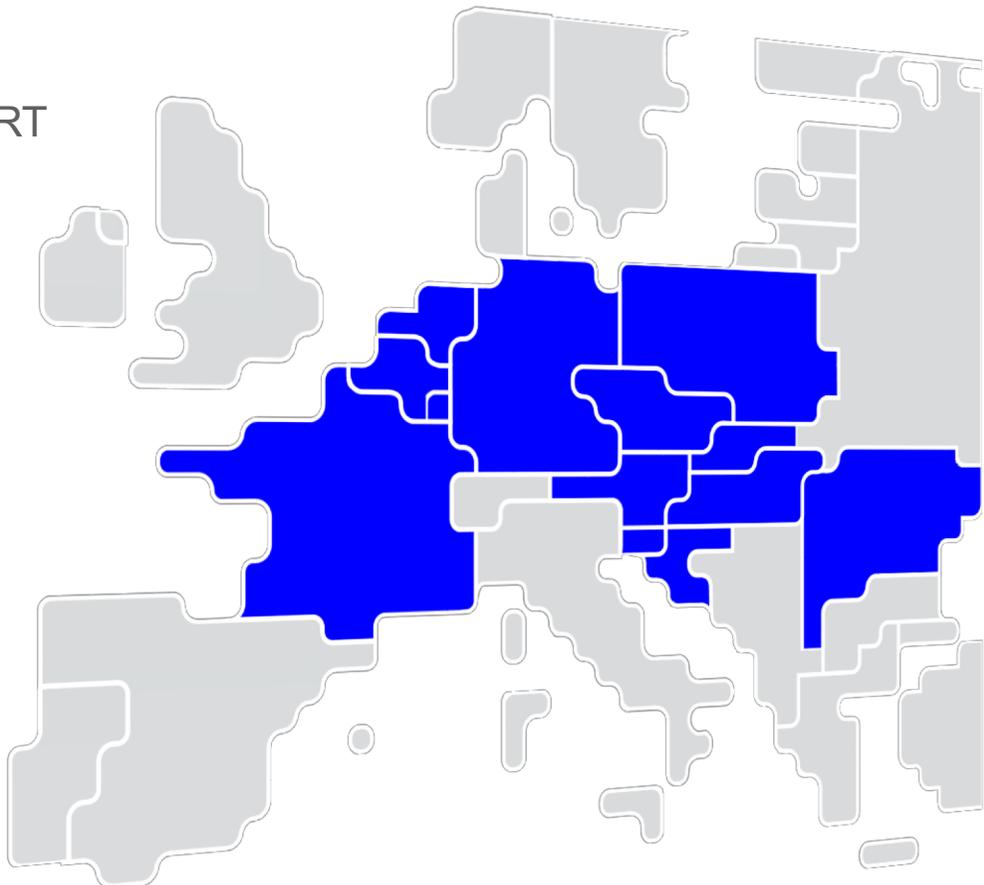


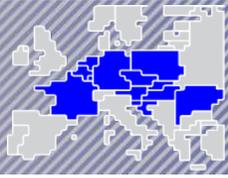


Core Consultative Group

SHERATON BRUSSELS AIRPORT
28 February 2017



Participants



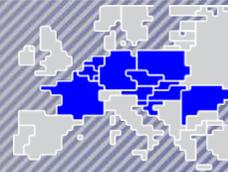
ORGANIZATION	COUNTRY
VERBUND Trading GmbH	Austria
Febeliec	Belgium
ANODE	Belgium
HEP - TRGOVINA d.o.o.	Croatia
ČEZ, a. s. - Trading	CZECH REPUBLIC
EFET Czech Republic	CZECH REPUBLIC
EDF	France
EDF	France
Engie	France
Fundamental Trading	Germany
Statkraft	Germany
EnBW	Germany
BDEW	Germany
Citadel	<i>Global</i>
Hungarian Energy Traders' Association	Hungary
Energie-Nederland	Netherlands
EFET	Netherlands
DELTA	Netherlands
Towarzystwo Obrotu Energią -Toe Association	Poland

ORGANIZATION	COUNTRY
PGE	Poland
Romanian Association of Electricity Suppliers - AFEER	Romania
CRE Energy	Romania
Slovenian Regulatory Authority	Slovenian NRA
Axpo Trading AG	Switzerland
BKW Energie AG	Switzerland
Slovenské elektrárne, a.s	Slovakia
Tennet Germany	TSOs Core SG
Transelectrica	TSOs Core SG
Tennet NL	TSOs
RTE	FBE WG Convener
E-Control	NRA
Creg	NRA
OTE	PX
Nord Pool	PX
EPEX	PX
ENTSO-E	
ENTSO-E	



	SUBJECT	WHO	TIMING
1	Welcome and introduction <ul style="list-style-type: none"> • Terms of Reference Core Consultative Group • Meeting organization, nominations of Chairmen 	C.PFLANZ	10:00 – 10:30
2	ACER decision on CCR proposition: highlights and next steps	Core lead NRAs	10:30 – 11:00
3	Core CCR status, planning & next steps <ul style="list-style-type: none"> • Governance • Roadmap • Next steps: Consultations 	C.PFLANZ	11:00 – 11:30
4	Core DA FB CC solution in short	D.GARREC	11:30 – 12:00
5	Communication channels	C.PFLANZ	12:00 – 12:10

