

CACM TERMS AND CONDITIONS OR METHODOLOGIES (TCM)

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WHY DO WE SPEAK ABOUT TCM?

Network Codes and Guidelines common aspects:

- Legal value, as both are Commission Regulations and legally binding
- Directly applicable without local transposition
- Same adoption procedure (Comitology procedure)

Network Codes and Guidelines differences:

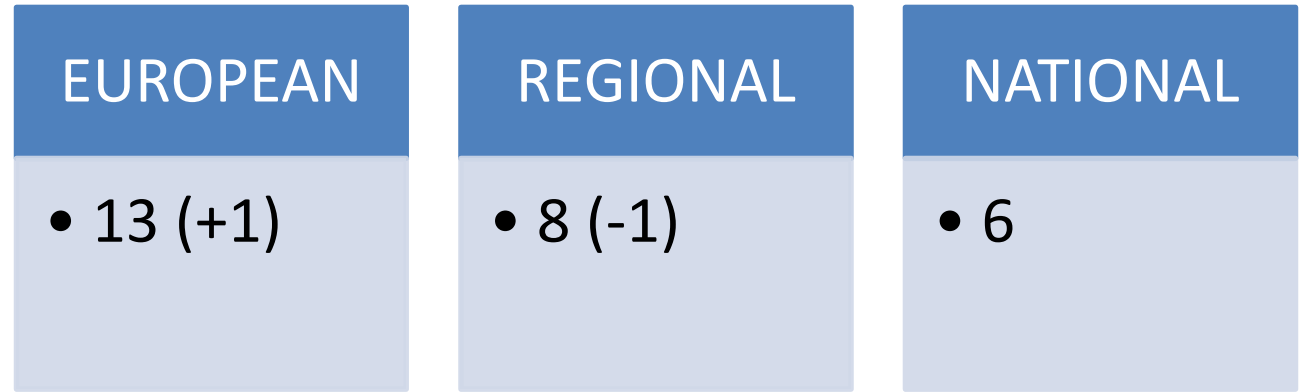
- Legal basis (Art. 6 for network codes & Art. 18 for guidelines of Regulation (EC) 714/2009)
- Amendment process (Article 7 for NCs and article & 18(5) for GLs, Regulation (EC) 714/2009)
- Topics
- Different approach for their implementation

NCs AND GLs IMPLEMENTATION: NRAs ROLE

- In general, NRAs lead, supervise and monitor national implementation of all NCs and GLs. Besides, they participate to WGs at EU or regional level with ACER.
- Market GLs envisage the development of "terms and conditions" or "methodologies" (TCM) at European, Regional and National level. TCM are drafted by TSOs and/or NEMOs.
- A joint decision making processes is put in place by CACM GL.
- NRAs are required to cooperate for approving and amending proposals submitted by TSOs and/or NEMOs. They self-organised the Electricity Regional Forum to agree on TCM before national approvals.
- If TSOs or NEMOs do not agree, proposal might go to the EC. If NRAs do not agree, proposal go to ACER.



TERMS & CONDITIONS AND METHODOLOGIES



Scheduled Exchanges
Methodology has been
treated by NRAs as an all
TSOs proposal

TC&M WITH RESPECT TO PROCESS PHASES

Pre-Coupling	Coupling	Post-Coupling
<ul style="list-style-type: none"> • NEMO designation and revocation • Bidding zone review • Capacity Calculation Regions • Generation and load data provision • Common grid model • Capacity calculation • Introduction of FB • Harmonized capacity calculation • Day ahead firmness deadline 	<ul style="list-style-type: none"> • MCO Plan • Algorithm • Products • Maximum and minimum prices • Back-up • Intraday cross zonal gate times • Intraday cross zonal capacity pricing • Complementary regional auctions • Explicit allocation 	<ul style="list-style-type: none"> • Fallback • Congestion income distribution • Scheduled exchanges • Coordinated redispatching and countertrading • Redispatching and countertrading cost sharing • NEMO fees • Multi NEMO Arrangements • Costs • Regional cost sharing
All NRAs, Regional NRAs, Individual NRA		

