

The IEM: Integration process

- Background:
 - Goals of 3rd package & Process
 - Overview of codes
- State of implementation
- Other EU relevant legislation - REMIT
- Issues to consider
- Alternative IEM interaction examples

European Third Energy Package – 2009

Goals

Enabling renewables

Creating clear connection rules.

Providing harmonisation to benefit manufacturers.

Creating markets to reduce risks.

Ensuring security of supply

A coordinated approach to system operations.

Greater optimisation to enhance efficiency.

More flexible markets (e.g. balancing).

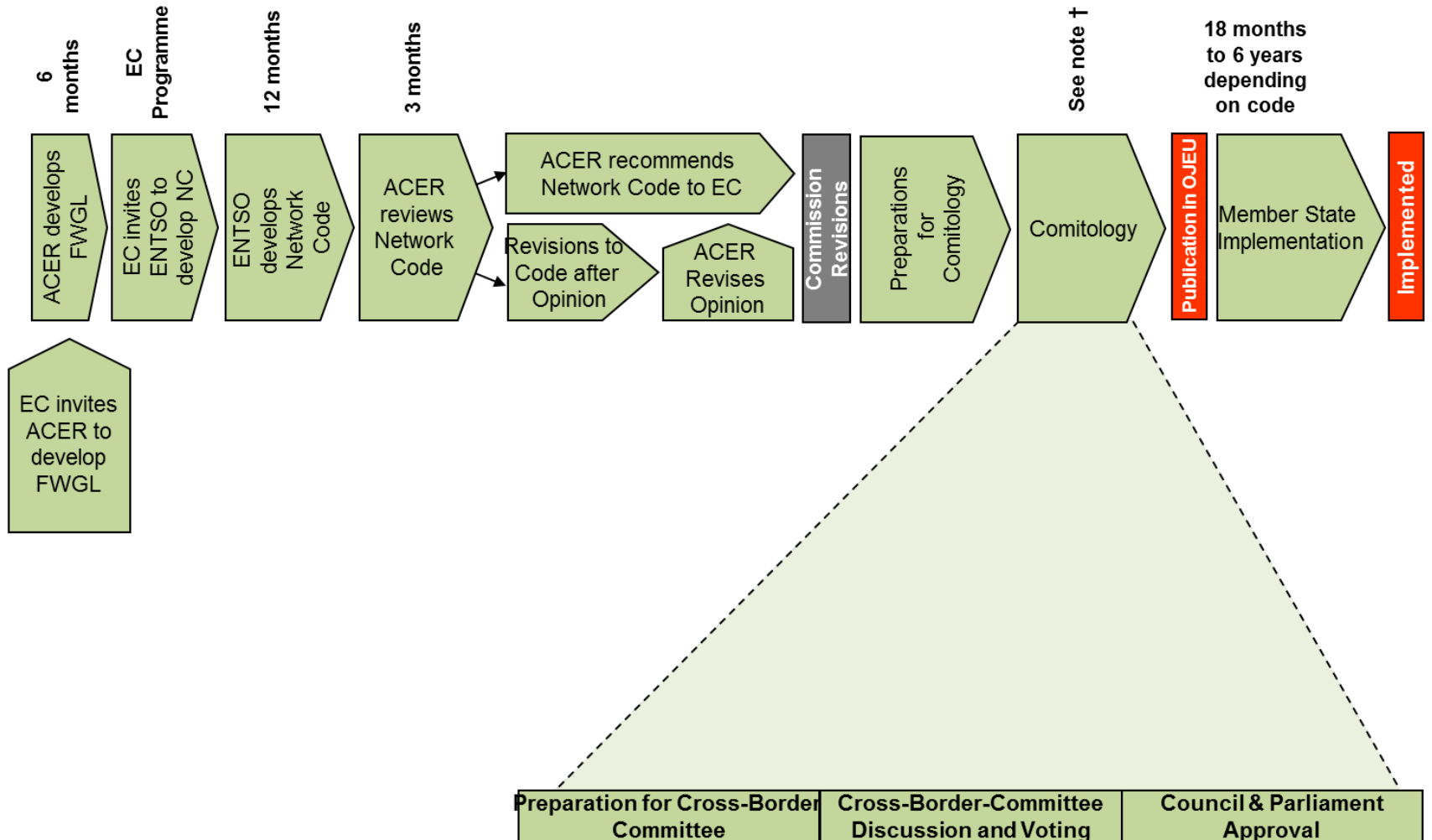
Enhancing competition

A single market design across Europe (in all timescales).