LUNCH



Core TSOs welcome all Market Participants, representatives of associations, NRAs and NEMO representatives

- To ensure alignment on expectations and timelines
- To continue the positive exchanges as experienced in the CWE Consultative Group over the past years

Core TSOs propose the attached Terms of Reference for the Core Consultative Group

[Core CGToR.docx](#)

Main objectives

- Provide and **exchange** information to stakeholders about the implementation of deliverables within the Core CCR and foreseen market impact, as well as on upcoming changes in the Core CCR

Scope

- All CCR obligations stemming from Network Codes and Guidelines (CACM, FCA, SO, EB, etc)

Governance

- **Consultative forum** and not to be a « decision-making » body.
- As **interactive** as possible and become a real group for discussion between parties. Input will be provided by Core Partners. Stakeholders are more than welcome to also be proactive in defining the agenda for the meetings, to ask questions and to present their feedback
- **Co-creation** on the proposition of solutions



Practical organization

Frequency & organization

- Core CG meetings will be held at least twice a year and on an ad hoc basis if deemed necessary
- Organized by using the synergy of date and location of CWE Consultative Group meetings
- Online access credentials will be provided one day prior to the meeting

Participants

- Participation should be limited to **1 delegate per company** covering **all countries** involved
- Core TSOs and NEMOs, Core lead-NRAs, Associations, Market parties

Chairmen

- Co-chairing shared between one from Core TSOs (Core SG chairman) and one from the stakeholders (Association representative chairperson). The Chairmen will be responsible for proposing the meeting agenda, introducing and ending the meeting.

Publication and confidentiality

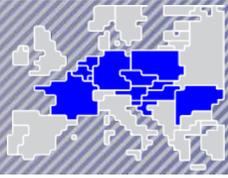
- Meeting minutes will be drafted by Co-chairs and sent to participants for review. After 2 weeks, the meeting minutes will be [considered as validated and published on ENTSO-e website: www.entsoe.eu/major-projects/network-code-implementation/cacm/core-ccr/Pages/default.aspx](http://www.entsoe.eu/major-projects/network-code-implementation/cacm/core-ccr/Pages/default.aspx)
- Participants' and companies' names will not be mentioned explicitly in the minutes



Core CG participants are asked to approve the Terms of Reference and to designate a co-chair