TCM: APPROVAL STATUS

NRA approval	ACER decision	Pending
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CACM GL Art	Title	Legal deadlines and date of decisions			Project mgr(s)	Status	Documents
		TSO/NEMO proposal submission	NRA decision (in ERF)	(ACER decision)			
7(3)	MCO Plan	Deadline: 14/04/2016 <u>Received by last NRA 15/04/2016</u>	Deadline: 15/10/2016 <u>Decision: RfA on 05/09/2016</u>	N/A	BNetzA, ARERA, NVE	✓	NEMO proposal ERF RfA
7(3)	Amended MCO Plan	Deadline: 14/12/2016 <u>Received by last NRA: 22/12/2016</u>	Deadline: 22/02/2017 <u>Decision: RfA on 24/01/2017</u>	N/A	BNetzA, ARERA, NVE	✓	NEMO amended proposal ERF RfA 2 (letter)
7(3)	Re-amended MCO Plan	Deadline: 17/04/2017 <u>Received by last NRA: 26/04/2017</u>	Deadline: 26/06/2017 <u>Decision: approval on 16/06/2017</u>	N/A	BNetzA, ARERA, NVE	✓	NEMO amended proposal ERF approval

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		TSO/NEMO proposal submission	NRA decision (in ERF)	(ACER decision)			
15	Capacity Calculation Regions	Deadline: 17/11/2015 <u>Received by last NRA: 13/11/2015</u>	Deadline: 17/5/2016 <u>Decision: No decision → referral</u>	Deadline: 17/11/2016 <u>ACER Decision on 17/11/16</u>	CREG	✓	TSO proposal ACER Decision
15	Proposal for Amendment to the CCRs	N/A <u>Received by last NRA: 14/08/2017</u>	Deadline: 14/02/2018 <u>Decision: approval on 18/09/2017</u>	N/A	CREG	✓	TSO proposal ERF approval
15	Proposal for Amendment to the CCRs (Cobra cable, etc.)	Deadline: N/A <u>Received by last NRA: to be confirmed</u>	Deadline: Oct. 2018 to be confirmed		CREG		

NRA approval	ACER decision	Pending
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CACM GL	Title	Legal deadlines (DL) and date of decisions			Project mgr(s)	Status	Documents
		TSO/NEMO proposal submission	NRA decision (in ERF)	ACER decision			
16	Generation and Load Data Provision	Deadline: 14/06/2016 <u>Received by last NRA: 04/08/2016</u>	Deadline: 04/02/2017 <u>Decision: approval on 28/10/2016</u>	N/A	ACM, EV	✓	TSO proposal ERF approval
17	Common Grid Model	Deadline: 14/06/2016 <u>Received by last NRA: 22/07/2016</u>	22/01/2017 <u>Decision: RfA on 13/12/2016</u>	N/A	ACM, EV	✓	TSO proposal ERF RfA
17	Amended Common Grid Model	Deadline: 19/03/2017* <u>Received by last NRA: 14/04/2017</u>	14/06/2017 <u>Decision: approval on 08/05/2017</u>	N/A	ACM, EV	✓	TSOs amended proposal ERF approval
36	Back-up methodology for algorithm	Deadline: 14/02/2017 <u>Received by last NRA: 17/02/2017</u>	Deadline: 17/08/2017 <u>Decision: RfA on 24/07/2017</u>	N/A	ARERA	✓	NEMO proposal ERF RfA
36	Amended back-up methodology	Deadline: 30/10/2017* <u>Received by last NRA: 01/12/2017</u>	Deadline: 01/02/2018 <u>Decision: approval on 23/01/2018</u>	N/A	ARERA	✓	NEMO amended proposal ERF approval

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CACM GL Art	Title	Legal deadlines and date of decisions			Project mgr(s)	Status	Documents
		TSO/NEMO proposal submission	NRA decision (in ERF)	(ACER decision)			
37	Algorithm Development	Deadline: 14/02/2017 Received by last NRA: <u>17/02/2017</u>	Deadline: 17/08/2017 Decision: <u>RfA on 24/07/2017</u>	N/A	CREG	✓	NEMO proposal ERF RfA
37	Amended Algorithm Development	Deadline: 30/10/2017* Received by last NRA: <u>01/12/2017</u>	Deadline: 01/02/2018 Decision: <u>referral to ACER on 30/01/2018</u>	Deadline: 30/07/2018 ACER decision on <u>26/07/2018</u>	CREG		ERF referral ACER Decision
40 53	Products accommodated for DA and ID	Deadline: 14/02/2017 Received by last NRA: <u>16/02/2017</u>	16/08/2017 <u>RfA ID and DA: 24/07/2017</u>	N/A	Ei	✓	NEMO proposal ERF RfA (ID , DA) ERF approval (ID)
40 53	Amended Products accommodated for DA and ID	Deadline: 30/10/2017* Received by last NRA: <u>01/12/2017</u>	Deadline: 01/02/2018 Decision: <u>approval on 23/01/2018</u>	N/A	Ei	✓	NEMO amended propopsal ERF approval (DA)