Promoting cross border trade & enhancing liquidity.

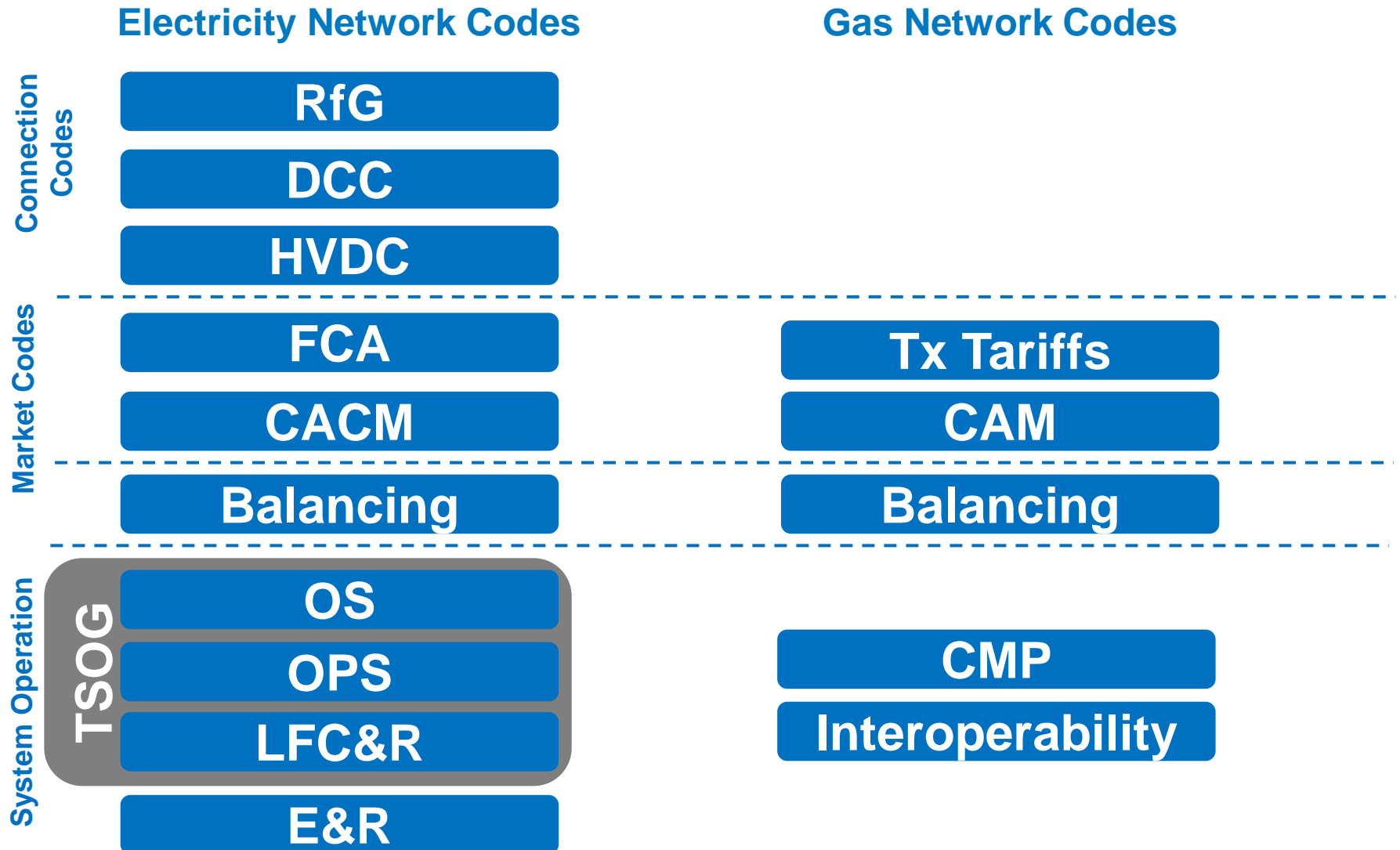
Reducing risk for all market players

European Network Code Process