2. ACER decision on CCR proposition: highlights and next steps

Core lead NRAs

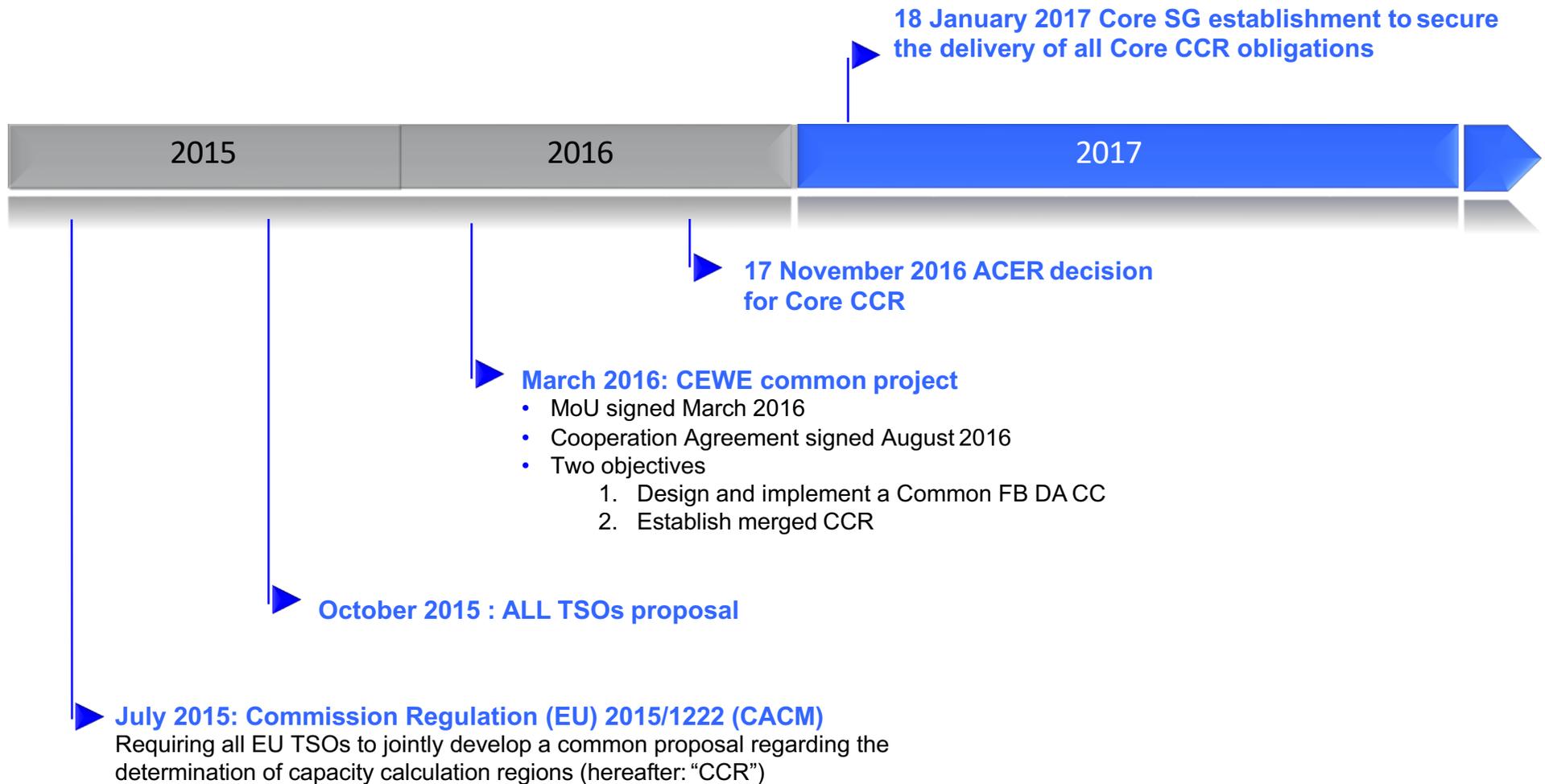


Input to be provided by Core NRAs

3. Core CCR



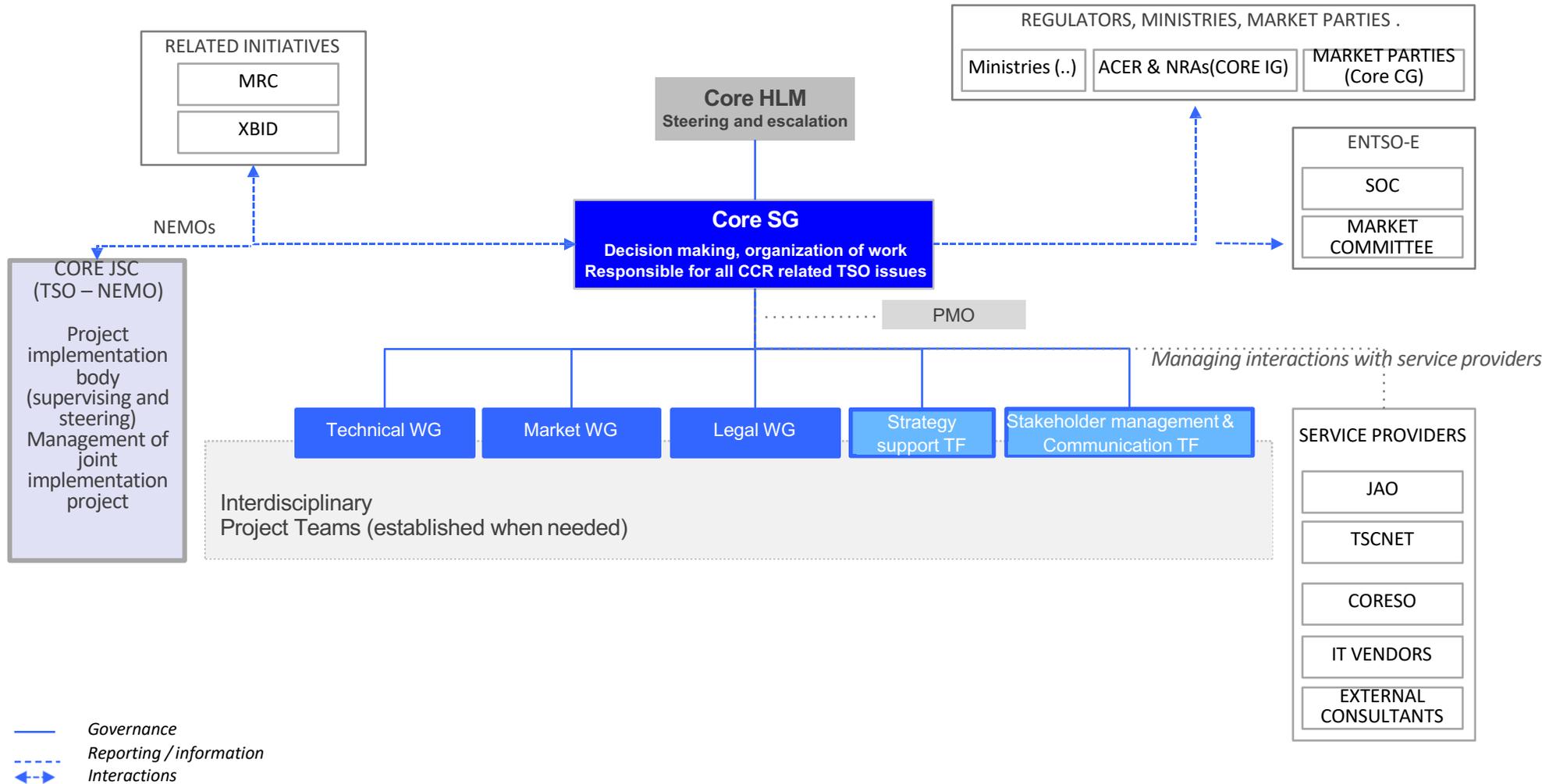
Where we're coming from



3. Core CCR



Intended Core CCR Overall Governance scheme





Core Steering Group is responsible for all Core CCR obligations stemming from Commission Regulations (Network Codes & Guidelines). The below described activities are foreseen:

