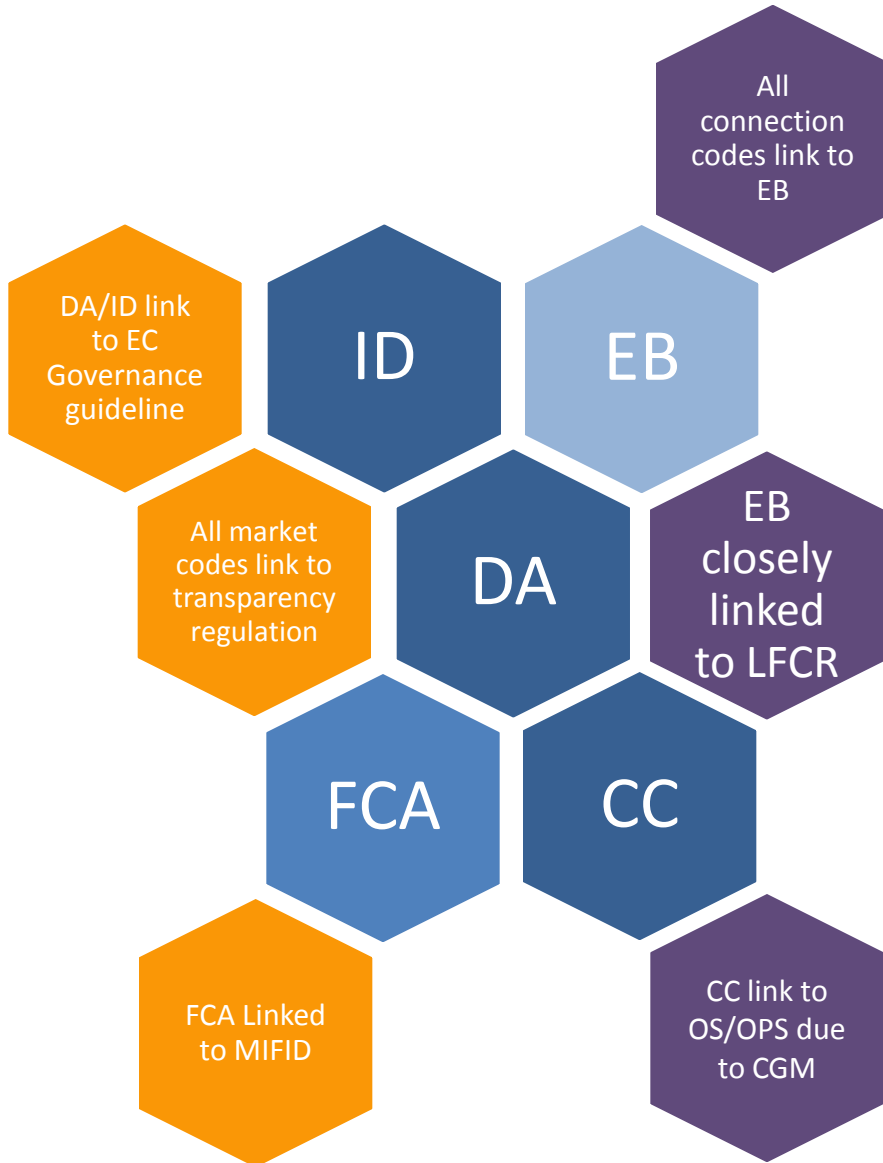
## System Operation Related Codes

- Operational Security Network (OS)
- Operational Planning & Scheduling (OPS)
- Load Frequency Control & Reserves (LFCR)
- Operational Procedures in an Emergency (EP)

## Market Related Codes

- Capacity Allocation & Congestion Management (CACM)
- Forward Capacity Allocation (FCA)
- Electricity Balancing (EB)

# Market Based Codes



- Capacity Allocation and Congestion Management was the first market code to be developed
- Followed by Forward Capacity Allocation
- And Electricity Balancing .
- All market related codes tie into transparency regulation
- Day Ahead & Intra Day are closely linked to the EC Governance Guideline
- FCA has links to MIFID

These codes have direct links to others;

- EB to all connection codes
- Also to LFCR operational code
- Capacity Calculation links to both OS and OPS

# Scope NC LFC&R & EB NC

## Technical

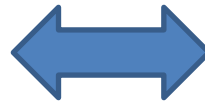
### NC LFC&R:

Determine required **volumes** and **distribution of reserves** to ensure operational security

- Dimensioning of reserves
- Technical limits for exchange, sharing and cross-border activation of reserves

**Technical requirements** to ensure **safe exchange / sharing / cross-border activation of reserves**

- Need for available transmission capacity
- Fall-back solutions,...