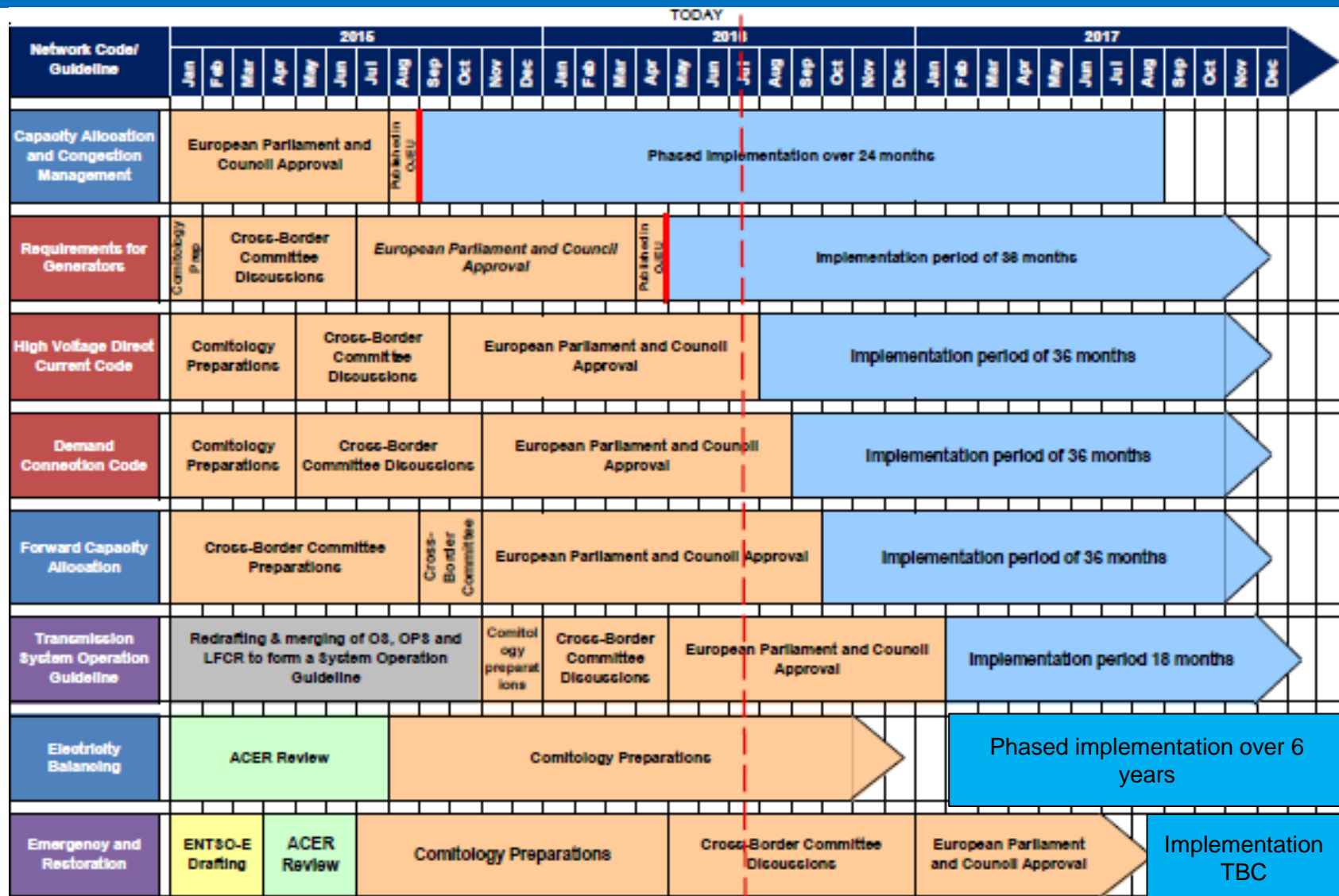


† Timescales for the stages of Comitology are not specified and under the Commission's control