Network Code/Guideline		Art.	CCR Obligation*	NC/GL milestone delivery method	
CACM	Day ahead	20.2	• Common Capacity Calculation Methodology for DA	Sept 2017	→ In progress
		27.2	• Setting up Coordinated Capacity Calculator	Jul 2018	
	Intraday	20.2	• Common Capacity Calculation Methodology for ID	Sept 2017	
		27.2	• Setting up Coordinated Capacity Calculator	Jul 2018	
	Re dispatch & Countertrading	35.1	• Proposal for a coordinated RD & CT	March 2018	
		74.1	• Proposal for RD&CT cost sharing	March 2018	
		74.7	• Further harmonize re dispatching and countertrading cost sharing methodologies with other CCRs	Dec 2018	
		35.3	• Report assessing the harmonization of coordinated RD&CT	March 2018	
	General	44	• Fallback procedures for DA FB MC	May 2017	→ In progress
		80.4	• Proposal for sharing regional costs (#NEMOs and TSOs cooperating in a region)	2017	
FCA	Long Term	31.3	• Regional design of LTRs in CCRs where LTRs exist	Apr 2017	→ In progress
		10.1	• Common Capacity Calculation Methodology for LT	Sept 2018	
		16.1	• Methodology for splitting LT capacities	Sept 2018	
		21.1	• Operational rules for merging the individual grid models	Jun 2018	
		42	• IF PREFERRED by TSOs: alternative coordinated fallback solutions	Jun 2018	
		21.2	• Operational rules for coordinated capacity calculators	Sept 2019	

* The obligations shall take into account all potential bidding zone configuration, amongst others the DE-AT border

* Regulatory procedures can delay some of the deadlines



Reminder

- CACM art.12(1) & FCA art 6(1): TSOs (and NEMOs) responsible for submitting proposals for terms and conditions or methodologies or their amendments shall consult stakeholders, including the relevant authorities of each Member State, on the draft proposals for terms and conditions or methodologies where explicitly set out in this Regulation.

Consultation process

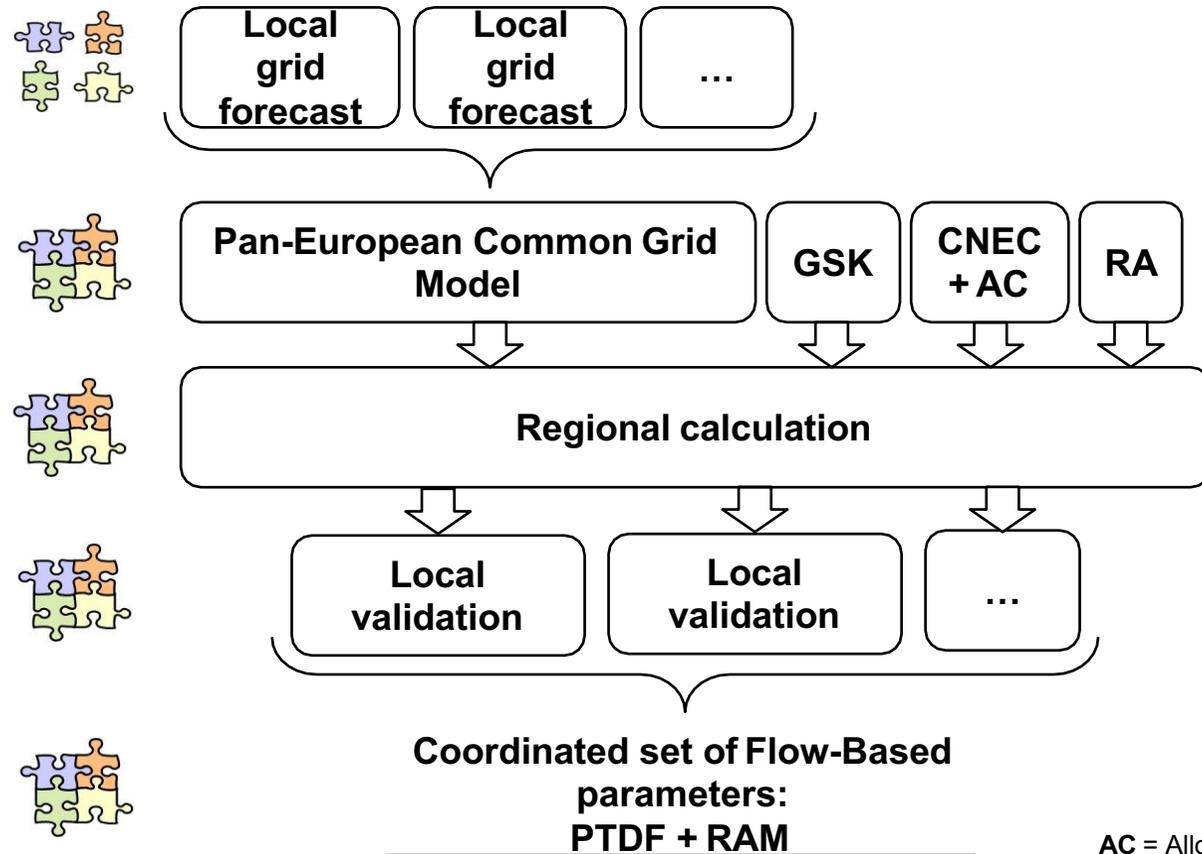
- To receive feedback from MPs, Core TSOs plan to launch the public consultation process at least 1 month prior to submitting the methodologies.
 - MPs will be pre-informed on the content of the methodology and the consultation process in due time
 - The Consultation Document & survey will be made available to MPs via ENTSO-E consultations webpage (see last slide)
- After the Consultation, Core TSOs will carefully analyse the received responses and assemble all views in a Consultation Report.
 - In this document, a clear and robust justification for including or not the views from MPs in the methodology will be provided, as described in CACM art.12(3). The Consultation Report will be published simultaneously with the submission of the approval package to the Core NRAs.