## Market

### NC Electricity Balancing:

**Provision of required reserve volumes** (within the limits for distribution set by NC LFC&R)

**Optimized activation** of reserves (energy) available in the system

**Mechanisms** to ensure the **available transmission capacity** for sharing / exchange / XB activation of reserves

# Order of Work

Decided By EC

Through a 'Priority List' agreed upon through consultation

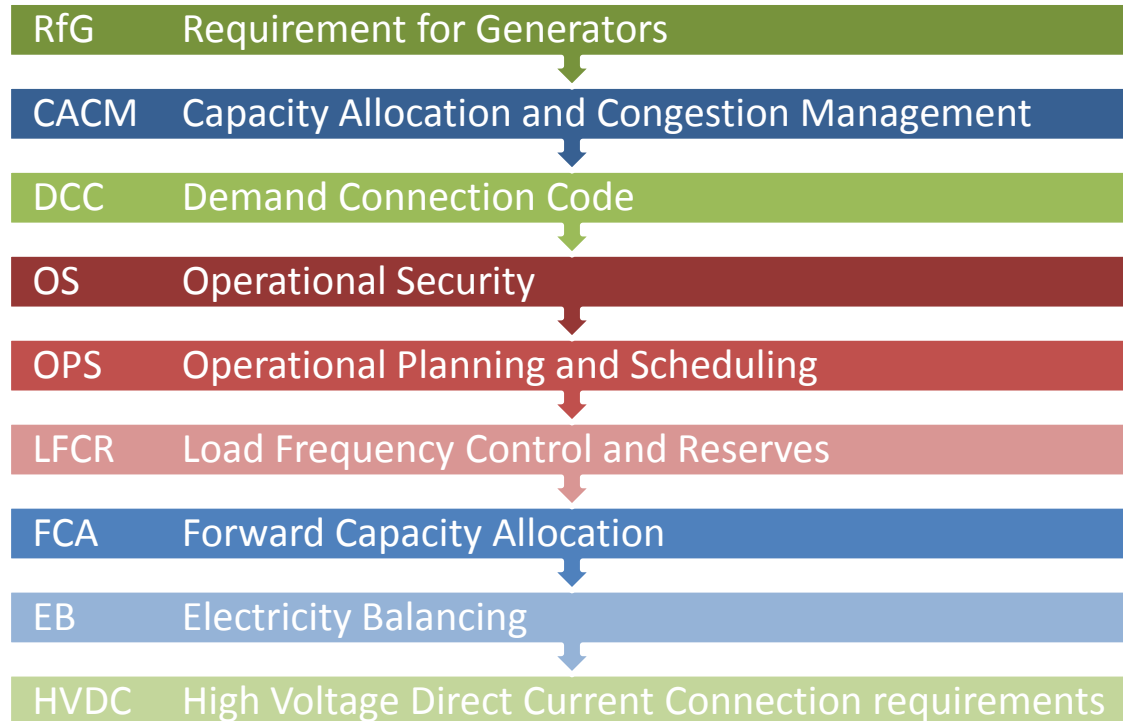
- [Accessed here](#)