CACM GL Art	Title	Legal deadlines and date of decisions			Project mgr(s)	Status	Documents
		TSO/NEMO proposal submission	NRA decision (in ERF)	(ACER decision)			
41 54	Maximum and minimum prices for DA and ID	Deadline: 14/02/2017 <u>Received by last NRA 17/02/2017</u>	Deadline: 17/08/2017 <u>Decision: referral to ACER on 02/08/2017</u>	Deadline: 02/02/2018 <u>Decision: 14/11/2017</u>	BNetzA	✓	NEMO proposal ERF referral ACER Decision
55(1)	Intraday Capacity Pricing	Deadline: 14/08/2017 <u>Received by last NRA: 28/08/2017</u>	Deadline: 28/02/2018 <u>Decision: extension request on 05/02/2018</u>	Decision: granted on 23/02/2018	CRE, CREG	✓	TSO proposal ERF extension request ACER Decision ERF referral
59	Intraday Cross Zonal Gate Opening and Gate Closure Times	Deadline: 14/12/2016 <u>Received by last NRA: 20/12/2016</u>	Deadline: 20/06/2017 <u>Decision: RfA on 14/06/2017</u>	N/A	ARERA ACM	✓	TSO proposal ERF RfA
59	Amended Intraday Cross Zonal Gate Opening and Gate Closure Times	Deadline: 03/10/2017* <u>Received by last NRA: 06/09/2017</u>	Deadline: 06/11/2017 <u>Decison: referral to ACER on 24/10/2017</u>	Deadline:24/ 04/2018 <u>Decision taken: 24/04/2018</u>	ARERA ACM	✓	TSO amended proposal ERF referral

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69	Day-Ahead Firmness Deadline	Deadline: 14/12/2016 <u>Received by last NRA: 19/12/2016</u>	Deadline: 19/06/2017 <u>Decision: approval on 15/05/2017</u>	N/A	ARERA ACM	✓	TSO proposal ERF decision
73	Congestion Income Distribution	Deadline: 14/08/2016 <u>Received by last NRA: 18/08/2016</u>	Deadline: 18/02/2017 <u>Decision: RfA on 24/01/2017</u>	N/A	Ofgem	✓	TSO proposal ERF RfA
73	Amended Congestion Income Distribution	Deadline: 17/04/2017* <u>Received by last NRA: 27/04/2017</u>	Deadline: 21/06/2017 <u>Decision: referral to ACER on 14/06/2017</u>	Deadline: 14/12/2017 <u>Decision taken: 14/12/2017</u>	Ofgem	✓	TSO amended proposal ERF referral ACER Decision



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73	Congestion Income Distribution	Deadline: 14/08/2016 <u>Received by last NRA: 18/08/2016</u>	Deadline: 18/02/2017 <u>Decision: RfA on 24/01/2017</u>	N/A	Ofgem	✓	TSO proposal ERF RfA
73	Amended Congestion Income Distribution	Deadline: 17/04/2017* <u>Received by last NRA: 27/04/2017</u>	Deadline: 21/06/2017 <u>Decision: referral to ACER on 14/06/2017</u>	Deadline: 14/12/2017 <u>Decision taken: 14/12/2017</u>	Ofgem	✓	TSO amended proposal ERF referral ACER Decision



Capacity Calculation



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1. CAPACITY CALCULATION REGIONS

Status: ACER decision 17/11/2016

11 Regions

Amendments in case of new BZ borders or interconnectors

TCM at CCR level

- CCM (NTC, FB)
- CTRD
- CTRD COST SHARING
- FALLBACK
- CRIDA

SWE
CORE
Channel
IU + UK
Hansa
Nordic
Baltic
SEE
IN
GRIT



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2.GENERATION AND LOAD DATA PROVISION

- Status: approved by all NRAs on 28/10/2916
- Purpose: setting out inputs to the common grid model
- Obligations for DSO, owners of HVDC cable owners of generation units and Loads to provide data to TSOs within predefined deadlines
- Definition of technical details for data collection methodology at national level
- List of structural data, infrequently changing variable data and variable data
- Focus on essential **data concerning the generation plants and the main loads connected to the HV and EHV network**

3.COMMON GRID MODEL

Status: approved by all NRAs on 8/05/2017

Describes the procedures that the TSOs must adopt:

- to set up, in D-2, an **individual network model** to be shared, through a centralized platform, with all TSOs and aimed at the definition of a **common network model** valid for determining the transmission capacity available for the European **DA** market;
- to set up, in D-1, an individual network model to be shared, through a centralized platform, with all the TSOs and aimed at the preparation of a **common network model** valid for determining the transmission capacity available for the European **ID** market;
- to **merge** different individual network models to form the common model;
- to manage the centralized platform for the exchange of information by ENTSOE.