Upcoming public consultations:

- Design of Long Term Transmission Rights under FCA – to be launched in March 2017
- Fall Back Procedures for DA FB MC under CACM – to be launched in March 2017
- Common CC methodology for ID and DA under CACM – to be launched in Q3 2017



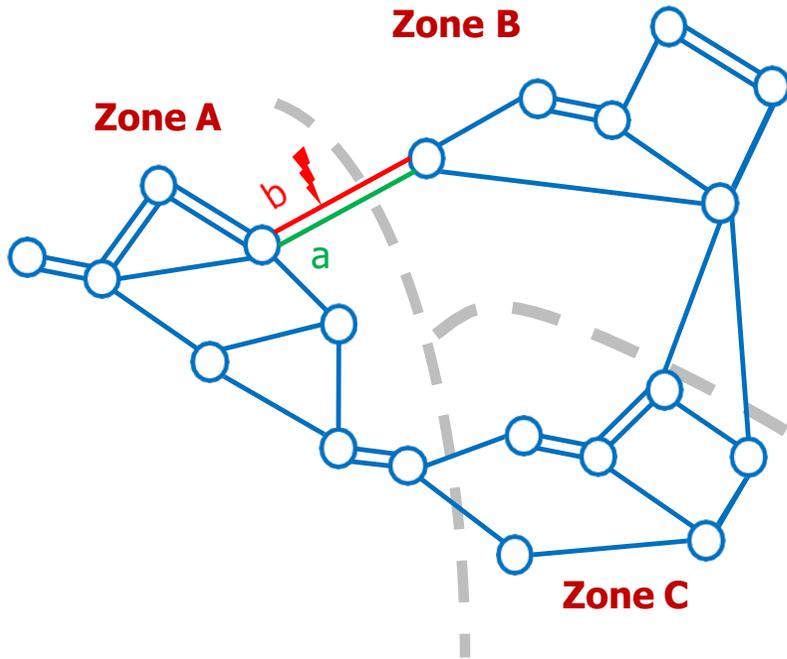
Reminder on the CACM methodology:



AC = Allocation Constraint
CNE = Critical Network Element
CNEC = CNE with Contingency
PTDF = Power Transfer Distribution Factor
RA = Remedial Action
RAM = Remaining Available Margin



Critical Network Element with a Contingency (CNEC)

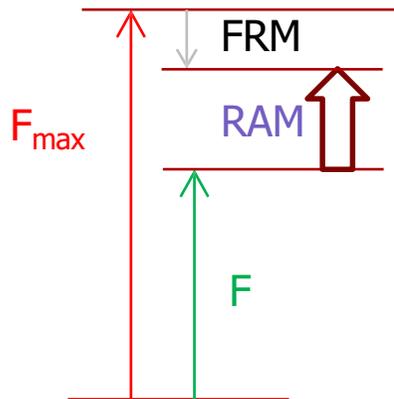


Critical Network Element (CNE)

- The TSOs select some grid elements they want to be monitored during the calculation

Contingency

- A **CNE** can be monitored in « N-1 » state (with outage simulation). Then **CNEC** is used generally to describe : a monitored line in a specific topology scenario, due to a specific outage simulation