Influenced by and informs

ENTSO-E's 3 year work plan

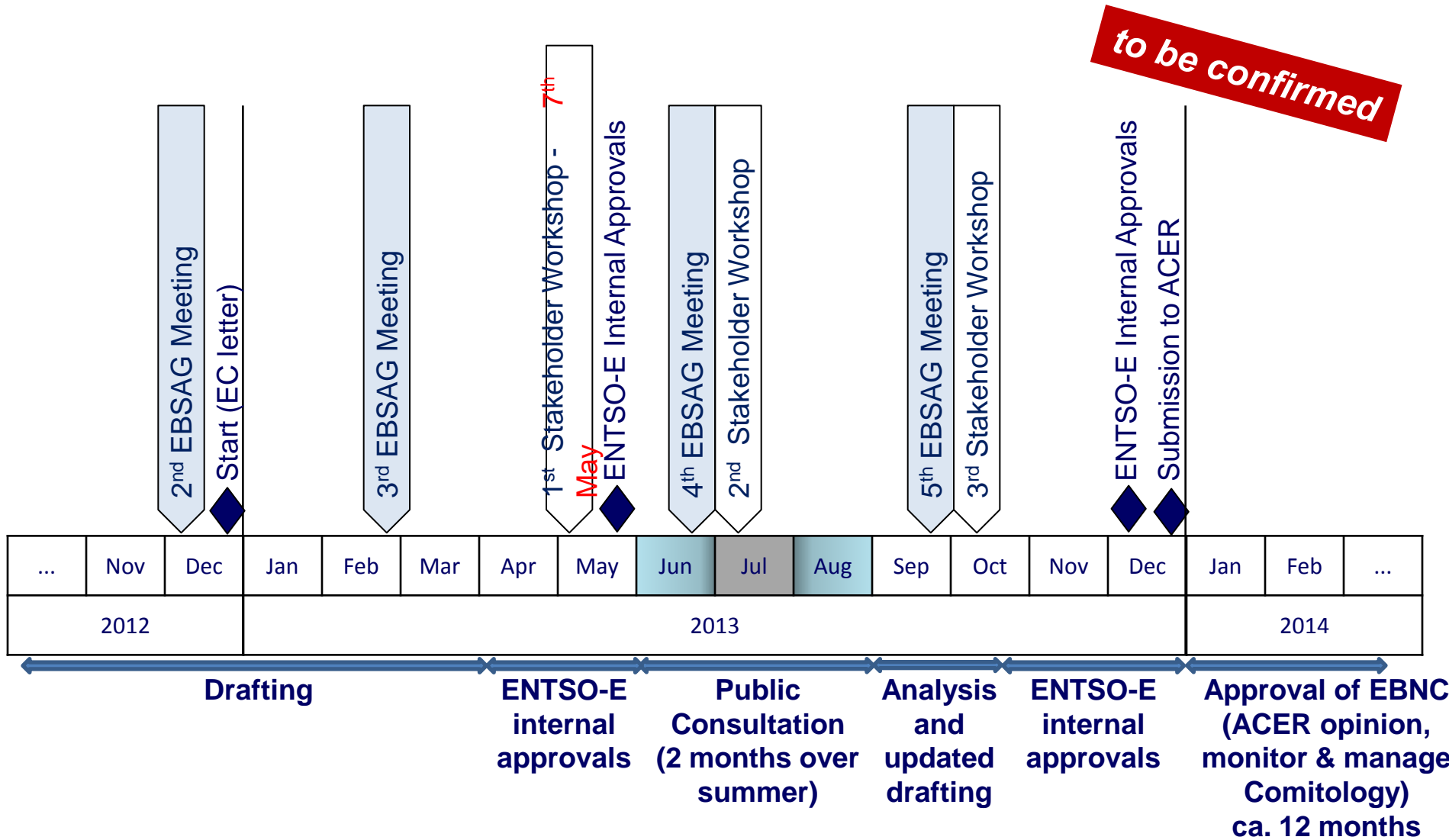
- [Accessed Here](#)

Therefore  
Current  
Network Codes  
Developed in  
this order





# Tentative Timeline for submission of EB NC



# Overview of Electricity Balancing NC

**Purpose:** To define rules for the development, implementation and operation of a pan European balancing market.

**Status:** Initial draft produced and stakeholder discussions ongoing.

## **Contents:**

- The Electricity Balancing System
- Procurement of Balancing Services
- Use, Allocation & Reservation of Cross Zonal Capacity for Balancing Reserves
- Settlement
- Balancing Algorithm Development
- Reporting
- Targets & Transitional Arrangements

## **Links to other codes/ areas**

- **LFCR** – Strong link with LFCR setting rules for the volume of reserves to be procured & BAL creating rules to procure them.
- **CACM** – Overlap with capacity calculation and links to intraday markets (which close before balancing opens).
- **RfG/DCC** – Important that connection rules are reflected in products available on balancing markets.