Overview of Gas & Electricity Codes



Electricity Network Codes – Status



Electricity Network Codes – FCA & CACM

Market Design

Capacity Allocation & Congestion Management (CACM) Guideline

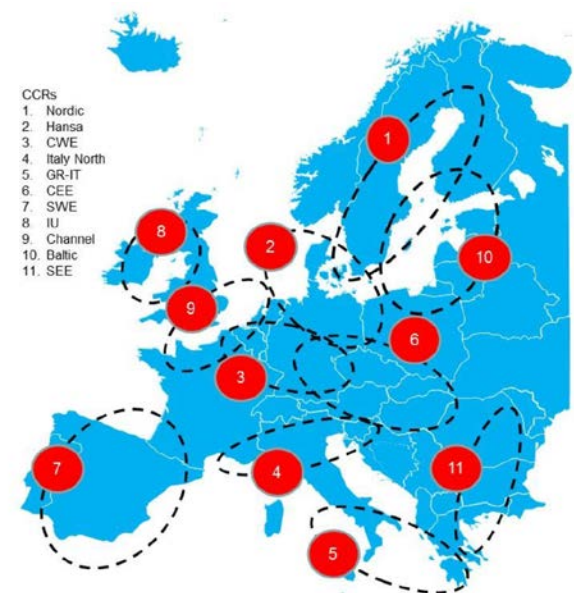
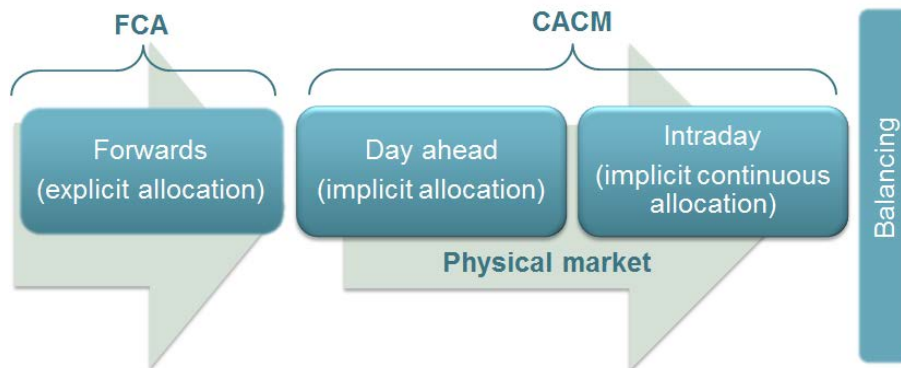
- Implicit Day Ahead & Intraday cross border trading
- Bidding zone reporting process and subsequent review

Forward Capacity Allocation (FCA) Guideline

- Long term transmission rights;
 - PTRs with UIOSI
 - FTR options
 - FTR obligations
- Single Allocation Platform with Harmonised Allocation Rules

Capacity Calculation

- CACM and FCA both increase regional TSO coordination with **capacity calculation** used to determine interconnector capacities
- Calculation underpinned by a pan-EU Common Grid Model (CGM)



Electricity Network Codes – Balancing

Pan-EU Balancing Energy Market

- Development of pan-EU platforms for the exchange of standard balancing energy products
- 6 year implementation period
- RR / mFRR / aFRR / Imbalance Netting
- Specific products retained nationally