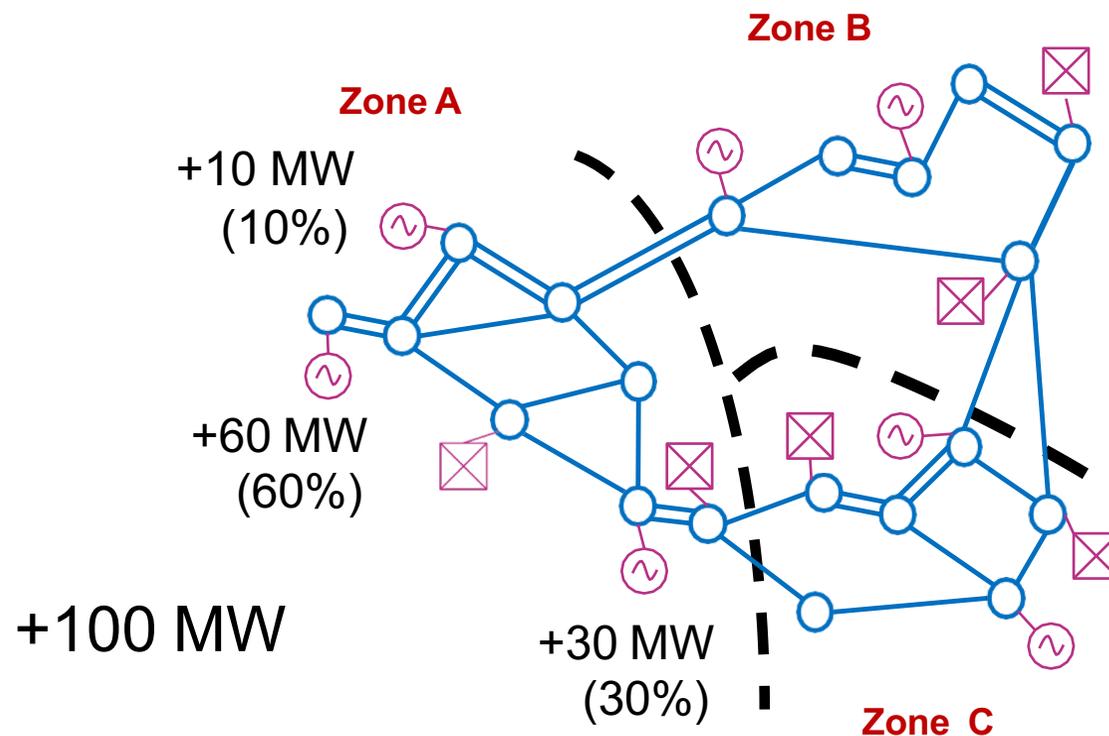
Remaining Available Margin (RAM)

- **RAM (MW)** is the available margin for cross-border exchanges for a specific CNEC;
- The **RAM** given for market coupling is the maximum power flow F_{max} less a flow reliability margin **FRM** and the expected power flows **F** with LT nominated exchanges before day-ahead.



Generation Shift Key (GSK)

- **GSK** defines how (in %) a change in net position is mapped to generating units of a bidding area; used to translate the change in balance on one MW into a change on the equivalent generation of specific nodes of that area. The GSK values can vary for every hour and are given in dimensionless units. (A value of 0.05 for one unit means that 5% of the change of the net position of the hub will be realized by this unit).



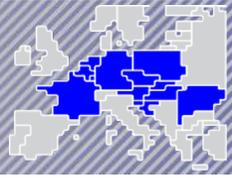


Power Transfer Distribution Factor (PTDF)

- The elements of the **PTDF** matrix represent the influence of a commercial exchange between bidding zones on power flows on the considered combinations of **CNEs** and contingencies. The calculation of the Power Transfer Distribution Factors (**PTDFs**) matrix is performed on the basis of the **CGM** and the **GSK**.

Example of a FB matrix:

CNEC	BZ ₁	BZ ₂	BZ ₃	BZ ₄	...	BZ _n	RAM
101	6.7%	-11.8%	-6.6%	-13.8%	...	-2.1%	1208
102	7.7%	-11.5%	-15.8%	-7.5%	...	-10.8%	1024
103	-3.2%	-19.3%	-32.5%	-11.5%	...	-2.5%	1175
104	-5.6%	14.9%	6.1%	18.8%	...	1.1%	724
105	15.8%	0.9%	-7.1%	7.0%	...	-7.4%	887
106	-11.6%	-16.0%	-25.6%	-9.7%	...	-5.1%	836
107	4.3%	-4.8%	-5.7%	-2.2%	...	-3.7%	452
108	5.8%	-15.4%	-6.3%	-19.4%	...	-4.3%	1522
109	1.9%	12.9%	6.6%	32.5%	...	10.6%	1093
...
k	3.2%	-2.9%	-5.7%	6%	...	11.3%	507



