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European Day Ahead Market Coupling

Podgorica, 3 October 2019

Demands for the session

- What is Europe's electricity target model?

- How is Europe's electricity wholesale market designed?

- Why pursue an integrated, interconnected electricity market?

- How are regulators contributing to shaping and delivering the internal energy market (and what do the network codes do)?

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Third package: basic framework

Actors

Measures

Goal

EC
NRAs
ACER
TSOs
NEMOs

Capacity allocation rules
Congestion management rules
Network Codes
Guidelines
Terms and conditions
Methodologies

Creation of the single electricity market by integrating national markets
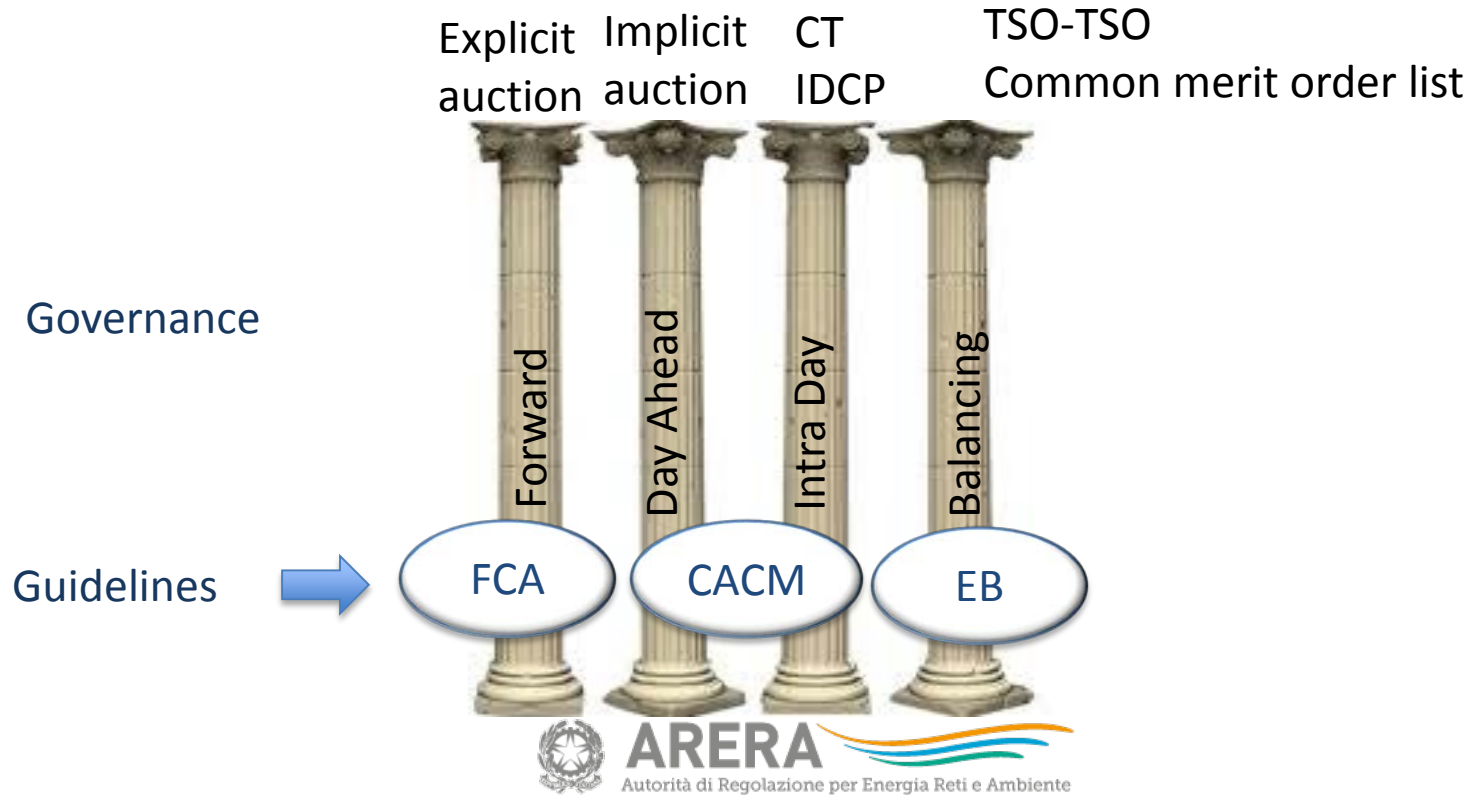
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Market Guidelines