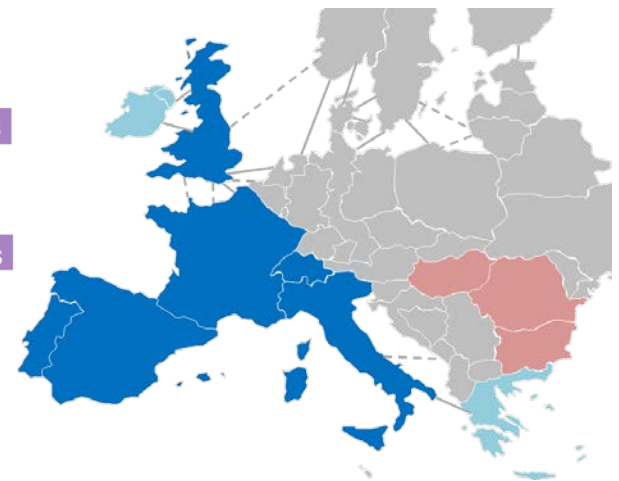
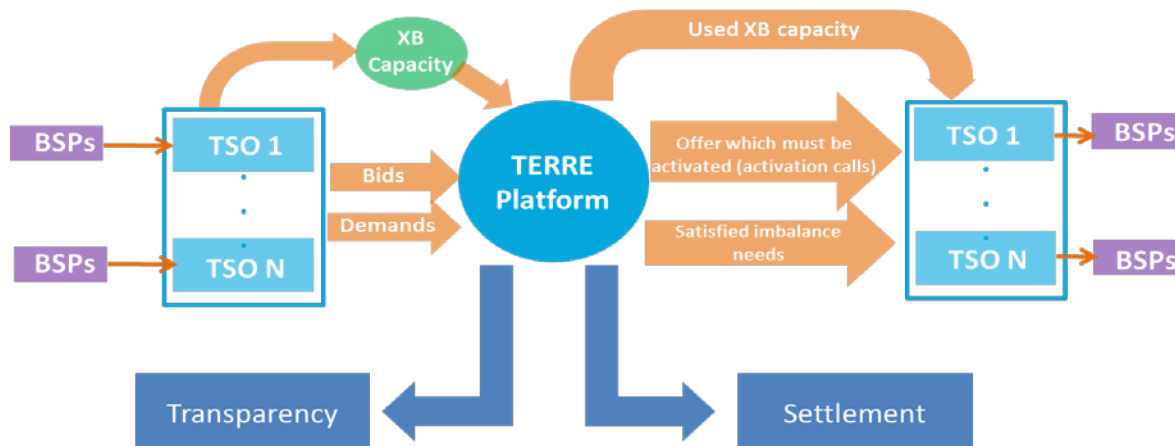
Harmonisation of Market Design & Settlement

- Harmonised Gate Closure Time for standard products
- Harmonisation of ISP at Synchronous Area level
- Harmonisation of imbalance arrangements (preference for single imbalance pricing)
- Harmonisation of reserve procurement arrangements

Cross Border Capacity Reservation

- Opens the possibility for TSOs to reserve XB capacity for the exchange of balancing energy
- Cooptimisation with market timeframes
- TSOs to develop detailed methodologies

Early Implementation – Project TERRE



Electricity Network Codes – System Operation

System Operation Codes

Transmission System Operation Guideline (TSOG): Setting minimum system security, operational planning and frequency management standards to:

- ensure safe and coordinated system operation across Europe, and
- create a standardised framework for regional cooperation.

Entry into force
~ Dec '16

Emergency & Restoration Code (E&R): Harmonisation of system defence and restoration procedures during severe events

Entry into force
~ Apr '17

Electricity Network Codes – Connection Codes

The Connection Codes set harmonised rules for new grid connections across EU, with a focus of ensuring system security

They are implemented permitting Member State TSOs a degree of scope to determine technical parameters proportionately to local system needs

Requirements for Generators (RfG)

Status: Implementation

- Applies to new generators of 800W capacity and up
- Assigns user compliance obligations dependant on connection voltage, and unit capacity under x4 'Types' ("Generator banding")

High Voltage Direct Current (HVDC)

Status: EU Approval

- Applies to new HVDC systems (e.g. interconnectors) connected at 110kV or above and DC-Connected Power Park Modules
- Defines requirements envisaging a greater level of network 'meshing' in future