Questions and Answers session





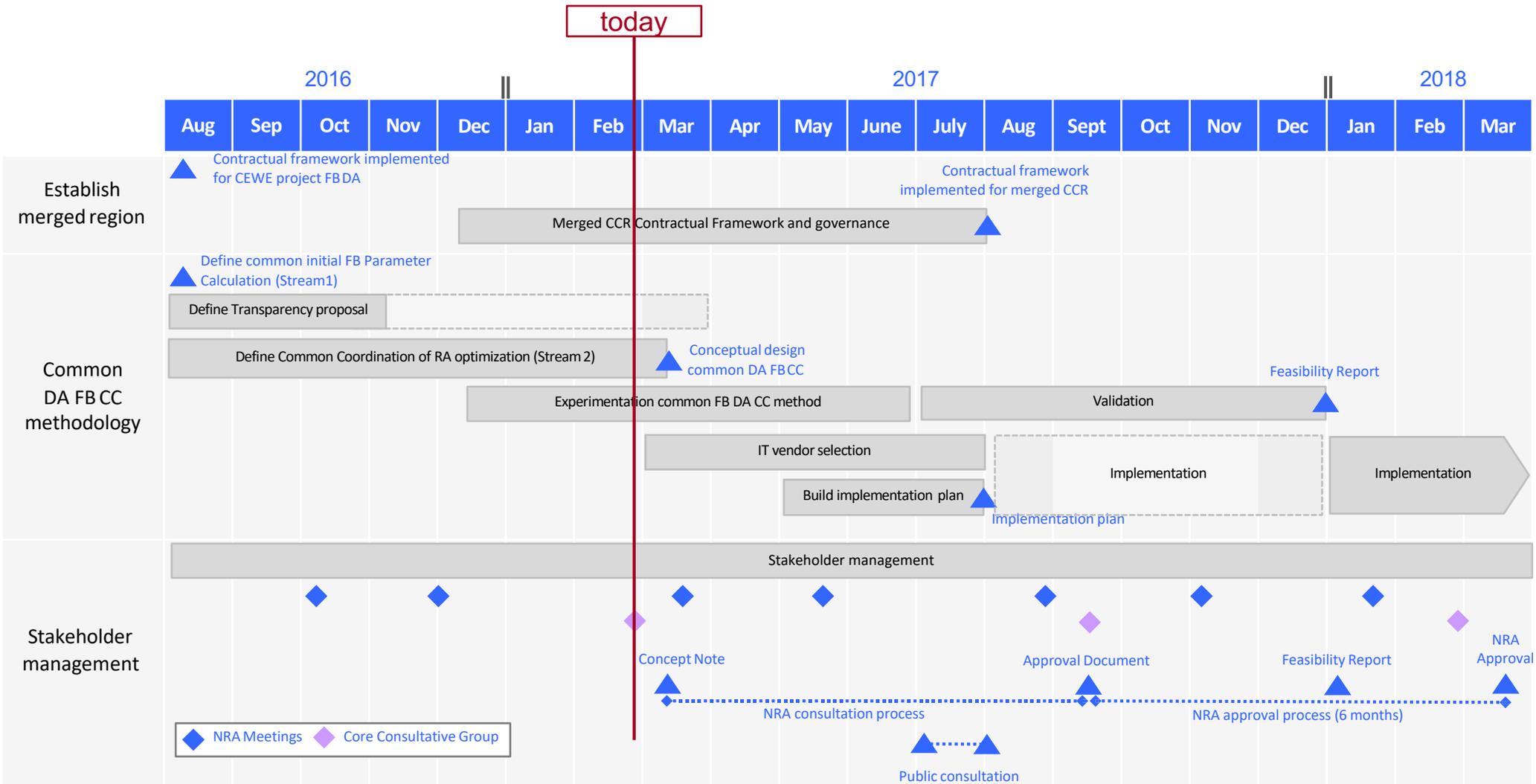
Communication channels:

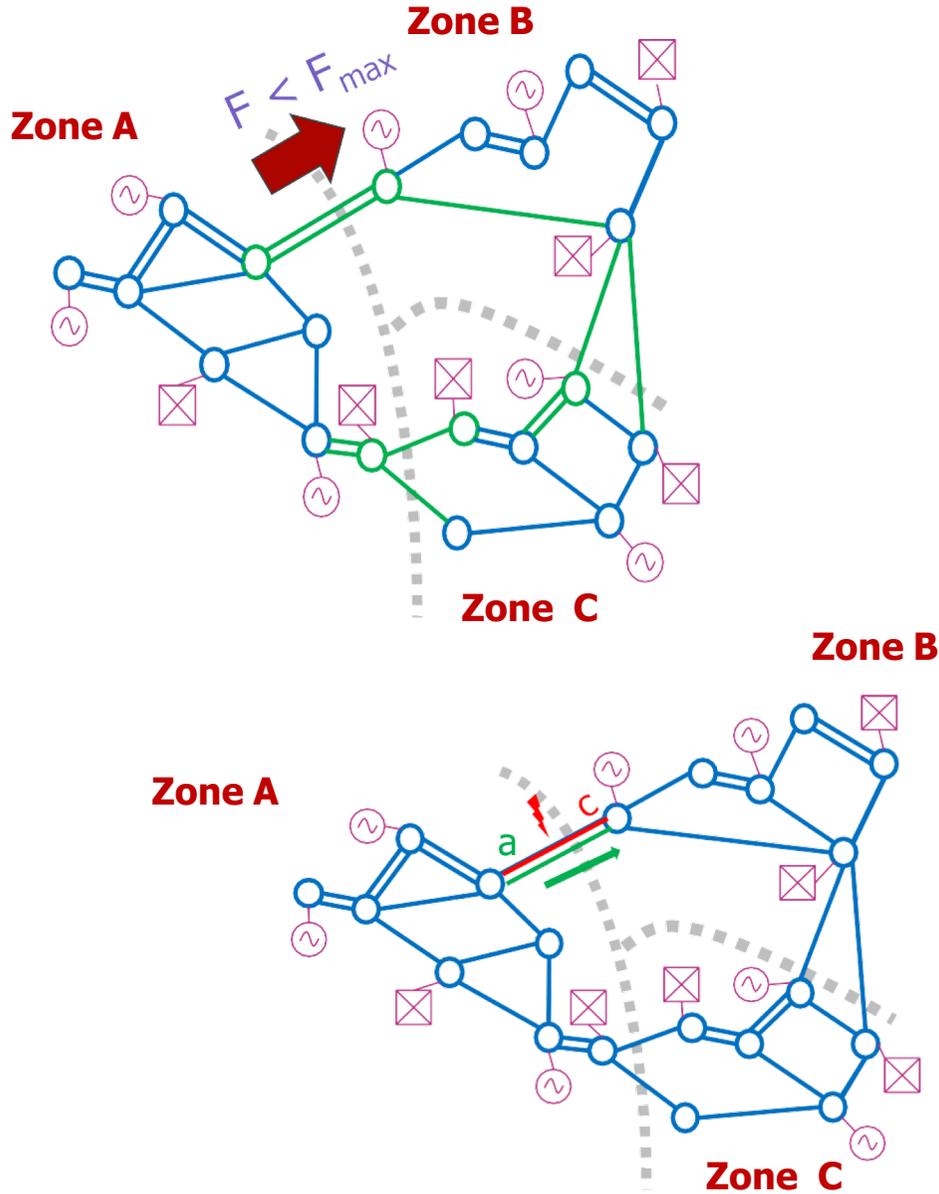
- Periodic updates on the developments in Core CCR will be published on Core CCR's dedicated webpage: www.entsoe.eu/major-projects/network-code-implementation/cacm/core-ccr/Pages/default.aspx
- Feedback and questions to Core CCR TSOs can be addressed via: coreinfo@entsoe.eu
 - All questions will be forwarded to and answered by Core TSOs
- Public consultations via ENTSO-E website: https://consultations.entsoe.eu/consultation_finder/?sort_on=iconsultable_enddate&sort_order=ascending&advanced=1&tx=long+term+transmission+rights+design&st=&au=&in=&de=