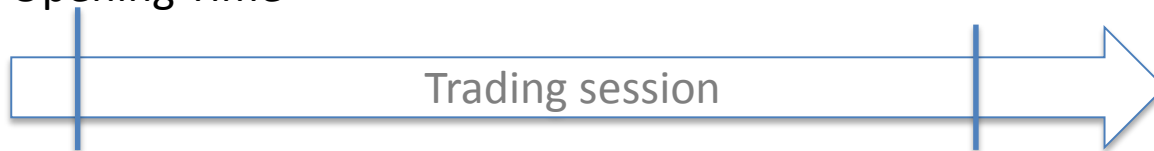| Legal act	Acronym	Entry into force
Regulation (UE) 2015/1222	Capacity allocation and congestion management guideline (CACM GL)	15 August 2015
Regulation (UE) 2016/1719	Forward capacity allocation guideline (FCA GL)	17 October 2016
Regulation (UE) 2017/2195	Electricity balancing guideline (EB GL)	18 December 2017

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A target model in 4 pillars

Explicit auction   Implicit auction   CT IDCP   TSO-TSO Common merit order list

Governance

Forward   Day Ahead   Intra Day   Balancing

Guidelines

FCA   CACM   EB

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Electricity market's basic ingredients

Orders
Available capacity

→

Trading platform:
Pricing rule
&
Allocation rule

→

Prices
Accepted orders
Allocated capacity

Gate Opening Time

Gate Closure Time

Trading session

Day ahead market structure

Pre-trading activities

Trading activities

Post-trading activities

Day ahead trading platform

Capacity Calculation
Orders collection
Orders anonymization
Orders aggregation

Price calculation
Orders matching
Capacity allocation

Results validation
Order allocation
Price publication
Counter-trading and re dispatching activation
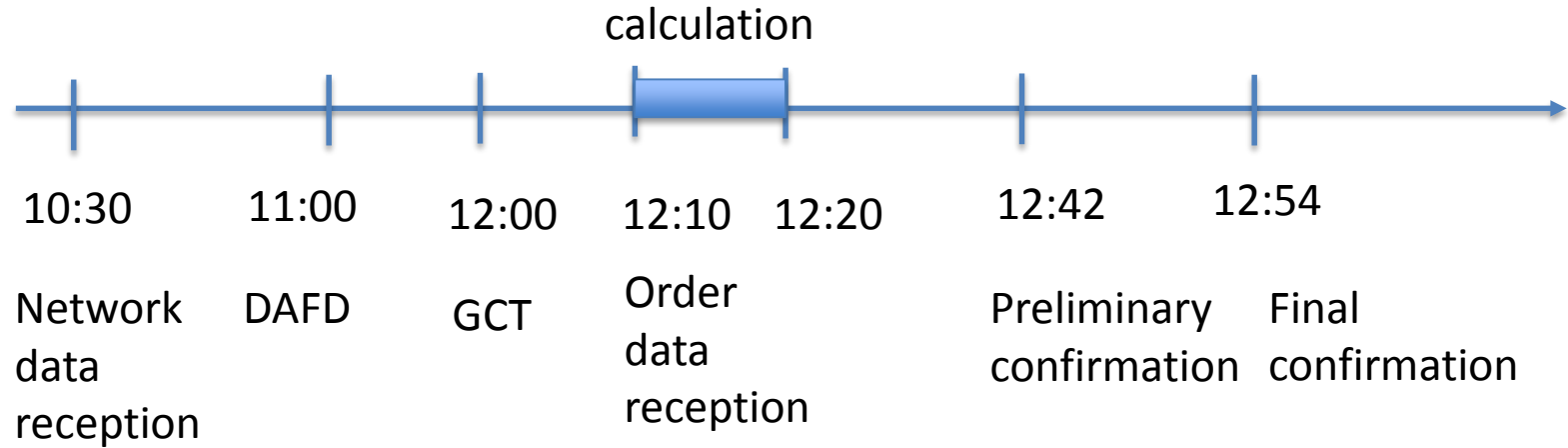Clearing and settlement
Congestion income distribution