4.HARMONISED CAPACITY CALCULATION

Status: future work

By 31 December 2020, all CCR shall use a **harmonised** capacity calculation methodology for

- flow-based and
- the coordinated NTC

For the moment, CCMs are developed at CCR level

- Work in progress

5. DAY AHEAD FIRMNESS DEADLINE

- Status: approved by all NRAs on 15/05/2017
- 1 hour before DA Gate Closure Time (11:00 D-1 for MRC)
- Capacity can be adjusted before DAFD
- Linked to rules for reimbursements as set by CACM + FCA

Capacity Allocation



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6. MCO PLAN

- Status: approved by all NRAs on 16/06/2017
- General principles of cooperation between NEMOs and the related **governance** structure (All NEMO Committee)
- Specific **arrangements for cooperation** in relation to DA and ID. Methodology for the implementation of the MCO functions for DA and ID, with particular regard to decisions related to coupling algorithm, products, IT systems, governance structure, change control, financial issues and cost reporting.
- Implementation **timing** (DA/ID)
- Contractual milestones: ANCA, DAOA, ANDOA, IDOA, ANIDOA

7. DA & ID ALGORITHMS

- Status: approved by ACER on 26/07/2018

DA

- Requirements for price coupling (Euphemia)
- Optimality, repeatability, scalability, compatibility of products, time constraints

ID

- Continuous trading matching algorithm (XBID)
- Monitoring of performances
- Change Control Methodology to be submitted by 1st August 2019

8.DA AND ID PRODUCTS

Status: approved by all NRAs on 23/01/2018

DA

- One to multiple MTU
- Aggregated MTU-, complex-, block-, merit-, PUN-orders

ID (XBID)

- Hourly, half-hourly, quarter-hourly, blocks
- Execution restrictions (NON, FOK, IOC, AON)
- Validity restrictions (GFS, GTD)
- Type (Regular, Linked, Iceberg)



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9. MAX & MIN PRICES FOR DA & ID

Status: ACER decision on 14/11/2017

DA HMMCP

- + 3.000 €/MWh + adjustment mechanism (+1,000 €/MWh)
 - Trigger: clearing price to reach 60% of the DA HMMCP
- - 500 €/MWh

ID HMMCP

- + 9999 EUR/MWh
- - 9999 EUR/MWh



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10. BACK-UP

- Status: approved by all NRAs on 23/01/2018
- Procedures to be implemented by NEMOs in case of malfunctions of the primary systems dedicated to the resolution of DA or ID markets at European level
- Scope is to maintain the coupled markets as much as possible. In case of failure, fallback procedures apply

11. INTRADAY GATE TIMES

Status: ACER decision on 24/04/2018

IDCZGOTs

- From 01/06/18 do 21/12/18 IDCZGOTs from 15:00 to 22:00 D-1 at CCR level
- From 01/01/19 IDCZGOT on all BZ borders: 15:00 D-1

IDCZGCT

- 60 minutes before the start of the relevant ID market time unit (MTU) on a BZ border
- 30 minutes for Estonia-Finland BZ border
- Until 01/01/2021 can refer to the relevant delivery hour (not necessarily MTU)

12. INTRADAY CAPACITY PRICING

- Status: to be decided by ACER by 14/12/2018
- TSOs proposed an auction based mechanism (as for the DA)
- Open technical details: number of auctions, timing, recalculation of cross border capacity, leftovers, ...

Settlement

13. CONGESTION INCOME DISTRIBUTION

Status: ACER decision on 14/12/2017

- Refers to congestion revenues from DA and ID capacity allocation
- ID capacity pricing methodology pending (no congestion rents so far with continuous trading)
- Collection (by CCP or shipping agents) and redistribution (to TSOs)
- Congestion income for a BZ border: $\text{Abs}(\text{Commercial flows}) * \text{market spread}$
- CIDM consider both flow based and NTC CCMs
- Definition of sharing keys (e.g. 50%-50%)

14. SCHEDULED EXCHANGES

Status: Request for amendment approved by all NRAs on 17/08/2018

Thank you! Questions?

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