# Key Concepts & Considerations

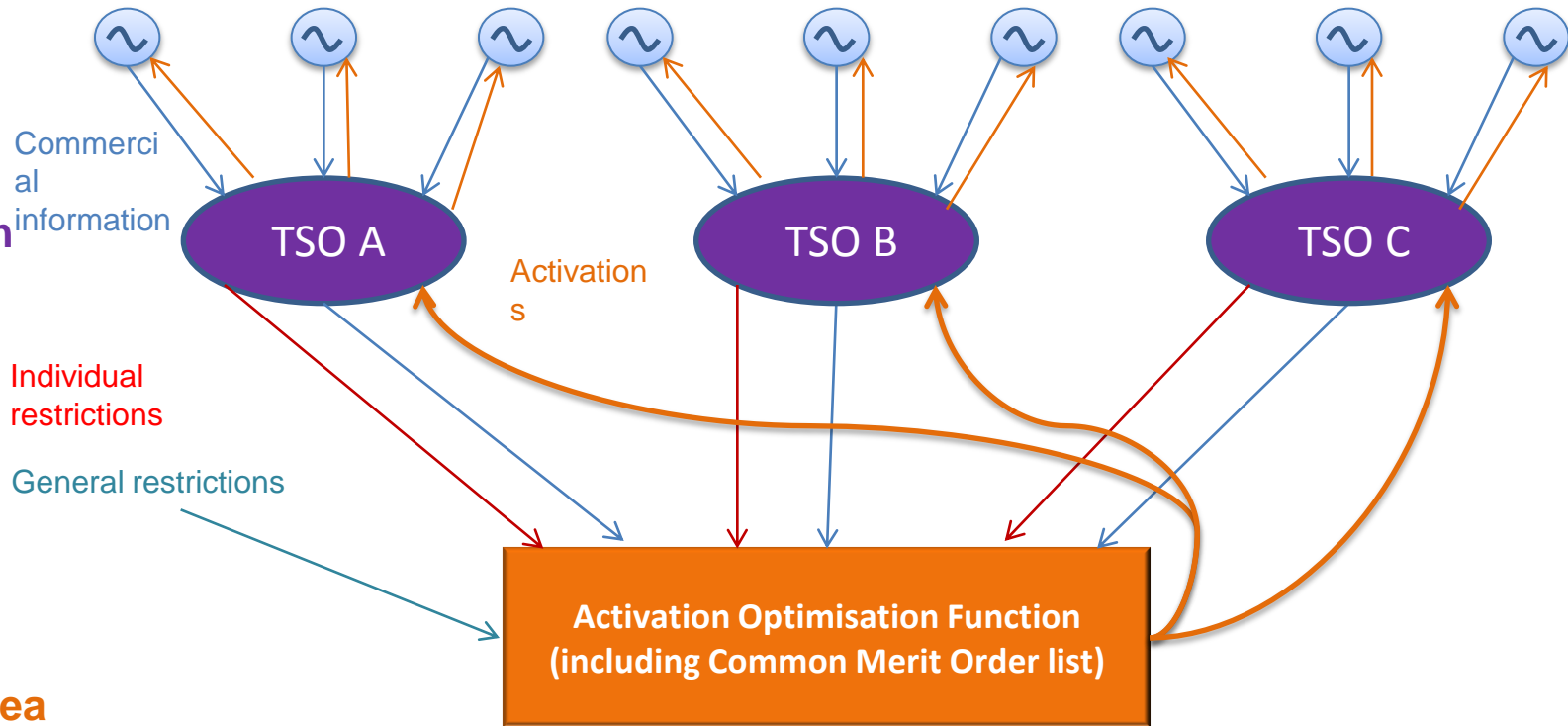
- Activation Optimisation Function (TSO-TSO Model)
- Coordinated Balancing Area
- Must work for Central Dispatch Systems