NEMOs -TSOs

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Tasks for implementing CACM

Pre-trading tasks	Trading tasks	Post-Trading tasks
• MSs to designate NEMOs • TSOs to define capacity calculation regions • Market participants to provide TSOs with generation and load data • TSOs to define the common grid model by merging individual grid models • TSOs (Coordinated Capacity Calculators) to calculate capacity • TSOs to set a deadline after which allocated capacity is considered firm	• NEMOs to elaborate a plan for implementing the functions of Market Coupling Operator • NEMOs to design the algorithms • NEMOs to identify the products compatible with the algorithms • NEMOs to set the maximum and minimum prices • NEMOs to elaborate back-up procedures in case of incidents • TSOs to set the gate opening and closure time for ID session • TSO to find a mechanism for pricing capacity in ID	• TSOs to elaborate fallback procedures in case of decoupling • TSOs to decide how to share the congestion income • TSOs to calculate the scheduled exchanges • TSOs to adopt measures to relieve congestions (coordinated redispatching and countertrading) • TSOs to share the costs for measures relieving congestions • NRAs to set (monopoly) NEMO fees • TSOs to define arrangements for ruling the case of multiple NEMOs in the same bidding zones • NRAs to allow NEMOs and TSOs to recover their costs

Timeline of the DA market (MRC)

calculation

10:30	11:00	12:00	12:10	12:20	12:42	12:54
Network data reception	DAFD	GCT	Order data reception		Preliminary confirmation	Final confirmation

Electricity market integration
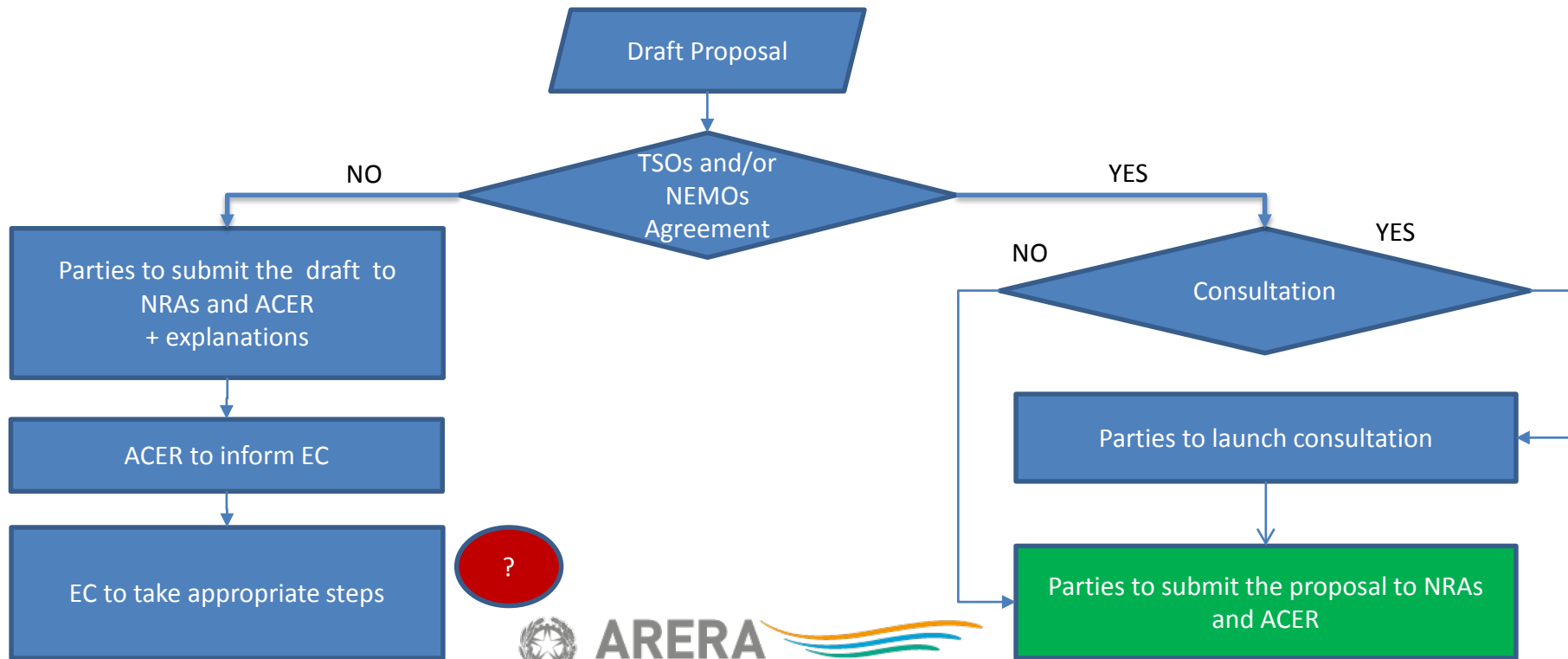
Guidelines implementation

Guidelines require NRAs to approve terms and conditions or methodologies elaborated by TSOs or NEMOs.