APPENDICES

Core DA FB CC Project planning





Legend

-  Consumption node
-  Generation node
-  Two parallel lines
-  One line
-  Monitored line
-  Bidding zone border
-  Electricity flow
-  Electricity flow
-  Outage



CEE terminology	CWE terminology	ABBREVIATION	DEFINITION
AAC	AAC	Already Allocated Capacity	Already (in previous allocation rounds) Allocated Capacity
ATC	ATC	Available Transfer Capacity	ATC is the part of <i>NTC</i> that remains available to the market to transfer electricity from one zone to another after each phase of the allocation procedure for further commercial activity (ATC = NTC – LTNnet).
AMF	RAM	Available Maximum Flow, Remaining Available Margin	Part of the NMF that remains available for the current allocation round after previous phases of the allocation procedure. Margin available on a CNE for flow based allocation in day ahead
BFL	F0	Base Flow	Active power flow on a considered CNE after a contingency, which would occur under the assumption that no cross-border exchange between Core TSOs takes place (It reflects flows due to the coverage of the TSO-specific system load through internal generation and parallel flows due to cross-border exchanges between Core and neighbouring TSOs and among non-Core TSOs)
CB	CB	Critical Branch. This becomes Critical Network Element (CNE) under CACM.	Monitored grid element that is significantly impacted by cross border exchanges, and could impose limitations on the cross-border exchanges to safeguard the security of supply.
CGM	CGM	Common Grid Model	NC CACM: European wide data set used as a unique basis for capacity calculation, created through the European Merging Function.
CO	CO	Critical Outage. This becomes a Contingency under CACM.	Outage scenario is applied when monitoring the CNE.
D2CF	D2CF	Two-Days Ahead Congestion Forecast	Best estimation of the Grid (topology, generation pattern, load pattern), for a given area, two days in advance.
TMF	Fmax	Maximum Flow	Maximum active power flow on a considered critical branch.
	Fref	Reference flow	Flow on a branch deduced from the base case including assumptions on XB exchange programs



CEE terminology	CWE terminology	ABBREVIATION	DEFINITION
FRM	FRM	Flow Reliability Margin	FRM (CWE): the margin on the maximum allowable flow to cope with the uncertainties induced by: <ul style="list-style-type: none"> o the uncertainties inherent to a D-2 capacity calculation process o the real time unintentional flow deviations due to operation of load-frequency controls o Uncertainties in data collection and measurement o Linearisation errors
GSK	GSK	Generation Shift Key	Set of factors describing a linear relationship between the change of the net position of a hub and the change in the generation pattern within this hub. The aim of the GSK-definition is to set an appropriate linear approximation of the expected real incremental generation dispatch relative to the situation modelled in the CGM.
	LTA	Long Term Allocated capacity	This capacity is the AAC before the daily auction.
	LTN	Long term nominated capacity	Capacity obtained during LT allocations and nominated by market parties. This is the sum of all Exchange Programs on each border and direction
ANTR	LTNnet		LTN after netting
NMF	Margin	Margin (CWE)	Available capacity on branch calculated using the assumptions in the D2CF data set (RefProg)
PTDF	PTDF	Power Transfer Distribution Factor:	PTDF factors (Power Transfer Distribution Factors) represent the variation of the physical flow on a critical branch induced by the variation of the net position of each hub. PTDF factors are computed with a sensitivity calculation on the common base case by using the GSK.
	RefProg	Reference program (CWE)	reference exchange programs inherent in the D2CF data set (CEE: Vulcanus data from reference day)
		Remedial Action	Measure that relieves or can relieve congestions within the grids