# TSO-TSO Model example:

**Balancing  
Services  
Providers**

**Transmission  
System  
Operators**

**Function per  
Coordinated  
Balancing Area**

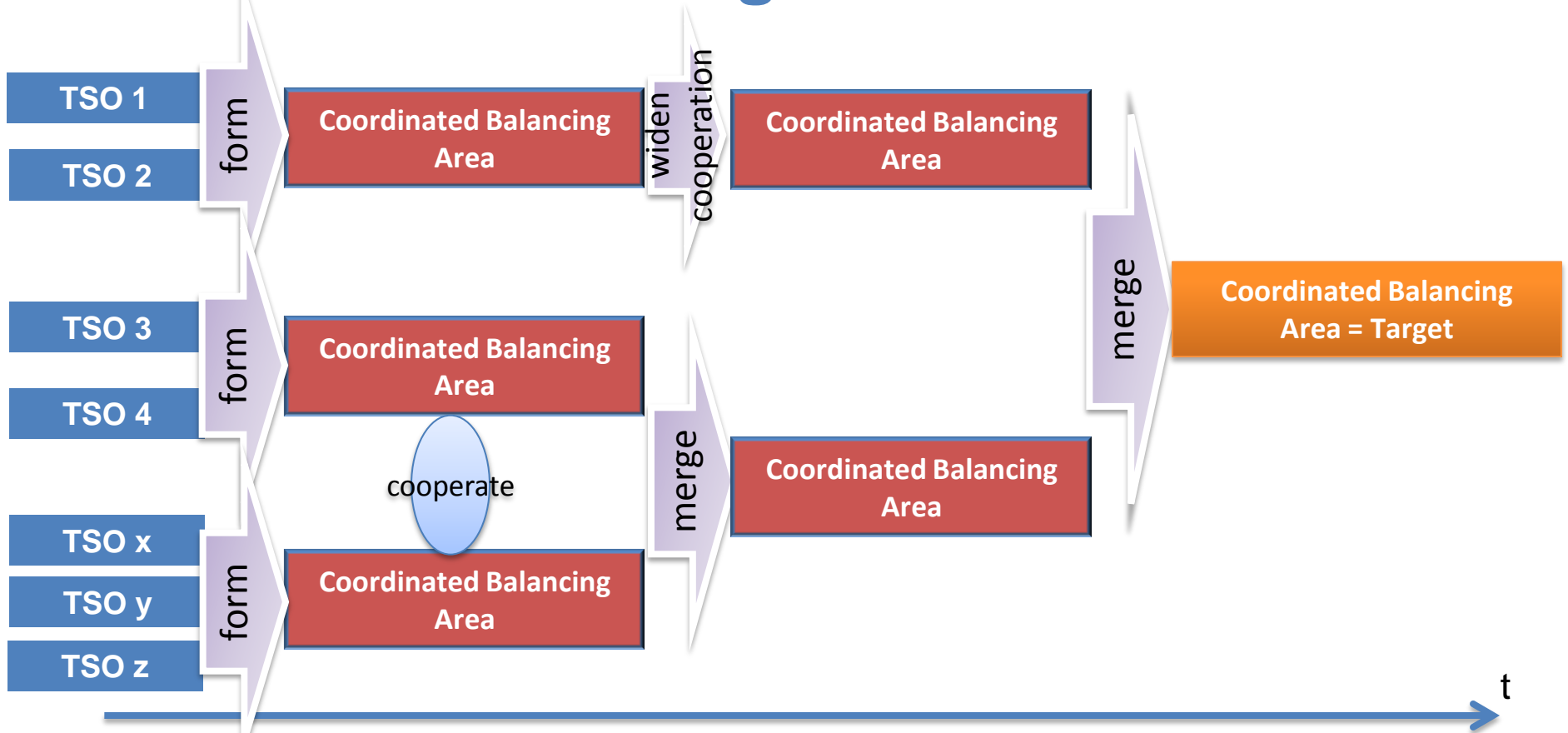


# Coordinated Balancing Area

## Concept of a Coordinated Balancing Area

- TSOs are obliged to cooperate in a so called **Coordinated Balancing Area (CoBA)** with one or more TSOs
- Each CoBA includes the exchange of one (or more) Standard Product(s)
- Flexibility on the way to reach the FWGL targets is ensured by not detailing which cooperation is to be done with which TSO
- Sharing and exchange of Balancing Reserves is not mandatory, but possible
- CoBAs for Balancing Reserves can be smaller than those for Balancing Energy (if established)
- Functions are performing central tasks → additional flexibility, as Code does not preclude who exercises these functions