The process needed for implementing guidelines can be summarized as a game.

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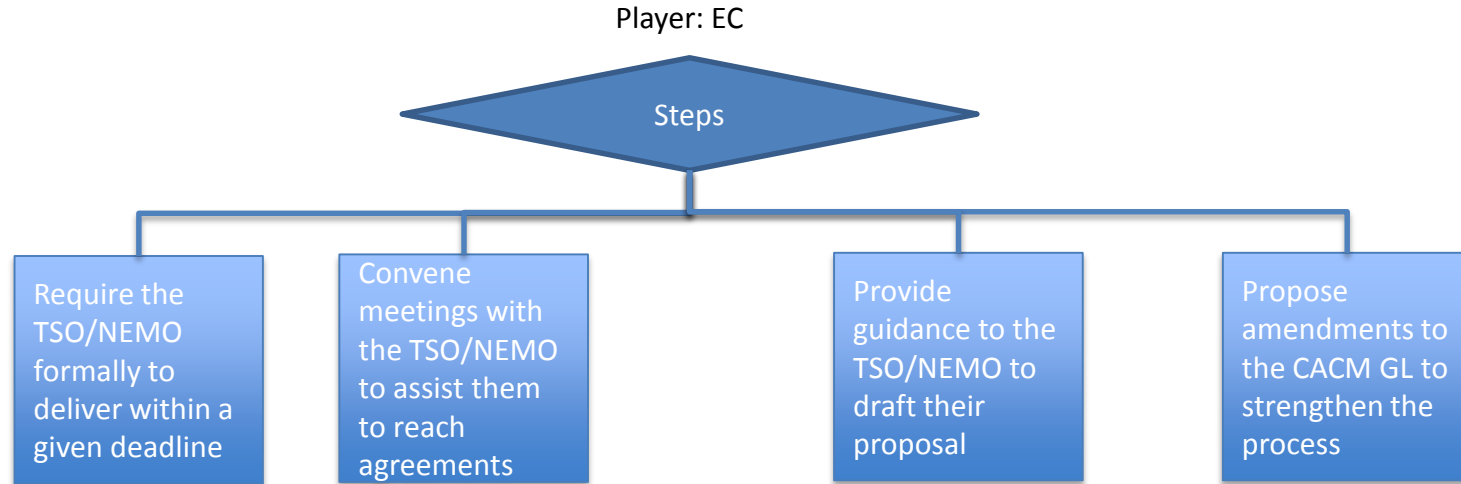Autorità di Regolazione per Energia Reti e Ambiente

PROPOSAL SUBMISSION

Electricity market integration

EC appropriate steps: NRAs' interpretation 1/2

The COM can resort to a full array of informal measures to find a practical solution and also take measures to which it is empowered according to its general competences

Player: EC

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                              ◇ Steps ◇
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| Require the TSO/NEMO formally to deliver within a given deadline | Convene meetings with the TSO/NEMO to assist them to reach agreements | Provide guidance to the TSO/NEMO to draft their proposal | Propose amendments to the CACM GL to strengthen the process |

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Electricity market integration

EC appropriate steps: NRAs' interpretation 2/2

The COM cannot take measures for which there are explicit provisions in the CACM GL, as those would require explicit empowerment. In particular, the COM cannot:

– Adopt the TCM by itself

– Replace TSOs/NEMOs and develop TCM by itself

– Empower ACER to finalize the TCM and adopt the decision

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NEMOs AND TSOs VOTING RULES 1/2

- Pan-European approval processes   (e.g. Art. 9.2 CACM – Art. 4.2 FCA –Art. 5.2 EB)

- Qualified majority
    a) TSOs or NEMOs representing at least 55% of the Member States
                                                AND
    b) TSOs or NEMOs representing at least 65% of the population of the Union