Demand Connection Code (DCC)

Status: EU Approval

- Applies to new Transmission-connected Demand facilities, Distribution facilities (e.g. GSPs), and Distribution systems
- Also applies requirements to new providers of Demand Side Response (DSR)

Gas Network Codes – Status

Code	Current Status	Implementation date
Congestion Management (CMP)	Implemented	1 st October 2013
Capacity Allocation Mechanism (CAM)	Implemented	1 st November 2015
Gas Balancing (BAL)	Implemented	1 st October 2015
Interoperability & Data Exchange (INT)	Implemented	1 st October 2015, 1 st May 2016
Tariffs (TAR)	In comitology	1 st April 2017, 1 st October 2017, 31 st May 2019
Incremental Capacity (& CAM amendments)	In comitology	1 st April 2017

Gas Network Codes – Market Codes (implemented)

The market codes implemented so far include:

- Rules for managing contractual congestion at interconnection points (IPs)
- Auction mechanisms for the release of capacity to access the transmission system
- Rules for balancing the system using market mechanisms over a harmonised gas day (06:00 to 06:00 CET)

Congestion Management Procedures

Status: Implemented

- Applies to IPs
- Introduces mechanism to manage contractual congestion by overselling and buying back capacity

Capacity Allocation Mechanisms

Status: Implemented

- Applies to IPs
- Capacity to be released via auction based mechanisms
- Capacity to be bundled at IPs
- Common platforms for booking capacity
- Defines harmonised gas day

Gas Balancing

Status: Implemented

- Applies to transmission system
- Describes market based balancing rules
- Facilitates wholesale gas market
- Information provision to support daily balancing

Gas Network Codes – System Operation Codes

The interoperability code creates harmonised rules for the operation of transmission systems in order to encourage and facilitate efficient gas trading and transport across gas transmission systems within the EU.

Interoperability & Data Exchange Rules

Status: Implemented

- Creates rules for Interconnection Agreements
- Rules for allocation of quantities flowed
- Physical units for communications
- Gas quality and new publication requirements for gas quality data
- Odourisation
- Rules for data exchange

Gas Network Codes – Market Codes (in development)

The tariff code sets rules on harmonised transmission tariff structures for gas and includes rules on the application of a reference price methodology, the associated consultation and publication requirements.

The CAM amendment is mainly focused on rules for the release on incremental capacity at interconnection points.

Transmission Tariff Structures **Status: In Comitology**

- Applies to all entry/exit points
- Some specific rules for Ips
- Rules for use of methodology of a TSOs allowed revenue
- Rules for reconciliation of a TSOs allowed revenue
- Publication and consultation requirements

CAM Amendment (Incremental) **Status: In Comitology**

- Applies to IPs
- New rules for incremental capacity release
- New rules on the release of different capacity products

REMIT

REMIT = Regulation on Wholesale Energy Market Integrity & Transparency

- Regulation (EU) 1227/2011 (REMIT) of 25 October 2011:
 - Prohibits market abuse and sets related disclosure obligations on market participants
 - Establishes a requirement for a transaction and fundamental data reporting framework which allows effective monitoring by ACER
 - Enables ACER and National Regulatory Authorities to investigate and take enforcement action against potential incidents of market abuse
- Supported by Commission Implementing Regulation (EU) 1348/2014 on data reporting implementing Article 8(2) and 8(6) of REMIT
 - Specifies that both standard and non-standard contracts should be reported
 - Sets out the categories of contracts to be reported and the detail of fundamental data to be reported
 - Sets out who should report on each category of contract and for fundamental data
 - Specifies the timing requirements for reporting

Issues to consider

**Level of
harmonisation**

**Control over
procedures**

**Control over
code/
frameworks**

**Consistency
with
neighbouring
markets**

**Attractiveness
of GB market**

**Solidarity/
Security of
Supply**

**Regional
cooperation**

**Cross
border trade**

Alternative models

Other non-EU countries interact with the IEM

- Norway



- Switzerland



- Canada



- Turkey