# Coordinated Balancing Area



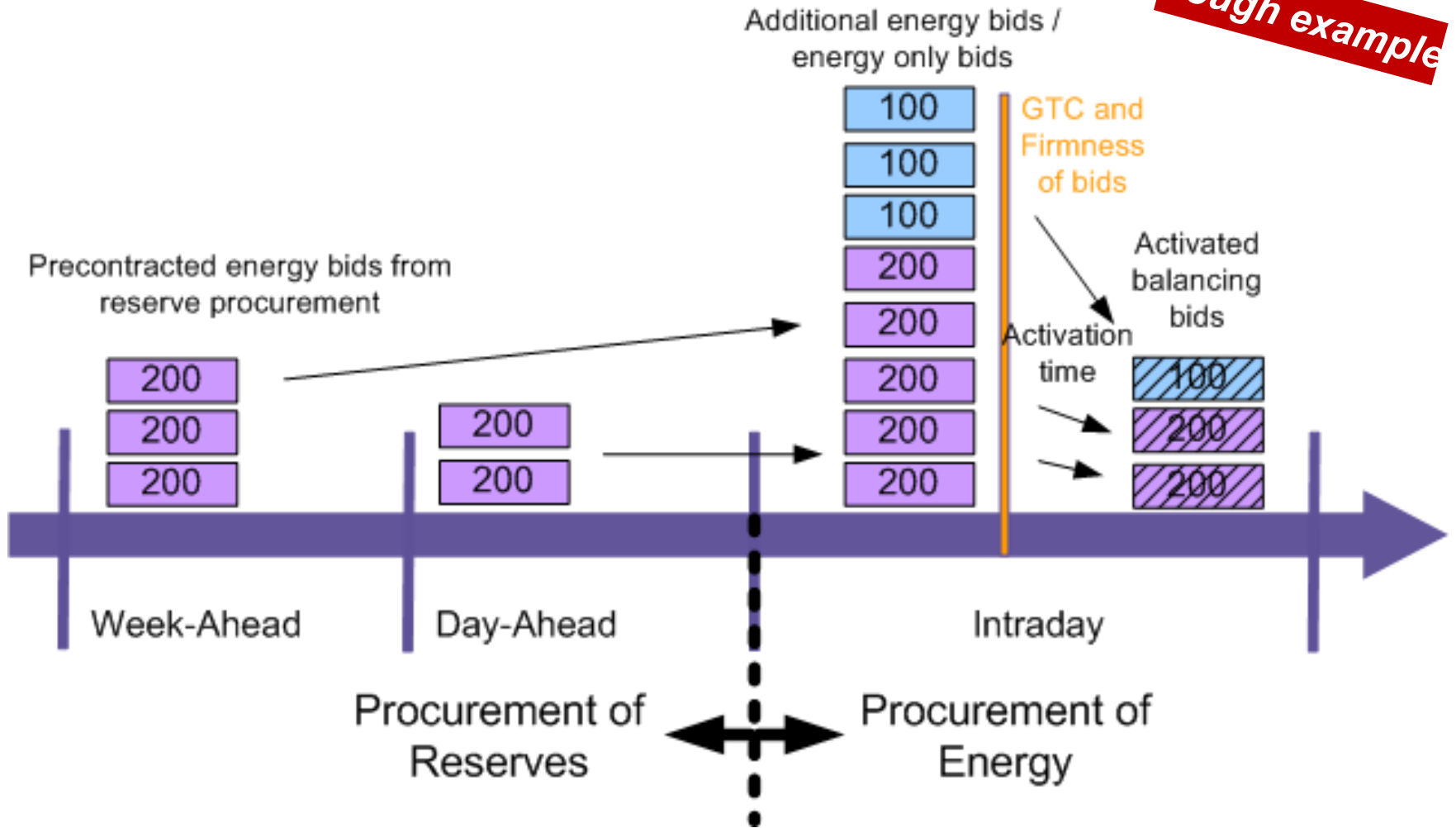
Concept allows for early cooperation due to its flexibility

Obligation for cooperation in CoBAs fosters integration

Integration of CoBAs allows for reaching the FWGL targets

# General Process Overview

**Rough example**



# More Information

<https://www.entsoe.eu/major-projects/network-code-development/electricity-balancing/>

Electricity Balancing Network Code Version 1.14 on website (20<sup>th</sup> Feb 2013)

A public stakeholder workshop will be held in Brussels on Tuesday 7<sup>th</sup> May 2013, 09:45 to 17:00 , which will jointly address the Network Code on Load Frequency Control and Reserves and the Network Code on Electricity Balancing.

Public consultation – Mid Summer 2013                      (dates to be confirmed)