- Blocking minority: TSOs or NEMOs representing at least 4 MS

- Each MS has to assign to NEMOs and TSOs the percentage of its voting rights.
- In particular, MSs have to split their voting rights among designated NEMOs according to trading volume shares.
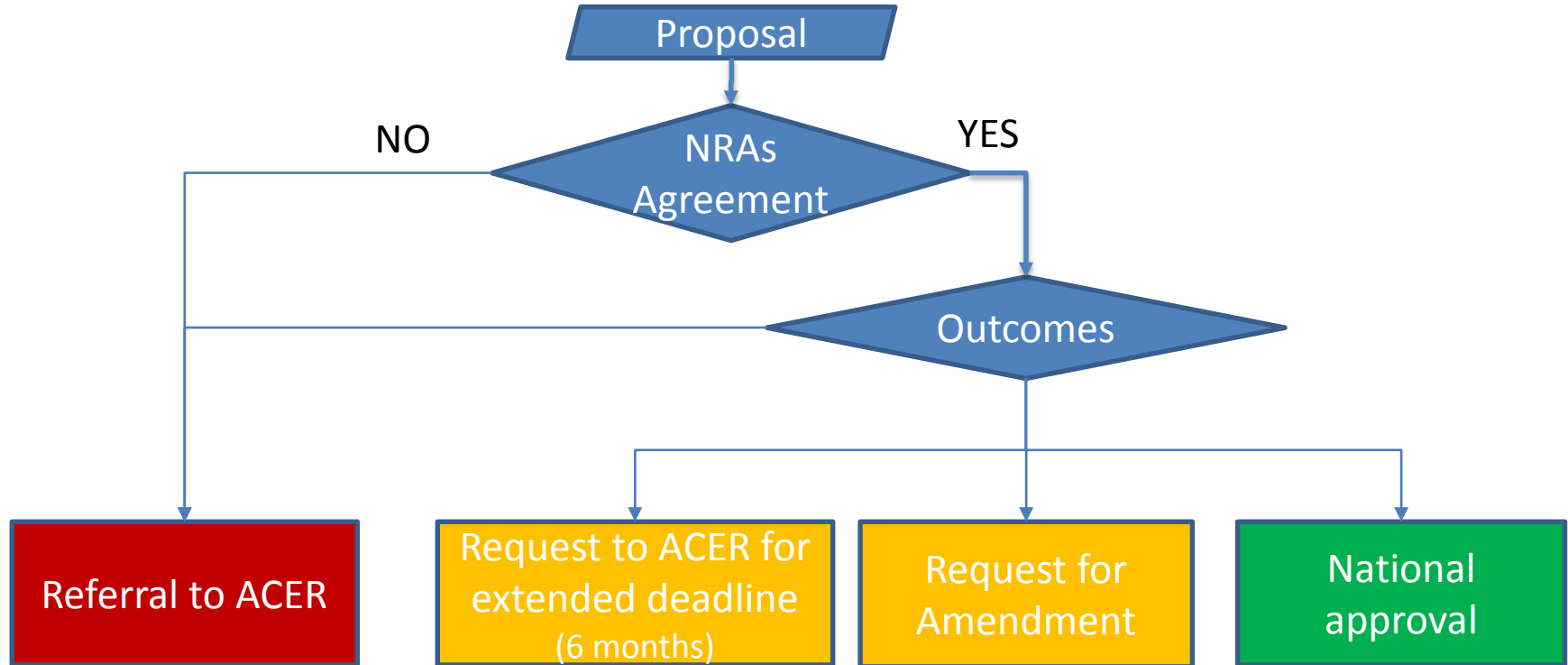
NEMOs AND TSOs VOTING RULES 2/2

- Regional approval processes   (e.g. Art. 9.3 CACM – Art. 4.3 FCA – Art. 5.3EB)

- Qualified majority
  a) TSOs representing at least 72% of the Member States

  AND

  b) TSOs representing at least 65% of the population of the Union

- Blocking minority:
  i) TSOs representing more than 35% of the population

  AND

  ii) One additional MS concerned

- NEMOs shall decide based on consensus

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Electricity market integration

PROPOSAL APPROVAL

Electricity market integration

NRAs VOTING RULES

- NRAs' agreement must be based on consensus, which implies that each NRA has veto power.
- NRAs created the European Regulatory Forum (ERF) and the All Regulatory Authority working group (ARA WG) to cooperate and coordinate in order to reach agreements.
- Preliminary analysis of the proposal is carried out within a dedicated Task Force (TF), which drafts a position paper.

TF → Position Paper → ARA → Position Paper → ERF

Drafting team   Endorsing team   Decision making body

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ERF RULES OF PROCEDURES

- Quorum for a meeting: majority of NRAs
- Decisions taken by consensus (unanimity)
- Electronic procedure + meeting: confirmation of the agreement can be expressed by each NRA:
    - During the 5 days preceding the physical meeting;
    - In the physical meeting;
    - Within 5 days after the physical meeting.
- Silence (in the electronic procedure or in the meeting) is deemed as a confirmation.

- ERF may request ACER to issue an opinion on the proposal within 3 months.
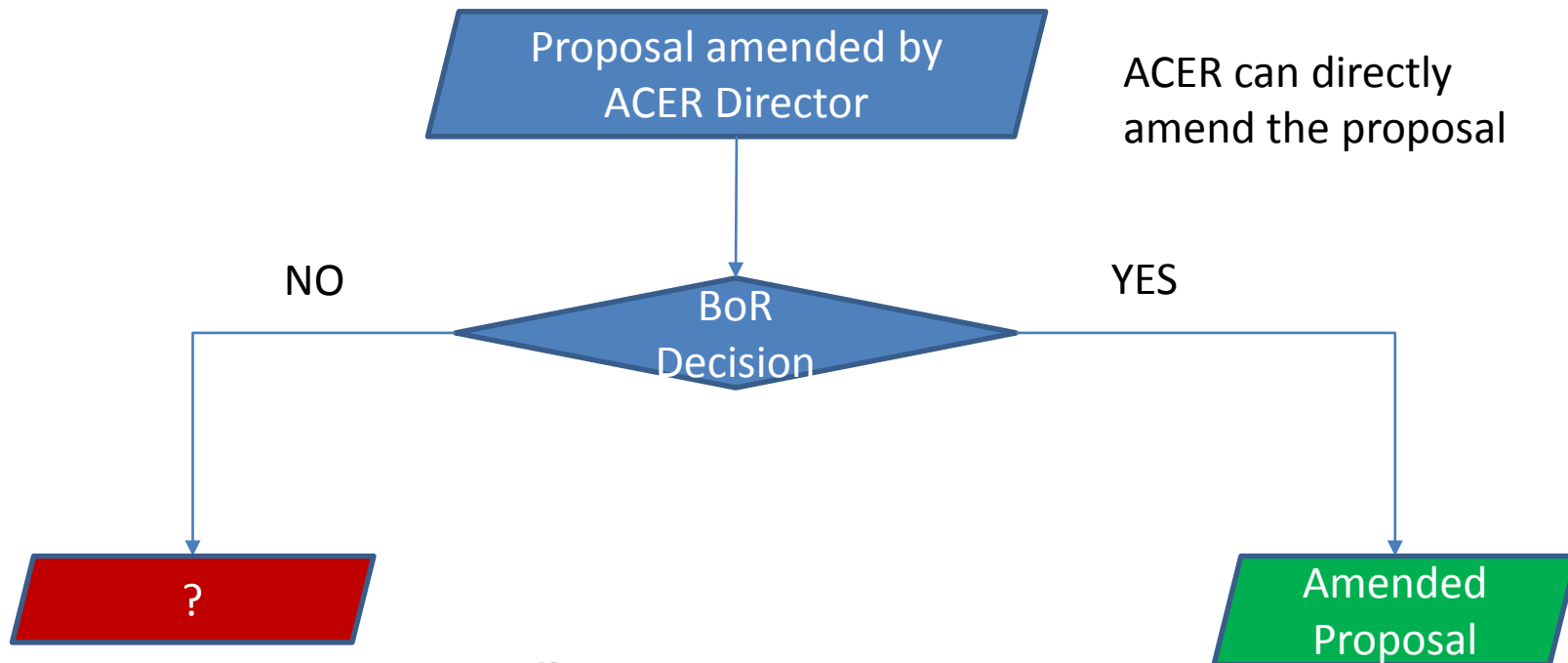
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NATIONAL APPROVAL

- Based on the agreement within ERF, each NRA commits to take the decision of approving the proposal at national level (GAME OVER).
- However, stakeholders can challenge the decision of the relevant NRA towards national courts.

What happens if the same decision is successfully challenged in a MS and it is not challenged in other MS?

What happens if some NRA does not fulfil its moral obligation to approve the proposal?

Electricity market integration

REFERRAL TO ACER

Proposal amended by ACER Director

ACER can directly amend the proposal

NO

BoR Decision

YES

?

Amended Proposal

Electricity market integration

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ACER'S VOTING RULE

- ACER's decision at the Board of Regulators are based on the following criteria (Rules of Procedures):

i.   One head one vote;

ii.   2/3 of members present or represented (qualified majority);

iii.   Quorum needed: majority of members present or represented;

iv.   Dissenting opinions are attached to the Decision;

v.   Electronic procedures are admitted.

- A non-voting representative of EC may participate in the BoR meetings (Art. 14(1)b of ACER Regulation).

- Third countries may be represented in the BoR, provided that they have concluded agreements with EU and comply with Union Energy Law (see Art. 31 of ACER Regulation)

- ACER's decision can be challenged towards the Court of First Instance or the Court of Justice (Art. 20 of ACER Regulation).

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CACM pan-European TCMs 1/2

Methodology	Approval
• MCO Plan	ERF 16.06.2017
• Capacity Calculation Regions	ACER 17.11.2016
• Generation and Load Data Provision	ERF 28.10.2016
• Common Grid Model	ERF 08.05.2017
• Back-up methodology	ERF 23.01.2018
• Algorithm	ACER 26.07.2018
• Products	ERF 23.01.2018

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CACM pan-European TCMs 2/2

Methodology	Approval
• Maximum and minimum prices for DA and ID	ACER 14.11.2017
• Scheduled Exchanges	ERF 08.02.2019
• Intra Day Capacity Pricing	ACER 24. 07.2018
• Intra Day Cross Zonal Gate Times	ACER 24.04.2018
• Day Ahead Firmness Deadline	ERF 15.05.2017
• Congestion Income Distribution	ACER 14.12.2017

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Electricity market integration

Negotiation Game

- Participants are grouped in 5 teams:
  - NEMOs
  - TSOs
  - NRAs
  - ACER
  - EC

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Negotiation Game

- Each group is tasked with reaching an agreement within a decision-making problem

- Outcomes will be shared in the plenary session

NEMO Group

- Task: agree on the content of ALGO Methodology.

- Problem: Algorithm's calculation capacity is a scarce resource. How to ensure that it is fairly allocated among NEMOs?

- Alternative solutions:

  A. For each ALGO functionality, set an usage limit and monitor the effective usage. In case the limit is reached, usage rights are proportionally reduced for each NEMO.

  B. For each ALGO functionality h ALGO functionality, allocate usage rights among NEMOs based on competitive tender.

TSO Group

- Task: agree on the content of ID Capacity Pricing Methodology.
- Problem: The target model for ID is CT, however it cannot price capacity. Which mechanism should be chosen for pricing capacity?
- Alternative solutions:

  A. Design a hybrid mechanism where CT is complemented by Auctions.

  B. Design a mechanism based on continuous auctions.

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NRAs Group

- Task: agree on the approval of the MCO Plan.
- Problem: NEMOs submitted a proposal for the MCO Plan which did not met NRAs expectations. NRAs asked for amendment. NEMOs re-submitted an amended proposal for the MCO Plan which did not accommodate all the requests from NRAs. How to go ahead?
- Alternative solutions:

  A. Reiterate the request for amendment.
  B. Refer the proposal to ACER.

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ACER Group

- Task: agree on the approval of the Capacity Calculation Regions Configuration.

- Problem: TSOs proposed a CCRC where DE and AT are in the same bidding zone. It is very likely that DE-AT border is structurally congested. However, no Bidding Zone Review aiming at assessing the optimal BZ configuration has already been performed. How to proceed?

- Alternative solutions:
  - A. Split DE-AT and face the risk of appeal.
  - B. Wait for the BZR pursuant to CACM.

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EC Group

- Task: agree on the measure to be taken to overcome the stalemate in the BZR process.

- Problem: The CEP requests TSOs to submit a proposal for a methodology for Bidding Zone Review. For many regions, TSOs didn't reach an agreement on the alternative configurations to the status quo. How to unlock the process?

- Alternative solutions:

  A. Provide guidance to TSOs on how to draft the proposal.

  B. Propose an amendment to the regulation to strengthen the process.

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Thank you for the attention!

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